





THE ROYAL
HORTICULTURAL
SOCIETY

1998



The
Rhododendron
Handbook



ACKNOWLEDGEMENTS

TO THIS ONLINE EDITION

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RHODODENDRON, CAMELLIA & MAGNOLIA GROUP



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THE
Rhododendron
Handbook
1998

RHODODENDRON SPECIES IN
CULTIVATION

THE ROYAL HORTICULTURAL SOCIETY

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Bibliographical note

The present handbook is the successor to the Year Books of the
Rhododendron Association, which were published annually from 1929 to
1939 and available to members of the Association. This Association became
the Rhododendron Group of the Royal Horticultural Society, and since 1947
the Society has undertaken publication of the Handbook. There were
revised editions published in 1947, 1952, 1956, 1967, 1980 and now 1997.

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Mr Peter Cox and the Royal Botanic Garden, Edinburgh, for their kind permission in allowing
the reproduction of their photographs as listed above.

Foreword

Since the publication of the last *Rhododendron Handbook* in 1980 there has been a period of considerable activity in the study of the genus. As China opened its boundaries, it again became possible for Western scientists to study rhododendrons in the field. Exchange agreements have facilitated collaboration with Chinese scientists and this has led to significant advances in the study of the genus. Moreover, research methods have been refined and developed, especially DNA analysis and the application of molecular and information technology to studies of classification and evolutionary biology.

A further factor has been a renaissance, since 1980, of interest in the cultivation of the tropical rhododendrons of Sect. *Vireya*. This, in turn, has coincided with a period of active field studies in South East Asia, leading to significant new information about the biology and classification of the group.

For all of these reasons, the Royal Horticultural Society considered that it was time to update the 1980 edition of the Handbook. The Society, through Alan Hardy and John Bond, commissioned the production of the present edition to build on the expertise of the Royal Botanic Garden Edinburgh in studies of *Rhododendron* in the field and in the laboratory, embracing both the temperate and tropical members of the genus. While the major authors, Dr David Chamberlain, and Dr George Argent, both of the Royal Botanic Garden Edinburgh, have prepared the text, advice on the species in cultivation has been sought from the Royal Horticultural Society itself, and from Mr Peter Cox of Glendoick, Perthshire.

Indeed, the Handbook would not have been possible without active collaboration between scientists with a technical knowledge of classification and horticulturists with an in-depth knowledge of the species in cultivation.

The 1980 edition of the Handbook marked the transition from the old Series Classification to one with Subsections, Sections and Subgenera. The latter is based on the classification proposed by Sleumer in 1949 and revised in a series of monographic treatments of *Rhododendron* written at the Royal Botanic Garden Edinburgh. The present handbook is now firmly anchored onto this 'Edinburgh' system of classification. A comprehensive list of accepted species, subspecies, and varieties is published up to the end of 1996. The classification used incorporates the findings of much recent experimental research, not only in Edinburgh but elsewhere in the world.

The Handbook also attempts to include all the species of *Rhododendron* in general cultivation in Europe and America and, for the first time, includes a significant proportion of the tropical species. The accounts have been redrafted and up-to-date distributions are included. This information is supplemented with a comprehensive list of synonyms published up to the end of 1996. The lists of collectors' numbers cover the many expeditions to India and China that have taken place since 1980.

The new Handbook therefore represents a major contribution to the literature dealing with the genus *Rhododendron*, not only summarising the scientific advances in *Rhododendron* taxonomy, but marrying this to clear practical information that will

be of great value to *Rhododendron* cultivators around the world. It is thus a milestone publication, drawing together the threads of 100 years of *Rhododendron* research at the Royal Botanic Garden Edinburgh, the Royal Horticultural Society, and elsewhere. It paves the way for significant future publications on *Rhododendron* taxonomy, including the in-depth monographic treatments of both temperate and tropical rhododendrons that will be produced from Edinburgh in subsequent years.

I wish to thank Alan Hardy for all his hard and patient work as project coordinator and editor, David Chamberlain

and George Argent who have borne the huge job of compiling and writing all the entries, and John Bond and Peter Cox who have worked closely with David Chamberlain and George Argent in compiling the descriptions and nomenclature. Finally, we are all grateful to the Iris Darnton Foundation for the donation which has contributed to the cost of the colour illustrations.

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Introduction

The last edition of the *Rhododendron Handbook*, published in 1980 marked the transition from the essentially artificial Balfourian Series to a classification substituting Subgenera, Sections and Subsections, based on a system proposed by Sleumer in 1949. Since 1980 the deliberations of four international conferences on rhododendrons have been published, alongside a considerable amount of scientific research using experimental techniques, from analysis of chemical constituents and DNA sequencing to anatomical, electron microscopic and embryological studies.

These studies have led to the refined Sleumer classification proposed here. However, it should be realised that the integration of future research will undoubtedly lead to a continuing stream of modifications. Furthermore, there are recent classifications that to some extent conflict with that used here, notably those proposed by Spethmann (1987) and by the Chinese Authors of the *Rhododendron* accounts in the *Flora of China* (Hu & Fang, 1994).

There has been a burgeoning of interest in *Vireya* rhododendrons in cultivation, particularly in the USA, Australia and New Zealand. Many new hybrids have

appeared very recently as a result of the large number of species that have been brought into cultivation in the last 30 years. This increasing interest is reflected in the larger entry of *Vireya* species.

Over the past 17 years travel within China has become possible, resulting in a number of international expeditions. This has allowed *Rhododendron* populations to be studied in the wild. From these studies it has become clear that some taxa traditionally recognized as species represent selections from hybrid swarms. A number of recent expeditions to SE Asia, including the Philippines, Borneo and Indonesia have also added much to our knowledge of *Rhododendron* Sect. *Vireya* in the field.

This classification has gained acceptance in the horticultural world and has been used in some of the more popular recently published accounts of the genus, for example the well illustrated publication by Cox, P.A. & Cox, K.N.E. (1997 - see Selected Bibliography, p. 351).

Thus the classification and species accounts presented here incorporate some of the knowledge gained over the past 17 years, justifying the final break with the Series and Subseries of the Balfourian System.

The Classification of Rhododendron

C= in cultivation

Subgenus *Azaleastrum*

Planch.

Shrubs, to 8m, indumentum, when present, composed of simple or glandular hairs. Scales absent. Leaves evergreen. Inflorescence lateral below terminal or subterminal vegetative buds. Calyx obsolete or large. Corolla 5-lobed, rotate to tubular-campanulate. Stamens 5 or 10. Seeds with or without appendages.

Section *Azaleastrum* (*Planch.*)

Maxim.

Flowers solitary. Calyx lobes large, fringed with stalked glands and/or hairs, or glabrous. Corolla broadly funnel-shaped to rotate, rarely narrowly tubular-campanulate. Stamens 5. Ovary with style base impressed. Capsule equalling the persistent calyx. Seeds without appendages.

- R. hangzhouense *W.P.Fang & M.Y.He*
- C R. hongkongense *Hutch.*
- C R. leptothrium *Balf.f. & Forrest*
- R. medoense *W.P.Fang & M.Y.He*
- R. ngawchangense *M.N.Phipp & Philipson*
- C R. ovatum (*Lindl.*) *Maxim.*
- C var. ovatum
- var. setuliferum *M.Y.He*
- R. sanidodeum *P.C.Tam*
- R. tianlinense *P.C.Tam*
- R. uwaense *H.Hara & T.Yamanaka*
- C R. vialii *Delavay & Franch.*
- R. xinganense *G.Z.Li*

Section *Choniastrum* *Franch.*

Inflorescence 1-several-flowered. Calyx

minute to well-developed, ciliate or glabrous. Corolla narrowly funnel-shaped. Stamens 10. Ovary not impressed below style. Capsule elongate. Seeds with appendages at both ends.

- R. cavaleriei *H.Lév.*
- C R. championiae *Hook.f.*
- C var. championiae
- var. ovalifolium *P.C.Tam*
- R. detampullum *Chun ex P.C.Tam*
- R. esquirolii *H.Lév.*
- R. feddei *H.Lév.*
- R. hancockii *Hemsl.*
- R. henryi *Hance*
- var. dunnii (*E.H.Wilson*)
- M.Y.He*
- var. henryi
- var. pubescens *K.M.Feng & A.L.Chang*
- R. huguangense *P.C.Tam*
- R. kaliense *W.P.Fang & M.Y.He*
- C R. latoucheae *Franch.*
- var. latoucheae
- var. ionanthum (*W.P.Feng*)
- G.Z.Li*
- R. linearicupulare *P.C.Tam*
- R. mitrifforme *P.C.Tam*
- var. mitrifforme
- var. setaceum *P.C.Tam*
- C R. moullmainense *Hook.f.*
- R. shiwandashanense *P.C.Tam*
- C R. stamineum *Franch.*
- var. lasiocarpum *R.C.Fang & C.H.Yang*
- C var. stamineum
- R. subestipitatum *Chun & P.C.Tam*
- R. taiense *Hutch.*
- R. taishunense *B.Y.Ding & Y.Y.Fang*
- R. tutcheriae *Hemsl. & E.H.Wilson*
- var. gymnocarpum *A.L.Chang*
- var. tutcheriae

Subgenus Candidastrum
(Sleumer) N.M. Philipson & Philipson

Deciduous shrub. Scales absent. Inflorescences lateral below vegetative buds, 1-2-flowered. Calyx with 5 large leaf-like gland-fringed lobes. Corolla rotate-campanulate more or less regular. Stamens 10, equal. Ovary globose, impressed below the style. Capsule globose. Seed with appendages at both ends.

C *R. albiflorum* Hook.

Subgen. Hymenanthes
(Blume) K.Koch

Dwarf shrubs to large trees, glabrous or with an indumentum composed, at least partly, of compound hairs. Scales absent. Leaves generally evergreen, rarely deciduous. Flowers in a terminal inflorescence; rhachis present or absent. Calyx obsolete or well-developed. Corolla 5-10-lobed, open- to tubular-campanulate, sometimes ventricose, with or without nectar pouches. Stamens 10-20, declinate. Ovary 5-20-locular. Capsule with hard woody valves. Seeds winged or unwinged.

Unplaced Names of Uncertain Affinity

- R. blumei* Nutt.
- C *R. chlorops* Cowan
- R. chrysolepis* Hutch.
- R. dimidiatum* Balf.f.
- C *R. dimitrium* Balf.f. & Forrest
- C *R. inopinum* Balf.f.
- R. kansuense* Millais
- R. magorianum* Balf.f.
- R. maximowiczianum* H.Lév.
- C *R. paradoxum* Balf.f.
- C *R. peregrinum* Tagg
- C *R. planetum* Balf.f.
- R. potaninii* Batalin
- C *R. purdomii* Rehder & E.H.Wilson
- R. pyrroanthum* Balf.f.
- C *R. serotinum* Hutch.
- R. venosum* Nutt.

R. wallaceanum Millais

Sect. Ponticum G.Don

The only section in subgenus Hymenanthes; description as for subgenus.

Subsect. Arborea Sleumer

Trees, to 30m. Lower surface of leaves covered with a dense, generally white to fawn, spongy to compacted, one- to two-layered indumentum composed of dendroid hairs (rarely with upper layer rufous and floccose). Inflorescence dense, 10-25-flowered. Calyx minute. Corolla 5-lobed, campanulate to tubular-campanulate, with nectar pouches. Stamens 10. Ovary densely tomentose, occasionally also glandular; style glabrous.

- C *R. × agastum* Balf.f. & W.W.Sm.
- C *R. arboreum* Sm.
- C subsp. *albomentosum* (Davidian) D.F.Chamb.
- C subsp. *arboreum*
- subsp. *cinnamomeum* (Lindl.) Tagg
- C var. *cinnamomeum* (Wall. ex G.Don) Lindl.
- C var. *roseum* Lindl.
- C forma *album* Wall.
- subsp. *delavayi* (Franch.) D.F.Chamb.
- C var. *delavayi*
- C var. *peramoenum* (Balf.f. & Forrest) D.F.Chamb.
- var. *pilostylum* K.M.Feng
- C subsp. *nilagiricum* (Zenker) Tagg
- C subsp. *zeylanicum* (Booth) Tagg
- C *R. lanigerum* Tagg
- C *R. niveum* Hook.f.

Subsect. Argyrophylla Sleumer

Shrubs or small trees, to 11m. Lower surface of leaves covered with a thin one-layered indumentum composed of rosulate hairs, or with a two-layered indumentum, the upper layer of ramiform hairs. Inflorescence lax or dense, 4-30-flowered;

rhachis 3-40mm. Calyx usually minute, rarely to 15mm. Corolla 5-lobed, open- to funnel-campanulate, nectar pouches usually absent (present in *R. ririei*). Stamens usually 10(-20). Ovary glabrous or with a thin white to dense rufous indumentum; style glabrous or glandular to tip.

- C *R. adenopodum* Franch.
- C *R. argyrophyllum* Franch.
- C subsp. *argyrophyllum*
- C subsp. *hypoglaucum* (Hemsl.)
D.F.Chamb.
- C subsp. *nankingense* (Cowan)
D.F.Chamb.
- C subsp. *omeiense* (Rehder &
E.H.Wilson) *D.F.Chamb.*
- R. brevipetiolatum* M.Y.Fang
- C *R. coryanum* Tagg & Forrest
- C *R. denudatum* H.Lév.
- R. ebianense* M.Y.Fang
- R. fangchengense* P.C.Tam
- R. farinosum* H.Lév.
- C *R. floribundum* Franch.
- C *R. formosanum* Hemsl.
- C *R. haofui* Chun & W.P.Fang
- C *R. hunnewellianum* Rehder &
E.H.Wilson
- C subsp. *hunnewellianum*
- subsp. *rockii* (E.H.Wilson)
D.F.Chamb.
- C *R. insigne* Hemsl. & E.H.Wilson
- var. *hejiangense* (W.P.Fang)
M.Y.Fang
- var. *insigne*
- C *R. longipes* Rehder & E.H.Wilson
- var. *chienianum* (W.P.Fang)
D.F.Chamb.
- C var. *longipes*
- R. oblancifolium* M.Y.Fang
- C *R. pingianum* W.P.Fang
- C *R. ririei* Hemsl. & E.H.Wilson
- R. shimenense* Q.X.Liu &
C.M.Zhang
- C *R. simiarum* Hance
- var. *deltoideum* P.C.Tam
- C var. *simiarum*
- var. *versicolor* (Chun & W.P.Fang)
M.Y.Fang
- C *R. thayerianum* Rehder &
E.H.Wilson

Subsect. *Auriculata* *Sleumer*

Small tree, to 6m; young shoots densely glandular-setulose. Leaves with rounded to cordate base, lower surface with scattered hairs or a pubescence that does not persist. Inflorescence dense, 6-15-flowered. Calyx minute. Corolla 7-lobed, funnel-shaped or infundibular-campanulate. Stamens 14-15. Ovary densely stalked-glandular; style glandular to tip.

- C *R. auriculatum* Hemsl.
- R. chihsinianum* Chun & W.P.Fang

Subsect. *Barbata Sleumer*

Shrubs or small trees; young shoots setose or glabrous. Leaves elliptic to broadly obovate, lower surface glabrous or with coarse bristles or stalked glands, sometimes also with a thin continuous dendroid indumentum. Inflorescence dense, 10-20-flowered. Calyx minute to large and cupular. Corolla 5-lobed, red, fleshy, tubular-campanulate, with nectar pouches. Stamens 10. Ovary glabrous to densely stalked-glandular, with or without a rufous dendroid indumentum.

- C *R. argipeplum* Balf.f. & R.E.Cooper
- C *R. barbatum* Wall. ex G.Don
- C *R. erosum* Cowan
- C *R. exasperatum* Tagg
- C *R. succothii* Davidian

Subsect. *Campanulata* *Sleumer*

Shrubs or small trees. Leaves ovate to broadly elliptic, lower surface covered with a dendroid indumentum, to (rarely) more or less glabrous. Inflorescence lax or dense, 5-15-flowered. Calyx small. Corolla 5-lobed, whitish to pale mauve, open- to funnel-campanulate, nectar pouches absent. Stamens 10. Ovary and style glabrous.

- C *R. campanulatum* D.Don
- C subsp. *aeruginosum* (Hook.f.)

D.F.Chamb.

- C subsp. *campanulatum*
- R. *gannanense* *Z.C.Feng & X.G.Sun*
- C R. *wallichii* *Hook.f.*

Subsect. *Campylocarpa Sleumer*

Shrubs or small trees, 0.6-6.5m; young shoots shortly stalked-glandular or glabrous. Leaves narrowly obovate to orbicular, both surfaces glabrous when mature. Inflorescence loose or dense, 4-15-flowered. Calyx minute to well-developed and cupular. Corolla 5-lobed, yellow or pink to white, campanulate to saucer-shaped, nectar pouches absent. Stamens 10. Ovary stalked-glandular; style glabrous or glandular to tip.

- C R. *callimorphum* *Balf.f. & W.W.Sm.*
- C var. *callimorphum*
- C var. *myiagrum* (*Balf.f. & Forrest*)
D.F.Chamb.
- C R. *campylocarpum* *Hook.f.*
- C subsp. *caloxanthum* (*Balf.f. & Farrer*) *D.F.Chamb.*
- C subsp. *campylocarpum*
- R. *henanense* *W.P.Fang*
- subsp. *henanense*
- subsp. *lingbaense* *W.P.Fang*
- R. *longicalyx* *M.Y.Fang*
- C R. *souliei* *Franch.*
- C R. *wardii* *W.W.Sm.*
- C var. *puralbum* (*Balf.f. & W.W.Sm.*)
D.F.Chamb.
- C var. *wardii*

Subsect. *Falconera Sleumer*

Large shrubs or trees, 2.5-12m. Leaves large, oblanceolate to broadly obovate, lower surface covered with a white to rufous indumentum composed of cup-shaped hairs, sometimes also with a compacted lower layer. Inflorescence dense, 10-25-flowered. Calyx minute. Corolla (5-)7-10-lobed, yellow or white to pink, funnel- to oblique- or ventricose-campanulate, nectar pouches lacking. Stamens (10-)14-18. Ovary tomentose, glandular or

glabrous; style glabrous.

- C R. *arizelum* *Balf.f. & Forrest*
- C R. *basilicum* *Balf.f. & W.W.Sm.*
- C R. *coriaceum* *Franch.*
- C R. *falconeri* *Hook.f.*
- C subsp. *eximium* (*Nutt.*) *D.F.Chamb.*
- C subsp. *falconeri*
- C (R. *fictolacteum* *Balf.f.*
- C var. *miniforme* *Davidian*)
- C R. *galactinum* *Balf.f. ex Tagg*
- C R. *Hodconeri* Group
- C R. *hodgsonii* *Hook.f.*
- C R. *preptum* *Balf.f. & Forrest*
- C R. *rex* *H.Lév.*
- C subsp. *fictolacteum* (*Balf.f.*)
D.F.Chamb.
- subsp. *gratum* (*T.L.Ming*) *M.Y.Fang*
- C subsp. *rex*
- C R. *rothschildii* *Davidian*
- C R. *semnoides* *Tagg & Forrest*
- C R. *sinofalconeri* *Balf.f.*

Subsect. *Fortunea Sleumer*

Shrubs or trees, to 18m. Leaves oblanceolate, to orbicular, lower surface usually glabrous when mature, though sometimes with a floccose indumentum on midrib, rarely with a thin covering of stellate hairs on lamina. Inflorescence lax or dense, 5-30-flowered, rhachis sometimes well-developed, to 70mm long. Calyx minute or well-developed. Corolla 5-7(-8)-lobed, white to pink, funnel- to open-campanulate, nectar pouches usually absent. Stamens 10-16. Ovary stalked-glandular or glabrous; style glabrous or glandular to tip.

- R. *asterochnoum* *Diels*
- var. *asterochnoum*
- var. *brevipedicellatum* *W.K.Hu*
- C R. *calophytum* *Franch.*
- C var. *calophytum*
- var. *jinfuense* *M.Y.Fang*
- C var. *openshawianum* (*Rehder & E.H.Wilson*) *D.F.Chamb.*
- C var. *pauciflorum* *W.K.Hu*
- R. *davidii* *Franch.*
- C R. *decorum* *Franch.*

The Classification of Rhododendron

- subsp. cordatum W.K.Hu
- C subsp. decorum
- C subsp. diaprepes (Balf.f. & W.W.Sm.) T.L.Ming
- subsp. parvistigmatis W.K.Hu
- R. faithae Chun
- C R. fortunei Lindl.
- C subsp. fortunei
- C subsp. discolor (Franch.) D.F.Chamb.
- C R. × geraldii Ivens
- C R. glanduliferum Franch.
- R. gonggashanense W.K.Hu
- C R. griffithianum Wight
- C R. hemsleyanum E.H.Wilson
- var. chengianum W.P.Fang ex Ching
- C var. hemsleyanum
- C R. huianum W.P.Fang
- R. jingangshanicum P.C.Tam
- R. magniflorum W.K.Hu
- R. maoerense W.P.Fang & G.Z.Li
- R. miyiense W.K.Hu
- R. nymphaeoides W.K.Hu
- C R. orbiculare Decne.
- subsp. cardiobasis (Sleumer) D.F.Chamb.
- subsp. oblongum W.K.Hu
- C subsp. orbiculare
- C R. oreodoxa Franch.
- var. adenostylosum M.Y.Fang & H.K.Hu
- C var. fargesii (Franch.) D.F.Chamb.
- C var. oreodoxa
- C var. shensiense D.F.Chamb.
- R. platypodum Diels
- C R. praeteritum Hutch.
- var. hirsutum W.K.Hu
- C var. praeteritum
- C R. praevernium Hutch.
- C R. serotinum Hutch.
- C R. sutchuenense Franch.
- C R. vernicosum Franch.
- R. verruciferum W.K.Hu
- R. wolongense W.K.Hu
- R. xiaoxidongense W.K.Hu

Subsect. Fulgensia Sleumer

Shrubs or small trees, 1.5-6m. Leaves elliptic to broadly obovate, lower surface

covered with a dense reddish-brown indumentum composed of fasciculate hairs. Inflorescence lax or dense, 4-14-flowered. Calyx minute to well-developed. Corolla 5-lobed, crimson, fleshy, funnel- to tubular-campanulate, with nectar pouches. Stamens 10. Ovary and style glabrous.

- C R. fulgens Hook.f.
- R. miniatum Cowan

Subsect. Fulva Sleumer

Large shrubs or small trees, 2-10m. Leaves elliptic to oblong, lower surface covered with a dense one- to two-layered indumentum, the lower composed of dendroid hairs, the upper, when present, of capitellate hairs. Inflorescence dense, 6-30-flowered. Calyx minute. Corolla 5-lobed, white to pale pink, usually with a basal blotch, campanulate. Stamens 10. Ovary and style glabrous.

- C R. fulvum Balf.f. & W.W.Sm.
- C subsp. fulvoides (Balf.f. & Forrest) D.F.Chamb.
- C subsp. fulvum
- C R. uvariifolium Diels
- C var. griseum Cowan
- C var. uvariifolium

Subsect. Glischra (Tagg)

D.F.Chamb.

Shrub or small tree, 2-6m; young shoots glandular-setose. Leaves ovate to oblanceolate, lower surface covered with stalked glands and bristles, or with a dense matted indumentum composed of ramiform hairs. Inflorescence lax, 6-14-flowered. Calyx well-developed, 5-15mm. Corolla 5-lobed, white, sometimes flushed pink, usually with a basal blotch, campanulate to funnel-campanulate, lacking nectar pouches. Stamens 10. Ovary densely stalked-glandular; style glabrous, glandular at base or setose-glandular

- C R. adenosum Davidian

- C *R. crinigerum* Franch.
- C var. *crinigerum*
- C var. *euadenium* Tagg & Forrest
- C *R. diphrocalyx* Balf.f.
- C *R. glischroides* (Tagg & Forrest)
D.F.Chamb.
- C *R. glischrum* Balf.f. & W.W.Sm.
- C subsp. *glischrum*
- C subsp. *rude* (Tagg & Forrest)
D.F.Chamb.
- C *R. habrotrichum* Balf.f. & W.W.Sm.
- C *R. recurvoides* Tagg & Kingdon-Ward
- C *R. spilotum* Balf.f. & Farrer
- C *R. vesiculiferum* Tagg

Subsect. *Grandia Sleumer*

Large shrubs to large trees, to 30m. Leaves large, oblanceolate to broadly elliptic, lower surface covered with a one- to two-layered usually compacted indumentum, the upper layer, when present, composed of rosulate or dendroid hairs. Inflorescence dense, 12-30-flowered. Calyx minute. Corolla 6-10-lobed, white or yellow to rosy-purple, tubular- or funnel- to ventricose-campanulate, nectar pouches usually absent. Stamens 12-18. Ovary tomentose, glandular or glabrous; style glabrous.

- C *R. balangense* W.P.Fang
- C *R. grande* Wight
- C *R. kesangiae* D.G.Long &
Rushforth
- C var. *album* D.G.Long
- C var. *kesangiae*
- R. oreogonum* L.C.Hu
- C *R. macabeanum* Watt ex Balf.f.
- C *R. magnificentum* Kingdon-Ward
- C *R. montroseanum* Davidian
- C *R. praestans* Balf.f. & W.W.Sm.
- C *R. protistum* Balf.f. & Forrest
- C var. *giganteum* (Forrest ex Tagg)
D.F.Chamb.
- C var. *protistum*
- C *R. pudorosum* Cowan
- C *R. sidereum* Balf.f.
- C *R. sinogrande* Balf.f. & W.W.Sm.
- C *R. watsonii* Hemsl. &
E.H.Wilson
- R. wattii* Cowan

Subsect. *Griersoniana Davidian ex D.F.Chamb.*

Shrub, 1.5-3m. Leaves herbaceous, elliptic, lower surface covered with a dense whitish to pale brown tomentum composed of dendroid hairs. Inflorescence lax, 5-12-flowered. Calyx minute. Corolla 5-lobed, deep rose to scarlet, tubular- to funnel-campanulate, nectar pouches absent, outer surface densely hairy. Stamens 10. Ovary with a dense dendroid indumentum intermixed with a few glands; style glabrous.

- C *R. griersonianum* Balf.f. & Forrest

Subsect. *Irrorata Sleumer*

Shrubs or small trees. Leaves ovate to oblanceolate, elliptic or oblong, lower surface usually glabrous when mature though with persistent hair bases, occasionally with a thin veil of dendroid hairs. Inflorescence lax or dense, 4-20-flowered. Calyx minute or cupular. Corolla 5-7-lobed, white or (rarely) yellow to mauve or deep crimson, tubular- to open-campanulate, with or without nectar pouches. Stamens 10. Ovary glabrous to tomentose and/or stalked-glandular; style glandular to tip.

- C *R. aberconwayi* Cowan
- C *R. annae* Franch.
- C *R. anthosphaerum* Diels
- C *R. araiophyllum* Balf.f. & W.W.Sm.
- C var. *araiophyllum*
var. *lapidosum* (T.L.Ming)
M.Y.Fang
- R. brevinerve* Chun & W.P.Fang
- R. excelsum* A.Chev.
- R. gongshanense* T.L.Ming
- R. guizhouense* M.Y.Fang
- C *R. irroratum* Franch.
- C subsp. *irroratum*
subsp. *kontumense* (Sleumer)
D.F.Chamb.
- C subsp. *pogonostylum* (Balf.f. &
W.W.Sm.) D.F.Chamb.
- C *R. kendrickii* Nutt.

- R. korthalsii *Miq.*
- R. laojunense *T.L.Ming*
- R. leptopeplum *Balf.f. & Forrest*
- C R. lukiangense *Franch.*
- R. mengtzensense *Balf.f. & W.W.Sm.*
- C R. papillatum *Balf.f. & Cooper*
- R. pingbianense *M.Y.Fang*
- C R. ramsdenianum *Cowan*
- R. spanotrichum *Balf.f. & W.W.Sm.*
- C R. tanastylum *Balf.f. & Kingdon-Ward*
var. lingzhiense *M.Y.Fang*
- C var. pennivenium (*Balf.f. & Forrest*)
D.F.Chamb.
- C var. tanastylum
- R. wrayi *King & Gamble*

Subsect Lanata *D.F.Chamb.*

Shrubs or small trees, to 7.5m. Leaves obovate to elliptic, lower surface covered with a dense one-layered, light brown to rufous, lanate or crisped tomentum composed of dendroid hairs. Inflorescence lax or dense, 3-15-flowered. Calyx minute. Corolla 5-lobed, yellow or white to pink, campanulate to open-campanulate, lacking nectar pouches. Ovary densely tomentose or (rarely) predominantly glandular; style glabrous.

- R. circinnatum *Cowan & Kingdon-Ward*
- R. flinckii *Davidian*
- C R. lanatoides *D.F.Chamb.*
- C R. lanatum *Hook.f.*
- C R. luciferum (*Cowan*) *Cowan*
- C R. tsariense *Cowan*
- C var. trimoense *Davidian*
- C var. tsariense

Subsect. Maculifera *Sleumer*

Large shrubs or small trees; young shoots tomentose or glandular-setose. Leaves elliptic or oblong to obovate, lower surface with a more or less persistent tomentum composed of flagellate, folioliferous, long-rayed or stellate hairs. Inflorescence lax or dense, 5-20-flowered. Calyx usually minute, rarely to 10mm. Corolla 5-lobed, white to pink or deep red, with or without a basal blotch,

narrowly to widely campanulate, with nectar pouches. Stamens 10. Ovary tomentose to stalked-glandular; style glabrous or at least partly glandular.

- C R. anwehiense *E.H.Wilson*
- C R. longesquamatum *C.K.Schneid.*
- C R. maculiferum *Franch.*
- C R. morii *Hayata*
- C var. morii
- var. taitunense (*T.Yamaz.*)
D.F.Chamb.
- C R. ochraceum *Rehder & E.H.Wilson*
- var. brevicarpum *W.K.Hu*
- C var. ochraceum *Rehder & E.H.Wilson*
- R. oligocarpum *W.P.Fang & X.S.Zhang*
- R. pachyphyllum *W.P.Fang*
- C R. pachysanthum *Hayata*
- C R. pachytrichum *Franch.*
- C var. monosematum (*Hutch.*)
D.F.Chamb.
- C var. pachytrichum
- var. tenuistylosum *W.K.Hu*
- R. pilostylum *W.K.Hu*
- R. polytrichum *W.P.Fang*
- C R. pseudochrysanthum *Hayata*
var. nankotaisanense (*Hayata*)
T.Yamaz.
forma rufovelutinum *T.Yamaz.*
- C var. pseudochrysanthum
- C R. sikangense *W.P.Fang*
- C var. exquisitum (*T.L.Ming*)
T.L.Ming
- C var. sikangense *W.P.Fang*
- C R. strigillosum *Franch.*
- R. ziyuanense *P.C.Tam*

Subsect. Neriiflora *Sleumer*

Shrubs, sometimes dwarf and creeping, or small trees. Leaves narrowly elliptic to orbicular, lower surface glabrous to densely covered with a whitish or buff to rufous indumentum that is either compacted or lanate, composed of rosulate, dendroid or ramiform hairs. Inflorescence lax or dense, 1-12(-20)-flowered. Calyx minute to well-developed and cupular, often coloured. Corolla 5-lobed, white or yellow to pink or deep red, usually fleshy,

tubular-campanulate to campanulate, with nectar pouches. Stamens 10. Ovary tomentose, with or without stalked glands, or glabrous; style glabrous.

- C *R. albertsenianum* Forrest
- C *R. aperantum* Balf.f. & Kingdon-Ward
- C *R. beanianum* Cowan
- R. bijiangense* T.L.Ming
- C *R. catacosmum* Balf.f. ex Tagg
- C *R. chamaethomsonii* (Tagg & Forrest)
 Cowan & Davidian
- var. *chamaedoron* (Tagg & Forrest)
 D.F.Chamb.
- C var. *chamaethauma* (Tagg) Cowan
 & Davidian
- C var. *chamaethomsonii*
- C *R. chionanthum* Tagg & Forrest
- C *R. citriniflorum* Balf.f. & Forrest
- C var. *citriniflorum*
- C var. *horaeanum* (Balf.f. & Forrest)
 D.F.Chamb.
- C *R. coelicum* Balf.f. & Farrer
- C *R. dichroanthum* Diels
- C subsp. *apodectum* (Balf.f. &
 W.W.Sm.) Cowan
- C subsp. *dichroanthum*
- C subsp. *scyphocalyx* (Balf.f. &
 Forrest) Cowan
- C subsp. *septentrionale* Cowan
- R. erastum* Balf.f. & Forrest
- R. euchroum* Balf.f. & Kingdon-Ward
- C *R. eudoxum* Balf.f. & Forrest
- C var. *brunneifolium* (Balf.f. &
 Forrest) D.F.Chamb.
- C var. *eudoxum*
- C var. *mesopolium* (Balf.f. & Forrest)
 D.F.Chamb.
- C *R. floccigerum* Franch.
- C *R. forrestii* Balf.f. ex Diels
- C subsp. *forrestii*
- C subsp. *papillatum* D.F.Chamb.
- C *R. haematodes* Franch.
- C subsp. *haematodes*
- C subsp. *chaetomallum* (Balf.f. &
 Forrest) D.F.Chamb.
- C *R. × hillieri* Davidian
- C *R. mallotum* Balf.f. & Kingdon-
 Ward
- C *R. microgynum* Balf.f. & Forrest
- C *R. neriiflorum* Franch.

- C subsp. *agetum* (Balf.f. & Forrest)
 Tagg
- C subsp. *neriiflorum*
- C subsp. *phaedropum* (Balf.f. &
 Farrer) Tagg
- C *R. parmulatum* Cowan
- C *R. piercei* Davidian
- C *R. pocophorum* Balf.f. ex Tagg
- C var. *hemidartum* (Tagg) D.F.Chamb.
- C var. *pocophorum*
- C *R. sanguineum* Franch.
- C subsp. *didymum* (Balf.f. & Forrest)
 Cowan
- subsp. *sanguineum*
- C var. *cloiophorum* (Balf.f. &
 Forrest) D.F.Chamb.
- C var. *didymoides* Tagg & Forrest
- C var. *haemaleum* (Balf.f. & Forrest)
 D.F.Chamb.
- C var. *himertum* (Balf.f. & Forrest)
 D.F.Chamb.
- C var. *sanguineum*
- C *R. sperabile* Balf.f. & Farrer
- C var. *sperabile*
- C var. *weihsienense* Tagg & Forrest
- C *R. sperabiloides* Tagg & Forrest
- C *R. temenium* Balf.f. & Forrest
- C var. *dealbatum* (Cowan) D.F.Chamb.
- C var. *gilvum* (Cowan) D.F.Chamb.
- C var. *temenium*
- R. trilectorum* Cowan
- R. × xanthanthum* (Tagg & Forrest)
 D.F.Chamb.

Subsect. *Parishia Sleumer*

Shrubs or small trees, 2-10m. Leaves elliptic to broadly obovate, lower surface glabrescent or with a thin tomentum composed of stellate hairs and sometimes also a few stalked glands, that persists, especially around the midrib. Inflorescence lax, 5-15-flowered. Calyx usually small (though to 17mm and cupular in *R. schistocalyx*). Corolla 5-lobed, fleshy, deep red, tubular- to funnel-campanulate, with nectar pouches. Stamens 10. Ovary densely tomentose, usually also with stalked glands; style glabrous.

- C *R. elliottii* Watt ex Brandis

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- C *R. facetum* Balf.f. & Kingdon-Ward
- R. flavoflorum* T.L.Ming
- R. huidongense* T.L.Ming
- C *R. kyawii* Lace & W.W.Sm.
- R. parishii* C.B.Clarke
- R. schistocalyx* Balf.f. & Forrest
- R. urophyllum* W.P.Fang

Subsect. Pontica Sleumer

Shrubs or small trees. Leaves linear to broadly elliptic or obovate, lower surface glabrous or with a one-layered indumentum composed of dendroid hairs. Inflorescence lax or dense, 5-20-flowered. Calyx 1-9mm. Corolla usually 5-lobed (-7-lobed in *R. degronianum*), lobes divided to half the length of the corolla, yellow or white to pink or lilac-purple, campanulate to funnel-campanulate, nectar pouches lacking. Stamens 10. Ovary glabrous or glandular and/or tomentose; style glabrous.

- C *R. aureum* Georgi
- C var. *aureum*
- C var. *hypopytis* (Pojark.)
D.F.Chamb.
- C *R. brachycarpum* D.Don ex G.Don
- C subsp. *brachycarpum*
- C subsp. *fauriei* (Franch.) D.F.Chamb.
forma *nematoanum* (Makino)
Murata
- C *R. catawbiense* Michx.
- C *R. caucasicum* Pall.
- R. × charadzeae* A.P.Khokhr. &
Mazurenko
- C *R. degronianum* Carrière
- C subsp. *degronianum*
- subsp. *heptamerum* (Maxim.)
H.Hara
- C var. *heptamerum* (Maxim.) Sealy
- C var. *hondoense* (Nakai) H.Hara
- C var. *kyomaruense* (T.Yamaz.)
H.Hara
- forma *amagianum* (T.Yamaz.)
H.Hara
- subsp. *yakushmanum* (Nakai)
H.Hara
- C var. *intermedium* (Sugim.)
H.Hara
- C var. *yakushmanum*

- C *R. hyperythrum* Hayata
- R. × kurokimense* Arakawa
- C *R. macrophyllum* D.Don ex G.Don
- C *R. makinoi* Tagg
- C *R. maximum* L.
- C *R. × nikomontanum* (Komatsu) Nakai
- C *R. ponticum* L.
- C *R. smirnowii* Trautv.
- C *R. × sochadzeae* Char & Davlianidze
- C *R. ungerii* Trautv.

Subsect. Selensia Sleumer

Shrubs or small trees; young shoots stalked- to setulose-glandular. Leaves obovate to elliptic, lower surface glabrous or with a thin indumentum composed of dendroid hairs. Inflorescence lax, (1-)5-10-flowered. Calyx 1-10mm. Corolla 5-lobed, white or pale yellow to pink, not fleshy, funnel-campanulate to campanulate, nectar pouches lacking. Stamens 10. Ovary stalked-glandular, sometimes also with dendroid hairs; style glabrous.

- C *R. bainbridgeanum* Tagg & Forrest
- C *R. calvescens* Balf.f. & Forrest
- C var. *calvescens*
- var. *duseimatum* (Balf.f. & Forrest)
D.F.Chamb.
- R. dasycladoides* Hand.-Mazz.
- C *R. × erythrocalyx* Balf.f. & Forrest
- C *R. esetulosum* Balf.f. & Forrest
- C *R. hirtipes* Tagg
- C *R. martinianum* Balf.f. & Forrest
- C *R. selense* Franch.
- C subsp. *dasycladum* (Balf.f. &
W.W.Sm.) D.F.Chamb.
- C subsp. *jucundum* (Balf.f. &
W.W.Sm.) D.F.Chamb.
- C subsp. *selense*
- subsp. *setiferum* (Balf.f. & Forrest)
D.F.Chamb.
- R. xizangense* (W.P.Fang & W.K.Hu)
Q.Z.Yu

Subsect. Taliensia Sleumer

Shrubs, sometimes dwarf, to small trees. Leaves linear to broadly elliptic, lower surface covered with a dense one- or two-

- layered, lanate, felted or compacted indumentum composed of radiate, ramiform or fasciculate hairs, or (more rarely) sparse or lacking. Inflorescence usually dense, 5-20-flowered. Calyx minute, to 12 mm. Corolla 5(-7)-lobed, white or yellow to pink or purplish, campanulate or funnel-campanulate, nectar pouches lacking. Stamens 10(-14). Ovary glabrous to densely tomentose, sometimes also glandular, style glabrous or glandular.
- C *R. adenogynum* Diels
C *R. aganniphum* Balf.f. & Kingdon-Ward
C var. *aganniphum*
C var. *flavorufum* (Balf.f. & Forrest) D.F.Chamb
C *R. alutaceum* Balf.f. & W.W.Sm.
C var. *alutaceum*
C var. *iodes* (Balf.f. & Forrest) D.F.Chamb.
C var. *russotinctum* (Balf.f. & Forrest) D.F.Chamb.
C *R. balfourianum* Diels
var. *aganniphoides* Tagg & Forrest
C var. *balfourianum*
R. barkamense D.F.Chamb.
C *R. × bathyphyllum* Balf.f. & Forrest
C *R. beesianum* Diels
C *R. bhutanense* D.G.Long & Bowes Lyon
C *R. bureavii* Franch.
C *R. bureavioides* Balf.f.
C *R. clementinae* Forrest
subsp. *aureodorsale* W.P.Fang ex J.Q.Fu
C subsp. *clementinae*
R. codonanthum Balf.f. & Forrest
C *R. coeloneuron* Diels
R. comisteum Balf.f. & Forrest
R. danbaense L.C.Hu
R. detersile Franch.
C *R. dignabile* Cowan
C *R. × detonsum* Balf.f. & Forrest
R. dumicola Tagg & Forrest
C *R. elegantulum* Tagg & Forrest
C *R. faberi* Hemsl.
C *R. lacteum* Franch.
R. lulangense L.C.Hu & Y.Tateishi
C *R. mimetes* Tagg & Forrest
C var. *mimetes*
C var. *simulans* Tagg & Forrest
R. montiganum T.L.Ming
C *R. nakotiltum* Balf.f. & Forrest
R. nhatrangense Dop
C *R. nigroglanulosum* Nitz.
C *R. phaeochrysum* Balf.f. & W.W.Sm.
C var. *agglutinatum* (Balf.f. & Forrest) D.F.Chamb.
C var. *levistratum* (Balf.f. & Forrest) D.F.Chamb.
C var. *phaeochrysum*
R. pomense Cowan & Davidian
R. potaninii Batalin
C *R. prattii* Franch.
C *R. principis* Bureau & Franch.
C *R. pronum* Tagg & Forrest
C *R. proteoides* Balf.f. & W.W.Sm.
C *R. przewalskii* Maxim.
subsp. *chrysophyllum* W.P. Fang & M.Y.He
C subsp. *dabanshanense* (W.P.Fang & Wang) W.P.Fang & Wang
subsp. *huzhuense* W.P.Fang & S.X.Wang
C subsp. *przewalskii*
subsp. *yushuense* W.P.Fang & S.X.Wang
R. pubicostatum T.L.Ming
R. pugeense L.C.Hu
R. punctifolium L.C.Hu
C *R. roxieanum* Forrest
C var. *cucullatum* (Hand.-Mazz.) D.F.Chamb.
C var. *oreonastes* (Balf.f.) T.L.Ming
C var. *parvum* Davidian
C var. *roxieanum*
R. roxieoides D.F.Chamb.
C *R. rufum* Batalin
R. shanii W.P.Fang
C *R. sphaeroblastum* Balf.f. & Forrest
C var. *sphaeroblastum*
C var. *wumengense* K.M.Feng
C *R. taliense* Franch.
R. torquatum L.C.Hu, *nom. illegit.*
C *R. traillianum* Forrest & W.W.Sm.
C var. *dictyotum* (Balf.f. ex Tagg) D.F.Chamb.

- C var. *traillianum*
- R. *trichogynum* L.C.Hu
- C R. *wasonii* Hemsl. & E.H.Wilson
- C var. *wasonii*
- var. *wenchuanense* L.C.Hu
- C R. *wightii* Hook.f.
- C R. *wiltonii* Hemsl. & E.H.Wilson
- R. *zhongdianense* L.C.Hu

Subsect *Thomsonia Sleumer*

Shrubs or small trees. Leaves orbicular to elliptic, lower surface glabrous at maturity, sometimes with fasciculate hairs overlying the veins, or covered with a thin dendroid indumentum. Inflorescence lax or dense, 1-15-flowered. Calyx usually well-developed and cupular, to 15mm. Corolla 5-lobed, white or cream to deep blackish-crimson, funnel- to tubular-campanulate, with nectar pouches. Stamens 10. Ovary glabrous, tomentose and/or stalked-glandular, style glabrous or glandular to tip.

- R. *bonvalotii* Bureau & Franch.
- C R. \times *candelabrum* Hook.f.
- C R. *cerasinum* Tagg
- C R. *cyanocarpum* (Franch.)
W.W.Sm.
- C R. *eclecteum* Balf.f. & Forrest
- C var. *bellatulum* Balf.f. ex Tagg
- C var. *eclecteum*
- C R. *eurysiphon* Tagg & Forrest
- C R. *faucium* D.F.Chamb.
- C R. *hookeri* Nutt.
- C R. *hylaeum* Balf.f. & Farrer
- C R. *meddianum* Forrest
- C var. *atrokermesinum* Tagg
- C var. *meddianum*
- R. *megalanthum* M.Y.Fang
- R. *populare* Cowan
- R. *ramipilosum* T.L.Ming
- C R. *sherriffii* Cowan
- C R. *stewartianum* Diels
- C R. *subansiriense* D.F.Chamb. &
P.A.Cox
- C R. *thomsonii* Hook.f.
- C subsp. *lopsangianum* (Cowan)
D.F.Chamb.
- C subsp. *thomsonii*
- C R. *viscidifolium* Davidian

Subsect *Venatora D.F.Chamb.*

Straggling shrub, 2-3m. Leaves elliptic, glabrous except for a thin indumentum composed of folioliferous hairs overlying the lower surface of the midrib. Inflorescence 7-10-flowered. Calyx with broad lobes 3-5mm long. Corolla 5-lobed, fleshy, crimson, tubular-campanulate, with nectar pouches. Stamens 10. Ovary densely tomentose and stalked-glandular, style glabrous.

- C R. *venator* Tagg

Subsect. *Williamsiana D.F.Chamb.*

Dwarf shrub; young shoots setose-glandular. Leaves ovate-orbicular to broadly oblong, lower surface with lamina glabrous though with some glands, midrib sometimes setulose. Inflorescence lax, 2-3(-5)-flowered. Calyx small. Corolla 5-lobed, pink to purple, campanulate, lacking nectar pouches. Stamens 10. Ovary stalked-glandular to setulose-tomentose, style glabrous or glandular to tip.

- R. *leishanicum* W.P.Fang & X.S.Chang
- C R. *williamsianum* Rehder &
E.H.Wilson

Subgen. *Mumeazalea (Sleumer) M.N.Philipson & Philipson*

Deciduous shrubs; scales lacking; indumentum of simple hairs. Inflorescence lateral, below vegetative buds, 1-flowered. Calyx with gland-fringed lobes. Corolla rotate. Stamens 5, strongly dimorphic, the three lower long, divergent, slightly pubescent below, and with large anthers, the upper two shorter, erect, densely pilose, and with small anthers. Ovary subglobose, impressed below the style. Capsule subglobose. Seeds without appendages.

- C R. *semibarbatum* Maxim.

Subgen. Pentanthera (G. Don)
Pojark.

Deciduous shrubs or small trees; scales lacking; indumentum, when present, of simple hairs. Inflorescence terminal, racemose, 1-15-flowered. Calyx minute to well-developed. Corolla tubular- or rotate-campanulate to broadly funnel-shaped, zygomorphic or actinomorphic. Stamens 5-10 usually declinate. Ovary with a variable amount of indumentum; style usually declinate. Capsule ovoid to cylindrical. Seeds with or without terminal appendages and/or fringes.

Sect. Pentanthera G. Don

Corolla zygomorphic, outer surface covered with multicellular and/or unicellular hairs. Stamens 5. Seeds lacking tails, the coat usually more or less loose.

Subsect. Pentanthera

Corolla narrowly funnel-shaped, outer surface with both unicellular and multicellular hairs, upper lobe sometimes with a blotch but lacking spots. Stamens strongly exserted.

- C *R. alabamense* Rehder
- C *R. arborescens* (Pursh) Torr.
- C *R. atlanticum* (Ashe) Rehder
- C *R. austrinum* (Small) Rehder
- C *R. × bakeri* (Lemmon & McKay) Hume
- C *R. calendulaceum* (Michx.) Torr.
- C *R. canescens* (Michx.) Sweet
- C *R. cumberlandense* E.L. Braun
- C *R. flammeum* (Michx.) Sargent
- C *R. luteum* Sweet
- C *R. occidentale* (Torr. & A. Gray)
A. Gray
- C *R. periclymenoides* (Michx.) Shinners
- C *R. prinophyllum* (Small) Millais
- C *R. prunifolium* (Small) Millais
- C *R. viscosum* (L.) Torr.

Subsect. Sinensia (Nakai)
K. Kron

Corolla broadly funnel-shaped, outer sur-

face with unicellular hairs only, the upper corolla lobe spotted. Stamens not or only slightly exserted.

- C *R. molle* (Blume) G. Don
- C subsp. *japonicum* (A. Gray) Kron
- C subsp. *molle*

Sect. Rhodora (L.) G. Don

Corolla zygomorphic, two-lipped as a result of the fusion of the three upper lobes, the outer surface glabrous; Stamens (5-)7-10. Seeds with a tail at each end and a conspicuous wing-like fringe, the coat tightly appressed to the seed body.

- C *R. canadense* (L.) Torr.
- C *R. vaseyi* A. Gray

Sect. Sciadorhodium Rehder & E. H. Wilson

Corolla zygomorphic, not 2-lipped, the outer surface glabrous. Stamens 10. Seeds lacking tails and a wing-like fringe, the coat tightly appressed to seed body.

- C *R. albrechtii* Maxim.
- C *R. pentaphyllum* Maxim.
- C var. *pentaphyllum*
var. *shikokianum* T. Yamaz.
- C *R. quinquefolium* Bisset & S. Moore
- C forma *quinquefolium*
forma *speciosum* N. Yonez.
- C *R. schlippenbachii* Maxim.

Sect. Viscidula Matsumi & Nakai

Corolla regular, tubular-campanulate, the outer surface glabrous. Stamens 10, included. Seeds with tessellate tails at either end, the coat tightly appressed to the seed body.

- C *R. nipponicum* Matsum.

Subgen. Rhododendron

Shrubs, sometimes dwarf, to trees; leaves persistent or (occasionally) deciduous.

Indumentum, when present, of simple or dendroid hairs; scales always present. Inflorescence terminal, or if lateral then borne in the axils of the upper leaves. Calyx obsolete to well-developed. Corolla rotate to funnel-shaped, campanulate or tubular. Stamens 5-10. Ovary scaly, glabrous, hairy and/or glandular, tapering into the style or with style base impressed. Capsule soft or woody. Seeds with or without appendages.

Sect. Pogonanthum G.Don

Aromatic shrubs, generally dwarf. Scales with lacerate margins. Hairs fringing inflorescence bud scales dendroid. Corolla hypocrateriform. Capsule valves soft, usually twisted on dehiscence; seeds with long caudate appendages that are usually longer than the body of the seed.

- C *R. anthopogon* D.Don
 - subsp. *anthopogon*
 - C var. *album* Davidian
 - C var. *anthopogon*
 - C subsp. *hypenanthum* (Balf.f.) Cullen
- C *R. anthopogonoides* Maxim.
- C subsp. *anthopogonoides*
- subsp. *hoi* (W.P.Fang) W.P.Fang & Xiong
- R. atropunicum* H.P.Yang
- C *R. cephalanthum* Franch.
- C subsp. *cephalanthum*
- C subsp. *platyphyllum* (Franch. ex Balf.f. & Kingdon-Ward) Cullen
- C *R. collettianum* Aitch. & Hemsl.
- R. fragrans* (Adams) Maxim.
- C *R. hedyosmum* Balf.f.
- R. heteroclitum* H.P.Yang
- C *R. kongboense* Hutch.
- C *R. laudandum* Cowan
- C var. *laudandum*
- C var. *temoense* Kingdon-Ward ex Cowan & Davidian
- R. luhuoense* H.P.Yang
- R. mainlingense* S.H.Huang & R.C.Fang
- R. nyingchiense* S.H.Huang & R.C.Fang

- R. pogonophyllum* Cowan & Davidian
- R. praeclarum* Balf.f. & Farrer
- C *R. primuliflorum* Bureau & Franch.
- R. radendum* W.P.Fang
- R. rufescens* Franch.
- C *R. sargentianum* Rehder & E.H.Wilson
- C *R. trichostomum* Franch.
- R. tubulosum* Ching & W.Y.Wang

Sect. Rhododendron

Shrubs or trees, only occasionally aromatic. Scales entire, crenulate or undulate. Corolla very rarely hypocrateriform. Hairs fringing inflorescence bud scales simple. Capsule valves hard and woody at dehiscence; seeds variously winged, rarely with caudate appendages that are shorter than the body of the seed.

Subsect. Afghanica Cullen

Low shrub. Leaves evergreen, scales on lower surface well-spaced. Inflorescence terminal, a distinct and elongate many-flowered raceme. Calyx conspicuously lobed. Corolla campanulate; stamens 10, regularly arranged; style impressed sharply deflexed. Seeds unwinged, obscurely finned.

- C *R. afghanicum* Aitch. & Hemsl.

Subsect. Baileya Sleumer

Small shrub. Leaves evergreen, scales on lower surface crenulate, overlapping and flaky. Inflorescence terminal, with an elongate rachis. Calyx well-developed. Corolla campanulate; stamens 10, regularly arranged; ovary impressed below the sharply deflexed style. Seeds unwinged and obscurely finned.

- C *R. baileyi* Balf.f.

Subsect Boothia Sleumer

Free-growing or epiphytic shrubs; young growth setose. Leaves evergreen, lower surface whitish-papillose, scales rimmed or vesicular, deeply sunk in pits. Inflorescence terminal, 1-many-flowered.

Calyx well-developed. Corolla broadly campanulate; stamens 10, regularly arranged, not declinate; ovary tapering into the sharply deflexed style. Seeds prominently winged and finned.

- C *R. boothii* Nutt.
- C *R. chrysodoron* Tagg ex Hutch.
R. dekatanum Cowan
- C *R. leptocarpum* Nutt.
- C *R. leucaspis* Tagg
- C *R. megeratum* Balf.f.
- C *R. nanjianense* K.M.Feng & Z.H.Yang
- C *R. sulfureum* Franch.

Subject. Camelliiflora ***Sleumer***

Shrubs, often epiphytic. Leaves evergreen, scales on lower surface broad-rimmed, touching. Inflorescence terminal, 1-2-flowered. Calyx conspicuous. Corolla open-campanulate; stamens 11-16; regularly arranged; ovary tapering into the sharply deflexed style. Seeds conspicuously winged and finned.

- C *R. camelliiflorum* Hook.f.

Subject. Campylogyna ***Sleumer***

Dwarf, usually prostrate shrubs; young growth scaly, glabrous or pubescent. Leaves evergreen, lower surface papillose, often whitish, scales for the most part deciduous, distant, vesicular. Inflorescence terminal, 1-3-flowered. Corolla campanulate; stamens 10, regularly arranged; ovary impressed below the sharply deflexed style. Seeds lacking wings and only obscurely finned.

- C *R. campylogynum* Franch.

Subject. Caroliniana *Sleumer*

Shrubs, 2(-5)m; young growth scaly. Leaves evergreen, lower surface with dense small-rimmed scales. Inflorescence terminal, several-flowered. Calyx small.

Corolla narrowly to openly funnel-shaped. Stamens 10, declinate; ovary impressed below the declinate style. Seeds unwinged and very obscurely finned.

- C *R. minus* Michx.
- C var. *chapmanii* (A.Gray)
W.H.Duncan & Pullen
- C var. *minus*

Subject. Cinnabarina *Sleumer*

Shrubs, to 7m; young shoots scaly. Leaves evergreen or partly deciduous, scales on lower surface dense but not touching, small, broadly or narrowly winged. Inflorescence terminal or axillary, 2-5-flowered. Calyx inconspicuous. Corolla fleshy, tubular to campanulate; stamens 10, declinate; ovary impressed below the declinate style. Seeds unwinged and obscurely finned.

- C *R. cinnabarinum* Hook.f.
subsp. *cinnabarinum*
- C var. *cinnabarinum*
- C var. *breviforme* Davidian
- C subsp. *tamaense* (Davidian) Cullen
- C subsp. *xanthocodon* (Hutch.)
Cullen
- C *R. keysii* Nutt.
- R. lateriflorum* R.C.Fang &
A.L.Zhang
- R. tenuifolium* R.C.Fang &
S.H.Huang

Subject. Edgeworthia ***Sleumer***

Shrubs, epiphytic or scrambling over rocks; young shoots hairy. Leaves evergreen, often bullate above, lower surface covered with a relatively thick indumentum, scales distant, small. Inflorescence terminal, 2-3-flowered. Calyx well-developed. Corolla funnel-campanulate or campanulate; stamens 10, regularly arranged or declinate; ovary densely tomentose, style declinate or sharply deflexed downwards. Seeds winged and finned.

- C *R. edgeworthii* Hook.f.
- C *R. pendulum* Hook.f.
- C *R. seinghkuense* Kingdon-Ward

Subsect. Fragariiflora Cullen

Small shrubs. Leaves evergreen, minute, crenulate, lower surface with distant vesicular scales. Inflorescence terminal, 2-3-flowered. Calyx conspicuous. Corolla open-campanulate; stamens 10, declinate; ovary impressed below the declinate style. Seeds without wings or fins.

- C *R. fragariiflorum* Kingdon-Ward

Subsect. Genestieriana Sleumer

Free-growing shrubs; young shoots scaly, glabrous. Leaves evergreen, lower surface white-papillose, scales distant, small. Inflorescence terminal, many-flowered, racemose. Calyx rim-like. Corolla campanulate; stamens (8-)10, regularly arranged; style impressed, sharply deflexed. Seeds unwinged and obscurely finned.

- C *R. genestierianum* Forrest

Subsect. Glauca Sleumer

Shrubs, to 2m. Leaves evergreen, small, lower surface whitish-papillose, with dimorphic scales, the smaller more numerous, the larger long-stalked. Inflorescence 3-10-flowered. Calyx well-developed. Corolla campanulate to tubular-campanulate; stamens 10; style impressed, sharply deflexed or (rarely) declinate. Seeds unwinged, with obscure appendages.

- C *R. brachyanthum* Franch.
- C subsp. *brachyanthum*
- C subsp. *hypolepidotum* (Franch.) Cullen
- C *R. charitopes* Balf.f. & Farrer
- C subsp. *charitopes*
- C subsp. *tsangpoense* (Kingdon-Ward) Cullen

- C *R. glaucophyllum* Rehder
- subsp. *glaucophyllum*
- C var. *album* Davidian
- C var. *glaucophyllum*
- C subsp. *tubiforme* (Cowan & Davidian) D.G.Long
- C *R. luteiflorum* (Davidian) Cullen
- C *R. pruniflorum* Hutch. & Kingdon-Ward
- C *R. shweliense* Balf.f. & Forrest

Subsect. Heliolepidia Sleumer

Shrubs or small trees, 1-10m; young shoots scaly, glabrous. Leaves evergreen, often aromatic, scales on lower surface dense, large. Inflorescence terminal 4-10-flowered. Calyx usually disc-like. Corolla funnel-shaped, sometimes openly so; stamens 10, declinate; ovary impressed below the declinate or straight style.

- C *R. bracteatum* Rehder & E.H.Wilson
- C *R. heliolepis* Franch.
- C var. *brevistylum* (Franch.) Cullen
- C var. *heliolepis*
- R. hirsutipetiolatum* R.C.Fang & A.L.Zhang
- R. invictum* Balf.f. & Farrer
- C *R. rubiginosum* Franch.
- var. *ptilostylum* R.C.Fang
- C var. *rubiginosum* Franch.

Subsect. Lapponica Sleumer

Small shrubs; young shoots scaly, glabrous or (in *R. setosum*) setose. Leaves evergreen, usually papillose beneath, scales on lower surface of one or two types, distant or dense, broadly rimmed. Inflorescence a terminal umbellate raceme, 1-several-flowered. Calyx minute to conspicuous. Corolla usually open-campanulate, rarely hypocrateriform. Stamens 5-10(-11), usually regularly arranged. Style impressed, straight or declinate. Seeds unwinged and obscurely finned.

- R. amundsenianum* Hand.-Mazz.
- C *R. bulu* Hutch.

- R. burjaticum *Malyshev*
 C R. capitatum *Maxim.*
 C R. complexum *Balf.f. & W.W.Sm.*
 C R. cuneatum *W.W.Sm.*
 C R. dasypetalum *Balf.f. & Forrest*
 R. dawuense *H.P.Yang*
 R. declivatum *Ching & H.P.Yang*
 C R. × edgarianum *Rehder & E.H.Wilson*
 C R. fastigiatum *Franch.*
 C R. flavidum *Franch.*
 C var. flavidum
 var. psilostylum *Rehder & E.H.Wilson*
 C R. hippophaeoides *Balf.f. & W.W.Sm.*
 C var. hippophaeoides
 C var. occidentale *M.N.Philipson & Philipson*
 C R. impeditum *Balf.f. & W.W.Sm.*
 C R. intricatum *Franch.*
 R. joniense *Ching & H.P.Yang*
 R. labolengense *Ching & H.P.Yang*
 C R. lapponicum (L.) *Wahlenb.*
 R. lungchiense *W.P.Fang*
 C R. × lysolepis *Hutch.*
 R. maowenense *Ching & H.P.Yang*
 R. minyaense *M.N.Philipson & Philipson*
 C R. nitidulum *Rehder & E.H.Wilson*
 C var. nitidulum
 C var. omeiense *M.N.Philipson & Philipson*
 C R. nivale *Hook.f.*
 C subsp. australe *M.N.Philipson & Philipson*
 C subsp. boreale *M.N.Philipson & Philipson*
 C subsp. nivale
 C R. orthocladum *Balf.f. & Forrest*
 var. longistylum *M.N.Philipson & Philipson*
 C var. microleucum (*Hutch.*)
M.N.Philipson & Philipson
 C var. orthocladum
 C R. polycladum *Franch.*
 R. qinghaiense *Ching & W.Y.Wang*
 C R. rupicola *W.W.Sm.*
 C var. chryseum (*Balf.f. & Kingdon-Ward*) *M.N.Philipson & Philipson*
 C var. muliense (*Balf.f. & Kingdon-Ward*) *M.N.Philipson &*

- Philipson*
 C var. rupicola
 C R. russatum *Balf.f. & Forrest*
 C R. setosum *D.Don*
 R. taibaiense *Ching & H.P.Yang*
 C R. tapetiforme *Balf.f. & Kingdon-Ward*
 C R. telmateium *Balf.f. & W.W.Sm.*
 C R. thymifolium *Maxim.*
 R. tsaii *W.P.Fang*
 R. × verruculosum *Rehder & E.H.Wilson*
 C R. websterianum *Rehder & E.H.Wilson*
 C var. websterianum
 var. yulongense *M.N.Philipson & Philipson*
 R. xiguense *Ching & H.P.Yang*
 R. yulingense *W.P.Fang*
 C R. yungningense *Balf.f.*
 R. zheguense *Ching & H.P.Yang*

Subject. *Ledum Kron & Judd*

Small shrubs, to 2m; young shoots scaly, covered with a ferruginous indumentum, or puberulous, sometimes also with glands. Leaves evergreen, usually strongly revolute, lower surface with epidermis white-papillate and often also with a white setulose indumentum, sometimes also with a varying amount of ferruginous tomentum. Inflorescence a many-flowered terminal corymb. Calyx obsolete or small. Corolla rotate, 4-10mm; stamens 7-12, regularly arranged; style straight.

- C R. groenlandicum (*Oeder*) *Kron & Judd*
 C R. hypoleucum (*Kom.*) *Harmaja*
 C R. neoglandulosum *Harmaja*
 C R. tolmachevii *Harmaja*
 C R. tomentosum (*Stokes*) *Harmaja*
 C subsp. subarcticum (*Harmaja*)
G.Wallace
 C subsp. tomentosum

Subject. *Lepidota Sleumer*

Small shrub, to 2m; young shoots scaly, setose and pubescent to glabrous. Leaves evergreen or deciduous, scales on lower surface distant or touching, with broad

translucent rims. Inflorescence terminal, 1-5-flowered. Calyx well-developed. Corolla campanulate; stamens 10, regularly arranged; ovary impressed below the very short, sharply deflexed style. Seeds unwinged and obscurely finned.

- C *R. cowanianum* Davidian
- R. *lepidotum* Wall. ex G.Don
- C var. *album* Davidian
- C var. *lepidotum*
- C var. *minutiforme* Davidian
- C *R. lowndesii* Davidian

Subject. Maddenia Sleumer

Shrubs, sometimes epiphytic, or small trees, to 12m; young shoots scaly, often also setose. Leaves evergreen, lower surface whitish- or greyish-papillose, scales distant or dense, sometimes with crenulate margins. Inflorescence 1-7-flowered. Calyx usually conspicuous. Corolla funnel-campanulate to campanulate; stamens 8-27 though usually c.10, declinate; ovary tapering into style or impressed below the declinate style. Seeds winged and finned.

- R. *amandum* Cowan
- C *R. burmanicum* Hutch.
- C *R. carneum* Hutch.
- C *R. changii* (W.P.Fang) W.P.Fang
- R. *chunienii* W.P.Fang
- C *R. ciliatum* Hook.f.
- C *R. ciliicalyx* Franch.
- R. *ciliipes* Hutch.
- C *R. coxianum* Davidian
- R. *crenulatum* Hutch. ex Sleumer
- C *R. cuffeanum* Hutch.
- C *R. dalhousiae* Hook.f.
- C var. *dalhousiae*
- C var. *rhabdotum* (Balf.f. & R.E.Cooper) Cullen
- C *R. dendricola* Hutch.
- C *R. excellens* Hemsl. & E.H.Wilson
- C *R. fletcherianum* Davidian
- R. *fleuryi* Dop
- C *R. formosum* Wall.
- C var. *formosum*
- C var. *inaequale* C.B.Clarke
- C *R. goreri* Davidian
- C *R. grothausii* Davidian

- C *R. horlickianum* Davidian
- C *R. johnstoneanum* G.Watt ex Hutch.
- R. *kiangsiense* W.P.Fang
- C *R. levinei* Merr.
- C *R. liliiflorum* H.Lév.
- C *R. lindleyi* T.Moore
- R. *linearilobum* R.C.Fang & A.L.Zhang
- C *R. ludwigianum* Hosseus
- C *R. lyi* H.Lév.
- C *R. maddenii* Hook.f.
- C subsp. *crassum* (Franch.) Cullen
- C subsp. *maddenii*
- C *R. megacalyx* Balf.f.
- R. *mianningense* Z.J.Zhao
- R. *nemorosum* R.C.Fang
- C *R. nuttallii* Booth
- C *R. pachypodum* Balf.f. & W.W.Sm.
- C *R. parryae* Hutch.
- R. *pseudociliipes* Cullen
- R. *rhombifolium* R.C.Fang
- C *R. roseatum* Hutch.
- R. *rufosquamosum* Hutch.
- C *R. scopulorum* Hutch.
- R. *surasianum* Balf.f. & Craib
- C *R. taggianum* Hutch.
- C *R. valentianinum* Forrest ex Hutch.
- C var. *oblongilobatum* R.C.Fang
- C var. *valentinianum*
- C *R. veitchianum* Hook.f.
- C *R. walongense* Kingdon-Ward
- R. *wumingense* W.P.Fang
- R. *yaogangxianense* Q.X.Liu
- R. *yizangense* Q.X.Liu
- R. *yungchangense* Cullen

Subject. Micrantha Sleumer

Shrubs, to 2m; young shoots scaly, puberulent. Leaves evergreen, scales on lower surface touching or overlapping, broad-rimmed. Inflorescence terminal, a many-flowered raceme. Calyx small. Corolla funnel-campanulate, 5-8mm; stamens 10, more or less straight; ovary impressed below the straight style. Seeds prominently winged and finned.

- R. *brevicaudatum* R.C.Fang & S.S.Chang
- R. *liaoxigensis* S.L.Tung & Z.Lu
- C *R. micranthum* Turcz.

Subject. Monantha Cullen

Epiphytic or free-growing shrubs; young shoots scaly, otherwise glabrous. Leaves evergreen, scales on lower surface dense, broad-rimmed. Inflorescence terminal, 1-3-flowered. Calyx minute. Corolla tubular-funnel-shaped to tubular-campanulate, with scarcely spreading lobes; stamens 10; style impressed, straight. Seeds winged and finned.

- R. concinnoides *Hutch. & Kingdon-Ward*
- R. flavantherum *Hutch. & Kingdon-Ward*
- R. kasoense *Hutch. & Kingdon-Ward*
- R. monanthum *Balf.f. & W.W.Sm.*

Subject. Moupinensia Sleumer

Epiphytic or free-growing shrubs, to 1m; young shoots scaly and setose. Leaves evergreen, scales on lower surface dense, medium-sized to small. Inflorescence terminal, 1-2-flowered. Calyx conspicuous. Corolla open-funnel-campanulate; stamens 10, declinate; ovary tapering into the declinate style. Seeds winged and finned.

- C R. dendrocharis *Franch.*
- C R. moupinense *Franch.*
- R. petrocharis *Diels*

Subject. Rhododendron

Small shrubs, to 1.5m; young shoots densely scaly, sometimes also with a few hairs. Leaves evergreen, lower surface covered with large golden or reddish-brown scales. Inflorescence terminal, with a conspicuous rhachis. Calyx small but clearly lobed. Corolla tubular-campanulate; stamens 10, declinate; style straight or declinate. Seeds unwinged and obscurely finned.

- C R. ferrugineum *L.*
- C R. hirsutum *L.*
- C R. myrtifolium *Schott & Kotschy*

Subject. Rhodorastra (Maxim.) Cullen

Small to moderately sized shrubs, to 1.5m; young shoots scaly and puberulous; new vegetative growth from bud below those that produce the inflorescences. Leaves partially or entirely deciduous, rarely all evergreen, lower surface densely or laxly covered in medium-sized scales. Inflorescence axillary, at the end of the branches, 1-flowered. Calyx rim-like. Corolla open-funnel-shaped; stamens 10, declinate; ovary impressed below the declinate style. Seeds unwinged and obscurely finned.

- C R. dauricum *L.*
- C R. ledebourii *Pojark.*
- C R. mucronulatum *Turcz.*
- C var. mucronulatum
- var. taquetii (*H.Lév.*) *Nakai*
- R. sichotense *Pojark.*

Subject. Saluenensia Sleumer

Prostrate to erect shrubs, to 1.5m; young shoots densely scaly, glabrous, or if setose then the setae quickly deciduous. Leaves evergreen, scales on lower surface of leaves overlapping, arranged in several tiers, the upper tier sometimes with stalks. Inflorescence terminal, 1-3(-5)-flowered. Calyx deeply 5-lobed. Corolla open-funnel-campanulate; stamens 10, declinate; ovary impressed below the declinate style. Seeds unwinged and obscurely finned.

- C R. calostrotum *Balf.f. & Kingdon-Ward*
- C subsp. calostrotum
- C subsp. keleticum (*Balf.f. & Forrest*) *Cullen*
- C subsp. riparioides *Cullen*
- C subsp. riparium (*Kingdon-Ward*) *Cullen*
- C R. saluenense *Franch.*
- C subsp. chameunum (*Balf.f. & Forrest*) *Cullen*
- C subsp. saluenense

Subsect. Scabrifolia Cullen

Small shrubs, to 3m; young shoots scaly, pilose and/or setose. Leaves evergreen, usually with a persistent indumentum on the upper surface, lower surface sometimes white-papillose, covered with vesicular glands, sometimes also setose, at least on midrib. Inflorescence axillary, 2-3(-5)-flowered. Calyx rim-like or with lobes to 3mm. Corolla open- to funnel-campanulate, or tubular; stamens (8-)10, declinate; ovary impressed below the usually declinate style. Seeds unwinged, fins small and obscure.

- C *R. hemitrichotum* Balf.f. & Forrest
- C *R. mollicomum* Balf.f. & W.W.Sm.
- C *R. pubescens* Balf.f. & Forrest
- C *R. racemosum* Franch.
- C *R. scabrifolium* Franch.
- C var. *pauciflorum* Franch.
- C var. *scabrifolium*
- C var. *spiciferum* (Franch.) Cullen
- C *R. spinuliferum* Franch.
- var. *glabrescens* K.M.Feng
- C var. *spinuliferum* Franch.

Subsect. Tephropepla Sleumer

Small to moderately sized shrubs; young shoots scaly. Leaves evergreen, lower surface papillose, scales broad-rimmed, sometimes sunk in pits, uniform or of two kinds. Inflorescence usually terminal, occasionally axillary. Calyx conspicuous. Corolla campanulate or funnel-campanulate; stamens 10, declinate; ovary tapering into the declinate style or ovary impressed below the style. Seeds unwinged, with obscure fins.

- C *R. auritum* Tagg
- C *R. hanceanum* Hemsl.
- C *R. longistylum* Rehder & E.H.Wilson
- subsp. *decumbens* R.C.Fang
- C subsp. *longistylum*
- C *R. tephropeplum* Balf.f.
- R. tsinlingense* W.P.Fang & J.Q.Fu
- C *R. xanthostephanum* Merr.

Subsect. Trichoclada (Balf.f.) Cullen

Small shrubs, to 2m; young shoots often setose. Leaves evergreen or deciduous, glabrous or pilose, scales on lower surface distant, vesicular, large. Inflorescence terminal, 2-5-flowered. Calyx rim-like to clearly lobed. Corolla funnel-campanulate; stamens 10, regularly arranged; ovary impressed below the sharply deflexed style. Seeds unwinged and obscurely finned.

- C *R. caesium* Hutch.
- C *R. lepidostylum* Balf.f. & Forrest
- C *R. mekongense* Franch.
- C var. *mekongense*
- C var. *rubrolineatum* (Balf.f. & Forrest) Cullen
- C *R. trichocladum* Franch.
- C var. *longipilosum* Cowan
- C var. *trichocladum*
- C *R. viridescens* Hutch.

Subsect. Triflora Sleumer

Shrubs, often large, to 10m; young shoots scaly, sometimes setose. Leaves usually evergreen, occasionally deciduous, sometimes pubescent, especially on midrib and veins, scales on lower surface lax or dense, rimmed or rimless, sometimes of two kinds. Inflorescence terminal and axillary, 1-3-flowered, occasionally with several inflorescences coalescing to form a compound inflorescence. Calyx usually minute. Corolla strongly zygomorphic, openly funnel-shaped; stamens 10, declinate; ovary impressed below the declinate style. Seeds unwinged and with very small obscure fins.

- C *R. ambiguum* Hemsl.
- C *R. amesiae* Rehder & E.H.Wilson
- C *R. augustinii* Hemsl.
- C subsp. *augustinii*
- C subsp. *chasmanthum* (Diels) Cullen
- C subsp. *hardyi* (Davidian) Cullen
- C subsp. *rubrum* (Davidian) Cullen

- R. brachypodum W.P.Fang & P.S.Liu
- C R. concinnum Hemsl.
- C R. davidsonianum Rehder & E.H.Wilson
- R. gemmiferum M.N.Philipson & Philipson
- R. guangnanense R.C.Fang
- R. kangdingense Z.J.Zhao
- C R. keiskei Miq.
 - var. hypoglaucum Suto & Suzuki
 - var. keiskei
 - var. ozawae T. Yamaz
- C R. lutescens Franch.
- C R. oreotrepes W.W.Sm.
- C R. pleistanthum Balf.f. ex Wilding
- C R. polylepis Franch.
- C R. rigidum Franch.
- C R. searsiae Rehder & E.H.Wilson
- R. seguinii H.Lév.
- R. shaanxiense W.P.Fang & Z.J.Zhao
- R. shimianense W.P.Fang & P.S.Liu
- C R. siderophyllum Franch.
- C R. tatsienense Franch.
 - var. nudatum R.C.Fang
 - var. tatsienense
- C R. trichanthum Rehder
- C R. triflorum Hook.f.
 - subsp. multiflorum R.C.Fang
 - subsp. triflorum
- C var. bauhiniiflorum (Watt ex Hutch.) Cullen
- C var. triflorum
- R. wongii Hemsl. & E.H.Wilson
- R. xichangense Z.J.Zhao
- C R. yunnanense Franch.
- C R. zaleucum Balf.f. & W.W.Sm.
 - var. flaviflorum Davidian
 - var. pubifolium R.C.Fang
- C var. zaleucum

Subsect. Uniflora *Sleumer*

Small shrubs, often prostrate; young shoots scaly, sometimes also pubescent. Leaves evergreen, revolute, margins sometimes crenulate, scales on lower surface dense, unequal or equal, rimless or with undulate rims. Inflorescence terminal, 1-3-flowered, leaves beneath inflorescence bract-like. Calyx with definite lobes. Corolla funnel-campanulate; stamens 10, declinate; style impressed, decli-

nate, or straight.

- C R. ludlowii Cowan
- C R. pemakoense Kingdon-Ward
- C R. pumilum Hook.f.
- C R. uniflorum Kingdon-Ward
- C var. imperator (Kingdon-Ward) Cullen
- C var. uniflorum

Subsect. *Virgata* (Hutch.) Cullen

Small shrubs; young shoots scaly, otherwise glabrous. Leaves evergreen, lower surface papillose, the dense scales unequal and flaky. Inflorescence borne in the axils of the upper leaves, the terminal bud vegetative, each 1(-2)-flowered. Calyx lobes 2-3mm. Corolla funnel-shaped; stamens 10, declinate; ovary impressed below the declinate style. Seeds unwinged but caudate-appendaged at both ends.

- C R. virgatum Hook.f.
 - subsp. oleifolium (Franch.) Cullen
 - var. glabriflorum K.M.Feng
- C var. oleifolium
- C subsp. virgatum

Section *Vireya* (Blume)

H.F.Copel.

Small creeping shrubs to trees to 10m. Flowers solitary to many together in an umbellate inflorescence which never has a rachis. Corolla very variable but never with spots of colour (although they may be spotted with scales). Stamens 5 or 10-14. The ovary normally tapering gradually into the style. Seeds with a long tail at both ends.

Subsection *Albovireya* *Sleumer*

Scales very dense, large, not markedly different in size and without dark centres, touching or overlapping to form a continuous layer on the undersurface of at least

submature leaves and usually fairly persistent. Corolla shape various but the lobes more than $\frac{1}{4}$ of the total length of the flower.

- C *R. aequabile* J.J.Sm.
- C *R. album* Blume
 - R. arenicolum* Sleumer
 - R. cernuum* Sleumer
 - R. comptum* C.H. Wright
 - var. *comptum*
 - var. *trichodes* Sleumer
 - R. correoides* J.J.Sm.
 - R. giulianettii* Laut.
 - R. laguncularpum* J.J.Sm.
 - R. lampongum* Miq.
 - R. proliferum* Sleumer
 - R. pudorinum* Sleumer
 - R. versteegii* J.J.Sm.
- C *R. yelliotii* Warb.
- R. zollingeri* J.J.Sm.

Subsection Malayovireya

Sleumer

Scales very dense, usually of two, or at least very different sizes, at least some touching and mostly overlapping to completely cover the underside of submature leaves and usually very persistent there. Corolla shape various but the lobes more than $\frac{1}{4}$ of the total length of the flower.

- C *R. acuminatum* Hook.f.
- C *R. apoanum* Stein
- C *R. durionifolium* Becc.
- C *R. fallacinum* Sleumer
 - R. fortunans* J.J.Sm.
- C *R. himantodes* Sleumer
- C *R. lineare* Merr.
- C *R. malayanum* Jack
 - var. *axillare* J.J.Sm.
 - var. *infrapilosum* Sleumer
 - var. *malayanum*
- C var. *pilosifilum* Sleumer
 - var. *pubens* Sleumer
- C *R. micromalayanum* Sleumer
 - R. nortoniae* Merr.
 - R. obscurum* Sleumer
- C *R. variolosum* Becc.
 - var. *andersonii* (Ridl.) Sleumer

- var. *variolosum*
- R. vinicolor* Sleumer
- R. wilhelminae* Hochr.

Subsection Phaeovireya

Sleumer

Scales more or less dendroid, each on top of a distinct and persistent epidermal tubercle, the scales themselves often quickly falling off. Corolla shape various, but the lobes always more than $\frac{1}{4}$ of the total length of the flower.

- R. asperimum* Sleumer
- R. asperum* J.J.Sm.
- C *R. beyerinckianum* Koord.
- C *R. bryophilum* Sleumer
 - R. bullifolium* Sleumer
- C *R. caliginis* Kores
 - R. delicatulum* Sleumer
 - var. *lanceolatoides* Sleumer
- C *R. dianthosmum* Sleumer
- C *R. dielsianum* Schltr.
 - var. *dielsianum*
 - var. *stylotrichum* Sleumer
- R. extrorsum* J.J.Sm.
- R. eymae* Sleumer
- C *R. gardenia* Schltr.
- R. gillardii* Sleumer.
- R. haematophthalmum* Sleumer
- C *R. hellwigii* Warb.
 - R. hooglandii* Sleumer
- C *R. hyacinthosmum* Sleumer
- C *R. konori* Becc.
 - var. *konori*
 - var. *phaeopeplum* (Sleumer) Argent
- C *R. leptanthum* F.Muell.
- C var. *leptanthum*
- C var. *varianum* (Schltr.) Argent
- R. melantherum* Schltr.
- R. neobritanicum* Sleumer
- R. nerifolium* Schltr.
- R. opulentum* Sleumer
- C *R. phaeochitum* F. Muell.
- R. phaeochristum* Sleumer
- R. phaeops* Sleumer
- R. prainianum* Koord.
- R. psilanthum* Sleumer
- R. rappardii* Sleumer
- C *R. rarum* Schltr.

- R. *revolutum* Sleumer
- R. *rhodochroum* Sleumer
- R. *rubellum* Sleumer
- C R. *schoddei* Sleumer
- C R. *solitarium* Sleumer
- R. *spondylophyllum* F. Muell.
- R. *stelligerum* Sleumer
- R. *stolleianum* Schltr.
- C R. *superbum* Sleumer
- R. *thausianthum* Sleumer
- R. *truncicolum* Sleumer
- R. *tuberculiferum* J.J.Sm.

Subsection *Pseudovireya* (Clarke) Sleumer

Scales disk-shaped with a relatively large swollen centre and narrow entire to slightly lobed margin or flange, sometimes on persistent stalks; dense to sparse on the undersides of the leaves but rarely touching and never overlapping in the submature state. Corolla shape various but never white and trumpet-shaped and the lobes generally more than $\frac{1}{4}$ of the total length of the flower.

- R. *adinophyllum* Merr.
- R. *asperulum* Hutch. & Kingdon-Ward
- C R. *borneense* (J.J.Sm.) Argent,
A.L.Lamb & Phillipps
subsp. *angustissimum* (Sleumer)
Argent
- C subsp. *borneense*
- C subsp. *villosum* (J.J.Sm.) Argent
A.L.Lamb & Phillipps
- R. *buxoides* Sleumer
- R. *capellae* Kores
- R. *ciliilobum* Sleumer
- C R. *cuneifolium* Stapf
- R. *cyrtophyllum* Wernh.
- R. *datiandingense* Z.J.Feng
- R. *densifolium* K.M.Feng
- R. *detznerianum* Sleumer
- C R. *emarginatum* Hemsl. & Wilson
- C R. *ericoides* Low ex Hook.f.
- R. *erosipetalum* J.J.Sm.
- C R. *gaultheriifolium* J.J.Sm.

- var. *expositum* Sleumer
- var. *gaultherifolium*
- R. *hameliiflorum* Wernh.
- R. *insculptum* Hutch. &
Kingdon-Ward
- C R. *kawakamii* Hayata
- R. *leiboense* Z.J.Zhao
- R. *lindaueanum* Koord.
var. *bantaengense* J.J.Sm.
var. *lindaueanum*
- R. *maguanense* K.M.Feng
- C R. *meliphagidum* J.J.Sm.
- R. *nanophyton* Sleumer
var. *nanophyton*
var. *petrophilum* Sleumer
- R. *nummatum* J.J.Sm.
- R. *oreites* Sleumer
var. *chlorops* Sleumer
var. *oreites*
- C R. *perakense* King & Gamble
- R. *pulleanum* Koord.
var. *maiusculum* Sleumer
var. *pulleanum*
- C R. *quadrasianum* Vidal
var. *davaoense* (H.F.
Copel.) Sleumer
var. *intermedium* Merr.
- C var. *malindangense* (Merr.) Sleumer
- C var. *marivelesense* (H.F.
Copel.) Sleumer
- C var. *quadrasianum*
- C var. *rosmarinifolium*
(Vidal) H.F. Copel.
var. *selibicum* J.J.Sm.
- C R. *retusum* (Blume) Benn.
var. *epilosum* J.J.Sm.
- C var. *retusum*
var. *trichostylum* Sleumer
- R. *rupivalleculatum* P.C.Tam
- C R. *rushforthii* Argent &
D.F. Chamberlain
- C R. *santapaui* Sastry et al.
- R. *saruwagedicum* Foerster
- R. *schizostigma* Sleumer
- R. *scortechinii* King & Gamble
- R. *seimundii* J.J.Sm.
- R. *sororium* Sleumer
- R. *spathulatum* Ridl.

- R. taxoides J.J.Sm.
- C R. vaccinioides Hook.f.
- R. vanderbiltianum Merr.
- R. vinkii Sleumer

Subsection *Siphonovireya*

Sleumer

Scales disk-shaped with a relatively large swollen centre and narrow entire to slightly lobed margin or flange, dense to sparse on the undersides of the leaves but rarely touching and never overlapping in the mature state. Corolla trumpet-shaped, the tube narrow and elongate with the lobes less than $\frac{1}{4}$ of the total length of the flower, white or white flushed pink.

- R. agathodaemonis J.J.Sm.
- R. cinchoniflorum Sleumer
- R. habbemaes Koord.
- C R. herzogii Warb.
- R. incommodum Sleumer
- R. inundatum Sleumer
- R. protandrum Sleumer

Subsection *Solenovireya*

H.F. Copel.

Scales deeply lobed, star-shaped or subdendroid, sometimes minute and then hardly lobed, rarely touching in the submature state. Corolla trumpet-shaped, the tube narrow and elongate with the lobes less than $\frac{1}{4}$ of the total length of the flower, white or pink.

- C R. alborugosum Argent & J.Dransf.
- R. amabile Sleumer
- R. archboldianum Sleumer
- C R. armitii F.M.Bailey
- R. brachypodarium Sleumer
- C R. carrii Sleumer
- C R. carringtoniae F. Muell.
- R. carstensense Wernh.
- R. chamaepitys Sleumer
- R. cinerascens Sleumer
- C R. cruttwellii Sleumer
- R. edanoi Merr.
- C R. goodenoughii Sleumer
- R. hartleyi Sleumer
- C R. jasminiflorum Hook.

- C var. copelandii (Merr.) Sleumer
- C var. heusseri (J.J.Sm.) Sleumer
- C var. jasminiflorum
- C var. oblongifolium Sleumer
- C var. punctatum Ridl.
- C R. loranthiflorum Sleumer
- R. macrosiphon Sleumer
- C R. maius (J.J.Sm.) Sleumer
- C R. multinervium Sleumer
- R. natalicum Sleumer
- C R. orbiculatum Ridl.
- R. oliganthum Sleumer
- R. oreadam Wernh.
- C R. pleianthum Sleumer
- C R. pneumonanthum Sleumer
- R. pseudotranchanthum Sleumer
- R. pubitubum Sleumer
- R. radians J.J.Sm.
- var. minahasae Sleumer
- var. radians
- R. retrorsipilum Sleumer
- R. rhodoleucum Sleumer
- R. rhodosalpinx Sleumer
- R. roseiflorum P.F.Stevens
- C R. rutenii J.J.Sm.
- C R. searleanum Sleumer
- C R. stapfianum Hemsl. ex Prain
- C R. suaveolens Sleumer
- C forma roseum Argent, A.L.Lamb & Phillipps
- C forma suaveolens
- R. syringoideum Sleumer
- C R. tuba Sleumer

Subsection *Vireya* *H.F. Copel.*

Scales irregularly lobed to star-shaped, mostly widely spaced in submature leaves and with small centres. Corolla various but the lobes more than $\frac{1}{4}$ of the total length of the flower.

- C R. abietifolium Sleumer
- C R. acrophilum Merr. & Quisumb.
- R. alternans Sleumer
- C R. alticolum Sleumer
- C R. anagalliflorum Wernh.
- R. angulatum J.J.Sm.
- R. arfakianum Becc.
- C? R. atropurpureum Sleumer
- C R. aurigeranum Sleumer
- C R. baconii Argent, A.L.Lamb & Phillipps

- C *R. baenitzianum* Laut.
 C *R. bagobonum* H.F.Copel.
R. banghamiorum (J.J.Sm.)Sleumer
R. beccarii Sleumer
 C *R. blackii* Sleumer
R. bloembergenii Sleumer
R. brachygynum H.F.Copel.
 C *R. brassii* Sleumer
R. brevipes Sleumer
 C *R. brookeanum* Low ex Lindl.
 C subsp. *brookeanum*
 var. *cladotrichum* Sleumer
 var. *extraneum* Sleumer
 var. *kinabaluense* (Argent,
 A.L.Lamb & Phillipps)Argent
 C var. *moultonii* (Ridl.)Argent
 C subsp. *cockburnii* (Argent, A.L.
 Lamb & Phillipps)Argent
 C subsp. *gracile* (Lindl.)Argent
 C *R. burttii* P.Woods
R. buruense J.J.Sm.
 C *R. buxifolium* Low ex Hook.f.
 var. *buxifolium*
 var. *robustum*
 C *R. caespitosum* Sleumer
R. calosanthes Sleumer
R. celebicum (Blume)DC.
R. chevalieri Dop
 C *R. christi* Foerster
 C *R. christianae* Sleumer
 C *R. citrinum* (Hassk.)Hassk.
 C var. *citrinum*
 var. *discoloratum* Sleumer
R. coelorum Wernh.
 C *R. commonae* Foerster
R. comparabile Sleumer
R. cornu-bovis Sleumer
 C *R. crassifolium* Stapf
 C *R. culminicolum* F. Muell.
 var. *angiense* (J.J.Sm.)Sleumer
 var. *culminicolum*
 var. *nubicola* (Wernh.) Sleumer
 C *R. curviflorum* J.J.Sm.
R. cuspidellum Sleumer
R. disterigmoides Sleumer
R. englerianum Koord.
 C *R. exuberans* (Sleumer)Argent
R. flavoviride J.J.Sm.
R. frey-wysslingii J.J.Sm.
R. glabriflorum J.J.Sm.
 C *R. gracilentum* F. Muell.
R. hatamense Becc.
R. helodes Sleumer
R. hirtolepidotum J.J.Sm.
R. impositum J.J.Sm.
R. impressopunctatum J.J.Sm.
 C *R. inconspicuum* J.J.Sm.
 C *R. intranervatum* Sleumer
 C *R. javanicum* (Blume)Benn.
 C subsp. *javanicum*
 C var. *javanicum*
 var. *teysmannii* (Miq.)King &
 Gamble
 C subsp. *schadenbergii*
 (Warb.)Argent
R. kemulense J.J.Sm.
 C *R. kochii* Stein
 C *R. laetum* J.J.Sm.
R. lamii J.J.Sm.
 C *R. lanceolatum* Ridl.
R. leptobranchion Sleumer
R. leptomorphum Sleumer
 C *R. leucogigas* Sleumer
R. leytense Merr.
 var. *loheri* (H.F. Copel.)Sleumer
 var. *leytense*
R. loboense H.F.Copel.
 C *R. lochiaie* F.Muell.
R. loerzingii J.J.Sm.
R. lomphense J.J.Sm.
 C *R. longiflorum* Lindl.
 var. *bancanum* Sleumer
 C var. *longiflorum*
 var. *subcordatum* (Becc.)Argent
 C *R. lowii* Hook. f.
 C *R. luraluense* Sleumer
R. luteosquamatum Sleumer
 C *R. macgregoriae* F. Muell.
 var. *glabrifilum* (J.J.Sm.)Sleumer
 var. *mayrii* (J.J.Sm.)Sleumer
 var. *macgregoriae*
 C *R. maxwellii* Gibbs
 C *R. meijeri* Argent, A.L.Lamb &
 Phillipps
R. microphyllum J.J.Sm.
 C *R. mindanaense* Merr.
R. mollianum Koord.
 C *R. multicolor* Miq.
R. muscicola J.J.Sm.
R. myrsinites Sleumer
 C *R. nervulosum* Sleumer
 C *R. nieuwenhuisii* J.J.Sm.

The Classification of *Rhododendron*

- C *R. notiale* Craven
R. oxycoccoides Sleumer
R. pachycarpon Sleumer
R. pachystigma Sleumer
R. papuanum Becc.
R. parvulum Sleumer
- C *R. pauciflorum* King & Gamble
 var. *calocodon* (Ridl.) Sleumer
- C var. *pauciflorum*
R. perplexum Sleumer
- C *R. polyanthemum* Sleumer
R. poremense J.J.Sm.
R. porphyranthes Sleumer
- C *R. praetervisum* Sleumer
R. psammogenes Sleumer
R. pseudobuxifolium Sleumer
R. pseudomurudense Sleumer
- C *R. pubigermen* J.J.Sm.
R. purpureiflorum J.J.Sm.
R. pusillum J.J.Sm.
R. pyrrhophorum Sleumer
- C *R. rarilepidotum* J.J.Sm.
 var. *ootrichum* Sleumer
- C var. *rarilepidotum*
- C *R. renschianum* Sleumer
R. retivenium Sleumer
R. rhodopus Sleumer
R. rhodostomum Sleumer
R. ripleyi Merr.
 var. *basitrichum* Sleumer
 var. *cryptogonium* Sleumer
 var. *ripleyi*
- C *R. robinsonii* Ridl.
R. rosendahlia Sleumer
- C *R. rubineiflorum* Craven
R. rubrobracteatum Sleumer
- C *R. rugosum* Low ex Hook.f.
- C *R. salicifolium* Becc.
- C *R. sarcodes* Argent & Madulid
- C *R. saxifragoides* J.J.Sm.
R. sayeri Sleumer
- C *R. scabridibracteum* Sleumer
R. scarlatinum Sleumer
R. schlechteri Laut.
R. seranicum J.J.Sm.
- C *R. sessilifolium* J.J.Sm.
R. simulans Sleumer
- C *R. stenophyllum* Hook.f. ex Stapf
- C subsp. *angustifolium*
 (J.J.Sm.) Argent, A.L.Lamb & Phillipps
- C subsp. *stenophyllum*
- C *R. stevensianum* Sleumer
R. stresemannii J.J.Sm.
R. subcrenatum Sleumer
R. subuliferum Sleumer
R. subulosum Sleumer
- C *R. sumatranum* Merr.
- C *R. taxifolium* Merr.
R. toxopei J.J.Sm.
R. triumphans Yersin & Cheval.
R. ultimum Wernh.
R. vanvuurenii J.J.Sm.
- C *R. verticillatum* Low ex Lindl.
- C forma *velutinum* (Becc.)
 Sleumer
 forma *verticillatum*
- C *R. vidalii* Rolfe
R. villosulum J.J.Sm.
- C *R. vitis-idaea* Sleumer
R. wentianum Koord.
R. whiteheadii Rendle
- C *R. williamsii* Merr. ex Copel.f.
- C *R. womersleyi* Sleumer
- C *R. wrightianum* Koord.
 var. *cyclopense* J.J.Sm.
 var. *insulare* Sleumer
- C var. *wrightianum*
R. xanthopetalum Merr.
- C *R. yongii* Argent
- C *R. zoelleri* Warb.

Subgen. Therorhodon
 (Maxim.) Gray

Dwarf, evergreen or deciduous shrubs; indumentum of simple, sometimes glandular, hairs, scales absent. Inflorescence buds terminal, opening to produce a 1-3-flowered raceme; peduncles bearing leaf-like bracts. Calyx lobes well-developed. Corolla 5-lobed, rotate, divided to base on the lower side. Stamens 10. Ovary pubescent; style base impressed. Capsule ovoid. Seeds without appendages.

- C *R. camtschaticum* Pall.
 C subsp. *camtschaticum*
 subsp. *glandulosum* (Small)
 Hultén
R. redowskianum Maxim.

Subgen. Tsutsusi (Sweet)

Pojark.

Shrubs, sometimes dwarf; indumentum of simple hairs or bristles that are sometimes ribbon-like and flattened or of stiff glandular hairs. Leaves persistent and/or deciduous. Leaves and inflorescence arising from within the same bud scales; inflorescence terminal, 1-several-flowered. Calyx lobes minute to well-developed. Corolla rotate to tubular-campanulate. Stamens (4-)5-10(-12). Ovary strigose to glandular. Seeds unornamented, without appendages.

Sect. Brachycalyx Sweet

Leaves rhombic to rhombic-ovate, arranged in pseudowhorls of (2-)3 at the ends of the branches, of one kind, deciduous in winter; flowers appearing before or with the leaves, corolla funnel-shaped to funnel-campanulate.

- C *R. amagianum* (Makino) Makino ex H.Hara
- R. amakusaense* (Takada ex T.Yamaz.) T.Yamaz.
- R. daiyunicum* P.C.Tam
- C *R. decandrum* (Makino) Makino
- C *R. dilatatum* Miq.
- C *forma dilatatum*
- forma hypopilosum* Sa.Kurata
- C *R. farrerae* Tate
- C *R. hidakanum* H.Hara
- R. huadingense* B.Y.Ding & Y.Y.Fang
- R. hyugaense* (T.Yamaz.) T.Yamaz.
- C *R. kiyosumense* (Makino) Makino
- C *R. lagopus* Nakai
- C *var. lagopus*
- var. niphophilum* (T.Yamaz.) T.Yamaz.
- C *R. mariesii* Hemsl. & E.H.Wilson
- C *R. mayebarae* Nakai & H.Hara
- C *R. nudipes* Nakai
- var. kirishimense* T.Yamaz.
- var. nagasakianum* (Nakai) T.Yamaz
- C *var. nudipes*
- R. osuzuyamense* T.Yamaz..
- C *R. reticulatum* D.Don

- var. bifolium* T. Yamaz.
- C *var. reticulatum*
- C *R. sanctum* Nakai
- var. lasiogyne* Nakai ex Sugim.
- C *var. sanctum*
- R. tsurugisanense* (T.Yamaz.) T.Yamaz.
- var. nudipetiolatum* T.Yamaz.
- var. tsurugisanense*
- R. viscistylum* Nakai
- C *R. wadanum* Makino
- C *R. weyrichii* Maxim.
- var. psilostylum* Nakai
- C *var. weyrichii*
- R. yakumontanum* (T.Yamaz.) T.Yamaz.

Sect. Tsutsusi

Leaves linear to broadly ovate, scattered along the stems (pseudo-whorled in *R. tashiroi*), usually of two kinds, the spring leaves larger and deciduous, the summer leaves smaller and persistent through the winter, sometimes with all the leaves apparently uniform and persistent. Corolla rotate to tubular-campanulate.

- R. adenanthum* M.Y.He
- R. apricum* P.C.Tam
- R. arunachalense* D.F.Chamb. & S.J.Rae
- C *R. atrovirens* Franch.
- R. bellum* W.P.Fang & G.Z.Li
- R. bicorniculatum* P.C.Tam
- R. boninense* Nakai
- R. chaoanense* D.C.Wu & P.C.Tam
- R. chrysocalyx* H.Lév. & Vaniot
- var. xiushanense* (W.P.Fang) M.Y.He
- R. chunii* W.P.Fang
- R. crassistylum* M.Y.He
- R. cretaceum* P.C.Tam
- C *R. eriocarpum* (Hayata) Nakai
- R. florulentum* P.C.Tam
- R. floriculm* W.P.Fang & G.Z.Li
- C *R. flumineum* W.P.Fang & M.Y.He
- R. fuchsiifolium* H.Lév.
- R. fuscipilum* M.Y.He
- R. gratiosum* P.C.Tam
- R. hainanense* Merr.
- R. hejiangense* M.Y.He
- R. huiyangense* W.P.Fang & M.Y.He
- R. hunanense* Chun ex P.C.Tam

The Classification of *Rhododendron*

- C *R. indicum* (L.) Sweet.
R. jasminoides M.Y.He
R. jingpingense W.P.Fang & M.Y.He
R. jinxiuense W.P.Fang & M.Y.He
- C *R. kaempferi* Planch..
C var. *kaempferi*
C var. *macrogemma* Nakai
var. *saikaiense* (T.Yamaz.) T.Yamaz.
var. *tubiflorum* Komatzu
- C *R. kanehirae* E.H.Wilson
C *R. kiusianum* Makino
C var. *kiusianum*
C var. *sataense* (Nakai) D.F.Chamb. & S.J.Rae
- R. kwangtungense* Merr. & Chun
R. lasiostylum Hayata
R. litchiifolium T.C.Wu & P.C.Tam
R. longifalcatum P.C.Tam
R. longiperulatum Hayata
R. loniceriflorum P.C.Tam
R. malipoense M.Y.He
R. mariae Hance
subsp. *kwangsiense* (P.C.Tam) D.F.Chamb.
subsp. *mariae*
R. matsumurai Komatsu
R. meridionale P.C.Tam
var. *meridionale*
var. *minor* P.C.Tam
- C *R. microphyton* Franch.
R. minutiflorum Hu
- C *R. mucronatum* (Blume) G.Don
R. myrsinifolium Ching ex W.P.Fang & M.Y.He
- R. naamkwanense* Merr.
var. *cryptonerve* P.C.Tam
var. *naamkwanense*
- C *R. nakaharae* Hayata
R. nanpingense P.C.Tam
- C *R. noriakianum* Suzuki
- C *R. obtusum* (Lindl.) Planch.
R. octandrum M.Y.He
- C *R. oldhamii* Maxim.
R. petilum P.C.Tam
R. pinetorum P.C.Tam
R. polyraphidoideum P.C.Tam
var. *montanum* P.C.Tam
var. *polyraphidoideum*
R. pulchroides Chun & W.P.Fang
R. qiayangense M.Y.He
R. rhodanthum M.Y.He
- R. rhuyuenense* Chun
- C *R. ripense* Makino
R. rivulare Hand.-Mazz.
- C *R. rubropilosum* Hayata
C var. *breviperulatum* (Hayata) T.Yamaz.
var. *grandiflorum* T. Yamaz.
C var. *rubropilosum*
R. rufo-hirtum Hand.-Mazz.
R. rufulum P.C.Tam
- C *R. saisiuense* Nakai
R. saxatile B.Y.Ding & Y.Y.Fang
- C *R. saxicolum* Sleumer
C *R. scabrum* G.Don
C subsp. *amanoi* (Ohwi) D.F.Chamb. & S.J.Rae
C subsp. *scabrum*
R. seniavinii Maxim.
- C *R. serpyllifolium* (A.Gray) Miq.
R. sikayotaisanense Masam.
- C *R. simsii* Planch.
var. *mesembrinum* (Balf.f. & Forrest) Rehder
C var. *simsii*
R. sparsifolium W.P.Fang
R. subcerinum P.C.Tam
- C *R. stenopetalum* (Hogg) Mabb.
R. subnerve P.C.Tam
R. subflumineum P.C.Tam
- C *R. subsessile* Rendle
R. taipaoense T.C.Wu & P.C.Tam
R. taiwanalpinum Ohwi
- C *R. tashiroi* Maxim.
var. *lasiophyllum* Hatus. ex T.Yamaz.
- C var. *tashiroi*
R. tenuilaminare P.C.Tam
- C *R. tosaense* Makino
- C *R. tschonoskyi* Maxim.
var. *trinerve* (Franch.) Makino
- C var. *tschonoskyi*
R. tsoi Merr.
- C *R. tsusiophyllum* Sugim.
R. unciferum P.C.Tam
R. viscidum C.Z.Guo & Z.H.Liu
R. viscigemmatum P.C.Tam
R. yangmingshanense P.C.Tam
R. yaoshanicum W.P.Fang & M.Y.He
- C *R. yedoense* Maxim.
C var. *poukhanense* (H.Lév.) Nakai
C var. *yedoense*

List of Synonyms with the Corresponding Accepted Names

Synonyms, Invalid and Unpublished Names

The list contains all traced synonyms published up to the end of 1996, each with the corresponding accepted name following the = sign (excl. those found in the species descriptions (p.81). It also contains those names that are not validly published, usually as there is no accompanying description. Wherever possible the corresponding accepted names are also given.

Some names published in Latin and referring to garden hybrids, or only known in horticulture, are also included, with the corresponding cultivar names, so that as complete a list as possible is available.

For an explanation of the form of these names see Introduction to Temperate Rhododendrons (p.74).

Anthodendron

- A. ponticum** (L.) *Rechb.* =
R. luteum Sweet

Azalea

- A. alabamense** (*Rehder*) *Small* =
R. alabamense Rehder
- A. albrechtii** (*Maxim.*) *Kuntze* =
R. albrechtii Maxim.
- A. amagiana** *Makino* =
R. amagianum (Makino) Makino ex H.Hara
- A. amoena** *Lindl.* =
R. kiusianum Makino 'Amoenum'
- A. arborescens** *Pursh* =
R. arborescens (Pursh) Torr.
- A. arborescens** *Pursh* var.
richardsonii (*Rehder*) *Ashe* =
R. arborescens (Pursh) Torr.
- A. atlantica** *Ashe* =
R. atlanticum (Ashe) Rehder
- A. atlantica** *Ashe* var. **luteo-alba**
Coker =
R. atlanticum (Ashe) Rehder

- A. aurantiaca** *F.Dietr.* =
R. calendulaceum (Michx.) Torr.
- A. austrina** *Small* =
R. austrinum (Small) Rehder
- A. bakeri** *Lemmon & McKay* =
R. × bakeri (Lemmon & McKay) Hume
- A. bicolor** (*Aiton*) *Pursh* =
R. canescens (Michx.) Sweet
- A. brookeana** (*Low ex Lindl.*)
Kuntze =
R. brookeanum Low ex Lindl.
var. *brookeanum*
- A. calendulacea** *Michx.* =
R. calendulaceum (Michx.) Torr.
- A. calendulacea** *Michx.* var. **crocea**
Michx. =
R. calendulaceum (Michx.) Torr.
- A. calendulacea** *Michx.* var. **flammea**
Michx. =
R. flammeum (Michx.) Sargent
- A. californica** *Torr. & A.Gray* ex
Durand =
R. occidentale (Torr. & A.Gray) A.Gray
- A. canadensis** (L.) *Kuntze* =
R. canadense (L.) Torr.
- A. candida** *Small* =
R. canescens (Michx.) Sweet
- A. canescens** *Michx.* =
R. canescens (Michx.) Sweet
- A. canescens** *Michx.* var. **candida**
(*Small*) *Ashe* =
R. canescens (Michx.) Sweet
- A. citrina** *Hassk.* =
R. citrinum (Hassk.) Hassk. var.
citrinum
- A. coccinea** *Lodd.* =
R. calendulaceum (Michx.) Torr.
- A. crispiflora** *Hook.f.* =
R. 'Crispiflorum'
- A. crocea** *Hoffmanns.* =
R. calendulaceum (Michx.) Torr.
- A. cumberlandensis** (*E.L.Braun*)
Copel. =
R. cumberlandense E.L.Braun

List of Synonyms with the Corresponding Accepted Names

- A. danielsiana** Paxton =
R. 'Danielsianum'
- A. dianthiflora** Carrière =
R. 'Dianthiflorum'
- A. farrerae** (Tate) K.Koch. =
R. farrerae Tate
- A. fastigifolia** Lemmon =
R. × fastigifolium (Lemmon) Hume
- A. flava** Hoffmanns. =
R. luteum Sweet
- A. fragrans** Adams =
R. fragrans (Adams) Maxim.
- A. fragrans** Raf. =
R. arborescens (Pursh) Torr.
- A. furbishii** Lemmon =
R. × furbishii (Lemmon) Leach
- A. glauca** Lam. =
R. viscosum (L.) Torr.
- A. glauca** Lam. var. **hispidia** (Pursh) Heynh. =
R. viscosum (L.) Torr.
- A. hispidia** Pursh =
R. viscosum (L.) Torr.
- A. indica** L. =
R. indicum (L.) Sweet
- A. indica** L. var. **calycina** Lindl. =
R. 'Omurasaki'
- A. indica** L. var. **lateritia** Lindl. =
R. 'Lateritium'
- A. japonica** A.Gray =
R. molle (Blume) G.Don subsp. japonicum (A.Gray) Kron
- A. jasminiflora** (Hook.) Kuntze =
R. jasminiflorum Hook. var. jasminiflorum
- A. javanica** (Blume) Kuntze =
R. javanicum (Blume) Benn. subsp. javanicum var. javanicum
- A. kaempferi** (Planch.) André =
R. kaempferi Planch.
- A. kiyosumensis** Makino =
R. kiyosumense (Makino) Makino
- A. lamponga** (Miq.) Kuntze =
R. lampongum Miq.
- A. lapponica** L. =
R. lapponicum (L.) Wahlenb.
- A. ledifolia** Hook. =
R. ripense 'Mucronatum' (Blume) G.Don var. mucronatum
- A. ledifolia** Hook. var. **phaenicea** Hook. =
R. 'Phoeniceum'
- A. liliiflora** Poit. =
R. ripense 'Mucronatum' (Blume) G.Don var. mucronatum
- A. lutea** L. =
R. periclymenoides (Michx.) Shinnery
- A. macrantha** Bunge =
R. 'Macranthum'
- A. makinoi** (Tagg) Makino =
R. makinoi Tagg
- A. makinoi** (Tagg) Makino var. **muranoana** Makino =
R. makinoi Tagg
- A. malayana** (Jack) Kuntze =
R. malayanum Jack var. malayanum
- A. mollis** Blume =
R. molle (Blume) G.Don subsp. molle
- A. mollis** Blume var. **glabrior** Miq. ex Regel =
R. molle (Blume) G.Don subsp. japonicum (A.Gray) Kron
- A. mucronata** Blume =
R. ripense 'Mucronatum' (Blume) G.Don
- A. multicolor** (Miq.) Kuntze =
R. multicolor Miq.
- A. myrtifolia** Champ. =
R. hongkongense Hutch.
- A. neglecta** Ashe =
R. atlanticum (Ashe) Rehder
- A. nipponica** (Matsum.) Copel. =
R. nipponicum Matsum.
- A. nitida** Pursh =
R. viscosum (L.) Torr.
- A. nudiflora** L. var. **alba** Aiton =
R. periclymenoides (Michx.) Shinnery
- A. nudiflora** L. var. **bicolor** Aiton =
R. canescens (Michx.) Sweet
- A. nudiflora** L. var. **calycosa** Wood =
R. periclymenoides (Michx.) Shinnery
- A. nudiflora** L. var. **carnea** Aiton =
R. periclymenoides (Michx.) Shinnery
- A. nudiflora** L. var. **ciliata** Kellogg =
R. occidentale (Torr. & A.Gray) A.Gray
- A. nudiflora** L. var. **coccinea** Aiton =

- R. flammeum* (Michx.) Sargent
- A. nudiflora** L. var. **glandulifera**
Porter =
R. periclymenoides (Michx.)
Shinners
- A. nudiflora** L. var. **papilionacea**
Aiton =
R. periclymenoides (Michx.)
Shinners
- A. nudiflora** L. var. **partita** Aiton =
R. periclymenoides (Michx.)
Shinners
- A. nudiflora** L. var. **periclymenoides**
(Michx.) Heynh. =
R. periclymenoides (Michx.)
Shinners
- A. nudiflora** L. var. **polyandra**
(Pursh) DC. =
R. periclymenoides (Michx.)
Shinners
- A. nudiflora** L. var. **rosea**
Hoffmanns. =
R. periclymenoides (Michx.)
Shinners
- A. nudiflora** L. var. **rutilans** Aiton =
R. periclymenoides (Michx.)
Shinners
- A. oblongifolia** Small =
R. viscosum (L.) Torr.
- A. obtusa** Lindl. =
R. Obtusum Group
- A. occidentalis** Torr. & A.Gray =
R. occidentale (Torr. & A.Gray)
A.Gray
- A. ovata** Lindl. =
R. ovatum (Lindl.) Maxim.
- A. parvifolia** (Adams) Kuntze =
R. lapponicum (L.) Wahlenb.
- A. pennsylvanica** Gable =
R. × pennsylvanicum (Gable)
Rehder
- A. pentaphylla** (Maxim.) Copel. =
R. pentaphyllum Maxim.
- A. periclymena** Pers. =
R. periclymenoides (Michx.)
Shinners
- A. periclymenoides** Michx. =
R. periclymenoides (Michx.)
Shinners
- A. periclymenoides** Michx. var. **alba**
Pursh =
R. periclymenoides (Michx.)
Shinners
- A. periclymenoides** Michx. var. **carnea** Pursh =
R. periclymenoides (Michx.)
Shinners
- A. periclymenoides** Michx. var. **coccinea** (Aiton) Pursh =
R. flammeum (Michx.) Sargent
- A. periclymenoides** Michx. var. **papilionacea** (Aiton) Pursh =
R. periclymenoides (Michx.)
Shinners
- A. periclymenoides** Michx. var. **partita** (Aiton) Pursh =
R. periclymenoides (Michx.)
Shinners
- A. periclymenoides** Michx. var. **polyandra** Pursh =
R. periclymenoides (Michx.)
Shinners
- A. periclymenoides** Michx. var. **rutilans** (Aiton) Pursh =
R. periclymenoides (Michx.)
Shinners
- A. pontica** L. =
R. luteum Sweet
- A. pontica** L. var. **autumnalis**
K.Koch =
R. luteum Sweet
- A. pontica** L. var. **sinensis** (Lodd.)
Lindl. =
R. molle (Blume) G.Don subsp.
japonicum (A.Gray) Kron
- A. prinophylla** Small =
R. prinophyllum (Small) Millais
- A. prunifolia** Small =
R. prunifolium (Small) Millais
- A. punicea** Sweet =
R. × puniceum (Sweet) Planch.
- A. quinquefolia** (Bisset & S.Moore)
Olmsted, Coville & H.P.Kelsey =
R. quinquefolium Bisset & S.Moore
- A. ramentacea** Lindl. =
R. 'Album'
- A. retusa** (Blume) Kuntze =
R. retusum (Blume) Benn. var.
retusum
- A. rosmarinifolia** Burm. =
R. mucronatum (Blume) G.Don var.
mucronatum
- A. schlippenbachii** (Maxim.)
Kuntze =

List of Synonyms with the Corresponding Accepted Names

- R. schlippenbachii Maxim.
A. **semibarbata** (Maxim.) Kuntze =
R. semibarbatum Maxim.
A. **serpyllifolia** A.Gray =
R. serpyllifolium (A.Gray) Miq.
A. **serrulata** Small =
R. viscosum (L.) Torr.
A. **serrulata** Small var. **georgiana**
(Rehder) Ashe =
R. viscosum (L.) Torr.
A. **sinensis** Lodd. =
R. molle (Blume) G.Don subsp.
japonicum (A.Gray) Kron
A. **sinensis** Lodd. var. **glabrior** (Miq.)
Maxim. =
R. molle (Blume) G.Don subsp.
japonicum (A.Gray) Kron
A. **speciosa** Willd. var. **aurantia**
Lodd. =
R. calendulaceum (Michx.) Torr.
A. **squamata** Lindl. =
R. farrerae Tate
A. **stenopetala** Hogg =
R. stenopetalum (Hogg) Mabb.
A. **teysmannii** (Miq.) Kuntze =
R. javanicum (Blume) Benn. var.
teysmannii (Miq.) K. & G.
A. **tomentosa** Dum.Cours. =
R. viscosum (L.) Torr.
A. **tubiflora** Blume ex DC. =
R. malayanum Jack var.
malayanum
A. **vaseyi** (A.Gray) Rehder =
R. vaseyi A.Gray
A **viscosa** Marshall =
R. arborescens (Pursh) Torr.
A. **viscosa** L. =
R. viscosum (L.) Torr.
A. **viscosa** L. var. **aemulans** (Rehder)
Ashe =
R. viscosum (L.) Torr.
A. **viscosa** L. var. **floribunda** Aiton =
R. viscosum (L.) Torr.
A. **viscosa** L. var. **glauca** Aiton =
R. viscosum (L.) Torr.
A. **viscosa** L. var. **hispida**
(Pursh) Hook. =
R. viscosum (L.) Torr.
A. **viscosa** L. var. **montana** (Rehder)
Ashe =
R. viscosum (L.) Torr.
A. **viscosa** L. var. **nitida** (Pursh)

- Britton =
R. viscosum (L.) Torr.
A. **viscosa** L. var. **palustris** Marshall =
R. viscosum (L.) Torr.
A. **viscosa** L. var. **pubescens** Lodd. =
R. viscosum (L.) Torr.
A. **viscosa** L. var. **rubescens** Lodd. =
R. viscosum (L.) Torr.
A. **viscosa** L. var. **virens** Michx. =
R. viscosum (L.) Torr.

Azaleastrum

- A. **albiflorum** (Hook.) Rydberg =
R. albiflorum Hook. var.
albiflorum
A. **warrenii** A.Nelson =
R. albiflorum Hook. var. warrenii
(A.Nelson) M.A.Lane

Biltia

- B. **vaseyi** (A.Gray) Small =
R. vaseyi A. Gray

Cladothamnus

- C. **campanulatus** Greene =
R. albiflorum Hook.

Hochenwartia

- H. **canadensis** (L.) Crantz =
R. canadense (L.) Torr.

Hymenanthes

- H. **japonica** Blume =
R. degronianum Carrière var.
heptamerum (Maxim.) Sealy

Ledum L.

= R. Subsection Ledum (L.) Kron
& Judd

- L. **californicum** Kellogg =
R. tolmachevii Harmaja
L. **columbianum** Piper =
R. columbianum (Piper) Harmaja
L. **glandulosum** Nutt. =
R. neoglandulosum Harmaja
L. **groenlandicum** Oeder =
R. groenlandicum (Oeder) Kron &
Judd
L. **hypoleucum** Kom. =
R. hypoleucum (Kom.) Harmaja
L. **macrophyllum** Tolm. =
R. tolmachevii Harmaja

- L. palustre** L. var. **decumbens** Aiton=
R. tomentosum (Stokes) Harmaja
var. subarcticum (Harmaja)
G. Wallace
- L. palustre** L. var. **diversipilosum**
Nakai =
R. hypoleucum (Kom.) Harmaja
- L. palustre** L. var. **palustre** =
R. tomentosum (Stokes) Harmaja
var. tomentosum
- Rhodazalea crouxii** Croux =
R. × crouxii (Croux) Rehder
- Rhododendron**
- R. aberrans** Tagg & Forrest =
R. traillianum Forrest & W.W.Sm.
var. traillianum
- R. achroanthum** Balf.f. & W.W.Sm. =
R. rupicola W.W.Sm. var. rupicola
- R. acraium** Balf.f. & W.W.Sm. =
R. primuliflorum Bureau & Franch.
- R. acrocline** Sleumer =
R. culminicolum F.Muell. var.
nubicola (Wernham) Sleumer
- R. adamsii** Rehder =
R. fragrans (Adams) Maxim.
- R. adansonii** Pépin =
R. ponticum L.
- R. adenostemonum** Balf.f. &
W.W.Sm. =
R. irroratum Franch. subsp.
pogonostylum (Balf.f. & W.W.Sm.)
D.F.Chamb.
- R. admirabile** Balf.f. & Forrest =
R. lukiangense Franch.
- R. adoxum** Balf.f. & Forrest =
R. vernicosum Franch.
- R. adroserum** Balf.f. & Forrest =
R. lukiangense Franch.
- R. aechmophyllum** Balf.f. & Forrest =
R. yunnanense Franch.
- R. aemulorum** Balf.f. =
R. mallotum Balf.f. &
Kingdon-Ward
- R. aeruginosum** Hook.f. =
R. campanulatum D.Don subsp.
aeruginosum (Hook.f.) D.F.Chamb.
- R. aganniphum** Balf.f. &
Kingdon-Ward var. **glaucopseplum**
(Balf.f. & Forrest) T.L.Ming =
R. aganniphum Balf.f. &
Kingdon-Ward var. aganniphum
- R. aganniphum** Balf.f. & Kingdon-
Ward var. **schizopseplum** (Balf.f.
& Forrest) T.L.Ming =
R. aganniphum Balf.f. & Kingdon-
Ward var. aganniphum
- R. agapetum** Balf.f. & Kingdon-Ward =
R. kyawii Lace & W.W.Sm.
- R. × agastum** Balf.f. & W.W.Sm.
var. **pennivenium** (Balf.f. &
Forrest) T.L.Ming =
R. tanastylum Balf.f. & Kingdon-
Ward var. pennivenium (Balf.f. &
Forrest) D.F.Chamb.
- R. agathodaemonis** J.J.Sm., non J.J.Sm.
1913 =
R. herzogii Warb.
- R. agetum** Balf.f. & Forrest =
R. neriiflorum Franch. subsp.
agetum (Balf.f. & Forrest) Tagg
- R. aiolopeplum** Balf.f. & Forrest =
R. phaeochrysum Balf.f. &
W.W.Sm. var. levistratum (Balf.f. &
Forrest) D.F.Chamb.
- R. aiolosalpinx** Balf.f. & Farrer =
R. stewartianum Diels
- R. aischropeplum** Balf.f. & Forrest =
R. roxieanum Forrest var.
roxieanum
- R. × albicans** Waterer ex Zabel =
R. Albicans Group
- R. albicaule** H.Lév. =
R. fortunei Lindl. subsp. fortunei
- R. albrechtii** Maxim. forma **canescens**
Sugim. =
R. albrechtii Maxim.
- R. album** Buch.-Ham. ex D.Don =
R. arboreum Sm. forma album
Wall.
- R. album** Hoffmanns. =
R. albiflorum Hook.
- R. album** Ridl., non Blume =
R. aequabile J.J.Sm.
- R. album** Zoll., non Blume =
R. zollingeri J.J.Sm.
- R. algarvense** Page =
R. ponticum L.
- R. alpicola** Rehder & E.H.Wilson var.
strictum Rehder & E.H.Wilson =
R. nivale Hook.f. subsp. boreale
M.N.Philipson & Philipson
- R. × altaclarensis** Lindl. =

List of Synonyms with the Corresponding Accepted Names

- R. 'Altaclarensis'
R. amamiense *Ohwi* =
 R. latoucheae *Franch.* var.
 latoucheae
R. amanoi *Ohwi* =
 R. scabrum *G.Don* subsp. amanoi
 (*Ohwi*) *D.F.Chamb. & S.J.Rae*
R. amaurophyllum *Balf.f. & Forrest* =
 R. saluenense *Franch.* subsp.
 saluenense
R. amoenum (*Lindl.*) *Planch.* =
 R. kiusianum *Makino* 'Amoenum'
R. andersonii *Ridl.* =
 R. variolosum *Becc.* var.
 andersonii (*Ridl.*) *Sleumer*
R. angienae *J.J.Sm.* =
 R. culminiculum *F.Muell.* var.
 angienae (*J.J.Sm.*) *Sleumer*
R. angustiflorum *Hoppe* =
 R. hirsutum *L.*
R. annae *Franch.* subsp. **laxiflorum**
 (*Balf.f. & Forrest*) *T.L.Ming* =
 R. annae *Franch.*
R. × anneliesii *Rehder* =
 R. Anneliesi Group
R. anthopogon *D.Don* var.
haemonium (*Balf.f. & R.E.Cooper*)
Cowan & Davidian =
 R. anthopogon *D.Don* subsp.
 anthopogon
R. anthopogon *D.Don* var.
hypenanthum (*Balf.f.*) *H.Hara* =
 R. anthopogon *D.Don* subsp.
 hypenanthum (*Balf.f.*) *Cullen*
R. anthosphaerum *Diels* var.
eritimum (*Balf.f. & W.W.Sm.*)
Davidian =
 R. anthosphaerum *Diels*
R. aperantum *Balf.f. & Kingdon-Ward*
 var. **subpilosum** *Cowan* =
 R. aperantum *Balf.f. & Kingdon-*
Ward
R. apiculatum *Rehder & E.H.Wilson* =
 R. concinnum *Hemsl.*
R. apodectum *Balf.f. & W.W.Sm.* =
 R. dichroanthum *Diels* subsp.
 apodectum (*Balf.f. & W.W.Sm.*)
Cowan
R. apricum *P.C.Tam* var. **falcinellum**
P.C.Tam =
 R. rufulum *P.C.Tam*
R. araliiforme *Balf.f. & Forrest* =
 R. vernicosum *Franch.*
R. arborescens (*Pursh*) *Torr.* var.
richardsonii *Rehder* =
 R. arborescens (*Pursh*) *Torr.*
R. arboreum *Sm.* subsp. **kingianum**
 (*Watt ex Hook.f.*) *Tagg* =
 R. arboreum *Sm.* subsp.
 zeylanicum (*Booth*) *Tagg*
R. arboreum *Sm.* subsp. **windsori**
 (*Nutt.*) *Tagg* =
 R. arboreum *Sm.* subsp. arboreum
R. arboreum *Sm.* var. **kingianum**
Watt ex Hook.f. =
 R. arboreum *Sm.* subsp.
 zeylanicum (*Booth*) *Tagg*
R. × arbutifolium *Rehder* =
 R. Arbutifolium Group
R. argenteum *Hook.f.* =
 R. grande *Wight*
R. argyi *H.Lév.* =
 ripense 'Mucronatum' (*Blume*)
G.Don
R. argyrophyllum *Franch.* subsp.
hejiangense *W.P.Fang* =
 R. insigne *Hemsl. & E.H.Wilson*
 var. hejiangense (*W.P.Fang*)
M.Y.Fang
R. argyrophyllum *Franch.* var.
cupulare *Rehder & E.H.Wilson* =
 R. argyrophyllum *Franch.* subsp.
 argyrophyllum
R. argyrophyllum *Franch.* var.
leiandrum *Hutch.* =
 R. argyrophyllum *Franch.* subsp.
 nankingense (*Cowan*) *D.F.Chamb.*
R. argyrophyllum *Franch.* var.
nankingense *Cowan* =
 R. argyrophyllum *Franch.* subsp.
 nankingense (*Cowan*) *D.F.Chamb.*
R. argyrophyllum *Franch.* var.
omeiense *Rehder & E.H.Wilson* =
 R. argyrophyllum *Franch.* subsp.
 omeiense (*Rehder & E.H.Wilson*)
D.F.Chamb.
R. arizelum *Balf.f. & Forrest* var.
rubicosum *Cowan & Davidian* =
 R. arizelum *Balf.f. & Forrest*
R. artosquameum *Balf.f. & Forrest* =
 R. oreotrepthes *W.W.Sm.*
R. ashleyii *Coker* =
 R. maximum *L.*
R. asmenistum *Balf.f. & Forrest* =

- R. sanguineum* Franch. var. *cloiophorum* (Balf.f. & Forrest) D.F.Chamb.
- R. asparagoides** Wernham = *R. zoelleri* Warb.
- R. asteium** Balf.f. & Forrest = *R. eudoxum* Balf.f. & Forrest var. *mesopolium* (Balf.f. & Forrest) D.F.Chamb.
- R. astrapiae** Foerster ex Schltr. = *R. konori* Becc. var. *konori*
- R. atensiense** Hand.-Mazz. = *R. dendricola* Hutch.
- R. atjehense** Sleumer = *R. irroratum* Franch. subsp. *kontumense* (Sleumer) D.F.Chamb.
- R. atlanticum** (Ashe) Rehder **forma confusum** Fernald = *R. atlanticum* (Ashe) Rehder
- R. atlanticum** (Ashe) Rehder **forma luteo-album** (Coker) Fernald = *R. atlanticum* (Ashe) Rehder
- R. atlanticum** (Ashe) Rehder **forma neglectum** (Ashe) Rehder = *R. atlanticum* (Ashe) Rehder
- R. atlanticum** (Ashe) Rehder **forma tomolobum** Fernald = *R. atlanticum* (Ashe) Rehder
- R. atlanticum** (Ashe) Rehder var. **luteo-album** (Coker) Rehder = *R. atlanticum* (Ashe) Rehder
- R. aucklandii** Hook.f. = *R. griffithianum* Wight
- R. aucubaefolium** Hemsl. = *R. stamineum* Franch. var. *stamineum*
- R. augustinii** Hemsl. **forma grandifolia** Franch. = *R. augustinii* Hemsl. subsp. *chasmanthum* (Diels) Cullen
- R. augustinii** Hemsl. **forma hardyi** (Davidian) R.C.Fang = *R. augustinii* Hemsl. subsp. *hardyi* (Davidian) Cullen
- R. augustinii** Hemsl. **forma rubrum** (Davidian) R.C.Fang = *R. augustinii* Hemsl. subsp. *rubrum* (Davidian) Cullen
- R. augustinii** Hemsl. **forma subglabra** Franch. = *R. augustinii* Hemsl. subsp. *chasmanthum* (Diels) Cullen
- R. augustinii** Hemsl. var. **chasmanthum** (Diels) Davidian = *R. augustinii* Hemsl. subsp. *chasmanthum* (Diels) Cullen
- R. augustinii** Hemsl. var. **rubrum** Davidian = *R. augustinii* Hemsl. subsp. *rubrum* (Davidian) Cullen
- R. augustinii** Hemsl. var. **yui** W.P.Fang = *R. augustinii* Hemsl. subsp. *augustinii*
- R. aureum** Franch. = *R. xanthostephanum* Merr.
- R. australe** Balf.f. & Forrest = *R. leptothrium* Balf.f. & Forrest
- R. austrokiusianum** Hatus. = *R. kiusianum* Makino var. *sataense* (Nakai) D.F.Chamb. & S.J.Rae
- R. axium** Balf.f. & Forrest = *R. selense* Franch. subsp. *selense*
- R. baeticum** Boiss. & Reut. = *R. ponticum* L.
- R. balsaminaeflorum** T.Moore = *R. 'Balsaminiflorum'*
- R. barbatum** Wall. ex G.Don **forma imberbe** (Hutch.) H.Hara = *R. × imberbe* Hutch.
- R. basirotundatum** J.J.Sm. = *R. javanicum* (Blume) Benn. subsp. *javanicum* var. *teysmannii* (Miq.) King & Gamble
- R. batangense** Balf.f. = *R. nivale* Hook.f. subsp. *boreale* M.N.Philipson & Philipson
- R. bauhiniflorum** G.Watt ex Hutch. = *R. triflorum* Hook.f. var. *bauhiniiflorum* (G.Watt ex Hutch.) Cullen
- R. beanianum** Cowan var. **compactum** Cowan = *R. piercei* Davidian
- R. beimaense** Balf.f. & Forrest = *R. × erythrocalyx* Balf.f. & Forrest
- R. benthamianum** Hemsl. = *R. cinnuncium* Hemsl.
- R. bergii** Davidian = *R. augustinii* Hemsl. subsp. *rubrum* (Davidian) Cullen
- R. beyerinckianum** Koord. var. **longipetiolatum** J.J.Sm. = *R. beyerinckianum* Koord.

List of Synonyms with the Corresponding Accepted Names

- R. bhairopatium** Ham. ex Madden =
R. lepidotum Wall. ex G.Don
- R. bhotanicum** C.B. Clarke in Hook.f. =
R. lindleyi T. Moore
- R. bicolor** P.C. Tam =
R. simsii Planch. var. simsii
- R. bicolor** (Aiton) Sweet =
R. canescens (Michx.) Sweet
- R. bilsianum** hort. ex Lavallée =
R. 'Bylsianum'
- R. blandfordiiflorum** Hook.f. =
R. cinnabarinum Hook.f. subsp.
cinnabarinum
- R. blandulum** Balf.f. & W.W.Sm. =
R. selense Franch. subsp.
jucundum (Balf.f. & W.W.Sm.)
D.F. Chamb.
- R. blepharocalyx** Franch. =
R. intricatum Franch.
- R. blinii** H. Lévl. =
R. lutescens Franch.
- R. bodenii** Wernham =
R. habbemaë Koord.
- R. brachyandrum** Balf.f. & Forrest =
R. eclecticum Balf.f. & Forrest var.
eclecticum
- R. brachyanthum** Franch. var.
hypolepidotum Franch. =
R. brachyanthum Franch. subsp.
hypolepidotum (Franch.) Cullen
- R. brachycarpum** D. Don ex G. Don
forma normale Kitam. =
R. brachycarpum D. Don ex G. Don
subsp. brachycarpum
- R. brachycarpum** D. Don ex G. Don
subsp. tigerstedtii Nitz. =
R. brachycarpum D. Don ex G. Don
subsp. brachycarpum
- R. brachycarpum** D. Don ex G. Don var.
lutescens Koidz. =
R. × nikomontanum (Komatsu)
Nakai
- R. brachycarpum** D. Don ex G. Don var.
nematoanum Makino =
R. brachycarpum D. Don ex G. Don
subsp. fauriei (Franch.) D.F. Chamb.
forma nematoanum (Makino)
Murata
- R. brachycarpum** D. Don ex G. Don var.
nematoanum Makino **forma**
fauriei (Franch.) Murata =
R. brachycarpum D. Don ex G. Don
subsp. fauriei (Franch.) D.F. Chamb.
forma nematoanum (Makino)
Murata
- R. brachycarpum** D. Don ex G. Don var.
roseiflorum Miyoshi =
R. brachycarpum D. Don ex G. Don
subsp. fauriei (Franch.) D.F. Chamb.
- R. brachycarpum** D. Don ex G. Don var.
roseum Koidz. =
R. brachycarpum D. Don ex G. Don
subsp. brachycarpum
- R. brachystylum** Balf.f. & Kingdon-
Ward =
R. trichocladum Franch. var.
trichocladum
- R. brettii** Hemsl. & E.H. Wilson =
R. longesquamatum C.K. Schneid.
- R. brevistylum** Franch. =
R. heliolepis Franch. var.
brevistylum (Franch.) Cullen
- R. brevitubum** Balf.f. & Cooper =
R. maddenii Hook.f. subsp.
maddenii
- R. brevitubum** J.J. Sm. =
R. crassifolium Stapf
- R. brookeanum** Low ex Lindl. var.
gracile (Low ex Lindl.) G. Henslow =
R. brookeanum Low ex Lindl.
subsp. gracile (Lindl.) Argent,
A.L. Lamb & Philpps
- R. brookeanum** Stapf., non Low ex
Lindl. =
R. rivinienium Sleumer
- R. bullatum** Franch. =
R. edgeworthii Hook.f.
- R. burmannii** G. Don =
ripense 'Mucronatum' (Blume)
G. Don
- R. burriflorum** Balf.f. & Forrest =
R. diphricalyx Balf.f.
- R. buxifolium** Low ex Hook.f.
var. robustum Sleumer =
R. buxifolium Low ex Hook.f., non
Low ex Lindl.
- R. caeruleo-glaucum** Balf.f. &

- Forrest =
R. campylogynum Franch.
- R. caespitulum** *P.C.Tam* =
R. myrsinifolium Ching ex
W.P.Fang & M.Y.He
- R. calceolariodes** *Wernham* =
R. macgregoriae *F.Muell.* var.
macgregoriae
- R. calendulaceum** (*Michx.*) *Torr.*
forma aurantiacum (*Dietr.*)
Rehder =
R. calendulaceum (*Michx.*) *Torr.*
- R. calendulaceum** (*Michx.*) *Torr.*
forma croceum (*Michx.*) *Rehder* =
R. calendulaceum (*Michx.*) *Torr.*
- R. calendulaceum** (*Michx.*) *Torr.* var.
aurantiacum (*Dietr.*) *Zabel* =
R. calendulaceum (*Michx.*) *Torr.*
- R. californicum** *Hook.f.* =
R. macrophyllum *D.Don* ex *G.Don*
- R. calleryi** *Planch.* =
R. simsii *Planch.* var. *simsii*
- R. callichilioides** *Wernham* =
R. wentianum *Koord.*
- R. callichilioides** *Wernham* var. *minor*
Wernham =
R. wentianum *Koord.*
- R. calocodon** *Ridl.* =
R. pauciflorum *King & Gamble* var.
calocodon (*Ridl.*) *Sleumer*
- R. calophytum** *Franch.* subsp.
jinfuense *M.Y.Fang* =
R. calophytum *Franch.* var.
jinfuense *M.Y.Fang & W.K.Hu*
- R. calostrotum** *Balf.f. & Kingdon-Ward*
var. **calciphilum** (*Hutch. &*
Kingdon-Ward) *Davidian* =
R. calostrotum *Balf.f. & Kingdon-*
Ward subsp. *riparium* (*Kingdon-*
Ward) *Cullen*
- R. calostrotum** *R.C.Fang* var.
riparioides (*Cullen*) *R.C.Fang* =
R. calostrotum *Balf.f. & Kingdon-*
Ward subsp. *riparioides* *Cullen*
- R. calycinum** (*Lindl.*) *Planch.* =
R. 'Omurasaki'
- R. campanulatum** *D.Don* var.
aeruginosum (*Hook.f.*) *Cowan &*
Davidian =
R. campanulatum *D.Don* subsp.
aeruginosum (*Hook.f.*) *D.F.Chamb.*
- R. campanulatum** *D.Don* var.
campbellii *Millais* =
R. arboreum *Sm.* × *R. wallichii*
Hook.f.
- R. campbelliae** *Hook.f.* =
R. arboreum *Sm.* var.
cinnamomeum (*Wall. ex G.Don*)
Lindl.
- R. campylocarpum** *Hook.f.* subsp.
telopeum (*Balf.f. & Forrest*)
D.F.Chamb. =
R. campylocarpum *Hook.f.* subsp.
caloxanthum (*Balf.f. & Farrer*)
D.F.Chamb.
- R. campylogynum** *Franch.* var. *celsum*
Davidian =
R. campylogynum *Franch.*
- R. campylogynum** *Franch.* var.
charopoeum (*Balf.f. & Forrest*)
Davidian =
R. campylogynum *Franch.*
- R. campylogynum** *Franch.* var.
cremastum (*Balf.f. & Forrest*)
Davidian =
R. campylogynum *Franch.*
- R. campylogynum** *Franch.* var.
eupodum *Ingram* =
R. campylogynum *Franch.*
- R. campylogynum** *Franch.* var.
leucanthum *Ingram* =
R. campylogynum *Franch.*
- R. campylogynum** *Franch.* var.
myrtilloides (*Balf.f. & Kingdon-*
Ward) *Davidian* =
R. campylogynum *Franch.*
- R. canadense** (*L.*) *Torr.* **forma**
albiflorum (*E.L.Rand & Redf.*)
Rehder =
R. canadense (*L.*) *Torr.*
- R. canadense** (*L.*) *Torr.* **forma** *album*
Voss =
R. canadense (*L.*) *Torr.*
- R. canadense** (*L.*) *Torr.* **forma**
viridifolium *Fernald* =
R. canadense (*L.*) *Torr.*
- R. candidapiculatum** *Wernham* =
R. pusillum *J.J. Sm.*
- R. candidum** *Rehder* =
R. canescens (*Michx.*) *Sweet*
- R. canescens** *Porter* =
R. prinophyllum (*Small*) *Millais*
- R. canescens** (*Michx.*) *Sweet* **forma**
subglabrum *Rehder* =

List of Synonyms with the Corresponding Accepted Names

- R. canescens* (Michx.) Sweet
R. canescens (Michx.) Sweet var.
candidum (Small) Sweet =
R. canescens (Michx.) Sweet
R. cantabile Balf.f. ex Hutch. =
R. russatum Balf.f. & Forrest
R. capitatum Franch., non Maxim. =
R. fastigiatum Franch.
R. cardiobasis Sleumer =
R. orbiculare Decne. subsp.
cardiobasis (Sleumer) D.F.Chamb.
R. cardioides Balf.f. & Forrest =
R. oreotrepes W.W. Sm.
R. carringtoniae (F.Muell.) Lane-
Poole =
R. herzogii Warb.
R. carringtoniae F.Muell. var. **maius**
J.J.Sm. =
R. maius (J.J.Sm.) Sleumer
R. caryophyllum Hayata =
R. rubropilosum Hayata
R. catanduanense Merr. =
R. nortoniae Merr.
R. catapastum Balf.f. & Forrest =
R. rubiginosum Franch. var.
rubiginosum
R. catesbianum Dum.Cours. =
R. 'Catesbaei'
R. caucasicum Pall. var.
stramineum Hook. =
R. caucasicum Pall.
R. cavaleriei H.Lév. var. **chaffanjonii**
H.Lév. =
R. stamineum Franch. var.
stamineum
R. cephalanthoides Balf.f. &
W.W.Sm. =
R. primuliflorum Bureau & Franch.
R. cephalanthum (Franch.) Cowan &
Davidian var. **crebreflorum**
(Hutch. & Kingdon-Ward) Cowan &
Davidian =
R. cephalanthum Franch. subsp.
cephalanthum
R. cephalanthum Franch. var.
nmaiense (Hutch. & Kingdon-
Ward) Cowan & Davidian =
R. cephalanthum Franch. subsp.
cephalanthum
R. ceraceum Balf.f. & W.W.Sm. =
R. lukiangense Franch.
R. cerasiflorum Kingdon-Ward =
R. campylogynum Franch.
R. cerinum Balf.f. & Forrest =
R. sulfureum Franch.
R. chaetomallum Balf.f. & Forrest =
R. haematodes Franch. subsp.
chaetomallum (Balf.f. & Forrest)
D.F.Chamb.
R. chaetomallum Balf.f. & Forrest var.
chamaephytum Cowan =
R. forrestii Balf.f. ex Diels
× *haematodes* Franch.
R. chaetomallum Balf.f. & Forrest var.
glaucescens Tagg & Forrest =
R. haematodes Franch. subsp.
chaetomallum (Balf.f. & Forrest)
D.F.Chamb.
R. chaetomallum Balf.f. & Forrest var.
hemigymnum Tagg & Forrest =
R. × hemigymnum (Tagg & Forrest)
D.F.Chamb.
R. chaetomallum Balf.f. & Forrest var.
xanthanthum Tagg & Forrest =
R. × xanthanthum (Tagg & Forrest)
D.F.Chamb.
R. chalarocladum Balf.f. & Forrest =
R. selense Franch. subsp. *selense*
R. chamaecystus L. =
Rhodothamnus chamaecistus
Rchb.
R. chamaetortum Balf.f. & Kingdon-
Ward =
R. cephalanthum Franch. subsp.
cephalanthum
R. chapaense Dop =
R. maddenii Hook.f. subsp.
crassum (Franch.) Cullen
R. charianthum Hutch. =
R. davidsonianum Rehder &
E.H. Wilson
R. charidotes Balf.f. & Farrer =
R. saluenense Franch. subsp.
chameunum (Balf.f. & Forrest)
Cullen
R. charitostreptum Balf.f. & Kingdon-
Ward =
R. brachyanthum Franch. subsp.
hypolepidotum (Franch.) Cullen
R. charopoeum Balf.f. & Farrer =
R. campylogynum Franch.
R. chartophyllum Franch. =
R. yunnanense Franch.
R. chartophyllum Franch. **forma**

- praecox* Diels =
R. yunnanense Franch.
- R. chasmanthoides** Balf.f. & Forrest =
R. augustinii Hemsl. subsp.
chasmanthum (Diels) Cullen
- R. chasmanthum** Diels =
R. augustinii Hemsl. subsp.
chasmanthum (Diels) Cullen
- R. chawchiense** Balf.f. & Farrer =
R. anthosphaerum Diels
- R. cheilanthum** Balf.f. & Forrest =
R. cuneatum W.W.Sm.
- R. chengshienianum** W.P.Fang =
R. ambiguum Hemsl
- R. chienianum** W.P.Fang =
R. longipes Rehder & E.H.Wilson
var. chienianum (W.P.Fang)
D.F.Chamb.
- R. chionophyllum** Diels =
R. argyrophyllum Franch. subsp.
argyrophyllum
- R. chlanidotum** Balf.f. & Forrest =
R. citriniflorum Balf.f. & Forrest
var. citriniflorum
- R. christi** Foerste =
R. christii Foerste
- R. christi** Foerste var. *loniceroides*
Schltr. =
R. christii Foerste
- R. chrysanthum** Pall. =
R. aureum Georgi var. aureum
- R. chrysanthum** Pall. var.
nikomontanum Komatsu =
R. × nikomontanum (Komatsu)
Nakai
- R. chrysopeplon** Sleumer =
R. beyerinckianum Koord.
- R. ciliato-pedunculatum** Hayata =
R. henryi Hance var. henryi
- R. cilicalyx** Franch. subsp. *lyi*
(H.Lév.) R.C.Fang =
R. lyi H.Lév.
- R. cinereoserratum** P.C.Tam =
R. farrerae Tate
- R. cinnabarinum** Hook.f. var.
aestivale Hutch. =
R. cinnabarinum Hook.f. subsp.
cinnabarinum
- R. cinnabarinum** Hook.f. var. *bland-*
*fordii*florum (Hook.f.) hort. =
R. cinnabarinum Hook.f. subsp.
cinnabarinum
- R. cinnabarinum** Hook.f. var.
pallidum Hook.f. =
R. cinnabarinum Hook.f. subsp.
xanthocodon (Hutch.) Cullen
- R. cinnabarinum** Hook.f. var.
purpurellum Cowan =
R. cinnabarinum Hook.f. subsp.
xanthocodon (Hutch.) Cullen
- R. cinnabarinum** Hook.f. var. *roylei*
(Hook.f.) hort. =
R. cinnabarinum Hook.f. subsp.
cinnabarinum
- R. cinnamomeum** Wall. ex G.Don =
R. arboreum Sm. var.
cinnamomeum (Wall. ex G.Don)
Lindl.
- R. citriniflorum** Balf.f. & Forrest
subsp. *aureolum* Cowan =
R. citriniflorum Balf.f. & Forrest
var. horaeum (Balf.f. & Forrest)
D.F.Chamb.
- R. citriniflorum** Balf.f. & Forrest
subsp. *horaeum* (Balf.f. & Forrest)
Cowan =
R. citriniflorum Balf.f. & Forrest
var. horaeum (Balf.f. & Forrest)
D.F.Chamb.
- R. citriniflorum** Balf.f. & Forrest
subsp. *rubens* Cowan =
R. citriniflorum Balf.f. & Forrest
var. horaeum (Balf.f. & Forrest)
D.F.Chamb.
- R. citrinum** Miq., non (Hassk.) Hassk. =
R. citrinum (Hassk.) Hassk. var.
discoloratum Sleumer
- R. citrinum** (Hassk.) Hassk. forma
albiflorum Miq. =
R. citrinum (Hassk.) Hassk. var.
citrinum
- R. clementis** Merr. =
R. javanicum (Blume) Benn. subsp.
schadenbergii (Warb.) Argent
- R. × clivianum** J.J. Sm. =
R. 'Clivianum'
- R. clivicolum** Balf.f. & W.W.Sm. =
R. primuliflorum Bureau & Franch.
- R. cloiophorum** Balf.f. & Forrest =
R. sanguineum Franch. var.
cloiophorum (Balf.f. & Forrest)
D.F.Chamb.
- R. cloiophorum** Balf.f. & Forrest
subsp. *asmenistum* (Balf.f. &

List of Synonyms with the Corresponding Accepted Names

- Forrest) Tagg =
R. sanguineum Franch. subsp.
sanguineum var. *cloiophorum*
 (Balf.f. & Forrest) D.F.Chamb.
- R. cloiophorum** (Balf.f. & Forrest) Tagg
 subsp. **leucopetalum** (Balf.f. &
 Forrest) Tagg =
R. sanguineum Franch. subsp.
sanguineum var. *cloiophorum*
 (Balf.f. & Forrest) D.F.Chamb.
- R. cloiophorum** Balf.f. & Forrest
 subsp. **mannophorum** (Balf.f &
 Forrest) Tagg =
R. sanguineum Franch. var.
didymoides Tagg & Forrest
- R. cloiophorum** Balf.f. & Forrest
 subsp. **roseotinctum** (Balf.f &
 Forrest) Tagg =
R. sanguineum Franch. subsp.
sanguineum var. *didymoides* Tagg
 & Forrest
- R. coccinopeplum** Balf.f. & Forrest =
R. roxieanum Forrest var.
cucullatum (Hand.-Mazz.)
 D.F.Chamb.
- R. coenenii** J.J.Sm. =
R. culminicolum F.Muell. var.
nubicola (Wernham) Sleumer
- R. colletum** Balf.f. & Forrest =
R. beesianum Diels
- R. commutatum** Sleumer =
R. longiflorum Lindl. var.
longiflorum
- R. concinnum** Hemsl. var. **bentham-**
ianum (Hemsl.) Davidian =
R. concinnum Hemsl.
- R. concinnum** Hemsl. var. **pseudo-**
yanthinum (Hemsl.) Davidian =
R. concinnum Hemsl.
- R. confertissimum** Nakai =
R. lapponicum (L.) Wahlenb.
- R. coniferum** Wernham =
R. correoides J.J. Sm.
- R. convexum** Sleumer =
R. culminicolum F.Muell. var.
culminicolum
- R. coombense** Hemsl. =
R. concinnum Hemsl.
- R. cooperi** Balf.f. =
R. camelliiflorum Hook.f.
- R. copelandii** Merr. =
R. jasminiflorum Hook. var.
copelandii (Merr.) Sleumer
- R. cordatum** H.Lév. =
R. souliei Franch.
- R. coreanum** Rehder =
R. yedoense Maxim. var.
poukhanense (H.Lév.) Nakai
- R. coriifolium** Sleumer =
R. × coriifolium (Sleumer) Argent,
 A.L.Lamb & Phillipps
- R. corruscum** Ridl. =
R. wrayi King & Gamble
- R. coryi** Shinnery =
R. viscosum (L.) Torr.
- R. coryphaeum** Balf.f. & Forrest =
R. praestans Balf.f. & W.W.Sm.
- R. cosmetum** Balf.f. & Forrest =
R. saluenense Franch. subsp.
chameunum (Balf.f. & Forrest)
 Cullen
- R. costulatum** Franch. =
R. lutescens Franch.
- R. crassimedium** P.C.Tam =
R. polyraphidoideum P.C.Tam var.
polyraphidoideum
- R. crassinervium** Ridl. =
R. crassifolium Stapf
- R. crebreflorum** Hutch. & Kingdon-
 Ward =
R. cephalanthum Franch. subsp.
cephalanthum
- R. cremastum** Balf.f. & Forrest =
R. campylogynum Franch.
- R. cremnastes** Balf.f. & Farrer =
R. lepidotum Wall. ex G.Don
- R. cremnophilum** Balf.f. & W.W.Sm. =
R. primuliflorum Bureau & Franch.
- R. crenatum** H.Lév. =
R. racemosum Franch.
- R. crispiflorum** (Hook.f.) Planch. =
R. 'Crispiflorum'
- R. cruentum** H.Lév. =
R. bureavii Franch.
- R. cucullatum** Hand.-Mazz. =
R. roxieanum Forrest var. *cucul-*
latum (Hand.-Mazz.) D.F.Chamb.
- R. cuneifolium** Rendle, non Stapf =
R. quadrasianum Vidal var.
rosmarinifolium (Vidal) Copel.f.
- R. cuneifolium** sensu Ridl., non Stapf =
R. borneense (J.J.Sm.) Argent,
 A.L.Lamb & Phillipps subsp.
villosum (J.J.Sm.) Argent,

- A.L.Lamb & Phillipps*
R. cuneifolium Stapf var.
subspathulatum Merr., non Ridl. =
R. borneense (J.J.Sm.) Argent,
A.L.Lamb & Phillipps subsp.
villosum (J.J.Sm.) Argent,
A.L.Lamb & Phillipps
- R. cuneifolium** Stapf var.
subspathulatum Ridl. =
R. bagobonum Copel.f.
- R. cuprescens** Nitz. =
R. phaeochrysum Balf.f. &
W.W.Sm. var. *phaeochrysum*
- R. curranii** Merr. =
R. whiteheadii Rendle
- R. curtisii** T.Moore =
R. multicolor Miq.
- R. cuthbertii** Small =
R. minus Michx. var. *minus*
- R. cyanocarpum** (Franch.) W.W.Sm.
var. **eriphyllum** Balf.f. ex Tagg =
R. cyanocarpum (Franch.)
W.W.Sm.
- R. cyatheicolum** Sleumer =
R. spondylophyllum F.Muell.
- R. cyclium** Balf.f. & Forrest =
R. callimorphum Balf.f. & W.W.Sm.
var. *callimorphum*
- R. cymbomorphum** Balf.f. & Forrest =
R. × erythrocalyx Balf.f. & Forrest
- R. daiyuenshanicum** P.C.Tam =
R. daiyunicum P.C.Tam
- R. damascenum** Balf.f. & Forrest =
R. campylogynum Franch.
- R. danielsianum** (Paxton) Planchon =
R. 'Danielsianum'
- R. daphniflorum** Diels =
R. rufescens Franch.
- R. daphnoides** hort. =
R. 'Daphnoides'
- R. dasycladum** Balf.f. & W.W.Sm. =
R. selense Franch. subsp.
dasycladum (Balf.f. & W.W.Sm.)
D.F.Chamb.
- R. dasylepis** Schltr. =
R. beyerinckianum Koord.
- R. dauricum** L. subsp. **ledebourii**
(Pojark.) Alexandrowa & Schmidt =
R. ledebourii Pojark.
- R. dauricum** L. subsp. **sichotense**
(Pojark.) Alexandrowa & Schmidt =
R. sichotense Pojark.
- R. dauricum** L. var. **mucronulatum**
(Turcz.) Maxim. =
R. mucronulatum Turcz. var.
mucronulatum
- R. dauricum** L. var. **sempervirens**
Sims =
R. ledebourii Pojark.
- R. davisii** hort. ex Koehne =
R. 'Daviesi'
- R. decandrum** (Makino) Makino forma
lasiocarpum H.Hara =
R. decandrum (Makino) Makino
- R. decandrum** (Makino) Makino var.
pilosum H.Hara =
R. decandrum (Makino) Makino
- R. decandrum** (Makino) Makino var.
viscistylum (Nakai) Hatus. =
R. viscistylum Nakai
- R. decumbens** D.Don ex G.Don =
R. 'Decumbens'
- R. deflexum** Griff. =
R. triflorum Hook.f. subsp.
triflorum
- R. degronianum** Carrière forma
spontaneum Nakai =
R. degronianum Carrière subsp.
degronianum
- R. degronianum** Carrière forma
variegatum Nakai =
R. degronianum Carrière subsp.
degronianum
- R. degronianum** Carrière var.
amagianum (T.Yamaz.) T.Yamaz. =
R. degronianum Carrière forma
amagianum (T.Yamaz.) H.Hara
- R. degronianum** Carrière var. **nakaii**
(Komatsu) Nakai =
R. degronianum Carrière subsp.
degronianum
- R. degronianum** Carrière var.
yakushmanum (Nakai) Kitam. =
R. degronianum Carrière subsp.
yakushmanum (Nakai) Kitam. var.
yakushmanum
- R. delavayi** Franch. var. **peramoenum**
(Balf.f. & Forrest) T.L.Ming =
R. arboreum Sm. subsp. *delavayi*
(Franch.) D.F.Chamb. var.
peramoenum (Balf.f. & Forrest)
D.F.Chamb.
- R. deleiense** Hutch. & Kingdon-Ward =
R. tephropeplum Balf.f. & Farrer

- R. dendritrichum** Balf.f. & Forrest =
R. uvariifolium Diels var.
uvariifolium
- R. depile** Balf.f. & Forrest =
R. oreotrepes W.W. Sm.
- R. devrieseanum** Koord. =
R. konori Becc. var. konori
- R. devriesianum** Koord. subsp.
astrapiae Foerste =
R. konori Becc. var. konori
- R. dianthiflorum** (Carrière) Millais =
R. 'Dianthiflorum'
- R. dichroanthum** Diels subsp.
herpesticum (Balf.f. & Kingdon-
Ward) Cowan =
R. dichroanthum Diels subsp.
scyphocalyx (Balf.f. & Forrest)
Cowan
- R. dichroanthum** Diels var.
apodectum (Balf.f. & W.W.Sm.)
T.L.Ming =
R. dichroanthum Diels subsp.
apodectum (Balf.f. & W.W.Sm.)
Cowan
- R. dichroanthum** Diels var.
scyphocalyx (Balf.f. & Forrest)
T.L.Ming =
R. dichroanthum Diels subsp.
scyphocalyx (Balf.f. & Forrest)
Cowan
- R. dichroanthum** Diels var. **septen-
trionale** (Cowan) T.L.Ming =
R. dichroanthum Diels subsp.
septentrionale Cowan
- R. dichropeplum** Balf.f. & Forrest =
R. phaeochrysum Balf.f. &
W.W.Sm. var. levistratum (Balf.f. &
Forrest) D.F.Chamb.
- R. didymum** Balf.f. & Forrest =
R. sanguineum Franch. subsp.
didymum (Balf.f. & Forrest) Cowan
- R. dilatatum** Miq. var. **boreale**
Sugim. =
R. hidakanum H.Hara
- R. dilatatum** Miq. var. **decandrum**
Makino =
R. decandrum (Makino) Makino
- R. dilatatum** Miq. var. **glaucum**
Hatus. =
R. osuzuyamense T.Yamaz.
- R. dilatatum** Miq. var. **kiyosumense**
(Makino) Hatus. =
R. kiyosumense (Makino) Makino
- R. dilatatum** var. **lasiocarpum**
(H.Hara) T.Yamaz. =
R. decandrum (Makino) Makino
- R. dilatatum** Miq. var. **satsumense**
T.Yamaz. =
R. decandrum (Makino) Makino
- R. discolor** Warb. =
R. celebicum (Blume) DC.
- R. doctersii** J.J.Sm. =
R. zoelleri Warb.
- R. dolerum** Balf.f. & Forrest =
R. selense Franch. subsp.
dasycladum (Balf.f. & W.W.Sm.)
D.F.Chamb.
- R. dryophyllum** Balf.f. & Forrest =
R. phaeochrysum Balf.f. &
W.W.Sm. var. phaeochrysum
- R. dubium** King & Gamble =
R. wrayi King & Gamble
- R. dunnii** E.H.Wilson =
R. henryi Hance var. dunnii
(E.H.Wilson) M.Y.He
- R. durionifolium** Stapf, non Recc. =
R. fallacinum Sleumer
- R. duseimatum** Balf.f. & Forrest =
R. calvescens Balf.f. & Forrest var.
duseimatum (Balf.f. & Forrest)
D.F.Chamb.
- R. eclecteum** Balf.f. & Forrest var.
brachyandrum (Balf.f. & Forrest)
Cowan & Davidian =
R. eclecteum Balf.f. & Forrest var.
eclecteum
- R. edgarii** Gamble =
R. campanulatum D.Don
- R. × edinense** Dummer =
R. 'Edinense'
- R. elaeagnoides** Hook.f. =
R. lepidotum Wall. ex G.Don
- R. elegans** Ridl. =
R. pauciflorum King & Gamble var.
pauciflorum
- R. ellipticum** Maxim. var.
leptosanthum (Hayata) S.S. Ying =
R. moulmainense Hook.f.
- R. elongatum** Blume =
R. jasminiflorum Hook. var.
jasminiflorum
- R. emaculatum** Balf.f. & Forrest =
R. beesianum Diels
- R. emarginatum** Hemsl. & E.H.Wilson

- var. eriocarpum** K.M.Feng =
R. euonymifolium H.Lév.
- R. ericoides** Burt, non Low ex
Hook.f. =
R. borneense (J.J.Sm.) Argent,
A.L.Lamb & Phillipps subsp.
angustissimum (Sleumer) Argent
- R. ericoides** Low ex Hook.f. **var.**
silvicolum Sleumer =
R. × silvicolum (Sleumer) Argent,
A.L.Lamb & Phillipps
- R. erileucum** Balf.f. & Forrest =
R. zaleucum Balf.f. & W.W.Sm. var.
zaleucum
- R. eriocarpum** (Hayata) Nakai **var.**
tawadae Ohwi =
R. eriocarpum (Hayata) Nakai
- R. eriogynum** Balf.f. & W.W.Sm. =
R. facetum Balf.f. & Kingdon-Ward
- R. × erythrocalyx** Balf.f. & Forrest
subsp. beimaense (Balf.f. &
Forrest) Tagg =
R. × erythrocalyx Balf.f. & Forrest
- R. × erythrocalyx** Balf.f. & Forrest
subsp. docimum Balf.f. ex Tagg =
R. × erythrocalyx Balf.f. & Forrest
- R. × erythrocalyx** Balf.f. & Forrest
subsp. eucallum (Balf.f. & Forrest)
Tagg =
R. × erythrocalyx Balf.f. & Forrest
- R. × erythrocalyx** Balf.f. & Forrest
subsp. truncatulum (Balf.f. &
Forrest) Tagg =
R. × erythrocalyx Balf.f. & Forrest
- R. euanthum** Balf.f. & W.W.Sm. =
R. vernicosum Franch.
- R. eucallum** Balf.f. & Forrest =
R. × erythrocalyx Balf.f. & Forrest
- R. eudoxum** Balf.f. & Forrest **subsp.**
asteium (Balf.f. & Forrest) Tagg =
R. eudoxum Balf.f. & Forrest var.
mesopolium (Balf.f. & Forrest)
D.F.Chamb.
- R. eudoxum** Balf.f. & Forrest **subsp.**
brunneifolium (Balf.f. & Forrest)
Tagg =
R. eudoxum Balf.f. & Forrest var.
brunneifolium (Balf.f. & Forrest)
D.F.Chamb.
- R. eudoxum** Balf.f. & Forrest **subsp.**
epipastum (Balf.f. & Forrest)
Tagg =
R. eudoxum Balf.f. & Forrest var.
mesopolium (Balf.f. & Forrest)
D.F.Chamb.
- R. eudoxum** Balf.f. & Forrest **subsp.**
glaphyrum (Balf.f. & Forrest)
Tagg =
R. temenium Balf.f. & Forrest var.
dealbatum (Cowan) D.F.Chamb.
- R. eudoxum** Balf.f. & Forrest **subsp.**
mesopolium (Balf.f. & Forrest)
Tagg =
R. eudoxum Balf.f. & Forrest var.
mesopolium (Balf.f. & Forrest)
D.F.Chamb.
- R. eudoxum** Balf.f. & Forrest **subsp.**
pothinum (Balf.f. & Forrest) Tagg =
R. temenium Balf.f. & Forrest var.
temenium
- R. eudoxum** Balf.f. & Forrest **subsp.**
temenium (Balf.f. & Forrest) Tagg =
R. temenium Balf.f. & Forrest var.
temenium
- R. eudoxum** Balf.f. & Forrest **subsp.**
trichomiscum (Balf.f. & Forrest)
Tagg =
R. eudoxum Balf.f. & Forrest var.
eudoxum
- R. exquisitum** Hutch. =
R. oreotrepes W.W.Sm.
- R. exquisitum** T.L.Ming =
R. sikangense W.P.Fang var.
exquisitum (T.L.Ming) T.L.Ming
- R. falcinellum** P.C.Tam =
R. rufulum P.C.Tam
- R. farrerae** Tate **var. leucotrichum**
Franch. =
R. farrerae Tate
- R. fauriei** Franch. =
R. brachycarpum D.Don ex G.Don
subsp. fauriei (Franch.) D.F.Chamb.
- R. ferrugineum** L. **subsp. kotschyi**
(Simonk.) Hayek =
R. myrtifolium Schott & Kotschy
- R. ferruginosa** Pall. =
R. lapponicum (L.) Wahlenb.
- R. filamentosum** Wernham =
R. oreadum Wernham
- R. fissotectum** Balf.f. & Forrest =
R. aganniphum Balf.f. & Kingdon-
Ward var. aganniphum
- R. flaviflorum** Elmer ex Merr. =
R. leytense Merr. var. leytense

List of Synonyms with the Corresponding Accepted Names

- R. flavorufum** Balf.f. & Forrest =
R. aganniphum Balf.f. & Kingdon-
 Ward var. *flavorufum* (Balf.f. &
 Forrest) D.F.Chamb.
- R. flavum** Pall. =
R. aureum Georgi var. *aureum*
- R. flavum** G.Don var. **macranthum**
 Bean =
R. luteum Sweet
- R. floccigerum** Franch. var.
appropinquans Tagg & Forrest =
R. neriiflorum Franch. subsp.
phaedropum (Balf.f. & Farrer)
- R. floccigerum** Franch. subsp.
appropinquans (Tagg & Forrest)
 D.F.Chamb. =
R. neriiflorum Franch. subsp.
phaedropum (Balf.f. & Farrer)
- R. fongkaiense** C.N.Wu & P.C.Tam =
R. kwangtungense Merr. & Chun
- R. fordii** Hemsl. =
R. simiarum Hance
- R. formosum** Wall. var. **johstoneanum**
G.Watt ex Brandis =
R. johstoneanum G.Watt ex
 Hutch.
- R. formosum** Wall. var. **salicifolium**
C.B.Clarke =
R. formosum Wall. var. *formosum*
- R. formosum** Wall. var. **veitchianum**
 (Hook.f.) Kurz =
R. veitchianum Hook.f.
- R. forrestii** Diels var. **repens** (Balf.f. &
 Forrest) Cowan & Davidian =
R. forrestii Balf.f. ex Diels subsp.
forrestii
- R. fortunei** Lindl. var. **kwangfuense**
 (Chun & W.P.Fang) G.Z.Li =
R. fortunei Lindl. subsp. *discolor*
 (Franch.) D.F.Chamb.
- R. foveolatum** Rehder & E.H.Wilson =
R. coriaceum Franch.
- R. fragrans** Franch., non Maxim. =
R. trichostomum Franch.
- R. fragrans** hort. =
R. maximum L.
- R. franchetianum** H.Lév. =
R. decorum Franch. subsp.
decorum
- R. franssenianum** J.J.Sm. =
R. villosulum J.J.Sm.
- R. fuchsii** Sleumer =
R. × fuchsii (Sleumer) Argent,
 A.L.Lamb & Phillipps
- R. fuchsiiflorum** H.Lév. =
R. spinuliferum Franch. var.
spinuliferum
- R. fuchsioides** Schltr. =
R. lindaueanum Koord. var.
lindaueanum
- R. fulvastrum** Balf.f. & Forrest subsp.
epipastum (Balf.f. & Forrest)
 Cowan =
R. eudoxum Balf.f. & Forrest var.
mesopolium (Balf.f. & Forrest)
 D.F.Chamb.
- R. fulvastrum** Balf.f. & Forrest subsp.
mesopolium (Balf.f. & Forrest)
 Cowan =
R. eudoxum Balf.f. & Forrest var.
mesopolium (Balf.f. & Forrest)
 D.F.Chamb.
- R. fulvastrum** Balf.f. & Forrest subsp.
trichomiscum (Balf.f. & Forrest)
 Cowan =
R. eudoxum Balf.f. & Forrest var.
eudoxum
- R. fulvastrum** Balf.f. & Forrest subsp.
trichophlebium (Balf.f. & Forrest)
 Cowan =
R. eudoxum Balf.f. & Forrest var.
eudoxum
- R. fumidum** Balf.f. & W.W.Sm. =
R. heliolepis Franch. var.
heliolepis
- R. fuscum** Blume =
R. malayanum Jack var.
malayanum
- R. galioides** J.J.Sm. =
R. bagobonum Copel.f.
- R. gaultherioides** Boiss. & Bal. =
Epigaea gaultherioides (Boiss. &
 Bal.) Takht.
- R. germanicum** Tausch =
R. hirsutum L.
- R. gibbsiae** J.J.Sm. =
R. culmicolum F.Muell. var.
angiense (J.J.Sm.) Sleumer
- R. gibsonii** Paxton =
R. formosum Wall. var. *formosum*
- R. giganteum** Forrest ex Tagg var.
seminudum Tagg & Forrest =
R. protistum Balf.f. & Forrest var.
protistum

- R. giraudissii** *H.Lév.* =
R. decorum *Franch.* subsp. *decorum*
- R. glabratum** *Hoppe* =
R. hirsutum *L.*
- R. glabrifilum** *J.J.Sm.* =
R. macgregoriae *F.Muell.* var. *glabrifilum* (*J.J.Sm.*) *Sleumer*
- R. glabrius** (*Regel*) *Nakai* =
R. molle (*Blume*) *G.Don* subsp. *japonicum* (*A.Gray*) *Kron*
- R. glabrius** (*Regel*) *Nakai* var. **aureum** (*E.H.Wilson*) *Nakai* =
R. molle (*Blume*) *G.Don* subsp. *japonicum* (*A.Gray*) *Kron*
- R. glandulistylum** *Komatsu* =
R. wadanum *Makino*
- R. glandulostylum** *W.P.Fang* & *M.Y.He* =
R. guizhongense *G.Z.Li*
- R. glauco-aureum** *Balf.f.* & *Forrest* =
R. campylogynum *Franch.*
- R. glaucophyllum** *Rehder* var. **luteiflorum** *Davidian* =
R. luteiflorum (*Davidian*) *Cullen*
- R. glaucophyllum** *Rehder* var. **tubiforme** *Cowan* & *Davidian* =
R. glaucophyllum *Rehder* subsp. *tubiforme* (*Cowan* & *Davidian*) *D.G.Long*
- R. glaucum** *Hook.f.*, non *Sweet* =
R. glaucophyllum *Rehder* subsp. *glaucophyllum* var. *glaucophyllum*
- R. glaucum** (*Lam.*) *Sweet* =
R. viscosum (*L.*) *Torr.*
- R. glischroides** *Tagg* & *Forrest* var. **arachnoideum** *Tagg* =
R. aff. glischroides *Tagg* & *Forrest*
- R. glischrum** *Balf.f.* & *W.W.Sm.* subsp. **glischroides** (*Tagg* & *Forrest*) *D.F.Chamb.* =
R. glischroides *Tagg* & *Forrest*
- R. glischrum** *Balf.f.* & *W.W.Sm.* var. **adenosum** *Cowan* & *Davidian* =
R. adenosum *Davidian*
- R. gloeoblastum** *Balf.f.* & *Forrest* =
R. wardii *W.W.Sm.* var. *wardii*
- R. gloxinaeflorum** *hort.* =
R. arboreum *Sm.* var. *album* *Wall.*
- R. gnaphalocarpum** *Hayata* =
R. mariesii *Hemsl.* & *E.H.Wilson*
- R. gorumense** *Schltr.* =
R. macgregoriae *F.Muell.* var. *macgregoriae*
- R. × gowenianum** *Sweet* =
R. 'Gowenianum'
- R. gracile** *Becc.*, non *Low ex Lindl.* =
R. longiflorum *Lindl.* var. *longiflorum*
- R. gracile** *Low ex Lindl.* =
R. brookeanum *Low ex Lindl.* subsp. *gracile* (*Lindl.*) *Argent*
- R. gracilescens** (*Nakai*) *Maekawa* =
R. nudipes *Nakai* var. *nudipes*
- R. gracilipes** *Franch.* =
R. argyrophyllum *Franch.* subsp. *hypoglaucum* (*Hemsl.*) *D.F.Chamb.*
- R. gratum** *T.L.Ming* =
R. rex *H.Lév.* subsp. *gratum* (*T.L.Ming*) *M.Y.Fang*
- R. gregarium** *Sleumer* =
R. culminicolum *F.Muell.* var. *culminicolum*
- R. griffithianum** *Wight* var. **aucklandii** (*Hook.f.*) *Hook.f.* =
R. griffithianum *Wight*
- R. gymnanthum** *Diels* =
R. lukiangense *Franch.*
- R. gymnogynum** *Balf.f.* & *Forrest* =
R. anthosphaerum *Diels*
- R. gymnomiscum** *Balf.f.* & *Kingdon-Ward* =
R. primuliflorum *Bureau* & *Franch.*
- R. haemaleum** *Balf.f.* & *Forrest* =
R. sanguineum *Franch.* subsp. *sanguineum* var. *haemaleum* (*Balf.f.* & *Forrest*) *D.F.Chamb.*
- R. haematocheilum** *Craib* =
R. oreodoxa *Franch.* var. *oreodoxa*
- R. haematodes** *Franch.* var. **calycinum** *Franch.* =
R. haematodes *Franch.* subsp. *haematodes*
- R. haematodes** *Franch.* var. **hypoleucum** *Franch.* =
R. haematodes *Franch.* subsp. *haematodes*
- R. haemonium** *Balf.f.* & *Cooper* =
R. anthopogon *D.Don* subsp. *anthopogon*
- R. hallaisanense** *H.Lév.* =
R. yedoense *Maxim.* var. *poukhanense* (*H.Lév.*) *Nakai*

- R. hamondi** hort. ex Lavallée =
R. 'Hammondii'
- R. hanoense** Nakai =
R. indicum (L.) Sweet
- R. hansemanni** Warb. =
R. macgregoriae F.Muell. var.
macgregoriae
- R. harrovianum** Hemsl. =
R. polylepis Franch.
- R. hatamense** Sleumer, non Becc. =
R. culminicolum F.Muell. var.
nubicola (Wernham) Sleumer
- R. hedythamnum** Balf.f. & Forrest =
R. callimorphum Balf.f. & W.W.Sm.
var. callimorphum
- R. hedythamnum** Balf.f. & Forrest var.
eglandulosum Hand.-Mazz. =
R. cyanocarpum (Franch.)
W.W.Sm.
- R. heishuiense** W.P.Fang =
R. tatsienense Franch. var.
tatsiense
- R. heliolepis** Franch. var. **fumidum**
(Balf.f. & W.W.Sm.) R.C.Fang =
R. heliolepis Franch. var.
heliolepis
- R. heliolepis** Franch. var. **oporinum**
(Balf.f. & Kingdon-Ward)
R.C.Fang =
R. heliolepis Franch. var.
heliolepis
- R. hellwigii** Koord., non Warb. =
R. agathodaemonis J.J.Sm.
- R. helvolum** Balf.f. & Forrest =
R. phaeochrysum Balf.f. &
W.W.Sm. var. levistratum (Balf.f. &
Forrest) D.F.Chamb.
- R. hepaticum** P.C.Tam =
R. florulentum P.C.Tam.
- R. heptamerum** Balf.f. =
R. anthosphaerum Diels
- R. heptaster** A.Gilli =
R. konori Becc. var. konori
- R. hesperium** Balf.f. & Forrest =
R. rigidum Franch.
- R. hexamerum** Hand.-Mazz. =
R. vernicosum Franch.
- R. himertum** Balf.f. & Forrest =
R. sanguineum Franch. var.
himertum (Balf.f. & Forrest)
D.F.Chamb.
- R. hispidum** D.Don =
R. indicum (L.) Sweet
- R. hispidum** (Pursh) Torr. =
R. viscosum (L.) Torr.
- R. hoi** W.P.Fang =
R. anthopogonoides Maxim.
subsp. hoi (W.P.Fang) W.P.Fang &
Xiong
- R. honbanianum** A.Ch., v. ex Dop =
Enkianthus quinqueflorus Lour.
- R. horaeum** Balf.f. & Forrest =
R. citriniflorum Balf.f. & Forrest
var. horaeum (Balf.f. & Forrest)
D.F.Chamb.
- R. hortense** Nakai =
R. stenopetalum (Hogg) Mabb.
- R. houlstonii** Hemsl. & E.H.Wilson =
R. fortunei Lindl. subsp. discolor
(Franch.) D.F.Chamb.
- R. hunanense** Chun ex P.C.Tam var.
mangshanicum P.C.Tam =
R. hunanense Chun ex P.C.Tam
- R. hutchinsonianum** W.P.Fang =
R. concinnum Hemsl.
- R. hyacinthiflorum** hort. =
R. ponticum L.
- R. hylothreptum** Balf.f. & W.W.Sm. =
R. anthosphaerum Diels
- R. hymenanthus** (Blume) Makino =
R. degronianum Carrière subsp.
heptamerum (Maxim.) H.Hara var.
heptamerum (Maxim.) Sealy
- R. hymenanthus** (Blume) Makino var.
pentamerum Makino =
R. degronianum Carrière subsp.
degronianum
- R. hypoblematosum** P.C.Tam =
R. polyraphidoideum P.C.Tam var.
polyraphidoideum
- R. hypolepidotum** (Franch.) Balf.f. &
Forrest =
R. brachyanthum Franch. subsp.
hypolepidotum (Franch.) Cullen
- R. hypopytis** Pojark. =
R. aureum Georgi var. hypopytis
(Pojark.) D.F.Chamb.
- R. hypotrichotum** Balf.f. & Forrest =
R. oreotrepthes W.W.Sm.
- R. indicum** (L.) Sweet var. **amoenum**
(Lindl.) Maxim. =
R. kiusianum Makino 'Amoenum'
- R. indicum** (L.) Sweet var. **amoenum**
(Lindl.) Maxim. **forma japonicum**

- Maxim.* =
R. kiusianum Makino var.
kiusianum
- R. indicum** (L.) Sweet var. **eriocarpum**
Hayata =
R. eriocarpum (Hayata) Nakai
- R. indicum** (L.) Sweet var.
formosanum Hayata =
R. simsii Planch. var. *simsii*
- R. indicum** (L.) Sweet var. **ignescens**
Sweet =
R. 'Ignescens'
- R. indicum** (L.) Sweet var. **japonicum**
(Maxim.) Makino =
R. kiusianum Makino var.
kiusianum
- R. indicum** (L.) Sweet var. **kaempferi**
(Planch.) Maxim. =
R. kaempferi Planch.
- R. indicum** (L.) Sweet var.
macranthum (G.Don) Maxim. =
R. 'Macranthum'
- R. indicum** (L.) Sweet var.
mikawanaum Makino =
R. × transiens Nakai
- R. indicum** (L.) Sweet var. **obtusum**
(Lindl.) Maxim. =
R. Obtusum Group
- R. indicum** (L.) Sweet var. **simsii**
(Planch.) Maxim. =
R. simsii Planch. var. *simsii*
- R. indicum** (L.) Sweet var. **sinensis**
Miq. =
R. scabrum G.Don subsp. *scabrum*
- R. indicum** (L.) Sweet var. **smithii**
Sweet =
R. × pulchrum Sweet
- R. indicum** (L.) Sweet var.
sublanceolatum (Miq.) Makino =
R. scabrum G.Don subsp. *scabrum*
- R. indicum** (L.) Sweet var. **tamurai**
Makino =
R. eriocarpum (Hayata) Nakai
- R. inobeanum** Honda =
R. decandrum (Makino) Makino
- R. intortum** Balf.f. & Forrest =
R. phaeochrysum Balf.f. &
W.W.Sm. var. *levistratum* (Balf.f. &
Forrest) D.F.Chamb.
- R. invasorium** Sleumer =
R. inconspicuum J.J.Sm.
- R. ioanthum** Balf.f. =
R. siderophyllum Franch.
- R. ixenticum** Balf.f. & W.W.Sm. =
R. crinigerum Franch. var.
crinigerum
- R. iyoense** Nakai =
R. kaempferi Planch.
- R. jahandiezii** H.Lév. =
R. siderophyllum Franch.
- R. jangtzowense** Balf.f. & Forrest =
R. dichroanthum Diels subsp.
apodectum (Balf.f. & W.W.Sm.)
Cowan
- R. japonicum** (A.Gray) J.V.Suringar =
R. molle (Blume) G.Don subsp.
japonicum (A.Gray) Kron
- R. japonicum** (A.Gray) J.V.Suringar
forma aureum E.H.Wilson =
R. molle (Blume) G.Don subsp.
japonicum (A.Gray) Kron
- R. japonicum** (A.Gray) J.V.Suringar
forma canescens (Sugim.) Sugim. =
R. molle (Blume) G.Don subsp.
japonicum (A.Gray) Kron
- R. japonicum** (A.Gray) J.V.Suringar
var. canescens Sugim. =
R. molle (Blume) G.Don subsp.
japonicum (A.Gray) Kron
- R. japonicum** (Blume) C.K.Schneid. =
R. degronianum Carrière var.
heptamerum (Maxim.) Sealy
- R. japonicum** (Blume) C.K.Schneid.
var. pentamerum (Maxim.)
Hutch. =
R. degronianum Carrière subsp.
degronianum
- R. japonoheptamerum** Kitam. =
R. degronianum Carrière var.
heptamerum (Maxim.) Sealy
- R. japonoheptamerum** Kitam. var.
hondoense (Nakai) Kitam. =
R. degronianum Carrière var.
hondoense (Nakai) H.Hara
- R. japonoheptamerum** Kitam. var.
kyomaruense (T.Yamaz) T.Yamaz =
R. degronianum Carrière var.
kyomaruense (T.Yamaz.) H.Hara
- R. jasminiflorum** Sarasin, non Hook. =
R. radians J.J.Sm. var. *minahasae*
Sleumer
- R. jasminiflorum** Hook. var.
maculatum Ridl. =
R. jasminiflorum Hook. var.

- punctatum Ridl.
- R. **jasminiflorum** Koord., non Hook. =
R. citrinum (Hassk.) Hassk. var.
citrinum
- R. **jasminiflorum** Merr., non Hook. =
R. jasminiflorum Hook. var.
oblongifolium Sleumer
- R. **jasminiflorum** Ridl., non Hook. =
R. pneumonanthum Sleumer
- R. **javanicum** C.B. Clarke, non (Blume)
Benn. =
R. robinsonii Ridl.
- R. **javanicum** Koord., non (Blume)
Benn. =
R. celebicum (Blume) DC.
- R. **javanicum** Malm., non (Blume)
Benn. =
R. renschianum Sleumer
- R. **javanicum** Steenis, non (Blume)
Benn. =
R. multicolor Miq.
- R. **javanicum** (Blume) Benn. subsp.
brookeanum (Low ex Lindl.)
Argent & Phillipps =
R. brookeanum Low ex Lindl.
subsp. brookeanum var.
brookeanum
- R. **javanicum** (Blume) Benn. subsp.
cockburnii Argent, A.L. Lamb &
Phillipps =
R. brookeanum Low ex Lindl.
subsp. cockburnii Argent,
A.L. Lamb & Phillipps
- R. **javanicum** (Blume) Benn. subsp.
kinabaluense Argent, A.L. Lamb &
Phillipps =
R. brookeanum Low ex Lindl. var.
kinabaluense (Argent, A.L. Lamb &
Phillipps) Argent
- R. **javanicum** (Blume) Benn. subsp.
gracile (Lindl.) Argent, A.L. Lamb &
Phillipps =
R. brookeanum Low ex Lindl.
subsp. gracile (Lindl.) Argent
- R. **javanicum** (Blume) Benn. subsp.
moultonii (Ridl.) Argent =
R. brookeanum Low ex Lindl. var.
moultonii Ridl.
- R. **javanicum** (Blume) Benn. var.
schadenbergii (Warb.) Sleumer =
R. javanicum (Blume) Benn. subsp.
schadenbergii (Warb.) Argent
- R. **javanicum** (Blume) Benn. var.
tubiflorum Hook.f. =
R. longiflorum Lindl. var.
longiflorum
- R. **jenkinsii** Nutt. =
R. maddenii Hook.f. subsp.
maddenii
- R. **jucundum** Balf.f. & W.W.Sm. =
R. selense Franch. subsp.
jucundum (Balf.f. & W.W.Sm.)
D.F. Chamb.
- R. **kaempferi** Planch. var. **ियोense**
(Nakai) Sugim. =
R. kaempferi Planch.
- R. **kaempferi** Planch. var. **japonicum**
(Maxim.) Rehder =
R. kiusianum Makino var.
kiusianum
- R. **kaempferi** Planch. var. **komatsui**
Nakai =
R. 'Komatsui'
- R. **kaempferi** Planch. var.
lusidusculum (Nakai) Sugim. =
R. kaempferi Planch.
- R. **kaempferi** Planch. var.
macrostemon (Maxim.) Makino =
R. 'Macrostemon'
- R. **kaempferi** Planch. var.
mikawanum Makino =
R. × transiens Nakai
- R. **kaempferi** Planch. var. **plenum**
Nakai =
R. kaempferi Planch. 'Plenum'
- R. **kaempferi** Planch. var. **purpureum**
Nakai =
R. × komatsui T. Yamaz.
- R. **kaempferi** Planch. var. **tubidorum**
Komatsu =
R. kaempferi Planch.
- R. **kalmiaefolium** hort. ex Lavallée =
R. 'Kalmiaefolium'
- R. **kawakamii** Hayata var. **flaviflorum**
Liu & Chuang =
R. kawakamii Hayata
- R. **kedittii** Sleumer =
R. × kedittii (Sleumer) Argent,
A.L. Lamb & Phillipps
- R. **keleticum** Balf.f. & Forrest =
R. calostrotum Balf.f. & Kingdon-
Ward subsp. keleticum (Balf.f. &
Forrest) Cullen
- R. × **kewense** W. Wats. =

- R. Kewense Group
R. keysii Hook.f. var. **unicolor**
Hutch. =
R. keysii Nutt.
R. keysseri Foerster =
R. culminicolum F.Muell. var.
culminicolum
R. kialense Franch. =
R. przewalskii Maxim.
R. kinabaluense Merr. =
R. rugosum Low ex Hook.f. var.
laeve Argent, A.L.Lamb & Phillipps
R. kingdonii Merr. =
R. calostrotum Balf.f. & Kingdon-
Ward subsp. riparium (Kingdon-
Ward) Cullen
R. kjellbergii J.J.Sm. =
R. vanvuurenii J.J.Sm.
R. klossii Ridl. =
R. moumainense Hook.f.
R. komiyamae Makino =
R. tosaense Makino
R. kontumense Sleumer =
R. irroratum Franch. subsp.
kontumense (Sleumer) D.F.Chamb.
R. kotschyi Simonk. =
R. myrtifolium Schott & Kotschy
R. kouytchense H.Lév. =
R. chrysocalyx H.Lév. & Vaniot
R. kwangsiense Hu ex P.C.Tam =
R. mariae Hance subsp.
kwangsiense (P.C.Tam) D.F.Chamb.
& S.J.Rae
R. kwangsiense Hu ex P.C.Tam var.
obovatifolium P.C.Tam =
R. mariae Hance subsp.
kwangsiense (P.C.Tam) D.F.Chamb.
& S.J.Rae
R. kwangsiense Hu ex P.C.Tam var.
salicinum P.C.Tam =
R. mariae Hance subsp.
kwangsiense (P.C.Tam) D.F.Chamb.
& S.J.Rae
R. kwangsiense Hu ex P.C. Tam var.
subfalcatum P.C.Tam =
R. mariae Hance subsp.
kwangsiense (P.C.Tam) D.F.Chamb.
& S.J.Rae
R. lacteum Stapf, non Franch. =
R. stapfianum Hemsl. ex Prain
R. lacteum Franch. var.
macrophyllum Franch. =
R. rex H.Lév. subsp. ficolacteum
(Balf.f.) D.F.Chamb.
R. × laetevirens Rehder =
R. Laetevirens Group
R. laetum J.J.Sm., non J.J.Sm. 1914 =
R. zoelleri Warb.
R. lagopus Nakai var. **tokushimense**
(T.Yamaz.) T.Yamaz. =
R. tsurugisanense (T.Yamaz.)
T.Yamaz. var. tsurugisanense
R. lagopus Nakai var. **tsurugisanense**
(T.Yamaz.) T.Yamaz. =
R. tsurugisanense (T.Yamaz.)
T.Yamaz. var. tsurugisanense
R. lamprophyllum Hayata =
R. ovatum (Lindl.) Maxim.
R. lanatum Hook.f. var. **luciferum**
Cowan =
R. luciferum (Cowan) Cowan
R. lancifolium Hook.f. =
R. barbatum Wall. ex G.Don
R. langbianense A.Chev. ex Dop =
R. irroratum Franch. subsp.
kontumense (Sleumer)
D.F.Chamb.
R. lanigerum Tagg var. **silvaticum**
(Cowan) Davidian =
R. lanigerum Tagg
R. laoticum Dop =
R. moumainense Hook.f.
R. lapidosum T.L.Ming =
R. araiophyllum Balf.f. & W.W.Sm.
subsp. lapidosum (T.L.Ming)
M.Y.Fang
R. lapponicum (L.) Wahlenb. subsp.
parvifolium (Adams) T.Yamaz. =
R. lapponicum (L.) Wahlenb.
R. lapponicum (L.) Wahlenb. var.
alpinum (Glehn) T.Yamaz. =
R. lapponicum (L.) Wahlenb.
R. lateritium Planch. =
R. 'Lateritium'
R. lateritium Planch. var.
brachytrichum Nakai =
R. 'Lateritium'
R. laticostum Ingram =
R. keiskei Miq.
R. latifolium Hoffmanns. =
R. maximum L.
R. latifolium Hoppe =
R. hirsutum L.
R. laureola Schltr. =

List of Synonyms with the Corresponding Accepted Names

- R. dielsianum* Schltr. var. dielsianum
- R. lauterbachianum** Foerster =
R. macgregoriae F.Muell. var. macgregoriae
- R. leachianum** L.F.Henderson =
R. lapponicum (L.) Wahlenb.
- R. leclerei** H.Lév. =
R. rubiginosum Franch. var. rubiginosum
- R. ledifolium** (Hook.f.) G.Don =
R. ripense 'Mucronatum' (Blume) G.Don
- R. ledoides** Balf.f. & W.W.Sm. =
R. trichostomum Franch.
- R. leilungense** Balf.f. & Forrest =
R. tatsienense Franch. var. tatsienense
- R. leiopodium** Hayata =
R. moulmainense Hook.f.
- R. lemeei** H.Lév. =
R. lutescens Franch.
- R. lepidanthum** Balf.f. & W.W.Sm. =
R. primuliflorum Bureau & Franch.
- R. leprosum** Balf.f. =
R. rubiginosum Franch. var. rubiginosum
- R. leptanthum** Hayata =
R. moulmainense Hook.f.
- R. leptocladon** Dop =
R. lyi H.Lév.
- R. leptosanctum** Hayata =
R. moulmainense Hook.f.
- R. leucandrum** H.Lév. =
R. siderophyllum Franch.
- R. leucanthum** Bunge =
R. ripense 'Mucronatum' (Blume) G.Don
- R. leucobotrys** Ridl. =
R. moulmainense Hook.f.
- R. leucolasium** Diels =
R. hunnewellianum Rehder & E.H.Wilson subsp. hunnewellianum
- R. leucopetalum** Balf.f. & Forrest =
R. sanguineum Franch. var. cloiophorum (Balf.f. & Forrest) D.F.Chamb.
- R. limprichtii** Diels =
R. oreodoxa Franch. var. oreodoxa
- R. lindaueanum** Koord. var. cyclopicum Sleumer =
- R. lindaueanum* Koord. var. lindaueanum
- R. lindaueanum** Koord. var. latifolium J.J.Sm. =
R. lindaueanum Koord. var. lindaueanum
- R. lindaueanum** Koord. var. psilacrum Sleumer =
R. lindaueanum Koord. var. lindaueanum
- R. linearifolium** Siebold & Zucc. var. macrosepalum (Maxim.) Makino =
R. stenopetalum (Hogg) Mabb.
- R. linearifolium** Siebold & Zucc. var. macrosepalum (Maxim.) Makino forma rhodoroides (Maxim.) Makino =
R. 'Rhodoroides'
- R. linnaeoides** Schltr. =
R. anagalliflorum Wernham
- R. liratum** Balf.f. & Forrest =
R. dichroanthum Diels subsp. apodectum (Balf.f. & W.W.Sm.) Cowan
- R. liukiense** Komatsu =
R. scabrum G.Don subsp. scabrum
- R. lobbii** hort. ex Veitch =
R. longiflorum Lindl. var. longiflorum
- R. loheri** Copel.f. =
R. leytense Merr. var. loheri (Copel.f.) Sleumer
- R. lomphense** J.J.Sm. var. grandifolium J.J.Sm. =
R. buruense J.J. Sm.
- R. longiflorum** Lindl. var. heusseri J.J.Sm. =
R. jasminiflorum Hook. var. heusseri (J.J.Sm.) Sleumer
- R. longifolium** Nutt. =
R. grande Wight
- R. lophophorum** Balf.f. & Forrest =
R. phaeochrysum Balf.f. & W.W.Sm. var. agglutinatum (Balf.f. & Forrest) D.F.Chamb.
- R. loureirianum** G.Don =
Ardisia loureiriana (G.Don) Merr.
- R. lowii** (Hook.f.) F.Muell. =
R. englerianum Koord.
- R. lowii** hort. =
R. ponticum L.
- R. lucidum** Franch., non Nutt. =

- R. vernicosum Franch.
R. lucidum Nutt. =
R. camelliiflorum Hook.f.
R. lusidusculum Nakai =
R. kaempferi Planch.
R. lussoniense Rendle =
R. vidalii Rolfe
R. luteum (L.) C.K.Schneid. =
R. periclymenoides (Michx.)
Shinners
R. luteum (L.) C.K.Schneid. var.
flammeum (Michx.) C.K.Schneid. =
R. flammeum (Michx.) Sargent
R. luteum Sweet var. **macranthum**
E.H.Wilson =
R. luteum Sweet
R. maboroense Schltr. =
R. baenitzianum Lauterb.
R. mackenzianum Forrest =
R. moulmainense Hook.f.
R. macranthum (Bunge) G.Don =
R. indicum (L.) Sweet
R. macranthum Griff. =
R. maddenii Hook.f. subsp.
maddenii
R. macrocarpos Griff. =
R. dalhousiae Hook.f. var.
dalhousiae
R. macrosepalum Maxim. var.
linearifolium (Siebold & Zucc.)
Makino =
R. stenopetalum (Hogg) Mabb.
R. macrosepalum Maxim. var.
rhodoroides Maxim. =
R. 'Rhodoroides'
R. macrostemon Maxim. =
R. 'Macrostemon'
R. maddenii Hook.f. var. **longiflora**
Watson =
R. maddenii Hook.f. subsp.
maddenii
R. maddenii Hook.f. var. **obtusifolia**
Hutch. =
R. maddenii Hook.f. subsp.
crassum (Franch.) Cullen
R. magnificum Sleumer =
R. thaumasianthum Sleumer
R. mairei H.Lév. =
R. lacteum Franch.
R. malayanum Koord., non Jack =
R. zollingeri J.J.Sm
R. malindangense Merr. =
R. quadrasianum Vidal var.
malindangense (Merr.) Copel.f.
R. mandarinorum Diels =
R. fortunei Lindl. subsp. discolor
(Franch.) D.F.Chamb.
R. × manglesii Veitch =
R. 'Manglesii'
R. manipurense Balf.f. & Watt =
R. maddenii Hook.f. subsp.
crassum (Franch.) Cullen
R. mannophorum Balf.f. & Forrest =
R. sanguineum Franch. var.
didymoides Tagg & Forrest
R. manopeplum Balf.f. & Forrest =
R. esetulosum Balf.f. & Forrest
R. maximum L. var. **album** Pursh =
R. maximum L.
R. maximum L. var. **purpureum**
Pursh =
R. maximum L.
R. mayebarae Nakai var. **obsumiense**
T.Yamaz. =
R. mayebarae Nakai & H.Hara
R. mayrii J.J.Sm. =
R. macgregoriae F.Muell. var.
mayrii (J.J.Sm.) Sleumer
R. medoense W.P.Fang & M.Y.He var.
adenostylum W.P.Fang &
M.Y.He =
R. ngawchangense M.N.Philipson
& Philipson
R. megalostigma F.Muell. =
R. englerianum Koord.
R. megaphyllum Balf.f. & Forrest =
R. basilicum Balf.f. & W.W.Sm.
R. mekongense Franch. var.
melinanthum (Balf.f. & Kingdon-
Ward) Cullen =
R. mekongense Franch. var.
mekongense
R. meridionale P.C.Tam var.
setistylum P.C.Tam =
R. meridionale P.C.Tam var.
meridionale
R. mesopolium Balf.f. & Forrest =
R. eudoxum Balf.f. & Forrest var.
mesopolium (Balf.f. & Forrest)
D.F.Chamb.
R. metrium Balf.f. & Forrest =
R. selense Franch. subsp. selense
R. metternichii Siebold & Zucc. forma
amagianum T.Yamaz. =

- R. *degronianum* Carrière var.
kyomaruense (T.Yamaz.) H.Hara
 forma *amagianum* (T.Yamaz.)
 H.Hara
- R. **metternichii** Siebold & Zucc. forma
angustifolium Makino =
 R. *makinoi* Tagg
- R. **metternichii** Siebold & Zucc. forma
latifolium Sugim. =
 R. *degronianum* Carrière var.
heptamerum (Maxim.) Sealy
- R. **metternichii** Siebold & Zucc. subsp.
pentamerum (Maxim.) Sugim. =
 R. *degronianum* Carrière subsp.
degronianum
- R. **metternichii** Siebold & Zucc. subsp.
yakushmanum (Nakai) Sugim. =
 R. *degronianum* Carrière subsp.
yakushmanum (Nakai) Kitam. var.
yakushmanum
- R. **metternichii** Siebold & Zucc. var.
heptamerum Maxim. =
 R. *degronianum* Carrière var.
heptamerum (Maxim.) Sealy
- R. **metternichii** Siebold & Zucc. var.
hondoense Nakai =
 R. *degronianum* Carrière var.
hondoense (Nakai) H.Hara
- R. **metternichii** Siebold & Zucc. var.
intermedium Sugim. =
 R. *degronianum* Carrière subsp.
yakushmanum (Nakai) H.Hara
 var. *intermedium* (Sugim.) H.Hara
- R. **metternichii** Siebold & Zucc. var.
kyomaruense T.Yamaz. =
 R. *degronianum* Carrière var.
kyomaruense (T.Yamaz.) H.Hara
- R. **metternichii** Siebold & Zucc. var.
micranthum Nakai =
 R. *degronianum* Carrière var.
heptamerum (Maxim.) Sealy
- R. **metternichii** Siebold & Zucc. var.
yakushmanum (Nakai) Ohwi =
 R. *degronianum* Carrière subsp.
yakushmanum (Nakai) Kitam. var.
yakushmanum
- R. **microphyton** Franch. var.
trichanthum A.L.Zhang =
 R. *microphyton* Franch.
- R. **mirabile** Kingdon-Ward =
 R. *genestierianum* Forrest
- R. **missionarum** H.Lév. =
- R. *ciliicalyx* Franch.
- R. **mjobergii** Merr. =
 R. *durionifolium* Becc. var.
durionifolium
- R. **modestum** Hook.f. =
 R. *ciliatum* Hook.f.
- R. **molle** (Blume) G.Don var.
japonicum (A.Gray) Makino =
 R. *molle* (Blume) G.Don subsp.
japonicum (A.Gray) Kron
- R. **mollicomum** Balf.f. & W.W.Sm. var.
rockii Tagg =
 R. *mollicomum* Balf.f. & W.W.Sm.
- R. **mollyanum** Cowan & Davidian =
 R. *montroseanum* Davidian
- R. **mombeigii** Rehder & E.H.Wilson =
 R. *uvariifolium* Diels var.
uvariifolium
- R. **morsheadianum** Millais =
 R. *arboreum* Sm. var. *roseum*
 Lindl. 'Morsheadianum'
- R. **moszkowskii** Schltr. =
 R. *zoelleri* Warb.
- R. **motouense** H.Lév. =
 R. *racemosum* Franch.
- R. **moultonii** Ridl. =
 R. *brookeanum* Low ex Lindl. var.
moultonii (Ridl.) Argent
- R. **mucronulatum** Turcz. var.
albiflorum Nakai =
 R. *mucronulatum* Turcz. var.
mucronulatum
- R. **mucronulatum** Turcz. var.
chejuense Davidian =
 R. *mucronulatum* Turcz. var. *taquetii*
 (H. Lév) Nakai
- R. **mucronulatum** Turcz. var. *ciliatum*
 Nakai =
 R. *mucronulatum* Turcz.
- R. **muliense** Balf.f. & Forrest =
 R. *rupicola* W.W.Sm. var. *muliense*
 (Balf.f. & Forrest) M.N.Philipson &
 Philipson
- R. **multicolor** Miq. var. *curtisii*
 G.Hensl. =
 R. *multicolor* Miq.
- R. **multicolor** Sp.Moore, non Miq. =
 R. *citrinum* (Hassk.) Hassk. var.
discoloratum Sleumer
- R. **murdense** J.J.Sm., non Merr. =
 R. *pseudomurdense* Sleumer
- R. **murdense** Merr. =

- R. crassifolium* Stapf
- R. × myrtifolium** Lodd. =
R. 'Myrtifolium'
- R. myrtilloides** Balf.f. & Kingdon-Ward =
R. campylogynum Franch.
- R. nagasakianum** Nakai =
R. nudipes Nakai var. *nudipes*
- R. nagasakianum** Nakai var. *gracilescens* Nakai =
R. nudipes Nakai var. *nudipes*
- R. nakaii** Komatsu =
R. degronianum Carrière subsp. *degroniianum*
- R. nanothamnum** Balf.f. & Forrest =
R. selense Franch. subsp. *selense*
- R. nanum** H.Lév. =
R. fastigiatum Franch.
- R. narcissiflorum** Planch. =
R. mucronatum (Blume) G.Don var. *mucronatum* 'Narcissiflorum'
- R. nebrites** Balf.f. & Forrest =
R. sanguineum Franch. var. *himertum* (Balf.f. & Forrest) D.F.Chamb.
- R. neglectum** (Ashe) Ashe =
R. atlanticum (Ashe) Rehder
- R. nematocalyx** Balf.f. & W.W.Sm. =
R. moulmainense Hook.f.
- R. nepalense** hort. =
R. arboreum Sm.
- R. neriiflorum** Franch. subsp. *euchaites* (Balf.f. & Forrest) Tagg =
R. neriiflorum Franch. subsp. *neriiflorum*
- R. neriiflorum** Franch. subsp. *phoenicodum* (Balf.f. & Farrer) Tagg =
R. neriiflorum Franch. subsp. *neriiflorum*
- R. neriiflorum** Franch. var. *agetum* (Balf.f. & Forrest) T.L.Ming =
R. neriiflorum Franch. subsp. *agetum* (Balf.f. & Forrest) Tagg
- R. neriiflorum** Franch. var. *phaedropum* (Balf.f. & Farrer) T.L.Ming =
R. neriiflorum Franch. subsp. *phaedropum* (Balf.f. & Farrer) Tagg
- R. nervulosum** Sleumer =
R. × nervulosum Sleumer
- R. nervulosum** Sleumer var. *exuberans* Sleumer =
R. exuberans (Sleumer) Argent
- R. nikoense** (Komatsu) Nakai =
R. pentaphyllum Maxim.
- R. nilagiricum** Zenker =
R. arboreum Sm. subsp. *nilagiricum* (Zenker) Tagg
- R. ningyuenense sensu** Sleumer, non Hand.-Mazz. =
R. irroratum Franch. subsp. *kontumense* (Sleumer) D.F.Chamb.
- R. niphargum** Balf.f. & Kingdon-Ward =
R. uvariifolium Diels var. *uvariifolium*
- R. niphobolium** Balf.f. & Farrer =
R. stewartianum Diels
- R. nishiokae** H.Hara =
R. succothii Davidian
- R. nitens** Sleumer =
R. commonae Foerste
- R. nitidulum** Rehder & E.H.Wilson var. *nubigenum* Rehder & E.H.Wilson =
R. nitidulum Rehder & E.H.Wilson var. *nitidulum*
- R. nitidum** (Pursh) Torr. =
R. viscosum (L.) Torr.
- R. nmaiense** (Hutch. & Kingdon-Ward) = *R. cephalanthum* Franch. subsp. *cephalanthum*
- R. × nobleanum** hort. ex Lindl. =
R. Nobleanum Group
- R. nodosum** C.H.Wright =
R. culminicolum F.Muell. var. *culminicolum*
- R. nubicola** Wernham =
R. culminicolum F.Muell. var. *nubicola* (Wernham) Sleumer
- R. nudiflorum** (L.) Torr. forma *album* Rehder =
R. periclymenoides (Michx.) Shinnery
- R. nudiflorum** (L.) Torr. forma *glanduliferum* (Porter) Fernald =
R. periclymenoides (Michx.) Shinnery
- R. nudiflorum** (L.) Torr. var. *album* (Pursh) C.Mohr =
R. periclymenoides (Michx.) Shinnery
- R. nudiflorum** (L.) Torr. var. *coccineum* (Aiton) Sweet =

- R. flammeum (Michx.) Sargent
R. nudiflorum (L.) Torr. var.
glanduliferum (Porter) Rehder =
 R. periclymenoides (Michx.)
 Shinners
R. nudiflorum (L.) Torr. var.
papilionaceum (Aiton) Zabel =
 R. periclymenoides (Michx.)
 Shinners
R. nudiflorum (L.) Torr. var. *roseum*
 (Loisel.) Weigand =
 R. canescens (Michx.) Sweet
R. nudipes Nakai subsp.
niphophilum T.Yamaz. var.
lagopus (Nakai) T.Yamaz. =
 R. lagopus Nakai var. lagopus
R. nudipes Nakai subsp.
niphophilum T.Yamaz. =
 R. lagopus Nakai var.
niphophilum (T.Yamaz.) T.Yamaz.
R. nudipes Nakai subsp.
yakumontanum T.Yamaz. =
 R. yakumontanum (T.Yamaz.)
 T.Yamaz.
R. nudipes Nakai var. *tokushimense*
 T.Yamaz. =
 R. lagopus Nakai var.
tokushimense (T.Yamaz.) T.Yamaz.
R. nudipes Nakai var. *tsurugisanense*
 T.Yamaz. =
 R. tsurugisanense (T.Yamaz.)
 T.Yamaz. var. tsurugisanense
R. nwaiense hort. =
 R. cephalanthum Franch. subsp.
 cephalanthum
R. oblongum Griff. =
 R. griffithianum Wight
R. obovatum Hook.f. =
 R. lepidotum Wall. ex G.Don
R. obscurinervium Merr. =
 R. brookeanum Low ex Lindl.
 subsp. gracile (Lindl.) Argent
R. obscurum Franch. ex Balf.f. =
 R. siderophyllum Franch.
R. obtusum hort. =
 R. ponticum L.
R. obtusum (Lindl.) Planch. forma
amoenum (Lindl.) E.H.Wilson =
 R. kiusianum Makino 'Amoenum'
R. obtusum (Lindl.) Planch. var.
japonicum (Maxim.) Kitam. =
 R. kiusianum Makino var.
 kiusianum
R. obtusum (Lindl.) Planch. var.
macrogemmum (Nakai) Kitam. =
 R. kaempferi Planch.
R. obtusum (Lindl.) Planch. var.
mikawanum (Makino) T.Yamaz. =
 R. × transiens Nakai
R. obtusum (Lindl.) Planch. var.
saikaiense T.Yamaz. =
 R. kaempferi Planch. var.
saikaiense (T.Yamaz.) T.Yamaz.
R. obtusum (Lindl.) Planch. var.
tosaense (Makino) Kitam. =
 R. tosaense Makino
R. obtusum (Lindl.) Planch. var.
tubiflorum (Komatsu) Yamazaki =
 R. kaempferi Planch. var.
tubiflorum Komatsu
R. occidentale (Torr. & A.Gray)
 A.Gray var. *paludosum* Jepson =
 R. occidentale (Torr. & A.Gray)
 A.Gray
R. occidentale (Torr. & A.Gray)
 A.Gray var. *sonomense* (Greene)
 Rehder =
 R. occidentale (Torr. & A.Gray)
 A.Gray
R. ochrocalyx hort. =
 R. × detonsum Balf.f. & Forrest
R. oldhamii Maxim. var. *glandulosum*
 Hayata =
 R. oldhamii Makino
R. openshawianum Rehder &
 E.H.Wilson =
 R. calophytum Franch. var.
 openshawianum (Rehder &
 E.H.Wilson) D.F.Chamb.
R. oporinum Balf.f. & Kingdon-Ward =
 R. heliolepis Franch. var.
 heliolepis
R. oranum J.J.Sm. =
 R. zoelleri Warb.
R. oreinum Balf.f. =
 R. nivale Hook.f. subsp. boreale
 M.N.Philipson & Philipson
R. oresbium Balf.f. & Kingdon-Ward =
 R. nivale Hook.f. subsp. boreale
 M.N.Philipson & Philipson
R. oresterum Balf.f. & Forrest =
 R. wardii W.W.Sm. var. wardii
R. orion Ridl. =
 R. scortechinii King & Gamble

- R. orion** *Ridl.* var. **aurantiacum** *Ridl.* =
R. longiflorum *Lindl.* var.
longiflorum
- R. × ornatum** *Sweet* =
R. 'Ornatum'
- R. ovatum** (*Lindl.*) *Maxim.* var.
prismatum *P.C.Tam* =
R. ovatum (*Lindl.*) *Makino*
- R. pachyphyllum** *W.P.Fang* =
R. ziyuanense *P.C.Tam* var.
pachyphyllum (*W.P.Fang*) *G.Don*
- R. pagophilum** *Balf.f. & Kingdon-*
Ward =
R. selense *Franch.* subsp. *selense*
- R. palustre** (*L.*) *Kron & Judd* =
R. tomentosum (*Stokes*) *Harmaja*
var. *tomentosum*
- R. palustre** *Turcz.* =
R. lapponicum (*L.*) *Wahlenb.*
- R. pankimense** *Cowan & Kingdon-*
Ward =
R. kendrickii *Nutt.*
- R. panteumorphum** *Balf.f. &*
W.W.Sm. =
R. × erythrocalyx *Balf.f. & Forrest*
- R. papuanum** *C.H.Wright, non Becc.* =
R. giulianettii *Lauterb.*
- R. papyrociliare** *P.C.Tam* =
R. mariae *Hance* subsp. *mariae*
- R. partitum** *J.J.Sm.* =
R. lanceolatum *Ridl.*
- R. parviflorum** *F.Schmidt* =
R. lapponicum (*L.*) *Wahlenb.*
- R. parviflorum** *Dum.Cours.* =
R. ponticum *L.*
- R. parvifolium** *Adams* =
R. lapponicum (*L.*) *Wahlenb.*
- R. parvifolium** *Adams* forma **alpinum**
Glehn=
R. lapponicum (*L.*) *Wahlenb.*
- R. parvifolium** *Adams* var. **alpinum**
(*Glehn*) *Busch* =
R. lapponicum (*L.*) *Wahlenb.*
- R. × pelargoniiflorum** *Van Houtte* =
R. 'Pelargoniaeflorum'
- R. pentamerum** (*Maxim.*) *Matsum.* =
R. degronianum *Carrière* var.
degronianum
- R. pentaphyllum** *Maxim.* var.
nikoense *Komatzu* =
R. pentaphyllum *Maxim.*
- R. periclymenoides** (*Michx.*) *Shinners*
forma **album** (*Aiton*) *C.F.Reed* =
R. periclymenoides (*Michx.*)
Shinners
- R. periclymenoides** (*Michx.*) *Shinners*
forma **eglandulosum** *Seymour* =
R. periclymenoides (*Michx.*)
Shinners
- R. periclymenoides** (*Michx.*) *Shinners*
forma **glanduliferum** (*Porter*)
C.F.Reed =
R. periclymenoides (*Michx.*)
Shinners
- R. persicinum** *Hand.-Mazz.* =
R. anthosphaerum *Diels*
- R. petelotii** *Dop* =
R. tanastylum *Balf.f. & Kingdon-*
Ward var. *pennivenium* (*Balf.f. &*
Forrest) *D.F.Chamb.*
- R. phaedropum** *Balf.f. & Farrer* =
R. neriiflorum *Franch.* subsp.
phaedropum (*Balf.f. & Farrer*) *Tagg*
- R. phaeochitum** (*F.Muell.*) *Wright* =
R. rubellum *Sleumer*
- R. phaeochlorum** *Balf.f. & Forrest* =
R. oreotrepes *W.W.Sm.*
- R. phaeopeplum** *Sleumer* =
R. konori *Becc.* var. *phaeopeplum*
(*Sleumer*) *Argent*
- R. phoeniceum** (*Sweet*) *DC.* =
R. × pulchrum *Sweet*
- R. × phoeniceum** (*Hook.*) *G.Don* =
R. 'Phoeniceum'
- R. phoeniceum** (*Sweet*) *DC.* forma
smithii (*Sweet*) *E.H.Wilson* =
R. × pulchrum *Sweet*
- R. piceum** *P.C.Tam* =
R. florulentum *P.C.Tam*
- R. × pictum** *Forbes* =
R. 'Pictum'
- R. pilicalyx** *Hutch.* =
R. pachypodium *Balf.f. & W.W.Sm.*
- R. pilovittatum** *Balf.f. & W.W.Sm.* =
R. arboreum *Sm.* subsp. *delavayi*
(*Franch.*) *D.F.Chamb.* var. *delavayi*
- R. pittosporaeifolium** *Hemsl.* =
R. stamineum *Franch.* var.
stamineum
- R. planecostatum** *Sleumer* =
R. × planecostatum (*Sleumer*)
Argent, A.L.Lamb & Phillipps
- R. planifolium** *Nutt.* =
R. campanulatum *D.Don*

- R. plebeium** Balf.f. & W.W.Sm. =
R. heliolepis Franch. var.
heliolepis
- R. podocarpoides** Schltr. =
R. purpureiflorum J.J.Sm.
- R. poecilodermum** Balf.f. & Forrest =
R. roxieanum Forrest var.
roxieanum
- R. poilanei** Dop =
R. euonymifolium H.Lév.
- R. polifolium** (L.) Scopoli =
Andromeda polifolia L.
- R. poliopeplum** Balf.f. & Forrest =
R. sanguineum Franch. var.
himertum (Balf.f. & Forrest)
D.F.Chamb.
- R. polyandrum** Hutch. =
R. maddenii Hook.f. subsp.
maddenii
- R. ponticum** (L.) Schreb. ex DC. =
R. luteum Sweet
- R. ponticum** L. subsp. **baeticum**
(Boiss. & Reuter) Hand.-Mazz. =
R. ponticum L.
- R. ponticum** L. var. **brachycarpum**
Boiss. =
R. ponticum L.
- R. ponticum** L. var. **cheiranthifolium**
hort. ex Millais =
R. ponticum L. 'Cheiranthifolium'
- R. porphyroblastum** Balf.f. & Forrest =
R. roxieanum Forrest var.
cucullatum (Hand.-Mazz.)
D.F.Chamb.
- R. porphyrophyllum** Balf.f. &
Forrest =
R. erastum Balf.f. & Forrest
- R. porrosquameum** Balf.f. & Forrest =
R. heliolepis Franch. var.
brevistylum (Franch.) Cullen
- R. pothinum** Balf.f. & Forrest =
R. temenium Balf.f. & Forrest var.
temenium
- R. poukhanense** H.Lév. =
R. yedoense Maxim. var.
poukhanense (H.Lév.) Nakai
- R. poukhanense** H.Lév. forma
acutifolium Komatsu =
R. × transiens Nakai
- R. poukhanense** H.Lév. forma
obtusifolium Komatsu =
R. × transiens Nakai
- R. prasinocalyx** Balf.f. & Forrest =
R. wardii W.W.Sm. var. wardii
- R. primuliflorum** Bureau & Franch.
var. **cephalanthoides** (Balf.f. &
W.W.Sm.) Cowan & Davidian =
R. primuliflorum Bureau & Franch.
- R. primuliflorum** Bureau & Franch.
var. **lepidanthum** (Balf.f. &
W.W.Sm.) Cowan & Davidian =
R. primuliflorum Bureau & Franch.
- R. primulinum** Hemsl. =
R. flavidum Franch. var. flavidum
- R. principis** Bureau & Franch. var.
vellereum (Hutch. ex Tagg)
T.L.Ming =
R. principis Bureau & Franch.
- R. pritzelianum** Diels =
R. micranthum Turcz.
- R. probum** Balf.f. & Forrest =
R. selense Franch. subsp. selense
- R. procumbens** (L.) E.H.L.Krause =
Loiseleuria procumbens (L.) Desv.
- R. prophantum** Balf.f. & Forrest =
R. kyawii Lace & W.W.Sm.
- R. pseudchrysanthum** Hayata forma
rufovelutinum T.Yamaz. =
R. pachysanthum Hayata
- R. pseudchrysanthum** Hayata var.
rufovelutinum (T.Yamaz.)
T.Yamaz. =
R. pachysanthum Hayata
- R. pseudciliicalyx** Hutch. =
R. ciliicalyx Franch.
- R. pseudonitens** Sleumer =
R. commonae Foerster
- R. psilostylum** (Rehder & E.H.Wilson)
Balf.f. =
R. flavidum Franch. var.
psilostylum Rehder & E.H.Wilson
- R. pubigermen** J.J.Sm. var.
banghamiorum J.J.Sm. =
R. banghamiorum (J.J.Sm.)
Sleumer
- R. pubigerum** Balf.f. & Forrest =
R. oreotrepes W.W.Sm.
- R. pulchellum** Salib. =
R. canadense (L.) Torr.
- R. × pulcherrimum** Lindl. =
R. 'Pulcherrimum'
- R. pumilum** Nutt., non Hook.f. =
R. leptocarpum Nutt.
- R. punctatum** Andrews =

- R. minus *Michx.* var. minus
- R. puniceum** *Roxb.* =
R. arboreum *Sm.* subsp. arboreum
- R. purpureum** *Komatsu* =
R. × komatsui *T.Yamaz.*
- R. purpureum** (*Pursh*) *G.Don* =
R. maximum *L.*
- R. purpureum** (*Pursh*) *G.Don* var.
tigrinum *Steudel* =
R. maximum *L.*
- R. purshii** *G.Don* =
R. maximum *L.*
- R. pycnocladum** *Balf.f. & W.W.Sm.* =
R. telmateium *Balf.f. & W.W.Sm.*
- R. quadrasianum** *Vidal* forma
banahaoense *Copel.f.* =
R. quadrasianum *Vidal* var.
rosmarinifolium (*Vidal*) *Copel.f.*
- R. quadrasianum** *Vidal* forma
davaoense *Copel.f.* =
R. quadrasianum *Vidal* var.
davaoense (*Copel.f.*) *Sleumer*
- R. quadrasianum** *Vidal* forma
halconense *Copel.f.* =
R. quadrasianum *Vidal* var.
rosmarinifolium (*Vidal*) *Copel.f.*
- R. quadrasianum** *Vidal* forma
marivelesense *Copel.f.* =
R. quadrasianum *Vidal* var.
marivelesense (*Copel.f.*) *Sleumer*
- R. quadrasianum** *Vidal* forma
monodii *H.J.Lam* =
R. quadrasianum *Vidal* var.
selebicum *J.J.Sm.*
- R. quadrasianum** *Vidal* forma
negrosense *Copel.f.* =
R. quadrasianum *Vidal* var.
davaoense (*Copel.f.*) *Sleumer*
- R. quadrasianum** *Vidal* forma
pulogense *Copel.f.* =
R. quadrasianum *Vidal* var.
rosmarinifolium (*Vidal*) *Copel.f.*
- R. quadrasianum** *Vidal* forma
pulogense *H.J.Lam, non Copel.f.* =
R. cuneifolium *Stapf* var.
cuneifolium
- R. quadrasianum** *Vidal* subsp.
angustissimum (*Sleumer*) *Argent* =
R. borneense (*J.J.Sm.*) *Argent*,
A.L.Lamb & Phillipps subsp.
angustissimum (*Sleumer*) *Argent*
- R. quadrasianum** *Vidal* var.
angustissimum *Sleumer* =
R. borneense (*J.J.Sm.*) *Argent*,
A.L.Lamb & Phillipps subsp.
angustissimum (*Sleumer*) *Argent*
- R. quadrasianum** *Vidal* var.
borneense *J.J.Sm.* =
R. borneense (*J.J.Sm.*) *Argent*,
A.L.Lamb & Phillipps var.
borneense
- R. quadrasianum** *Vidal* var.
cuneifolium (*Stapf*) *Copel.f.* =
R. cuneifolium *Stapf* var.
cuneifolium
- R. quadrasianum** *Vidal* var. **villosum**
J.J.Sm. =
R. borneense (*J.J.Sm.*) *Argent*,
A.L.Lamb & Phillipps subsp.
villosum (*J.J.Sm.*) *Argent*,
A.L.Lamb & Phillipps
- R. quadrasianum** *Vidal* var. **villosum**
J.J.Sm. forma **lutea** *H.J.Lam* =
R. borneense (*J.J.Sm.*) *Argent*,
A.L.Lamb & Phillipps subsp.
villosum (*J.J.Sm.*) *Argent*,
A.L.Lamb & Phillipps
- R. quadrasianum** *Vidal* var. **villosum**
J.J.Sm. forma **rubra** *H.J.Lam* =
R. borneense (*J.J.Sm.*) *Argent*,
A.L.Lamb & Phillipps subsp.
villosum (*J.J.Sm.*) *Argent*,
A.L.Lamb & Phillipps
- R. quinquefolium** *Bisset & S.Moore*
var. **roseum** *Rehder* =
R. pentaphyllum *Maxim.*
- R. racemosum** *Franch.* var. **rigidum**
(*Franch.*) *Rehnelt* =
R. rigidum *Franch.*
- R. radinum** *Balf.f. & W.W.Sm.* =
R. trichostomum *Franch.*
- R. ramentaceum** (*Lindl.*) *Planch.* =
R. 'Album'
- R. randaiense** *Hayata* =
R. rubropilosum *Hayata*
- R. rarosquameum** *Balf.f.* =
R. rigidum *Franch.*
- R. rasile** *Balf.f. & W.W.Sm.* =
R. decorum *Franch.* subsp.
diaprepes (*Balf.f. & W.W.Sm.*)
T.L.Ming
- R. recurvum** *Balf.f. & Forrest* =
R. roxieanum *Forrest* var.
roxieanum

- R. recurvum** *Balf.f. & Forrest var. oreonastes* *Balf.f. & Forrest* =
R. roxieanum *Forrest var. oreonastes* (*Balf.f. & Forrest*)
T.L.Ming
- R. regale** *Balf.f. & Kingdon-Ward* =
R. basilicum *Balf.f. & W.W.Sm.*
- R. reginaldii** *Balf.f.* =
R. oreodoxa *Franch. var. oreodoxa*
- R. repens** *Balf.f. & Forrest* =
R. forrestii *Balf.f. ex Diels* subsp. *forrestii*
- R. repens** *Balf.f. & Forrest var. chamaedoron* *Tagg & Forrest* =
R. chamaethomsonii (*Tagg & Forrest*) *Cowan & Davidian var. chamaedoron* (*Tagg & Forrest*)
D.F.Chamb.
- R. repens** *Balf.f. & Forrest var. chamaethauma* *Tagg* =
R. chamaethomsonii (*Tagg & Forrest*) *Cowan & Davidian var. chamaethauma* (*Tagg*) *Cowan & Davidian*
- R. repens** *Balf.f. & Forrest var. chamaethomsonii* *Tagg & Forrest* =
R. chamaethomsonii (*Tagg & Forrest*) *Cowan & Davidian var. chamaethomsonii*
- R. reticulatum** *D.Don ex G.Don var. bifolium* *T.Yamaz.* =
R. reticulatum *D.Don ex G.Don*
- R. reticulatum** *D.Don ex G.Don var. lagopus* (*Nakai*) *Hatus.* =
R. lagopus *Nakai var. lagopus*
- R. reticulatum** *D.Don ex G.Don var. nudipes* (*Nakai*) *Hatus.* =
R. nudipes *Nakai var. nudipes*
- R. reticulatum** *D.Don ex G.Don var. parvifolium* *T.Yamaz.* =
R. reticulatum *D.Don ex G.Don*
- R. reticulatum** *D.Don ex G.Don var. wadanum* (*Makino*) *Hatus.* =
R. wadanum *Makino*
- R. retusum** *Steenis, non (Blume)* *Benn.* =
R. jasminiflorum *Hook. var. heusseri* (*J.J.Sm.*) *Sleumer*
- R. retusum** *Wernham, non (Blume)* *Benn.* =
R. lindaueanum *Koord. var. lindaueanum*
- R. rhanthum** *Balf.f. & W.W.Sm.* =
R. vernicosum *Franch.*
- R. rhododactylum** *Millais* =
R. wasonii *Hemsl. & E.H.Wilson*
- R. rhodora** *J.F.Gmel. forma albiflora* *E.L.Rand & Redf.* =
R. canadense (*L.*) *Torr.*
- R. rhombicum** *Miq.* =
R. reticulatum *D.Don ex G.Don*
- R. rhombicum** *Miq. var. albiflorum* *Makino* =
R. reticulatum *D.Don ex G.Don*
- R. ripaeicola** *P.C.Tam* =
R. naamkwanense *Merr. var. naamkwanense*
- R. riparium** *Kingdon-Ward* =
R. calostrotum *Balf.f. & Kingdon-Ward* subsp. *riparium* (*Kingdon-Ward*) *Cullen*
- R. rivulare** *Kingdon-Ward* =
R. calostrotum *Balf.f. & Kingdon-Ward* subsp. *riparium* (*Kingdon-Ward*) *Cullen*
- R. rollisonii** *Lindl.* =
R. arboreum
- R. roseotinctum** *Balf.f. & Forrest* =
R. sanguineum *Franch. var. didymoides* *Tagg & Forrest*
- R. roseum** (*Loisel.*) *Rehder* =
R. prinophyllum (*Small*) *Millais*
- R. roseum** (*Loisel.*) *Rehder forma albidum* *Steyerm.* =
R. prinophyllum (*Small*) *Millais*
- R. roseum** (*Loisel.*) *Rehder forma lutescens* *Rehder* =
R. austrinum (*Small*) *Rehder*
- R. roseum** (*Loisel.*) *Rehder forma plenum* *Rehder* =
R. prinophyllum (*Small*) *Millais*
- R. rosmarinifolium** *Dippel* =
R. mucronatum (*Blume*) *G.Don var. mucronatum*
- R. rosmarinifolium** *Vidal* =
R. quadrasianum *Vidal var. rosmarinifolium* (*Vidal*) *Copel.f.*
- R. rosthornii** *Diels* =
R. micranthum *Turcz.*
- R. rotundifolium** *David* =
R. orbiculare *Decne. subsp. orbiculare*
- R. roxieanum** *Forrest var. globigerum* (*Balf.f. & Forrest*) *D.F.Chamb.* =

- R. *alutaceum* Balf.f. & W.W.Sm.
var. *alutaceum*
- R. roylei** Hook.f. =
R. *cinnabarinum* Hook.f. subsp.
cinnabarinum
- R. rubiginosum** Franch. var. *leclerei*
(H.Lév.) R.C.Fang =
R. *rubiginosum* Franch. var.
rubiginosum
- R. rubriflorum** Kingdon-Ward =
R. *campylogynum* Franch.
- R. rubroluteum** Davidian =
R. *viridescens* Hutch.
- R. rubro-punctata** T.L.Ming =
R. *tanastylum* Balf.f. & Kingdon-
Ward var. *lingzhiense* M.Y.Fang
- R. rubro-punctatum** H.Lév. & Vaniot =
R. *siderophyllum* Franch.
- R. rubropunctatum** Hayata =
R. *hyperythrum* Hayata
- R. rufescens** P.C.Tam =
R. *rufulum* P.C.Tam
- R. rufum** Batalin var. *pachysanthum*
(Hayata) S.S.Ying =
R. *pachysanthum* Hayata
- R. rugosum** Sleumer var. *coriifolium*
(Sleumer) Sleumer =
R. × *coriifolium* (Sleumer) Argent,
A.L.Lamb & Phillipps
- R. × russellianum** Sweet =
R. 'Russellianum'
- R. saavedranum** Diels =
R. *beyerinckianum* Koord.
- R. sakawanum** Makino =
R. *reticulatum* D.Don ex G.Don
- R. salicifolium** Blume =
R. *multicolor* Miq.
- R. salignum** Hook.f. =
R. *lepidotum* Wall. ex G.Don
- R. saluenense** Franch. var. *prostratum*
(W.W.Sm.) R.C.Fang =
R. *saluenense* Franch. subsp.
chameunum (Balf.f. & Forrest)
Cullen
- R. sanguineum** Franch. subsp.
aizoides Cowan =
R. *sanguineum* Franch. var.
himertum (Balf.f. & Forrest)
D.F.Chamb.
- R. sanguineum** Franch. subsp.
atrorubrum Cowan =
R. *sanguineum* Franch. aff. var.
haemaleum (Balf.f. & Forrest)
D.F.Chamb.
- R. sanguineum** Franch. subsp.
cloiophorum (Balf.f. & Forrest)
Cowan =
R. *sanguineum* Franch. var.
cloiophorum (Balf.f. & Forrest)
D.F.Chamb.
- R. sanguineum** Franch. subsp.
consanguineum Cowan =
R. *sanguineum* Franch. var.
didymoides Tagg & Forrest
- R. sanguineum** Franch. subsp.
didymoides (Tagg & Forrest)
Cowan =
R. *sanguineum* Franch. var.
didymoides Tagg & Forrest
- R. sanguineum** Franch. subsp.
haemaleum (Balf.f. & Forrest)
Cowan =
R. *sanguineum* Franch. var.
haemaleum (Balf.f. & Forrest)
D.F.Chamb.
- R. sanguineum** Franch. subsp.
himertum (Balf.f. & Forrest)
Cowan =
R. *sanguineum* Franch. var.
himertum (Balf.f. & Forrest)
D.F.Chamb.
- R. sanguineum** Franch. subsp.
leucopetalum (Balf.f. & Forrest)
Cowan =
R. *sanguineum* Franch. var.
cloiophorum (Balf.f. & Forrest)
D.F.Chamb.
- R. sanguineum** Franch. subsp.
melleum Cowan =
R. *sanguineum* Franch. var.
himertum (Balf.f. & Forrest)
D.F.Chamb.
- R. sanguineum** Franch. subsp.
mesaeum Balf.f. ex Cowan =
R. *sanguineum* Franch. var.
haemaleum (Balf.f. & Forrest)
D.F.Chamb.
- R. sanguineum** Franch. subsp.
roseotinctum (Tagg & Forrest)
Cowan =
R. *sanguineum* Franch. var.
didymoides Tagg & Forrest
- R. sanguineum** Franch. subsp.
sanguineoides Cowan =

- R. sanguineum Franch. var. sanguineum
- R. sanguineum Franch. var. didymum** (Balf.f. & Forrest) T.L.Ming =
R. sanguineum Franch. subsp. didymum (Balf.f. & Forrest) Cowan
- R. sarasinorum Warb. =**
R. javanicum (Blume) Benn. subsp. schadenbergii (Warb.) Argent
- R. saravanense Dop =**
R. lyi H.Lév.
- R. saruwagedicum Foerste var. alpinum Foerste =**
R. saruwagedicum Foerste
- R. sasakii E.H.Wilson =**
R. lasiostylum Hayata
- R. sataense Nakai =**
R. kiusianum Makino var. sataense (Nakai) D.F.Chamb. & S.J.Rae
- R. scabrum G.Don forma linearisepalum Sugim. =**
R. scabrum G.Don subsp. scabrum
- R. scabrum G.Don var. kaempferi** (Planch.) Nakai =
R. kaempferi Planch.
- R. schadenbergii Merr., non Warb. =**
R. williamsii Merr. ex Copel.f.
- R. schadenbergii Warb. =**
R. javanicum (Blume) Benn. subsp. schadenbergii (Warb.) Argent
- R. schlippenbachii Maxim. forma albiflorum Y.N.Lee =**
R. schlippenbachii Makino
- R. schultzei Schltr. =**
R. beyerinckianum Koord.
- R. sciaphilum Balf.f. & Kingdon-Ward =**
R. edgeworthii Hook.f.
- R. scintillans Balf.f. & W.W.Sm. =**
R. polycladum Franch.
- R. sclerocladum Balf.f. & Forrest =**
R. cuneatum W.W.Sm.
- R. scyphocalyx Balf.f. & Forrest var. septentrionale Tagg ex Davidian =**
R. dichroanthum Diels subsp. septentrionale Cowan
- R. selense Franch. subsp. axium** (Balf.f. & Forrest) Tagg =
R. selense Franch. subsp. selense
- R. selense Franch. subsp. chalarocladum** (Balf.f. & Forrest) Tagg =
- R. selense Franch. subsp. selense
- R. selense Franch. subsp. dolerum** (Balf.f. & Forrest) Tagg =
R. selense Franch. subsp. dasycladum (Balf.f. & W.W.Sm.) D.F.Chamb.
- R. selense Franch. subsp. duseimatatum** (Balf.f. & Forrest) Tagg =
R. calvescens Balf.f. & Forrest var. duseimatatum (Balf.f. & Forrest) D.F.Chamb.
- R. selense Franch. subsp. metrium** (Balf.f. & Forrest) Tagg =
R. selense Franch. subsp. selense
- R. selense Franch. subsp. nanothamnum** (Balf.f. & Forrest) Tagg =
R. selense Franch. subsp. selense
- R. selense Franch. subsp. pagophilum** (Balf.f. & Kingdon-Ward) Tagg =
R. selense Franch. subsp. selense
- R. selense Franch. subsp. probum** (Balf.f. & Forrest) Tagg =
R. selense Franch. subsp. selense
- R. selense Franch. var. dasycladum** (Balf.f. & Forrest) T.L.Ming =
R. selense Franch. subsp. dasycladum (Balf.f. & W.W.Sm.) D.F.Chamb.
- R. selense Franch. var. duseimatatum** (Balf.f. & Forrest) Cowan & Davidian =
R. calvescens Balf.f. & Forrest var. duseimatatum (Balf.f. & Forrest) D.F.Chamb.
- R. selense Franch. var. jucundum** (Balf.f. & W.W.Sm.) T.L.Ming =
R. selense Franch. subsp. jucundum (Balf.f. & W.W.Sm.) D.F.Chamb.
- R. selense Franch. var. pagophilum** (Balf.f. & Kingdon-Ward) Cowan & Davidian =
R. selense Franch. subsp. selense
- R. selense Franch. var. probum** (Balf.f. & Forrest) Cowan & Davidian =
R. selense Franch. subsp. selense
- R. semilunatum Balf.f. & Forrest =**
R. mekongense Franch. var. mekongense
- R. semnum Balf.f. & Forrest =**
R. praestans Balf.f. & W.W.Sm.

- R. serpens** Balf.f. & Forrest =
R. erastum Balf.f. & Forrest
- R. serpyllifolium** (A.Gray) Miq. **forma album** T.Yamaz. =
R. serpyllifolium (A.Gray) Miq.
- R. serpyllifolium** (A.Gray) Miq. **var. albiflorum** Makino =
R. serpyllifolium (A.Gray) Miq.
- R. serrulatum** (Small) Millais **forma molliculum** Rehder =
R. viscosum (L.) Torr.
- R. serrulatum** (Small) Millais **var. georgianum** Rehder =
R. viscosum (L.) Torr.
- R. × sesterianum** Nicholson =
R. 'Sesterianum'
- R. setiferum** Balf.f. & Forrest =
R. selense Franch. subsp. setiferum (Balf.f. & Forrest) D.F.Chamb.
- R. sheilae** Sleumer =
R. × sheilae (Sleumer) Argent, A.L.Lamb & Phillipps
- R. sheltoniae** Hemsl. & E.H.Wilson =
R. vernicosum Franch.
- R. shimidzuenum** Honda ex Makino =
R. kiyosumense (Makino) Makino
- R. shojoense** Hayata =
R. mariesii Hemsl. & E.H.Wilson
- R. siamensis** Diels =
R. moulmainsense Hook.f.
- R. sieboldii** Miq. =
R. kaempferi Planch.
- R. sieboldii** Miq. **var. serrulatum** Miq. =
R. indicum (L.) Sweet
- R. sigillatum** Balf.f. & Forrest =
R. phaeochrysum Balf.f. & W.W.Sm. var. levistratum (Balf.f. & Forrest) D.F.Chamb.
- R. silvaticum** Cowan =
R. lanigerum Tagg
- R. simiarum** Hance **subsp. youngae** (W.P.Fang) D.F.Chamb. =
R. adenopodum Franch.
- R. simsii** Planch. **var. yakuinsulare** (Mazam.) T.Yamaz. =
R. scabrum G.Don subsp. scabrum
- R. simulans** (Tagg & Forrest) D.F.Chamb., non Sleumer =
R. mimetes Tagg & Forrest var. simulans Tagg & Forrest
- R. simulans** J.J.Sm. ex H.J.Lam =
R. simulans Sleumer
- R. sinense** (Lodd.) Sweet =
R. molle (Blume) G.Don subsp. japonicum (A.Gray) Kron
- R. sinense** (Lodd.) Sweet **var. rosea** Ito =
R. molle (Blume) G.Don subsp. japonicum (A.Gray) Kron
- R. sinogrande** Balf.f. & W.W.Sm. **var. boreale** Tagg & Forrest =
R. sinogrande Balf.f. & W.W.Sm.
- R. sinolepidotum** Balf.f. =
R. lepidotum Wall. ex G.Don
- R. sino-vaccinioides** Balf.f. & Forrest =
R. vaccinioides Hook.f.
- R. sleumeri** A.Gilli =
R. blackii Sleumer
- R. smilesii** Hutch. =
R. veitchianum Hook.f.
- R. sonomense** Greene =
R. occidentale (Torr. & A.Gray) A.Gray
- R. sordidum** Hutch. =
R. pruniflorum Hutch. & Kingdon-Ward
- R. spadiceum** P.C.Tam =
R. rufulum P.C.Tam
- R. sparsiflorum** Nutt. =
R. camelliiflorum Hook.f.
- R. speciosum** (Willd.) Sweet **var. major** Sweet =
R. calendulaceum (Michx.) Torr.
- R. spectabile** Merr. =
R. javanicum (Blume) Benn. subsp. schadenbergii (Warb.) Argent
- R. sphaeranthum** Balf.f. & W.W.Sm. =
R. trichostomum Franch.
- R. spiciferum** Franch. =
R. scabrifolium Franch. var. spiciferum (Franch.) Cullen
- R. spinigerum** H.Lév. =
R. chrysocalyx H.Lév. & Vaniot
- R. × spinulosum** hort. =
R. Spinulosum g. 'Spinulosum'
- R. spodopeplum** Balf.f. & Farrer =
R. tephropeplum Balf.f. & Farrer
- R. spooneri** Hemsl. & E.H.Wilson =
R. decorum Franch. subsp. decorum
- R. × standishii** Paxton =
R. 'Standishii'

List of Synonyms with the Corresponding Accepted Names

- R. stenophyllum** Hook.f. ex Stapf var. **angustifolium** J.J.Sm. =
R. stenophyllum Hook.f. ex Stapf subsp. *angustifolium* (J.J.Sm.) Argent, A.L.Lamb & Phillipps
- R. stenophyllum** Makino =
R. makinoi
- R. stenoplastum** Balf.f. & Forrest =
R. rubiginosum Franch. var. *rubiginosum*
- R. stereophyllum** Balf.f. & W.W.Sm. =
R. tatsienense Franch. var. *tatsienense*
- R. stewartianum** Diels var. **aiolosalpinx** (Balf.f. & Farrer) Cowan & Davidian =
R. stewartianum Diels
- R. stewartianum** Diels var. **tantulum** Cowan & Davidian =
R. stewartianum Diels
- R. stonori** Sleumer =
R. commoneae Foerste
- R. subarcticum** Harmaja =
R. tomentosum (Stokes) Harmaja var. *subarcticum* (Harmaja) G.Wallace
- R. subcordatum** Becc. =
R. longiflorum Lindl. var. *subcordatum* (Becc.) Argent
- R. subnerve** P.C.Tam var. **nudistylum** P.C.Tam =
R. tsoi Merr.
- R. suberosum** Balf.f. & Forrest =
R. yunnanense Franch.
- R. sublanceolatum** Miq. =
R. scabrum G.Don subsp. *scabrum*
- R. sublateritium** Komatsu =
R. scabrum G.Don subsp. *scabrum*
- R. subnikomontanum** Sato & T.Suzuki =
R. keiskei Miq.
- R. subpacificum** Sleumer =
R. loranthiflorum Sleumer
- R. surugaense** Sugim. ex Kurata =
R. tosaense Makino
- R. sutchuenense** Franch. var. **geraldii** Hutch. =
R. × geraldii Ivens
- R. sycnanthum** Balf.f. & W.W.Sm. =
R. rigidum Franch.
- R. syncollum** Balf.f. & Forrest =
R. phaeochrysum Balf.f. & W.W.Sm. var. *agglutinatum* (Balf.f. & Forrest) D.F.Chamb.
- R. taiwanianum** S.S.Ying =
R. kawakamii Hayata
- R. tamaense** Davidian =
R. cinnabarinum Hook.f. subsp. *tamaense* (Davidian) Cullen
- R. tanakae** (Maxim.) Ohwi =
R. tsusiophyllum Sugim.
- R. tanakai** Hayata =
R. moulmainense Hook.f.
- R. tapeinum** Balf.f. & Farrer =
R. megeratum Balf.f.
- R. tapelouense** H.Lév. =
R. tatsienense Franch. var. *tatsienense*
- R. taquetii** H.Lév. =
R. mucronulatum Turcz. var. *taquetii* (H.Lév.) Nakai
- R. tawadae** (Ohwi) Ohwi =
R. eriocarpum (Hayata) Nakai
- R. tawangense** K.C.Sahni & H.B.Naithani =
R. neriiflorum Franch. subsp. *phaedropum* (Balf.f. & Farrer) Tagg
- R. taylori** Veitch =
R. 'Taylorii'
- R. × tebotan** Komatzu =
R. 'Tebotan'
- R. tectum** Koidz. =
R. × transiens Nakai
- R. tectum** Koidz. var. **purpureum** (Komatsu) H.Hara =
R. × komatsui T.Yamaz.
- R. temenium** Balf.f. & Forrest subsp. **albipetalum** Cowan =
R. eudoxum Balf.f. & Forrest var. *eudoxum*
- R. temenium** Balf.f. & Forrest subsp. **dealbatum** Cowan =
R. temenium Balf.f. & Forrest var. *dealbatum* (Cowan) D.F.Chamb.
- R. temenium** Balf.f. & Forrest subsp. **gilvum** Cowan =
R. temenium Balf.f. & Forrest var. *gilvum* (Cowan) D.F.Chamb.
- R. temenium** Balf.f. & Forrest subsp. **glaphyrum** (Balf.f. & Forrest) Cowan =
R. temenium Balf.f. & Forrest var. *dealbatum* (Cowan) D.F.Chamb.
- R. temenium** Balf.f. & Forrest subsp.

- pothinum** (Balf.f. & Forrest)
Cowan =
R. temenium Balf.f. & Forrest var.
temenium
- R. temenium** Balf.f. & Forrest **subsp.**
rhodanthum Cowan =
R. eudoxum Balf.f. & Forrest var.
eudoxum
- R. tenue** Ching ex W.P.Fang &
M.Y.He =
R. fuchsiifolium H.Lév.
- R. tetramerum** (Makino) Nakai =
R. tschonoskyi Maxim. var.
tschonoskyi
- R. teysmannii** Henders, non Miq. =
R. robinsonii Ridl.
- R. teysmannii** Miq. =
R. javanicum (Blume) Benn. var.
teysmannii (Miq.) K. & G.
- R. theiochrom** Balf.f. & W.W.Sm. =
R. sulfureum Franch.
- R. theiophyllum** Balf.f. & Forrest =
R. phaeochrysum Balf.f. &
W.W.Sm. var. levistratum (Balf.f. &
Forrest) D.F.Chamb.
- R. thibaudense** hort. ex Dombr. =
R. cinnabarinum Hook.f.
- R. thomsonii** Hook.f. **subsp.**
candelabrum (Hook.f.)
D.F.Chamb. =
R. × candelabrum Hook.f.
- R. thomsonii** Hook.f. **var.**
candelabrum (Hook.f.)
C.B.Clarke =
R. × candelabrum Hook.f.
- R. thomsonii** Hook.f. **var.**
cyanocarpum Franch. =
R. cyanocarpum (Franch.)
W.W.Sm.
- R. thomsonii** Hook.f. **var.**
lopsangianum (Cowan) T.L.Ming =
R. thomsonii Hook.f. subsp.
lopsangianum (Cowan) D.F.Chamb.
- R. thomsonii** Hook.f. **var.** **pallidum**
Cowan =
R. × candelabrum Hook.f.
- R. thunbergii** Planch. =
R. Obtusum Group
- R. thyodocum** Balf.f. & Cooper =
R. baileyi Balf.f.
- R. timeteum** Balf.f. & Forrest =
R. oreotrepes W.W.Sm.
- R. tingwuense** P.C.Tam =
R. tsoi Merr.
- R. × torlonianum** hort. ex Lavallée =
R. 'Torlonianum'
- R. torquatum** Balf.f. & Farrer =
R. dichroanthum Diels subsp.
scyphocalyx (Balf.f. & Forrest)
Cowan
- R. torricellense** Schltr. =
R. macgregoriae F.Muell. var.
glabrifilum (J.J.Sm.) Sleumer
- R. tovernae** F.Muell. =
R. konori Becc. var. konori
- R. trichanthum** Sleumer =
R. pseudotranchanthum Sleumer
- R. trichocalyx** Ingram =
R. keiskei Miq.
- R. trichocladum** Franch. **subsp.**
nepalense H.Hara [synonym] =
R. mekongense Franch. var.
mekongense
- R. trichopodum** Balf.f. & Forrest =
R. oreotrepes W.W.Sm.
- R. trichostomum** Franch. **var.**
hedyosmum (Balf.f.) Cowan &
Davidian =
R. hedyosmum Balf.f.
- R. trichostomum** Franch. **var.**
ledoides (Balf.f. & W.W.Sm.)
Cowan & Davidian =
R. trichostomum Franch.
- R. trichostomum** Franch. **var.**
radinum (Balf.f. & W.W.Sm.)
Cowan & Davidian =
R. trichostomum Franch.
- R. triflorum** Hook.f. **var.** **mahagoni**
Hutch. =
R. triflorum Hook.f. subsp.
triflorum
- R. trinerve** Franch. =
R. tschonoskyi Maxim. var.
trinerve (Franch.) Makino
- R. truncatulum** Balf.f. & Forrest =
R. × erythrocalyx Balf.f. & Forrest
- R. tsangpoense** Kingdon-Ward =
R. charitopes Balf.f. & Farrer
subsp. tsangpoense (Kingdon-
Ward) Cullen
- R. tsangpoense** Kingdon-Ward **var.**
pruniflorum (Hutch.) Cowan &
Davidian =
R. pruniflorum Hutch. & Kingdon-

List of Synonyms with the Corresponding Accepted Names

Ward

- R. tsarongense** Balf.f. & Forrest =
R. primuliflorum Bureau & Franch.
- R. tschonoskyi** Maxim. **forma tetramerum** Makino =
R. tschonoskyi Maxim. var. tschonoskyi
- R. tschonoskyi** Maxim. **var. tetramerum** Komatsu =
R. tschonoskyi Maxim. var. tschonoskyi
- R. tubiflorum** DC. =
R. malayanum Jack var. malayanum
- R. tubiflorum** Low ex Lindl. =
R. longiflorum Lindl. var. longiflorum
- R. tubiflorum** Mor., non Blume =
R. zollingeri J.J.Sm.
- R. tubiflorum** Reinw. =
R. malayanum Jack var. malayanum
- R. uliginosum** J.J.Sm. =
R. laetum J.J.Sm.
- R. umbelliferum** H.Lév. =
R. mariesii Hemsl. & E.H.Wilson
- R. undulatalyx** J.J.Sm. =
R. arfakianum Becc.
- R. undulatum** Sweet ex Steudel =
R. arboreum Sm.
- R. valentinianum** Forrest ex Hutch. **var. changii** W.P.Fang =
R. changii (W.P.Fang) W.P.Fang
- R. vandeursenii** Sleumer =
R. vitis-idaea Sleumer
- R. vaniotii** H.Lév. =
R. esquirolii H.Lév.
- R. vaseyi** A.Gray **forma album** (Bean) Rehder =
R. vaseyi A.Gray
- R. vaseyi** A.Gray **var. album** Bean =
R. vaseyi A.Gray
- R. velutinum** Becc. =
R. verticillatum Low ex Lindl. **forma velutinum** (Becc.) Sleumer
- R. venustum** Salisb. =
R. periclymenoides (Michx.) Shinnors
- R. versicolor** Chun & W.P.Fang =
R. simiarum Hance var. versicolor (Chun & W.P.Fang) M.Y.Fang
- R. verticillatum** Koord., non Low =
R. radians J.J.Sm. var. minahasae Sleumer
- R. verticillatum** Becc., non Low ex Lindl. =
R. jasminiflorum Hook. var. oblongifolium Sleumer
- R. verticillatum** Low ex Hook.f. =
R. buxifolium Low ex Hook.f., non Low ex Lindl.
- R. verticillatum** Vidal, non Low ex Lindl. =
R. vidalii Rolfe
- R. viburnifolium** W.P.Fang =
R. simsii Planch. var. simsii
- R. vicarium** Balf.f. =
R. nivale Hook.f. subsp. boreale M.N.Philipson & Philipson
- R. vicinum** Balf.f. & Forrest =
R. phaeochrysum Balf.f. & W.W.Sm. var. levistratum (Balf.f. & Forrest) D.F.Chamb.
- R. × victorianum** Cuvelier =
R. 'Victorianum'
- R. villosum** Hemsl. & E.H.Wilson =
R. trichanthum Rehder
- R. viscistylum** Nakai **var. amakusaense** T.Yamaz. =
R. amakusaense (Takada ex T.Yamaz.) T.Yamaz.
- R. viscistylum** Nakai **var. glaucum** (Hatus.) Sugim. =
R. osuzuyamense T.Yamaz.
- R. viscistylum** Nakai **var. hyugaense** T.Yamaz. =
R. hyugaense (T.Yamaz.) T.Yamaz.
- R. × viscosepalum** Rehder =
R. 'Viscosepalum'
- R. viscosum** (L.) Torr. **forma coerulescens** Rehder =
R. viscosum (L.) Torr.
- R. viscosum** (L.) Torr. **forma glaucum** Fernald =
R. viscosum (L.) Torr.
- R. viscosum** (L.) Torr. **forma hispidum** (Pursh) Voss =
R. viscosum (L.) Torr.
- R. viscosum** (L.) Torr. **forma rhodanthum** Rehder =
R. viscosum (L.) Torr.
- R. viscosum** (L.) Torr. **forma roseum** Hollick =
R. viscosum (L.) Torr.

- R. viscosum** (L.) Torr. **forma rubescens** (Lodd.) Torr. =
R. viscosum (L.) Torr.
- R. viscosum** (L.) Torr. **var. aemulans** Rehder =
R. viscosum (L.) Torr.
- R. viscosum** (L.) Torr. **var. glaucum** (Michx.) Torr. =
R. viscosum (L.) Torr.
- R. viscosum** (L.) Torr. **var. hispidum** (Pursh) Rehder =
R. viscosum (L.) Torr.
- R. viscosum** (L.) Torr. **var. montanum** Rehder =
R. viscosum (L.) Torr.
- R. viscosum** (L.) Torr. **var. nitidum** (Pursh) A.Gray =
R. viscosum (L.) Torr.
- R. viscosum** (L.) Torr. **var. rubescens** (Lodd.) Sweet =
R. viscosum (L.) Torr.
- R. viscosum** (L.) Torr. **var. serrulatum** (Small) Ahles =
R. viscosum (L.) Torr.
- R. viscosum** (L.) Torr. **var. tomentosum** Rehder =
R. viscosum (L.) Torr.
- R. vittatum** Planch. =
R. 'Vittatum'
- R. vittatum** Planch. **var. punctatum** Planch. =
R. 'Vittatum'
- R. vonroemeri** Koord. =
R. macgregoriae F.Muell. var. macgregoriae
- R. wadanum** Makino var. lagopus (Nakai) H.Hara =
R. lagopus Nakai var. lagopus
- R. wadanum** Makino var. leucanthum Makino =
R. wadanum Makino
- R. warianum** Schltr. =
R. leptanthum F.Muell. var. warianum (Schltr.) Argent
- R. warrenii** (A.Nelson) Macbr. =
R. albiflorum Hook. var. warrenii (A.Nelson) M.A.Lane
- R. washingtonianum** hort. =
R. macrophyllum D.Don ex G.Don
- R. × wellesleyanum** Waterer ex Rehder =
R. 'Wellesleyanum'
- R. weyrichii** Maxim. **var. amagianum** (Makino) Hatus. =
R. amagianum (Makino) Makino ex H.Hara
- R. weyrichii** Maxim. **var. sanctum** (Nakai) Hatus. =
R. sanctum Nakai
- R. willmottiae** hort. =
R. hanceanum Hemsl.
- R. × wilsoni** Nutt. ex Hook.f. =
R. Wilsoni Group
- R. wilsoniae** Hemsl. & E.H.Wilson **var. ionanthum** W.P.Fang =
R. latoucheae Franch. var. ionanthum (W.P.Fang) G.Z.Li
- R. wilsoniae** Hemsl. & E.H.Wilson **var. wilsoniae** =
R. latoucheae Franch. var. latoucheae
- R. windsorii** Nutt. =
R. arboreum Sm. subsp. arboreum
- R. wollastonii** Wernham =
R. wentianum Koord.
- R. wrayi** King & Gamble **var. ellipticum** Ridl. =
R. wrayi King & Gamble
- R. wrayi** King & Gamble **var. minor** Ridl. =
R. wrayi King & Gamble
- R. wrightianum** Koord. **var. piliferum** J.J.Sm. =
R. papuanum Becc.
- R. xanthinum** Balf.f. & W.W.Sm. =
R. trichocladum Franch. var. trichocladum
- R. xanthoneuron** H.Lév. =
R. denudatum H.Lév.
- R. xiushanense** W.P.Fang =
R. chrysocalyx H.Lév. & Vaniot var. xiushanense (W.P.Fang) M.Y.He
- R. yakumontanum** Masam. =
R. nudipes Nakai var. nudipes
- R. yakushmanum** Nakai **var. intermedium** (Sugim.) T.Yamaz. =
R. degronianum Carrière var. intermedium (Sugim.) H.Hara
- R. yanthinum** Bureau & Franch. =
R. concinnum Hemsl.
- R. yanthinum** Bureau & Franch. **var.**

lepidanthum *Rehder &*

E.H.Wilson =

R. concinnum *Hemsl.*

R. yaragongense *Balf.f.* =

R. nivale *Hook.f.* subsp. *boreale*

M.N.Philipson & Philipson

R. yedoense *Maxim. var.*

hallaisanense (*H.Lév.*)

T.Yamaz. =

R. yedoense *Maxim. var.*

poukhanense (*H.Lév.*) *Nakai*

R. yedoense *Maxim. f. poukhanense*

(*H.Lév.*) *Sugim.*

R. yedoense *Maxim. var.*

poukhanense (*H.Lév.*) *Nakai*

R. zippelii *Blume* =

R. citrinum (*Hassk.*) *Hassk. var.*

citrinum

R. zollingeri *J.J.Sm. var. latifolium*

J.J.Sm. =

R. zollingeri *J.J.Sm.*

Rhodora

R. canadensis *L.* =

R. canadense (*L.*) *Torr.*

R. camschaticum (*Pall.*) *Lindl.* =

R. camtschaticum *Pall. subsp.*

camtschaticum

Therorhodium

T. camschaticum (*Pall.*) *Small* =

R. camtschaticum *Pall. subsp.*

camtschaticum

T. glandulosum *Small* =

R. camtschaticum *Pall. subsp.*

glandulosum (*Small*) *Hultén*

T. redowskianum (*Maxim.*) *Hutch.* =

R. redowskianum *Maxim.*

Tsusiophyllum

T. tanakae *Maxim.* =

R. tsusiophyllum *Sugim.*

Vireya

V. alba (*Blume*) *Blume* =

R. album *Blume*

V. celebica *Blume* =

R. celebicum (*Blume*)

V. javanica *Blume* =

R. javanicum (*Blume*) *Benn. subsp.*

javanicum var. javanicum

V. retusa *Blume* =

R. retusum (*Blume*) *Benn. var.*

retusum

V. tubiflora *Blume* =

R. malayanum *Jack var.*

malayanum

The Temperate *Rhododendrons* (excl. Section *Vireya*)

D.F. Chamberlain

Introduction

Since 1980 there has been a flood of new taxa (species, subspecies and varieties) described in *Rhododendron* by Chinese and Japanese authors, reflecting the considerable amount of material that has been collected recently in the field. The specimens on which these new taxa are based have not always been available for the research on which the accounts presented here are based. As a result, a significant proportion have not been fully assessed. Where there is any doubt the names have been accepted and included under the subsections and sections to which they have been assigned. However, it is not always clear whether any plants that are in cultivation are referable to these new species.

Group Names

The 1980 edition of the *Rhododendron Handbook* marked the transition from the Balfourian classification (based on series and subseries) to the Chamberlain & Cullen classification based on Sleumer's proposals (using subgenera, sections and subsections). As a result, a significant number of species names for entities recognized in cultivation but not maintained for plants in the wild were in danger of being lost. A proposal was therefore made that these could be maintained as group names (now termed cultivar-groups) until such time as they could be assessed and either discarded completely or given formal recognition. Some of these entities represent no more than selections from wild populations that merge with the species under which they are described.

While it is not the intention to provide

accounts of cultivars or cultivar-groups in this account, it is nevertheless recognized that some of these entities may be relevant in cultivation. It may therefore be appropriate to provide names for some of these. In a few instances the entities are not known in the wild; provision of formal species, subspecies or varietal names is then inappropriate. In the most extreme cases the name used to refer to plants in cultivation applies to a perfectly distinct and different entity for technical reasons. Continuation of the use of such names (e.g. *R. cubittii*) is actually confusing and is not to be advised.

The list that follows includes those groups that were listed in the 1980 Handbook with a statement, where possible, as to their proposed treatment.

***R. annae* Laxiflorum Group** - the distinctions between *R. annae* and *R. laxiflorum* are very slight. As *R. annae* in the strict sense has been recently introduced into cultivation the validity of these differences should soon become clear.

***R. arboreum* var. *cinnamomeum* Campbelliae Group** - Plants belonging to this group are distinguished from *R. arboreum* var. *roseum* by the colour of the indumentum on the under surface of the leaves. Wild populations of this taxon are variable, sometimes containing 'Campbelliae' forms next to typical var. *roseum*. If these forms require a name in cultivation then the Campbelliae Group is available.

***R. argyrophyllum* subsp. *argyrophyllum* Cupulare Group** - the status of the Cupulare Group, with pink cup-

shaped flowers requires further study.

R. boothii Mishmiense Group - very little material of *R. boothii* is available, either as preserved or as live specimens. It is therefore not possible to be certain whether or not the range of variation is continuous between *R. boothii*, with unspotted corollas and bristly flower stalks and *R. mishmiense*, in which the flowers are strongly spotted and the flower stalks densely woolly. If a name is required for this group then *R. mishmiense* is available.

R. calostrotum subsp. keleticum Radicans Group - *R. radicans* is no more than an extremely dwarf form of subsp. *keleticum* and does not merit formal taxonomic status.

R. campylocarpum subsp. caloxanthum Telozeum Group - there is no clear cut boundary between *R. telozeum* and subsp. *caloxanthum*, though the former generally has smaller leaves; it is therefore not recognized in this treatment.

R. campylocarpum subsp. campylocarpum Elatum Group - this is an entity that is not known to me.

R. campylogynum Celsum Group, Charozeum Group, Cremastum Group & Myrtilloides Group - these are selections from the forms that make up this variable species; the variation however is not correlated morphologically, or with respect to distribution.

R. cephalanthum subsp. cephalanthum Crebreflorum Group Field observations have shown that the pink-flowered forms with glabrous stamens that are referable to *R. crebreflorum* intergrade with white-flowered forms typical of subsp. *cephalanthum*, and that a very similar variation pattern is exhibited by the closely related *R. primuliflorum*. If a name is required to distinguish these pink-flowered forms of *R. cephalanthum* then the Crebreflorum Group is available.

R. charitopes subsp. tsangpoense Curvistylum Group - is probably a natural hybrid between subsp. *tsangpoense* and *R. campylogynum*. If this is confirmed then *R. × curvistylum* would be the most appro-

priate nomenclature for this group.

R. cinnabarinum subsp. cinnabarinum Roylei Group & Blandfordiiflorum Group - wild populations of interbreeding individuals of this subspecies exhibit considerable variation in flower colour; those with deep rosy red flowers have been referred to the Roylei Group and those with bicoloured flowers, yellow and orange, to the Blandfordiiflorum Group.

R. cinnabarinum subsp. xanthocodon Concatenans Group, Pallidum Group & Purpurellum Group - this complex of forms requires thorough revision, especially as some exhibit resistance to the rhododendron mildew that can decimate most forms of subsp. *cinnabarinum*. In particular, there does seem to be justification for formal recognition of the Concatenans Group for some plants of wild origin.

R. dauricum Sempervirens Group - the degree to which the leaves over-winter varies from plant to plant; the Sempervirens Group represents no more than an extreme form with more persistent leaves.

R. dendricola Taronense Group - *R. dendricola* is a variable species. The smaller flowered forms (flowers 4.5-5.4cm), with large, widely spaced scales on the leaves have been referred to *R. taronense*. However, there is no correlation with distribution and the variation within *R. dendricola* is more or less continuous. If a name is required for the small-flowered forms in cultivation then the Taronense Group is available.

R. dichroanthum subsp. scyphocalyx Herpesticum Group - this group has been delineated on the basis of its dwarf habit (up to c.25cm tall) from the generally larger subsp. *scyphocalyx* (to 1.25m tall). Investigation of herbarium material indicates that there is continuous variation between the 'herpesticum' and 'scyphocalyx' forms and that *R. herpesticum* cannot be distinguished in wild populations.

R. × eythrocalyx Panteumorphum Group - as *R. erythrocalyx* is now recognized as a hybrid, and therefore exhibits a wide range of variation, there is no value in maintaining *R. panteumorphum* as a dis-

tinct entity.

R. formosum var. formosum Iteaphyllum Group - this represents no more than a narrow-leaved form of var. *formosum*.

R. forrestii subsp. forrestii Repens Group - in the juvenile state *R. forrestii* almost always have leaves that are purple below. The Repens Group is characterized by the mature leaves that are green below at maturity. This is an unreliable character as it is not always clear whether or not the plants are fully mature.

R. fortunei subsp. discolor Houlstonii Group - those specimens that are referable to this group have the minute calyx more typical of subsp. *fortunei*, but the narrower leaf, with a cuneate base more typical of subsp. *discolor*. There is a more or less continuous variation pattern extending from the more extreme forms of subsp. *discolor* to the extreme forms of Houlstonii Group. If a name is required for plants in cultivation then the Houlstonii Group is available.

R. haematodes subsp. chaetomallum Glaucescens Group - this is a distinctive entity on account of the glaucous upper leaf surfaces that probably requires a cultivar name.

R. hanceanum Nanum Group - if a name is required for the dwarf forms of *R. hanceanum* then the Nanum Group is available.

R. hippophaeoides var. hippophaeoides Fimbriatum Group - the status of this entity, which is distinguished from var. *hippophaeoides* by its longer style (1.3-1.5cm long), is doubtful as the origin the garden plant from which it was described is unknown. *R. hippophaeoides* is a widespread species requiring further study as some of the variation within it is correlated with distribution. However, at this stage it is not clear whether *R. fimbriatum* represents a distinct entity in the wild worthy of formal recognition.

R. johnstoneanum Parryae Group - see note under *R. parryae* (see p.161).

R. lapponicum Parvifolium Group - *R. parvifolium* is no more than a large form

of the generally more dwarf *R. lapponicum*, forming an upright shrub, to 1m and with larger leaves (to 2.5cm long) and larger flowers (to 13mm); it occurs in Soviet Eastern Asia and Alaska. This form is represented in the wild but it is not clear whether there is even a partial discontinuity between it and *R. lapponicum* in the strict sense.

R. mekongense var mekongense Viridescens Group - recent research has indicated that this entity merits specific rank(see p.149).

R. microgynum Gymnocarpum Group - there is no effective dividing line between *R. gymnocarpum* and *R. microgynum* in wild-collected material. As neither form is common in cultivation there is no need to recognize this as a distinct entity.

R. minus var. minus Carolinianum Group - the status of *R. carolinianum* Rehder is the subject of some debate, maintained as a distinct species by some authors, reduced by others to synonymy under *R. minus*. If this entity is to be maintained then the species name is available for use.

R. mollicomum Rockii Group - *R. mollicomum* var. *rockii* is no more than an extreme form with large flowers and not worthy of formal recognition. In any case there is some doubt as to whether this form is in cultivation.

R. neriiflorum subsp. neriiflorum Euchaites Group - the larger, sometimes tree-like forms (to 6m tall) of *R. neriiflorum* have been delimited as subsp. *euchaites*. Some plants from the type locality of *R. neriiflorum* are referable to subsp. *euchaites*, indicating that the latter is not worthy of recognition.

R. pemakoense Patulum Group - this group should be abandoned as at least some of the plants grown as *R. patulum* are referable to *R. imperator*.

R. polycladum Scintillans Group - plants belonging to *R. scintillans* have a characteristic spreading habit with upright branches but otherwise resemble the more twiggy and compact *R. polycladum* closely. As both *R. polycladum* and *R.*

scintillans were described from the same mountain pass it is probable that they belong to the same entity. Plants in cultivation under the name *R. scintillans* should therefore be referred to *R. polycladum*.

R. roxieanum var. roxieanum Oreonastes Group - recent field studies confirm that the name var. *oreonastes* should be formally retained (see p.173).

R. rubiginosum Desquamatum Group - the larger, more open-flowered forms of *R. rubiginosum*, (flowers 3.5-6cm across) have been referred to *R. desquamatum*. Herbarium material indicates that these two species merge with one another in the wild. Further research will be required to elucidate the problem.

R. saluenense subsp. chameumum Prostratum Group - this group is a selection of high altitude prostrate or spreading forms that are probably no more than ecological variants of subsp. *chameumum*. If a name is required for these forms, some of which are particularly marked in cultivation, then the Prostratum Group is available.

R. smithii Argipeplum Group - the treatment of *R. argipeplum* has been revised as a result of confusion with *R. erosum* (see p. 184).

R. temenium var. gilvum Chrysanthemum Group - *R. temenium* subsp. *chrysanthemum* falls within the natural variation of var. *gilvum*, the boundaries of which are imprecise due to hybridization in the wild with both *R. sanguineum* and *R. citriniflorum*.

R. trichocladum Lophogynum Group - this group falls within the natural variation of *R. trichocladum* and does not merit formal recognition at any level

R. triflorum Mahogany Group - this group of plants is characterized by flowers that are suffused or spotted dark red. As this form occurs sporadically in wild populations among the more typical yellow variants, it is more appropriate that the name be retained under the Cultivated Plant Code.

R. veitchianum Cubittii Group - *R.*

cubittii hort., a name that only applies to plants in cultivation, differs significantly from the wild-collected type of *R. cubittii* Hutch; which is a synonym of *R. veitchianum*. As *R. cubittii* hort. is distinctive but is not known in the wild, it requires a new name under the Cultivated Plant Code.

R. wardii var. wardii Litiense Group - this entity may deserve formal recognition as it has a restricted geographical distribution (see p. 198).

R. yunnanense Hormophorum Group - this includes those forms of *R. yunnanense* with deciduous leaves and probably represents no more than a low altitude form of this widespread species. If a name is required for this group of plants then the Cultivated Plant Code should apply.

Species distributions

The temperate species of *Rhododendron* (excluding Sect. *Vireya*) extend over the temperate and more humid parts of the Northern Hemisphere but with concentrations in the number of species in

- 1) The Sino-Himalayan Centre, including SW China, extending Westwards through Burma and along the Indo-Himalayan mountain chain and Eastwards as far as Eastern Sichuan and Guizhou,
- 2) Southern and Eastern China,
- 3) Japan and to a lesser extent in
- 4) the Eastern part of the United States.

The most significant, the Sino-Himalayan Centre of Distribution, includes N & W Yunnan, W Sichuan, NE Burma and SE Tibet, an area dominated by a markedly monsoonal climate, that has also undergone periods of intense mountain building. This is an area over which there has been a period of active speciation in the recent past, resulting in several species complexes, each containing a number of closely related species that are poorly defined from one another. These complexes are particularly well represented in Subsects. *Neriiflora* and *Taliensia* in Subgenus *Hymenanthes* and Subsects. *Laponica* and *Maddenian* in

Subgenus *Rhododendron*.

The Southern Chinese and Japanese Centres of Distribution are dominated by members of Subgenus *Tsutsusi* (the evergreen *Azaleas*) and the Eastern United States Centre by members of Subgenus *Pentanthera*.

The list that follows includes those Biological Recording Units (BRUs) in which rhododendrons occur. These BRUs generally follow national, provincial or state boundaries and represent an internationally agreed geographical standard designed for recording plant and animal distributions. The number of species occurring in each BRU is cited. However, these numbers are approximate as they are dependent on species delimitations, and are only as complete as the published plant lists from which they are generated.

The accompanying map covers only the Sino-Himalayan, Southern Chinese and Japanese Centres of Distribution as these account for around 90 per cent of the temperate species.

List of the Number of Rhododendron Species by Biological Recording Unit (BRU)

ASIA

Asia, East (excl. China & India)

BHU-BH	Bhutan	40
BMA-OO	Myanmar (Burma)	93
CBD-OO	Cambodia	1
JAP-OO	Japan	58
KOR-NK	North Korea	9
KOR-SK	South Korea	11
LAO-OO	Laos	8
MON-OO	Mongolia	8
NEP-OO	Nepal	28
PAK-OO	Pakistan	2
SRI-OO	Sri Lanka (Ceylon)	1
TAI-OO	Taiwan	17
THA-OO	Thailand	7
VIE-OO	Vietnam	>25
China		
CHC-GU	Guizhou	77

CHC-HU	Hubei	19
CHC-SI	Sichuan	160
CHC-YU	Yunnan	222
CHH-OO	Hainan	2
CHI-NM	Nei Mongol	1
CHM-HE	Heilongjiang	2
CHM-JI	Jilin	3
CHM-LI	Liaoning	2
CHN-GA	Gansu	18
CHN-HB	Hebei	1
CHN-SA	Shaanxi	12
CHN-SD	Shandong	2
CHN-SX	Shanxi	1
CHS-AN	Anhui	9
CHS-FU	Fujian	23
CHS-GD	Guangdong	40
CHS-GX	Guangxi	63
CHS-HA	Hunan	43
CHS-HK	Hong Kong	6
CHS-HN	Henan	2
CHS-JS	Jiangsu	4
CHS-JX	Jiangxi	19
CHS-ZH	Zhejiang	12
CHT-QI	Qinghai	6
CHT-XI	Xizang (Tibet)	165

India

ASS-AP	Arunachal Pradesh	51
ASS-AS	Assam	3
ASS-MA	Manipur	4
ASS-ME	Meghalaya	2
ASS-MI	Mizoram	1
ASS-NA	Nagaland	8
BHU-SI	Sikkim	34
IND-HP	Himachal Pradesh	4
IND-PU	Punjab	1
IND-TN	Tamil Nadu	1
IND-UP	Uttar Pradesh	5
IND-WB	West Bengal	18
JMK-OO	Jammu-Kashmir	4

Asia, West

LBS-OO	Lebanon	1
TCS-AR	Armeniya	3
TCS-AZ	Azerbaijan	1
TCS-GR	Grusiya	5
TUR-OO	Turkey	5

EUROPE

AUT-OO	Austria	3
BUL-OO	Bulgaria	2
CZE-OO	Czechoslovakia	1
FIN-OO	Finland	1



Distribution of temperate rhododendrons
 (Key to the abbreviations on pages 78 and 80)

The Rhododendron Handbook

FRA-OO	France	2	MAI-OO	Maine	4
GER-OO	Germany	3	MAS-OO	Massachusetts	3
ITA-OO	Italy	2	MIN-OO	Minnesota	1
NOR-OO	Norway	2	MON-OO	Montana	2
POL-OO	Poland	2	MSI-OO	Mississippi	4
POR-OO	Portugal	1	MSO-OO	Missouri	1
SLO-OO	Slovenia	2	NCA-OO	North Carolina	11
SPA-OO	Spain	2	NEV-OO	Nevada	1
SWE-OO	Sweden	2	NWH-OO	New Hampshire	5
SWI-OO	Switzerland	2	NWJ-OO	New Jersey	3
UKR-MD	Moldova	1	NWY-OO	New York	6
UKR-UK	Ukraine	2	OHI-OO	Ohio	1
YUG-OO	Yugoslavia	1	OKL-OO	Oklahoma	3
N AMERICA			ORE-OO	Oregon	4
Canada			PEN-OO	Pennsylvania	7
ABT-OO	Alberta	2	SCA-OO	South Carolina	10
BRC-OO	British Columbia	6	TEN-OO	Tennessee	9
LAB-OO	Labrador	4	TEX-OO	Texas	2
MAN-OO	Manitoba	1	VER-OO	Vermont	4
NBR-OO	New Brunswick	3	VRG-OO	Virginia	7
NSC-OO	Nova Scotia	3	WAS-OO	Washington	3
NWT-FR	NW Terr., Franklin	1	WVA-OO	West Virginia	5
NWT-KT	NW Terr., Keewatin	1	WYO-OO	Wyoming	1
NWT-MK	NW Terr., Mackenzie	2	RUSSIA		
ONT-OO	Ontario	1	ALT-OO	Altay	2
QUE-OO	Quebec	3	AMU-OO	Amur	9
YUK-OO	Yukon	1	BRY-OO	Buryatiya	2
Greenland			CTA-OO	Chita	2
GNL-OO	Greenland	3	IRK-OO	Irkutsk	4
United States			KAM-OO	Kamchatka	5
ALA-OO	Alabama	12	KHA-OO	Khabarovsk	4
ALU-OO	Aleutian Islands	1	KRA-OO	Krasnoyarsk	2
ARK-OO	Arkansas	3	KUR-OO	Kuril Islands	2
ASK-OO	Alaska	3	MAG-OO	Magadan	5
CAL-OO	California	4	NCS-DA	Dagestan	1
CNT-OO	Connecticut	3	NCS-SO	Severo Ossetya	1
COL-OO	Colorado	1	PRM-OO	Primorye	2
DEL-OO	Delaware	1	RUC-OO	Russia Central	1
FLA-OO	Florida	5	RUE-OO	Russia East	1
GEO-OO	Georgia	14	RUN-OO	Russia North	1
IDA-OO	Idaho	1	RUW-OO	Russia West	1
ILL-OO	Illinois	2	SAK-OO	Sakhalin	7
KTY-OO	Kentucky	6	TCS-AB	Abkhasiya	1
LOU-OO	Louisiana	2	YAK-OO	Yakutiya	2



Fig. 1: R. pudorosum



Fig. 2: R. lanigerum



Fig. 3: R. dignabile



Fig. 4: *R. calostrotum* (left), *R. wardii* (centre) and *R. primuliflorum* (right)



Fig. 5: *R. complexum*



Fig. 6: *R. hongkongense*



Fig. 7: *R. lepidotum*



Fig. 8: *R. parvulatum* pink rimmed



Fig. 9: *R. parvulatum* white form



Fig. 10: *R. neriiflorum* subsp. *phaedropum*



Fig. 11: *R. fragariiflorum*

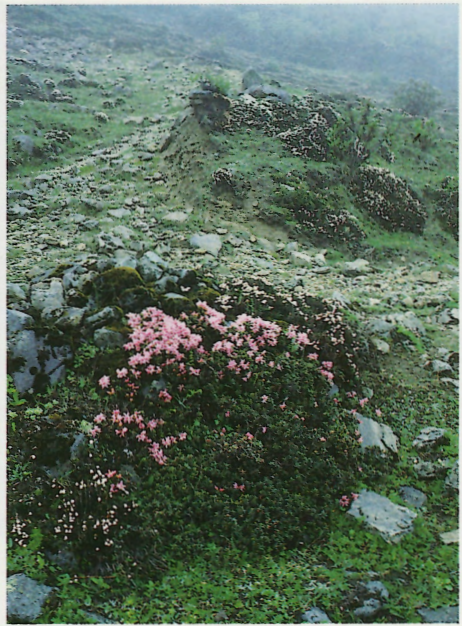


Fig. 14: *R. fragariiflorum*, Temo La, SE Tibet



Fig. 12: *R. charitopes* subsp. *tsangpoense*



Fig. 13: *R. leptothrium*



Fig. 15: *R. lowndesii*, Marsyandi Valley, Nepal



Fig. 16: *R. uniflorum* var. *imperator*



Fig. 17: *R. laudandum* var. *temoense*



Fig. 18: *R. glischrum* subsp. *rude*



Fig. 19: *R. augustinii* subsp. *hardyi*

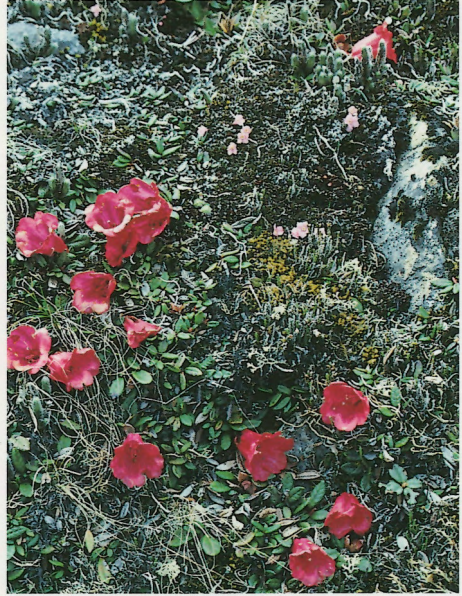


Fig. 20: *R. forrestii*



Fig. 21: *R. wadanum*



Fig.22: *R. cinnabarinum* subsp.
xanthocodon Concatenans Group



Fig. 23: *R. nivale* subsp. *nivale*



Fig. 24: *R. venator*



Fig. 25: *R. hirtipes*



Fig. 26: *R. primuliflorum*

Description of Species in Cultivation

The descriptions presented here are intended to include the diagnostic characters for those entities that are in cultivation and represent species, subspecies or varieties that occur in the wild. These descriptions are similar in format to those provided in the 1980 Handbook. The names are given with the authors to avoid possible confusion. Each is assigned to a subsection, section or subgenus, as appropriate. Relevant synonyms in common use are also included following the names. All other synonyms are listed separately.

Only those species that are known to be in general cultivation are described. All the other recognized names will be found in the section entitled *The Classification of Rhododendron* (see pps 9-35).

Hardiness ratings only give a rough guide to the hardiness of a particular species and only apply to plants that have reached an age of optimum hardiness (usually 5 years plus). As a consequence, the hardiness ratings of some species only recently introduced into cultivation are uncertain and can only be surmised from the respective geographical distributions. Prolonged, sudden or out of season frosts of a less severe nature than given below may cause damage. In many species the wood and foliage are considerably more hardy than the flower buds, which may be destroyed at temperatures higher than the ratings given. Some species only attain maximum hardiness if grown in regions with warm summers, such as some members of Section *Pentanthera* and many species in Section *Tsutsusi*. Ratings for species given in brackets apply to plants grown in areas with cool summers.

H1a Requiring stove conditions under glass.

- H1b Requiring the protection of a cool glasshouse where the outside temperature drops below -7°C (20°F).
- H2 Only hardy in the most favourable sheltered coastal parts of the British Isles, with a winter minimum of -12°C (10°F).
- H3 Hardy in sheltered gardens near the coasts, with a winter minimum of -15°C (5°F).
- H4a Hardy at most low elevations in the British Isles provided that there is some shelter, with a winter minimum of -18°C (0°F).
- H4b Hardy throughout the British Isles and most of Western Europe, in areas with a winter minimum of -21 to -24°C (-5 to -10°F).
- H4c Hardy throughout Europe and all but the coldest parts of Eastern North America, in areas with a winter minimum of -29°C (-20°F).

The times of flowering are those appropriate to the British Isles. As with the hardiness ratings some of the more recently introduced species have not been in cultivation long enough to confirm the flowering time reliably; it should be noted that the flowering time in the field often differs significantly from that in cultivation in Britain.

The details of the awards given by the Royal Horticultural Society are given only where these relate to species or cultivars selected within them. The awards quoted are abbreviated as follows:

FCC = First Class Certificate

AM = Award of Merit

PC = Certificate of Preliminary Commendation

☼ = the Award of Garden Merit given from 1992 onwards

R. ABERCONWAYI COWAN - SUBSECT. IRRORATA.

Shrub, 1.5-2.5m. Leaves coriaceous, 3-6 × 1.1-2.2cm, elliptic, apex acute, margin strongly recurved, lower surface glabrous though with persistent red punctate hair bases overlying the veins. Flowers 6-12, in a lax truss, white to pale rose, with purple flecks, open-campanulate, lacking nectar pouches, 28-35mm, ovary and style stalked-glandular. H3-4a. April-May. China (N Yunnan, Guizhou), 2,200-2,500m.

A distinctive species allied to *R. annae* and *R. araiophyllum*.

AM 1945 (Crown Estate Commissioners, Windsor) to a clone 'His Lordship', from McLaren T.41; flowers white with crimson dashes.

R. ADENOGYNUM DIELS (INCL. *R. ADENOPHORUM* BALF.F. & W.W.SM.) - SUBSECT. TALIENSIA.

Shrub or small tree, (0.5-)1.3-4m. Leaves 6-11 × 2-4cm, narrowly elliptic to elliptic, apex acute, lower surface usually with a dense spongy to matted (rarely sparse), one-layered tomentum that is composed of ramiform and at least some gland-tipped hairs, and is yellowish at first, maturing to a rich olive brown; petioles glabrescent or tomentose, with at least some stalked glands. Flowers 4-12, generally in a dense truss; calyx (4-)8-15mm, lobes oblong; corolla white flushed pink or pale pink, sometimes with purple flecks, campanulate, nectar pouches lacking, 30-45mm; ovary densely stalked-glandular, style usually glandular in the lower third. H4b. April-May. China (SE Tibet, W Yunnan, SW Sichuan), 3,000-4,250m.

There is a complete range of intermediates between those plants with a more strongly glandular leaf indumentum, that have been called *R. adenophorum*, and those that essentially lack glands, as in *R. adenogynum*. The two are therefore not maintained as separate species.

AM 1976 (R.N.S.Clarke, Borde Hill, Sussex) to *R. adenophorum* 'Kirsty'; flowers

white, lip and reverse suffused red-purple and spotted.

R. adenophorum Balf.f. & W.W. Sm. is a synonym of **R. adenogynum** Diels (Subsect. Taliensia).

R. ADENOPODUM FRANCH. (INCL. *R. YOUNGIAE* FANG) - SUBSECT. ARGYROPHYLLA.

Shrub, to 3m. Leaves 9-16 × 2.5-4cm, oblanceolate, apex acuminate to shortly cuspidate, lower surface with a one-layered dense felted grey to fawn indumentum composed of dendroid hairs, petioles c.3cm; flowers 6-8, in a loose inflorescence, pale rose, funnel-campanulate, nectar pouches lacking, 42-50mm; ovary with a dense covering of brownish stalked glands, style glabrous. H4b. April-May. C China (E Sichuan, Hubei), 1,500-2,200m.

The relatively long and narrow leaves with long petioles will usually distinguish this from the remaining species in the subsection.

AM 1926 (G.W.E. Loder, Wakehurst Place, Sussex); flowers rose-pink, paler inside, with a few crimson spots.

R. ADENOSUM DAVIDIAN (INCL. *R. KULUNSE* D.F.CHAMB.) - SUBSECT. GLISCHRA. Shrub, 2-3m; young shoots densely glandular-setose. Leaves coriaceous, 7-10.5 × 2.4-3cm, ovate to lanceolate or elliptic, apex acuminate, lower surface setose and sparsely evanescent-tomentose. Flowers 6-8, in a lax truss; calyx c.7mm; corolla pale pink or white, with purple flecks, funnel-campanulate, nectar pouches lacking, 35-50mm; ovary densely glandular-setose. H4a. May. China (SW Sichuan), c.3,500m.

This species is very local in the wild.

R. aeruginosum Hook.f. - is a synonym of **R. campanulatum** D.Don subsp. **aeruginosum** (Hook.f.) D.F.Chamb. (Subsect. Campanulata).

R. AFGHANICUM AITCH. & HEMSL. - SECT. AFGHANICA.

Description of Species in Cultivation

Low shrub, to 0.5m; young growth scaly and sometimes puberulent. Leaves thick, 4.7-8 × 1.3-2.5cm, narrowly elliptic to elliptic, apex more or less obtuse, lower surface pale green, with scales 1-2× their diameter apart, translucent, yellowish, upper surface darker, with midrib puberulent below; petioles puberulent. Pedicels densely scaly. Flowers 12-16, in an elongated raceme with a conspicuous rhachis; calyx lobes 4-6mm; corolla white or greenish white, campanulate, tube 6-8mm, lobes c.5mm; stamens 10, regularly arranged; ovary scaly, impressed below the sharply deflexed style. H3. June. Afghanistan/Pakistan Border, 2,000-3,000m.

A distinctive species on account of the characteristic inflorescence.

R. AGANNIPHUM BALF.F. & KINGDON-WARD - SUBSECT. TALIENSIA.

Shrub, 0.3-3m. Leaves 4-12 × 2-5cm, elliptic to broadly ovate-lanceolate, apex more or less acute; lower surface covered with a one-layered compacted to spongy tomentum that is continuous, or splitting and becoming patchy, and composed of ramiform hairs that are whitish or yellowish at first, sometimes turning deep reddish brown; petioles tomentose at first, later glabrescent. Flowers 10-20, in a dense truss; calyx 0.5-1mm, lobes rounded; corolla white, often flushed pink, with purple flecks, campanulate, nectar pouches lacking, 30-35mm; ovary and style glabrous. H4b. April-May. China (SE Tibet, NW Yunnan, SW Sichuan), 3,350-4,550m.

Var. **aganniphum**. (incl. *R. schizopeplum* Balf.f. & Forrest, *R. glaucopeplum* Balf.f. & Forrest & *R. doshongense* Tagg). Indumentum remaining pale and intact at maturity.

Var. **flavorufum** (Balf.f. & Forrest) D.F.Chamb. (*R. flavorufum* Balf.f. & Forrest). Indumentum turning deep brown and splitting, becoming patchy at maturity.

The two varieties merge into one another, even within a single population.

However, those forms occurring at the highest altitudes are generally referable to var. *aganniphum*. Plants from the Western edge of the range of the species have a silvery, more or less agglutinated indumentum and have been referred to *R. doshongense*, an apparently slight difference not meriting formal recognition of this species.

R. aganniphum hybridizes with *R. phaeochrysum* and with *R. proteioides* in the wild. The latter hybrid has been called *R. bathyphyllum*.

R. agapetum Balf.f. & Kingdon-Ward - is a synonym of **R. kyawii** Lace & W.W.Sm. (Subsect. Parishia).

R. × AGASTUM BALF.F. & W.W.SM. - is a hybrid between *R. ARBOREUM* SM. SUBSP. *DELAVAYI* (FRANCH.) D.F.CHAMB. AND *R. DECORUM* FRANCH.

Shrub or small tree, 1.5-3(-4)m. Leaves coriaceous, 6-11 × 2.5-5cm, upper surface glabrous, with slightly impressed veins, lower surface with a thin veil of dendroid hairs embedded in a surface film, with numerous red punctate hair bases overlying the veins; petioles glabrous. Flowers 10-15, in a dense inflorescence; calyx 2-3mm; corolla 6-7-lobed, rose-pink, usually with darker margins and at least a few crimson flecks, campanulate or tubular-campanulate, with nectar pouches, 40-50mm; ovary stalked-glandular, style glandular, usually almost to tip. H3. March-April. China (W Yunnan, ?Guizhou), 2,200-3,350m.

This hybrid has been mistakenly placed in Subsect. *Irrorata*, even though the collector of the type specimen, George Forrest, stated that he considered it to be a hybrid between *R. delavayi* and a species in Subsect. *Fortunea*. It may be distinguished by the 6-7-lobed corolla and by the leaves that are intermediate between those of the parents. Plants that are undoubtedly referable to *R. × agastum* occur with the parents at or close to the type locality and are clearly of hybrid origin. Some plants in cultivation under the

name *R. agastum* belong to *R. papillatum*.

R. agglutinatum Balf.f. & Forrest - is a synonym of **R. phaeochrysum** Balf.f. & Kingdon-Ward var. **agglutinatum** (Balf.f. & Forrest) D.F.Chamb. (Subsect. Taliensia).

R. ALABAMENSE REHDER - SUBJECT. PENTANTHERA.

Deciduous shrub or small tree, 3(-5)m; young twigs densely eglandular-hairy. Leaves 6.1-7.7(-9.4) × 1.9-2.4cm, ovate or obovate to elliptic, lower surface eglandular-hairy. Flower bud scales with outer surface glabrous or with a few unicellular eglandular hairs, margin ciliate. Pedicels sparsely to densely covered with a mixture of eglandular and gland-tipped hairs. Flowers with a sweet delicate fragrance, appearing before or with the leaves, 6-12, in a shortened raceme; calyx 1-2(-10)mm; corolla white with a yellow blotch on upper lobe, funnelform, tube gradually expanding into limb, both surfaces covered in gland-tipped hairs, 25-47mm. Capsules eglandular-hairy. H3-4a. April-May. SE USA, s.l. - 500m.

This species is closely allied to *R. canescens* but may be distinguished by the flower colour.

R. ALBERTSENIANUM FORREST - SUBJECT. NERIIFLORA

Shrub, 1-2m. Leaves 8.5-9.5 × c.2.2cm, narrowly elliptic, lower surface with a continuous two-layered indumentum, the upper layer light brown, tomentose, composed of ramiform hairs, the lower felted and more or less compacted. Flowers 5-6, in a loose truss; calyx cupular, 3-4mm; corolla bright crimson-rose, tubular-campanulate, with nectar pouches, c.30mm; ovary densely tomentose, tapering into the glabrous style. H4a. April. China (NW Yunnan), c.3,000m.

This species, which has affinities with *R. sperabile*, has only been collected once. It may be distinguished from its immediate allies by the two-layered leaf indumentum.

R. ALBIFLORUM HOOK. - SUBGEN. CANDIDASTRUM.

Deciduous shrub, to 2m. Leaves elliptic to oblanceolate, to 8 × 2.5cm, margin minutely toothed, midrib and margin ciliate at first, becoming glabrous. Flowers 1-2, spaced along the previous year's shoots, white, bowl shaped, almost regular, 20mm across, tube short, lobes spreading; stamens 10(-12). H4c June-July. Canada, W USA, 1,200-2,300m.

A distinct species, perhaps distantly related to *R. nipponicum*; it is often difficult in cultivation.

R. ALBRECHTII MAXIM. - SECT. SCIADORHODION.

Deciduous shrub, to 2.5m; young twigs covered with gland-tipped hairs, later glabrescent. Leaves alternate, becoming more closely spaced in pseudowhorls towards apex of stem, 2.1-13.5 × 0.9-6.3cm, obovate to (rarely) elliptic, lower surface glabrous or covered with eglandular or gland-tipped hairs, midrib covered with straight to crisped unicellular hairs. Flowers fragrant, appearing before or with the leaves, 2-5, in an umbellate raceme; calyx 1-3.5mm; corolla pink to reddish purple, broadly rotate to funnelform, the short tube gradually expanding into the longer limb, 18-32mm. Capsule covered with gland-tipped multicellular hairs, occasionally with a few unicellular hairs at apex. H4b. April-May. Japan (Hokkaido, Honshu), 800-2,300m.

A distinctive species not closely related to any other. It is somewhat intermediate between the remaining members of Sect. Sciadorhodion and Sect. Rhodora.

AM 1943 (Lord Aberconway, Bodnant); flowers Phlox Pink.

FCC 1962 (Lord Aberconway and National Trust, Bodnant) to a clone 'Michael McLaren'; flowers Solferino Purple, spotted yellowish green.

♀ 1993

R. alpicola Rehder & E.H.Wilson - is a synonym of **R. nivale** Hook.f. subspp. **boreale**

Description of Species in Cultivation

Philipson & N.M. Philipson (Subsect. Lapponica).

R. ALUTACEUM BALF.F. & W.W.SM. - SUBSECT. TALIENSIA.

Shrub, 0.6-4.5m. Leaves 5-17 × 2-4cm, oblong to oblanceolate, apex apiculate, lower surface covered with a two-layered indumentum, the upper layer more or less continuous, pale brown and lanate or mid- to reddish brown and felted, or partially detersile, then rufous, the lower layer whitish and compacted; petioles usually with a persistent brown tomentum. Flowers 10-20, in a dense truss; calyx 0.5-1mm; corolla white flushed rose, with crimson flecks, campanulate, nectar pouches lacking, 30-35mm; ovary sparsely glandular and tomentose to almost glabrous, style glabrous. H4b. April-May. China (SE Tibet, NW Yunnan, Sichuan), 3,050-4,250m.

Var. **alutaceum** (incl. *R. globigerum* Balf.f. & Forrest). Leaf indumentum usually pale ochraceous brown, lanate, with long fine ramiform hairs, continuous; ovary with a few papillae, otherwise glabrous.

Var. **iodes** (Balf.f. & Forrest) D.F.Chamb. (*R. iodes* Balf.f. & Forrest). Leaf indumentum mid-brown, felted, with short fine hairs, continuous; ovary with a sparse indumentum of rufous hairs and glands.

Var. **iodes** is intermediate between and intergrades with the other two varieties.

AM 1978 (R.N.S. Clarke, Borde Hill, Sussex) to a clone 'White Plains'; flowers white, yellow-green at base externally, spotted red-purple within.

Var. **russotinctum** (Balf.f. & Forrest) D.F.Chamb. (*R. russotinctum* Balf.f. & Forrest, & incl. *R. triplonaevium* Balf.f. and *R. tritifolium* Balf.f. & Forrest). Leaf indumentum with upper layer discontinuous, composed of rufous hairs; ovary with a sparse indumentum of rufous hairs and glands.

AM 1980 (R.N.S. Clarke, Borde Hill, Sussex) to a clone 'Easter Island', from Forrest 20425. Trusses compact, 10-12-

flowered; corolla campanulate, white with dorsal red spotting.

This species closely resembles *R. phaeochrysum* but may be distinguished by its narrower leaves, etc. The leaves of some forms emit a characteristic musky odour.

R. AMAGIANUM MAKINO - SECT. BRACHYCALYX.

Tree, to 5m; young shoots covered with dense white hairs, later glabrescent. Leaves in whorls of up to three, at the ends of the branches, 4-9 × 3-9cm, ovate-rhombic, apex acuminate, lower surface with adpressed brown pubescent hairs, especially on the midrib; petioles densely adpressed-brown-pubescent. Pedicels densely pubescent. Flowers solitary or up to 3 per inflorescence, appearing before the leaves; calyx minute; corolla reddish orange, upper lobe with darker flecks, open-campanulate, 25-40mm; ovary densely brown-pubescent, style with white pubescent hairs at base. H4a-b. June-July, Japan (Hondo, Idzu Peninsula), c.100m.

This very local species is closely allied to and possibly no more than a variant of *R. sanctum*. The chief difference between the two species is in the flower colour.

AM 1948 (Lord Aberconway, Bodnant); flowers French Rose, suffused Neyron Rose, spotted red.

R. AMBIGUUM HEMSL. - SUBSECT. TRIFLORA.

Shrub, 1.5-5m; young shoots glabrous. Leaves 3-6(-8) × 1.5-3.2cm, narrowly ovate to narrowly elliptic, apex acute, upper surface pubescent for a short distance along midrib, otherwise glabrous, lower surface covered with large dark brown broadly rimmed touching or overlapping scales, midrib pubescent towards base. Flowers 3(-5), in a loose terminal inflorescence; calyx obscurely lobed, sometimes ciliate; corolla yellow, often with greenish or darker yellow spots on upper lobes, openly funnel-shaped, strongly zygomorphic, 20-26mm, outer surface usually scaly, oth-

erwise glabrous; stamens 10; ovary scaly, impressed below the declinate style that is usually glabrous (rarely puberulent) at base. H4b. April-May. China (C Sichuan, Guizhou), 2,600-4,500m.

Superficially similar to *R. triflorum* but differing in its bark, the larger, denser scales, and the lack of indumentum on the corolla.

AM 1976 (W.L. & R.A. Banks, Hergest Croft, Kington) to a clone 'Jane Banks'; flowers yellow-green, with greenish spots.

R. AMESIAE REHDER & E.H. WILSON -
SUBJECT. TRIFLORA.

Upright shrub, 2-4m; young shoots densely scaly, setae present or absent. Leaves 2.8-7 × 1.5-3.4cm, ovate to elliptic, apex obtuse, upper surface glabrous or pubescent, midrib pubescent, lower surface pale green, scales unequal, up to their own diameter apart, yellowish brown to dark brown; petioles densely covered with hairs. Flowers 2-5, in a loose terminal inflorescence; calyx to 1mm, sometimes pubescent; corolla purple or dark reddish purple, with or without darker spots, widely funnel-shaped, zygomorphic, 28-40mm, outer surface scaly or not, sometimes hairy; stamens 10; ovary densely scaly, impressed below the declinate glabrous style. H4b. May. China (NW Sichuan), 2,300-3,000m.

This species is closely allied to *R. concinnum* but differs in the more dense indumentum and in the larger corolla.

R. ANNAE FRANCH. (INCL. *R. HARDINGII* TAGG & *R. LAXIFLORUM* BALF.F. & FORREST) - SUBJECT. IRRORATA.

Shrub, 0.5-6m. Leaves coriaceous, 6.5-15 × 2-3.5cm, elliptic to oblanceolate, apex acuminate, lower surface glabrous though with red punctate hair bases persisting on the veins. Flowers 7-12(-17), usually in a lax truss, white, with a rose flush, sometimes with purple flecks, open-campanulate, lacking nectar pouches, 25-40mm; ovary and style stalked-glandular. H3-4a. May-June. China (Guizhou, W Yunnan), NE Burma, 1,500-2,400m.

Both *R. hardingii* and *R. laxiflorum*, from W Yunnan, have larger flowers, c.40mm long, while in *R. annae* (from Guizhou) they are usually 25mm long. However, the type specimens of *R. hardingii* have flowers that span the whole range between these three entities.

AM 1977 (Maj. A.E. Hardy, Sandling Park, Kent) to a clone 'Folks Wood', as *R. laxiflorum*; flowers white.

AM 1979 (R.N.S. Clarke, Borde Hill) to a clone 'Anna Strelow' of *R. laxiflorum*, from Forrest 27706; truss 14-16-flowered, corolla white, shading towards base to a yellowish white, lobes faintly flushed red-purple, stamens 11-12.

R. annamense Rehder - is a synonym of **R. simsii** Planch. var. **simsii** (Subject. Tsutsusi).

R. ANTHOPOGON D.DON - SECT. POGONANTHUM.

Small shrub, to 1m; leaf bud scales persistent or deciduous. Leaves (1-)1.4-3.5 × 0.8-1.6cm, ovate to elliptic, rarely orbicular, apex rounded, mucronate, lower surface covered with 2-3 tiers of overlapping scales, the upper tier dark brown (rarely pale), those of the lowest tier at least as dark as the rest. Flowers 15-20, in a dense racemose umbel; calyx lobes 3.5-4.5mm; corolla white or pink (rarely yellowish), hypocrateriform, tube 6-12mm, densely pilose within, lobes 4-7.5mm, glabrous; stamens (5-)6-8(-10); ovary scaly. H4a-b. April-May.

Subsp. **anthopogon**. Leaf bud scales deciduous. Nepal, N India (Uttar Pradesh to Arunachal Pradesh), Bhutan, China (S Tibet), 3,350-4,900m.

AM 1955 (Mrs L.C.R. Messel & National Trust, Nymans Garden); flowers Fuchsine Pink.

AM 1969 (E.H.M. & P.A. Cox, Glendoick Gardens, Perth) to a clone 'Betty Graham', from L. & S. 1091; flowers deep pink.

Subsp. **hypenanthum** (Balf.f.) Cullen (*R. hypenanthum* Balf.f.). Leaf bud scales persistent. NW India (Kashmir to Uttar

Description of Species in Cultivation

Pradesh), Nepal, Bhutan, 3,350-4,500m.

AM 1974 (Glendoick Gardens Ltd, Perth) to a clone 'Annapurna', as *R. hypenanthum*, from S., S. & W. 9090; flowers yellow, with darker staining.

Subsp. *hypenanthum* is a western vicariad of subsp. *anthopogon*. Var. *album* Davidian is a white-flowered variant of subsp. *anthopogon*.

R. ANTHOPOGONOIDES MAXIM. - SECT. POGONANTHUM.

Shrub, to 1.6m; leaf bud scales deciduous. Leaves (2-)2.5-4 × 1-2cm, ovate-elliptic, apex rounded, mucronate, lower surface covered with one tier of pale brown overlapping scales that are plastered to the surface and have domed well-developed centres and narrow, scarcely lacerate rims. Flowers many, in a dense racemose umbel; calyx lobes 3-4.5mm, margin erose; corolla white or greenish white, rarely flushed pink, hypocrateriform, tube 5-10mm densely pilose at throat, lobes 1.5-3mm; stamens 5; ovary scaly, sometimes also pubescent. H4a-b. April-May. China (Qinghai, Gansu), 3,050-3,350m.

A distinctive species on account of the form of the scales, the characteristic calyces, etc. Only subsp. *anthopogonoides* has been recorded in cultivation, and then only rarely.

R. ANTHOSPHAERUM DIELS (INCL. *R. ERITIMUM* BAL.F.F. & W.W.SM.) - SUBSECT. IRRORATA.

Shrub or small tree, 3-12m. Leaves 6-16 × 2-4.5cm, elliptic-oblong to oblong, apex acute to acuminate, lower surface glabrous though with a few red punctate hairs overlying the veins. Flowers 6-7-lobed, 10-15, in a dense truss, rose-magenta to crimson or magenta-blue to pale peach, sometimes with purple flecks and/or a basal blotch, tubular-campanulate, with nectar pouches, 30-45mm; ovary usually glabrous, style glabrous. H2-3. March-April. NE Burma, China (SE Tibet, Yunnan), 2,700-4,000m.

This species differs from all others in the subsection in its 6-7-lobed corollas.

The flower colour is particularly variable. *R. eritimum* is said to differ in its rounded, not acute leaf apex. There is however, gradation from one form to the other, making this an unreliable diagnostic character.

R. ANWHEIENSE E.H.WILSON (*R. MACULIFERUM* FRANCH. SUBSP. *ANWHEIENSE* [E.H.WILSON] D.F.CHAMB.) - SUBSECT. MACULIFERA.

A rounded shrub, 1-3.5m; vegetative buds globose. Leaves 3-8.5 × 1.5-3.5cm, elliptic to oblong-elliptic, apex acute or obtuse, lower surface glabrous or with minute black hairs that sometimes arise from a red punctate base; petioles floccose, with whitish hairs. Flowers 6-12, in a lax truss; calyx c.1mm; corolla white tinged pink, sometimes with purple flecks, funnel-campanulate, without nectar pouches, 25-35mm, glabrous or with a few long hairs. H4b. April-May. E China (Anhui), 1,500-1,800m.

♀ 1993

This species has been placed in Subsect. *Irrorata* where it is anomalous in having a floccose indumentum on the petioles. The globose leaf buds are characteristic and distinguish this species from *R. maculiferum*, with which it has also been allied. This is a geographically isolated species with a very restricted distribution.

R. APERANTUM BAL.F.F. & KINGDON-WARD - SUBSECT. NERIIFLORA.

Dwarf shrub, 0.3-0.6(-1.5)m; bud scales persistent. Leaves 3-6.5 × 1.4-2.4cm, obovate to oblanceolate, lower surface with a glaucous, papillate epidermis, usually glabrous at maturity though sometimes with vestiges of a red-brown or whitish dendroid indumentum that usually persists on the main veins and midrib. Flowers 4-6, in a lax truss; calyx cupular, 3-6mm; corolla thin, white, yellow flushed rose to orange or red to crimson, tubular-campanulate, with nectar pouches, 30-40mm; ovary coarsely rufous-tomentose, with a few gland-tipped setae, abruptly contracted into the glabrous style. H4a. April-May. NE Burma, China (NW

Yunnan), 3,600-4,500m.

AM 1931 (Marquess of Headfort, Kells); flowers crimson.

This high altitude, relatively dwarf species is difficult in cultivation. The persistent bud scales are an unusual feature in this subsection. The wide range in flower colour may have arisen through hybridization with related species in Subsect. *Neriiflora*.

R. ARAIOPHYLLUM BALF.F. & W.W.SM. - SUBSECT. IRRORATA.

Shrub or small tree, 1.5-6.5m. Leaves subcoriaceous, 5.5-13 × 1.8-3.2cm, elliptic to oblanceolate, apex acute to cuspidate, lower surface glabrous, punctate hair bases apparently lacking. Flowers 5-10, in a lax truss, white flushed rose, with a basal blotch, sometimes also with purple flecks, open-campanulate, lacking nectar pouches, 28-35mm; ovary with a sparse covering of short white hairs, style glabrous. H2-3. April-May. NE Burma, China (W Yunnan), 2,300-3,350m.

Closely allied to *R. annae* but distinguished by its glabrous style.

AM 1971 (Royal Botanic Gardens, Kew) to a clone 'George Taylor'; flowers white, with blotch and spots of red-purple.

R. ARBORESCENS (PURSH) TORR. - SUBSECT. PENTANTHERA.

Deciduous shrub or small tree, to 6m; young twigs glabrous or (rarely) very sparsely covered with unicellular hairs. Leaves 4.5-8(-10.5) × 1.6-3cm, ovate to elliptic, glabrous or nearly so. Flower bud scales with outer surface glabrous or with a few unicellular hairs, margin ciliate. Pedicels covered with gland-tipped hairs. Flowers with a cinnamon-like fragrance, appearing after leaf expansion, 3-7, in a shortened raceme; calyx 1-8mm; corolla funnelform, tube gradually expanding into limb, white, outer surface covered with unicellular and multicellular gland-tipped hairs, 32-50mm; filaments of stamens and style pink to red, contrasting with the corolla.

Capsules covered with sparse unicellular and dense multicellular gland-tipped hairs. H4b. May-August. E USA, 300-1,500m.

This species is closely allied to *R. viscosum*; the latter may be distinguished by its hairy young shoots and whitish filaments and style.

AM 1952 (M. Adams-Acton, London) to a clone 'Ailsa'; flowers white, with yellow blotch.

R. ARBOREUM SM. - SUBSECT. ARBOREA. Small to large trees, 5-30m, with a well-defined trunk. Leaves leathery, 6.5-19 × 1.8-6cm, narrowly to broadly elliptic or ovate, upper surface with more or less deeply impressed veins, lower surface with a compacted to dense and spongy white to fawn indumentum composed of dendroid hairs, occasionally also with a loose floccose rufous upper layer. Flowers 10-20, in a dense truss, white or pink to deep crimson-red, with dark purple flecks and nectar pouches, fleshy, tubular-campanulate, 30-50mm.

This is one of the most widespread and variable species of *Rhododendron*.

Subsp. **arboreum**. Leaves 10-19 × 2.5-5cm, with a white to silvery compacted indumentum beneath, reticulate above; flowers crimson. H2-3. January-May. N India (Kashmir to Sikkim), Nepal, Bhutan, 1,850-2,550(-3,200)m.

This is the common subspecies across the Indo-Himalayas. In cultivation it is relatively tender.

Subsp. **cinnamomeum** (Wall ex G.Don) Tagg. Leaves 6.5-11 × 2.2-4.5cm, with a white to cinnamon compacted indumentum beneath, sometimes also with an upper layer of rufous hairs, reticulate above; flowers white to crimson. H3-4a. March-May. E Nepal and China (S Tibet) to Bhutan and Arunachal Pradesh, 2,750-3,650m.

This subspecies tends to have a more Easterly distribution than does subsp. *arboreum*, and occurs at higher elevations. It is therefore rather hardier in cultivation.

Var. **cinnamomeum** (Wall ex G.Don)

Description of Species in Cultivation

Lindl. (incl. *R. arboreum* Sm. subsp. *campbelliae* [Hook.f.] Tagg). Leaves with an upper layer of loose rufous hairs.

Var. **roseum** Lindl. Leaves lacking the upper layer of loose hairs.

White-flowered forms from the highest elevations, particularly in Nepal, have been referred to var. **album** Wall.

FCC 1974 (Royal Botanic Gardens, Wakehurst) to a clone *R. arboreum* var. *roseum* 'Tony Schilling'.

♀ 1993

Subsp. **delavayi** (Franch.) D.F.Chamb. Leaves 7-18 × 1.8-3(4.2)cm, with a thick and spongy white to fawn indumentum beneath, reticulate above; flowers clear red to crimson. H2-3. NE India, Burma, Thailand, SW China, 1,500-3,000m.

This subspecies is tender in cultivation, requiring considerable shelter. It replaces subsp. *arboreum* and subsp. *cinnamomeum* in the Eastern part of the range of the species.

Var. **delavayi** (*R. delavayi* Franch.). Leaves 2.8-4.4× as long as broad.

FCC 1936 (Capt. A.M.T. Fletcher, Port Talbot, Wales), as *R. delavayi*; flowers deep red.

Var. **peramoenum** (Balf.f. & Forrest) D.F.Chamb. (*R. peramoenum* Balf.f. & Forrest). Leaves 4.5-6.5 × as long as broad.

Subsp. **almentosum** (Davidian) D.F.Chamb. (*R. delavayi* Franch. var. *almentosum* Davidian). Leaves 4-6 × 2-2.5cm, with a white spongy indumentum beneath, reticulate above; flowers a rich cherry red. H2-3. N Burma (Mt Victoria), 3,000m.

This tender subspecies, which apparently maintains its distinctive features in cultivation, is intermediate between subsp. *arboreum* and subsp. *delavayi*. It is only known in the wild from a single mountain and even then it may be distinguishable from more typical forms of *R. arboreum* that occur on the same mountain at lower altitudes

Subsp. **nilagiricum** (Zenker) Tagg. Leaves 8.5-12 × 3.8-6cm, apex rounded-apiculate, lower surface with a yellowish brown spongy indumentum, upper sur-

face with deeply impressed veins; flowers carmine. H2-3. S India, c.2,250m.

This subspecies is intermediate between subsp. *zeylanicum* and subsp. *delavayi*.

Subsp. **zeylanicum** (Booth) Tagg (*R. zeylanicum* Booth). Bark deeply fissured; leaves 8-11 × 3.5-4.5cm, apex blunt to acute, margin strongly recurved; lower surface with a spongy brownish indumentum, upper surface with deeply impressed veins, flowers carmine. H2. Sri Lanka, 1,000-2,500m.

The characteristic leaves and bark will serve to identify this, the most distinctive of the subspecies of *R. arboreum*. It is a plant only for the mildest of British gardens.

AM 1964 (National Trust for Scotland, Brodick Castle Gardens) to a clone *R. arboreum* 'Goat Fell'; flowers Cherry Red, with a few spots in the throat.

AM 1968 (E. de Rothschild, Exbury) to a clone *R. arboreum* 'Rubaiyat'; flowers red, with darker spots.

R. arboreum Sm. subsp. *campbelliae* (Hook.f.) Tagg - is a synonym of ***R. arboreum*** Sm. var. ***cinnamomeum*** (Wall ex G.Don) Lindl. (Subsect. *Arborea*).

R. ARGIPELUM NUTTALL EX HOOK.F. (INCL. *R. SMITHII* NUTTALL & *R. MACROSMITHII* DAVIDIAN) - SUBSECT. *BARBATA*. Large shrub or small tree, 1.5-10m; bark smooth and flaking, reddish brown; young shoots and petioles with long stiff bristles. Leaves 8-13 × 2.7-4cm, elliptic to obovate-lanceolate, apex acute to slightly rounded, base rounded to cordate, upper surface with deeply impressed veins, lower surface with a thin layer of pale brown dendroid hairs that may become whitish with age. Flowers fleshy, 15-20, in a dense truss, scarlet to crimson, with darker nectar pouches, tubular-campanulate, 30-45mm; ovary densely stalked-glandular, also with some hairs, style glabrous. H3-4a. NE India (Sikkim, Arunachal Pradesh), Bhutan, S Tibet (Tibet), 2,700-3,600m.

R. argipeplum is intermediate between the more Easterly *R. erosum* and the more westerly *R. barbatum*, but is sufficiently distinct from either to be maintained as a separate species.

AM 1978 (R.N.S. Clarke, Borde Hill, Sussex) to a clone *R. smithii* 'Fleurie'; trusses to 25-flowered, corolla red.

R. ARGYROPHYLLUM FRANCH. - SUBSECT ARGYROPHYLLA.

Shrub or tree, 2-12m. Leaves 6-16 × 1.8-6cm, narrowly elliptic to oblanceolate, apex acute, upper surface reticulate, lower surface covered with a one-layered thin silvery or fawn compacted indumentum that is usually embedded in a surface film. Pedicels 20-25mm. Flowers 4-10, in a loose inflorescence, white to pink, with purple flecks, open-campanulate, nectar pouches lacking, 30-55mm; ovary with a glandular or eglandular indumentum, style glabrous. H4a-b. May. China (N Yunnan, Sichuan, Shaanxi, Guizhou), 1,600-3,650m.

Subsp. **argyrophyllum**. Leaves 6-12 × 2-3cm, indumentum white or silvery; flowers white to pink, 30-35mm; ovary lacking glands. China (N Yunnan, Sichuan, Shaanxi).

Those forms with more open-campanulate, pink flowers have been referred to var. *cupulare* Rehder & E.H.Wilson. There is however a complete overlap with the more frequent form with funnel-campanulate white flowers.

AM 1934 (G.W.E Loder, Wakehurst Place, Sussex); flowers white flushed rose, with deeper pink spots.

Subsp. **hypoglaucum** (Hemsl.) D.F.Chamb. (*R. hypoglaucum* Hemsl.). Leaves 7-11 × 2.5-4cm, indumentum white; flowers white, 30-35mm; ovary glandular. C China (E Sichuan, Hubei).

1972 (Maj. A.E. Hardy, Sandling Park, Kent) to a clone 'Heane Wood', as *R. hypoglaucum*; flowers pink in bud, opening white, suffused red-purple and spotted red-purple.

This subspecies may be distinguished by the glandular ovaries.

Subsp. **omeiense** (Rehder & E.H.Wilson) D.F.Chamb. Leaves 6-8.5 × 1.5-2cm, indumentum fawn; flowers white; ovary without glands. China (W Sichuan).

This subspecies, which has a restricted distribution in the wild, may be recognised by the relatively small leaves, with a fawn indumentum.

Subsp. **nankingense** (Cowan) D.F.Chamb. Leaves 11-16 × c.4cm, coriaceous, indumentum white; flowers pink, 40-55mm; ovary without glands. China (Guizhou, ?Sichuan).

AM 1957, (Crown Estate Commissioners, Windsor) to a clone 'Chinese Silver'; flowers Persian Rose, with darker flushes.

♀ 1993

This subspecies may be recognised by the large stiff leaves and by the large pink flowers.

R. ARIZELUM BALF.F. & FORREST (*R. REX* H.LÉV. SUBSP. *ARIZELUM* [BALF.F. & FORREST] D.F.CHAMB.) - SUBSECT. FALCONERA.

Large shrub or more commonly a small tree, 2.5-12m; bark rough. Leaves 12-21 × 4.5-11cm, obovate, lower surface densely covered with a two-layered red-brown indumentum, the upper layer composed of strongly fimbriate cup-shaped hairs, the lower compacted; petioles terete. Flowers 12-20, in a tight truss, 7-8-lobed, yellow or cream to (more rarely) pink, with a basal blotch and flecks, obliquely to regularly campanulate, nectar pouches lacking, 30-45mm; stamens 14-16; ovary densely brown-tomentose. H3-4a. April-May. NE Burma, China (SE Tibet, W Yunnan), 3,000-4,000m.

Intermediates (possibly hybrids) between *R. arizelum* and *R. rex* subsp. *ficto-lacteum*, occur where the range of the two taxa meet. Forms, with pink (often relatively intense) flowers have been referred to var. *rubicosum* Cowan & Davidian. The status of this taxon in the wild is, however, uncertain.

AM 1963 (National Trust for Scotland,

Description of Species in Cultivation

Brodick Castle Gardens) to a clone 'Brodick'; flowers Solferino Purple, with a crimson-black blotch.

AM 1963 (Earl of Stair, Stranraer) to var. *rubicosum*; flowers Rose Red, with a more or less black blotch.

R. astrocalyx Balf.f. & Forrest - is a synonym of *R. wardii* var. *wardii* (Subsect. *Campylocarpa*).

R. ATLANTICUM (ASHE) REHDER - SUBSECT. PENTANTHERA.

Deciduous shrub, 1(-3)m; strongly rhizomatous; young twigs covered in a mixture of eglandular and glandular hairs. Leaves ovate or obovate to elliptic, 3.2-5.2 × 0.8-2cm usually glabrous, lower surface pale to glaucous, with eglandular and/or gland-tipped hairs. Flower bud scales glabrous or covered with unicellular hairs, margin unicellular-ciliate. Pedicels covered gland-tipped or eglandular hairs. Flowers with a sweet musky fragrance, appearing before or with the leaves, 4-13, in a shortened raceme; calyx 1-3(-10)mm; corolla white to pale pink, funnellform, tube gradually expanding into limb, outer surface covered with eglandular and gland-tipped hairs, 25-50mm. Capsules covered with unicellular and multicellular gland-tipped hairs. H4b-c. April-May. Eastern Coastal Plain of the USA, s.l.-150m.

R. atlanticum is allied to *R. viscosum* and *R. arborescens*. It is distinguished from both by the flowers appearing before the leaves and from the former by its generally less dense indumentum.

AM 1964 (Crown Estate Commissioners, Windsor) to a clone 'Seaboard'; flowers white, with pale pink corolla tube.

R. ATROVIRENS FRANCH. - SECT. TSUTSUSI.

Large shrub or small tree; young shoots covered with adpressed flattened brown hairs. Leaves of one kind, persistent, 2-8 × 1-3cm, elliptic, apex acuminate, lower surface covered with adpressed brown hairs, densely so on midrib. Flowers 2-4 per

inflorescence; calyx 2-4mm, densely covered with flattened shining brown hairs; corolla red, with darker flecks at base of upper lobes, funnel-campanulate, 15-30mm, glabrous; stamens 10; ovary densely covered with adpressed flattened shining brown hairs; style glabrous. H2-3. China (NE Yunnan, Sichuan, Guizhou), 750-1,800m.

This distinctive species, which has only recently been introduced into cultivation, is almost certainly frost-sensitive

R. AUGUSTINII HEMSL. - SUBSECT. TRIFLORA.

Shrub, to 10m; young shoots scaly and usually pilose. Leaves (4-)5-10(-11) × 1.8-3(-4)cm, narrowly elliptic to elliptic, apex acute to acuminate, upper surface glabrous or with a few hairs overlying the midrib, lower surface sparsely covered with distant golden to brown scales, midrib pilose, the hairs sometimes extending along the petioles. Flowers (2-)3(-5), in a loose terminal inflorescence; calyx disc-like or with lobes to 3mm, puberulent and often ciliate; corolla blue to purple, or white, with greenish or brown spots, zygomorphic, open-funnel-campanulate, 28-40mm, outer surface with tube sometimes scaly and/or pilose; stamens 10; ovary scaly, apex pilose, impressed below the declinate style. H3-4a. April-May. China (SE Tibet, N Yunnan, Sichuan, Hubei), 1,300-4,000m.

Subsp. *augustinii* (incl. *R. vilmorinianum* Balf.f.). Leaves evergreen, upper surface with hairs overlying the veins, lower surface with indumentum extending along petioles, consisting of filiform acicular hairs; corolla blue or lavender, tube scaly. China (C & E Sichuan, Hubei), 1,300-3,000m.

Subsp. *chasmanthum* (Diels) Cullen (incl. *R. hirsuticostatum* Hand.-Mazz.). Leaves evergreen, upper surface glabrous or hairs restricted to midrib, lower surface with indumentum hardly extending along petioles; corolla blue or lavender, often relatively pale, tube lacking scales usually pilose. China (SE Tibet, N Yunnan, W

Sichuan), 2,200-3,650m.

Subsp. **rubrum** (Davidian) Cullen (*R. augustinii* Hemsl. var. *rubrum* Davidian & incl. *R. bergii* Davidian). Leaves evergreen; petioles with hairs of two kinds, filiform-acicular as well as loriform; corolla reddish purple. China (NW Yunnan), c.4,000m.

AM 1978 (R.N.S. Clarke, Borde Hill, Sussex) to a clone *R. bergii* 'Papillon'; flowers red-purple, paler at rim, with darker bars on reverse, spotted.

Subsp. **hardyi** (Davidian) Cullen (*R. hardyi* Davidian). Leaves deciduous, corolla white. China (NW Yunnan), 3,350-3,650m.

This is a variable species; of the four subspecies recognized above, subsp. *augustinii* is only poorly differentiated from subsp. *chasmanthum*. The leaf indumentum will distinguish this species from all but *R. trichanthum*.

AM 1926 (Dame Alice Godman, Horsham); flowers lilac-mauve with greenish dots.

AM 1930 and FCC 1932 (L. de Rothschild, Exbury) to var. *chasmanthum*; flowers bluish purple, with ochraceous spots.

R. AUREUM GEORGI - SUBSECT. PONTICA. Dwarf shrub, 0.2-1m; young shoots more or less glabrous; bud scales usually persistent. Leaves 2.5-15.5 × 1.2-7cm, ovate to broadly elliptic, apex rounded, upper and lower surface glabrous when mature. Flowers 5-8, in a lax truss; calyx 2-3mm; corolla yellow, usually with a least a few flecks, broadly campanulate, nectar pouches lacking, 25-30mm; ovary rufous-tomentose. H4b-c. April-May. Eastern Russia, Japan, N China (Jilin), 1,500-2,700m.

Var. **aureum**. Leaves 2.5-6.5cm; bud scales persistent.

Var. **hypopitys** (Pojarkova) D.F. Chamb. Leaves 9-15.5cm; bud scales usually deciduous.

The status of var. *hypopitys* is uncertain as it may be no more than a shade form of var. *aureum*. A difficult species in cultivation.

R. AURICULATUM HEMSL. - SUBSECT. AURICULATA.

Small tree, 2-6m; young shoots setose-glandular. Leaves 15-30 × 4.5-10cm, oblong to oblong-lanceolate, apex rounded, apiculate, base auriculate, lower surface glabrous or with scattered villous hairs, especially on the veins and midrib. Flowers fragrant, 6-15, in a loose inflorescence; calyx c.2mm; corolla 7-lobed, white or cream to rosy pink, with greenish colouring inside at base, funnel-shaped, nectar pouches lacking, 80-110mm; stamens 14; ovary densely stalked-glandular, style glandular to tip. H4a-b. July-September. China (E Sichuan, W Hubei, E Guizhou), 600-2,000m.

R. auriculatum is late-flowering. It is allied to species in Subsect. *Fortunea* but is distinguished by the setose-glandular young shoots and by the large auriculate leaves.

AM 1922 (Lord Aberconway, Bodnant); flowers white.

R. AURITUM TAGG - SUBSECT. TEPHROPEPLA.

Shrub, 1-3m; bark flaking, coppery red. Leaves 2.7-6.6 × 1-2.7cm, oblong to lanceolate, apex obtuse to acute, green above, lower surface pale glaucous green, papillose, scales touching or overlapping, unequal, the smaller sunk in pits. Flowers 4-7, in a terminal inflorescence with a 1-2mm rhachis; calyx lobes reflexed, 3-5mm, not ciliate; corolla pale yellow or cream, sometimes with a pale pink flush, tubular-campanulate, 18-25mm, outer surface scaly, glabrous; stamens 10; ovary scaly, impressed below the declinate style that is scaly in the lower half. H2-3. April-May. China (SE Tibet), 2,150-2,600m.

This species is closely allied to *R. xanthostephanum* but differs in the pale flowers and in the reflexed calyx lobes.

AM 1931 (L. de Rothschild, Exbury); flowers sulphur yellow.

R. AUSTRINUM (SMALL) REHDER. - SUBSECT. PENTANTHERA.

Deciduous shrub or small tree, to 5m;

young shoots densely covered with gland-tipped hairs. Leaves 4.7-10 × 2.1-3.9cm, ovate or obovate to elliptic, lower surface densely covered with unicellular hairs sometimes also with multicellular gland-tipped hairs. Flower bud scales with outer surface covered with unicellular hairs, margin glandular. Pedicels covered with unicellular and gland-tipped multicellular hairs. Flowers with a musky-sweet fragrance, appearing before or with the leaves; calyx 1-2mm; corolla yellow to orange with a dark pink, funnelform, tube gradually expanding into limb, both surfaces densely covered in unicellular hairs, outer surface also with gland-tipped multicellular hairs, 28-45mm. Capsules covered with unicellular and multicellular gland-tipped hairs. H3-4b. March-April (-May). S USA, s.l.-100m.

This species resembles *R. canescens* morphologically but differs in its consistently glandular bud scale margins, etc.

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R. bachii H.Lév. - is a synonym of **R. leptothrium** Balf.f. & Forrest (Sect. *Azaleastrum*).

R. BAILEYI BALF.F. - SECT. BAILEYA.

Shrub, 0.5-2m. Leaves (2-)3-5 × (1-)1.4-1.9(-2.6)cm, narrowly elliptic to elliptic, apex obtuse to rounded, lower surface usually with dark brown overlapping crenulate scales. Pedicels 12-22mm, scaly. Flowers 4-8 per inflorescence, rachis elongate; calyx lobes 1.5-4mm; corolla magenta to purple, often with darker spots, campanulate, 12-15mm; stamens 10, regularly arranged; ovary scaly, style sharply deflexed. H3-4a. April-May. India (Sikkim), Bhutan, China (S Tibet), 3,050-4,250m.

A distinctive species distinguished by a combination of crenulate scales and sharply deflexed style.

AM 1960 (A.C. & J.F.A. Gibson, Glenarn, Dunbartonshire); flowers Doge Purple, with purple spots.

R. BAINBRIDGEANUM TAGG & FORREST - SUBSECT. SELENSIA.

Shrub, sometimes dwarf, 0.6-2m; young shoots covered with glandular setae. Leaves 8-12 × (2.5-)3-4cm, obovate to elliptic, lower surface covered with a continuous felted dark brown indumentum composed of dendroid hairs, also with some stalked glands that are prominent on the midrib towards the base; petioles stalked-glandular. Flowers 4-8, in a lax truss; calyx 3-6mm; corolla white to creamy yellow, usually flushed with pink, with a basal blotch and purple flecks, campanulate, without nectar pouches, 30-35mm; ovary densely stalked-glandular, style usually glandular at base. H4a. April. China (SE Tibet, NW Yunnan), 3,500-4,000m.

An unsatisfactory species close to *R. selense*. Some plants in cultivation as *R. bainbridgeanum* are almost certainly hybrids of *R. selense*.

R. BALANGENSE FANG - SUBSECT. GRANDIA.

Small tree, c.3m; bark rough. Leaves thick, 6-10 × 3.5-5cm, obovate to elliptic-obovate, apex acute; lower surface covered with a white or pale yellowish partially floccose indumentum composed of dendroid hairs; petioles thick, more or less flattened. Flowers 13-15, in a dense truss, 5-6-lobed, white, funnel-campanulate, with purple nectar pouches, 35-40mm; stamens 10-12; ovary glabrous. H4a. May. China (W Sichuan), c.2,000m.

R. balangense was originally placed in Subsect. *Taliensia* but is apparently allied to *R. watsonii*. It is restricted to a single mountain (Balang Shan), in W Sichuan.

R. BALFOURIANUM DIELS - SUBSECT. TALIENSIA.

Shrub, 1-4.5m. Leaves 4.5-12 × 2-4cm, ovate-lanceolate to elliptic, apex acute to acuminate, lower surface with a dense compacted to spongy one-layered lanate tomentum composed of ramiform hairs that are silvery white at first, sometimes turning pale pinkish cinnamon at maturity, usually shining and with a surface film; petioles glabrescent. Flowers 6-12, in a

dense truss; calyx 6-10mm, lobes elliptic; corolla pale to deep pink, with purple flecks, campanulate, nectar pouches lacking, 35-40mm; ovary glandular; style glandular in the lower third. H4b. April-May. China (W Yunnan, SW Sichuan), 3,350-4,550m.

Var. **balfourianum**. Leaf indumentum compacted.

Var. **aganniphoides**. Leaf indumentum spongy, thick.

R. balfourianum is allied to *R. adenogynum* but may be distinguished by the leaf indumentum that is generally paler.

R. BARBATUM WALL EX D.DON - SUBJECT. BARBATA.

Large shrub or small tree, 1.5-6m; bark smooth and flaking, reddish brown; young shoots and petioles with long stiff bristles. Leaves 9-19 × 3.5-6.5cm, elliptic to obovate, apex acute to acuminate, upper surface without strongly impressed veins, lower surface glabrous when mature or with scattered dendroid hairs and stalked glands. Flowers fleshy, 10-20, in a tight truss, crimson to blood-red, with darker nectar pouches (rarely pure white), tubular-campanulate, 30-35mm; ovary densely stalked-glandular, also with some hairs, style glabrous. H4a. March-April. N India, Nepal, Bhutan, S Tibet (Tibet), 2,700-3,700m.

Closely allied to *R. argipeplum* (q.v.) but differing in the less hairy leaves.

AM 1934 (C. Armytage Moore, Winterfield House, Cranleigh, Surrey); flowers Turkey Red.

R. BASILICUM BALF.F. & W.W.SM. - SUBJECT. FALCONERA

Shrub or small tree, 3-10m; bark rough. Leaves 17-25 × 8.5-13cm, obovate to oblanceolate, upper surface with deeply impressed veins, lower surface covered with a dense two-layered indumentum, the upper layer greyish at first, usually becoming rufous, composed of only slightly fimbriate cup-shaped hairs, the lower layer compacted; petioles strongly flattened and winged. Flowers 15-25, in a

dense truss, 8-lobed, fleshy, cream or pale yellow, with a crimson blotch, obliquely campanulate, nectar pouches lacking, 35-50mm; stamens 16; ovary densely rufous-tomentose. H3-4a. April-May. NE Burma, China (W Yunnan), 3,000-3,700m.

The flattened petioles and yellow flowers distinguish this from the remaining species in the subsection.

AM 1956 (Col Lord Digby, Minterne, Dorset) from Forrest 24139; flowers pale whitish cream, with a crimson blotch.

R. bathyphyllum Balf.f. & Forrest - is a hybrid between **R. proteoides** Balf.f. & W.W.Sm. and **R. aganniphum** Balf.f. & Kingdon-Ward (Subsect. Taliensia). It is intermediate in stature and in leaf size; it may be distinguished from the latter by its densely tomentose ovaries. It occurs in mixed populations with the parents in the mountains on the border of NW Yunnan and Tibet.

R. bauhiniiflorum Watt ex Hutch. - is a synonym of **R. triflorum** Hook.f. var. **bauhiniiflorum** (Watt ex Hutch.) Cullen. (Subsect. Triflora).

R. BEANIANUM COWAN - SUBJECT. NERIIFLORA.

Straggling shrub, to 3m. Leaves 6-9 × 3.2-4cm, obovate to elliptic, upper surface rugulose, with impressed veins, lower surface with a dense one-layered fulvous tomentum composed of coarse dendroid hairs; petioles setulose to tomentose. Flowers 6-10, in a compact truss; calyx cupular, c.5mm; corolla fleshy, carmine to blood-red, tubular-campanulate, with nectar pouches, c.35mm; ovary stellate-tomentose, abruptly contracted into the glabrous style. H3-4a. March-May. NE Burma, NE India (Arunachal Pradesh), 3,000-3,350m.

AM 1953 (Col. Lord Digby, Minterne, Dorset) from Kingdon-Ward 6805; flowers Cardinal Red.

R. beanianum is closely allied to *R. piercei* but may be distinguished by the coarse leaf indumentum.

Description of Species in Cultivation

R. BEESIANUM DIELS - SUBSECT. TALIENSIA.

Shrub or tree, 1.8-9m. Leaves 9-19 × 2.6-8.2cm, apex apiculate, lower surface with a thin one-layered compacted fawn to brown indumentum composed of stellate hairs; petioles sometimes winged, glabrous or floccose. Flowers 10-25, in a dense truss; calyx 0.5-1mm; corolla white flushed rose to pink, with or without purple flecks and/or a basal blotch, broadly campanulate, nectar pouches lacking; ovary densely white- to brown-tomentose, style glabrous. H4a-b. April-May. NE Burma, China (NW Yunnan, SW Sichuan), 3,350-4,250m.

A distinctive species on account of the size of the leaves. In the wild it usually occurs in the shelter of trees; in cultivation it is prone to leaf snap if planted in an exposed position. It is a difficult subject in cultivation.

R. bergii Davidian - is a synonym of **R. augustinii** Hemsl. subsp. **rubrum** (Davidian) Cullen (Subsect. Triflora).

R. BHUTANENSE LONG & BOWES LYON - SUBSECT. TALIENSIA.

Shrub, 0.6-3m. Leaves 6-12.5 × 3-5cm, elliptic to elliptic-obovate, apex acute, lower surface covered with an adpressed brown one-layered tomentum composed of radiate hairs; petioles greyish-floccose above. Flowers 8-15(-22), in a dense truss; calyx c.1mm; corolla pale pink to almost white, with red flecks and a magenta basal blotch, campanulate, nectar pouches lacking; ovary and style glabrous. H4b. May-June. Bhutan, 4,145-4,570m.

A recently described species in Subsect. Taliensia.

R. blepharocalyx Franch. - is a synonym of **R. intricatum** Franch. (Subsect. Lapponica).

R. BOOTHII NUTTALL (INCL. *R. MISHMIENSE* HUTCH. & KINGDON-WARD) - SUBSECT. BOOTHIA.

Usually an epiphytic shrub, to 2m; young growth with a dense indumentum of stiff

twisted and matted hairs. Leaves 7.5-11.5 × 3.8-5.5cm, narrowly ovate to ovate-oblong, apex acuminate, upper surface with dense matted stiff hairs overlying the midrib, lower surface with dark brown close, more or less equal scales that are set in pits and have upturned rims. Pedicels stout, to 15mm, indumentum as for young growth. Flowers (3-4-6(-10) per inflorescence; calyx lobes (7-)10-15mm; corolla dull to bright yellow, sometimes spotted, campanulate, tube c.15mm, lobes 10-12mm; stamens 10; ovary scaly, tapering into the declinate style. H1b-2. April-May. NE India (Arunachal Pradesh), China (S Tibet), 1,800-2,450m

This tender species is rare in cultivation.

R. BRACHYANTHUM FRANCH. - SUBSECT. GLAUCA.

Shrub, to 2m; shoots with a shredding coppery bark. Leaves 3.5-5.5 × 1.2-2 (-2.3)cm, narrowly elliptic to narrowly obovate, apex acute to rounded, lower surface with scales more than 2× their own diameter apart, the smaller scales clear or milky. Pedicels scaly. Flowers 3-7(-10) per inflorescence; calyx lobes to c.8mm, apex rounded; corolla pale to greenish yellow, campanulate, 10-20mm; stamens 10, regular; ovary scaly, style sharply deflexed. H3-4a. May-July. NE Burma, China (Yunnan, SE Tibet), 3,050-4,000m.

Subsp. **brachyanthum**. Scales on mature lower leaf surface distant, sometimes entirely deciduous. China (C Yunnan), 3,050-3,350m.

AM 1966 (Capt. C. Ingram, Benenden, Kent) to a clone 'Jaune'; flowers Primrose Yellow.

Subsp. **hypolepidotum** (Franch.) Cullen. Scales much closer, 1-3× their own diameter apart. NE Burma, China (NW Yunnan, SE Tibet), 3,050-4,000m.

Subsp. *brachyanthum* has a very restricted distribution in the wild.

AM 1951 (Crown Estate Commissioners, Windsor) as *R. brachyanthum*, to a clone 'Blue Light'; flowers Aureolin.

R. BRACHYCARPUM D.DON EX G.DON -
SUBSECT. PONTICA

Shrub, 2-3m; young shoots tomentose, soon glabrescent; bud scales deciduous. Leaves 7-11 × 3-4.5cm, oblong to obovate, apex more or less rounded, apiculate, lower surface glabrous or with a thin compacted greyish to fawn indumentum composed of dendroid hairs when mature. Flowers 10-20, in a dense truss; calyx c.2mm; corolla white or pale rose-pink, with greenish flecks, broadly funnel-campanulate, nectar pouches lacking, c.25mm; ovary densely tomentose. H4b-c. June-July. Japan, Korea, to at least 2,500m.

Subsp. **brachycarpum**. Leaves with a persistent indumentum beneath. Japan, N Korea, c.2500m.

Subsp. **fauriei** (Franch.) D.F.Chamb. (*R. fauriei* Franch.). Leaves glabrous beneath when mature. Japan, Eastern Korea.

Apart from the relative persistence or the leaf indumentum there are no significant differences between the two taxa recognized here. A form with leaves 15-25cm long and flowers up to 70mm in diameter has been called var. *tigerstedtii*. Since the only differences between this and subsp. *brachycarpum* are in the size of its leaves and flowers this entity is not formally maintained here.

A very hardy species that will stand winter cold well.

R. brachysiphon Balf.f. ex Hutch. - is a synonym of **R. maddenii** Hook.f. subsp. **maddenii** (Subsect. Maddenia).

R. BRACTEATUM REHDER & E.H.WILSON
- SUBSECT. HELIOLEPIDA.

Shrub, to 2m; young shoots purplish, puberulous, leaf bud scales persistent. Leaves to 35 × 15mm, ovate to elliptic, apex more or less acute, lower surface with sparse large golden scales. Pedicels sparsely scaly, puberulous. Flowers 4-6 per inflorescence; calyx minute; corolla white with many reddish flecks, open-funnel-shaped, 15-25mm; stamens 10, declinate; ovary scaly, also puberulent towards apex, style straight, glabrous or

sparsely pilose at base. H4a-b. June-July. China (W Sichuan), c.3,300m.

This species is allied to *R. heliolepis*.

R. brevistylum Franch. - is a synonym of **R. heliolepis** Franch. var. **brevistylum** (Franch.) Cullen (Subsect. Heliolepidia).

R. brunneifolium Balf.f. & Forrest - is a synonym of **R. eudoxum** Balf.f. & Forrest var. **brunneifolium** (Balf.f. & Forrest) D.F.Chamb. (Subsect. Neriiflora).

R. BUREAVII FRANCH. (INCL. *R. CRUENTUM* H.LÉV.) - SUBSECT. TALIENSIA.

Shrub, 1-3(-6)m. Leaves 4.5-12 × 2-7cm, elliptic, apex acuminate, upper surface of leaves often with a thin covering of rusty red hairs, lower surface covered with a dense lanate tomentum composed of ramiform hairs that are salmon-pink when young but soon becoming deep rusty red; petioles densely pilose and glandular. Flowers 10-20, in a dense truss; calyx 5-10mm, lobes sometimes fleshy; corolla white flushed pink to pink, sometimes with purple flecks, tubular-campanulate, 25-40mm; ovary densely stalked-glandular, sometimes also tomentose, style usually glandular, at least near the base. H4b. April-May. China (N Yunnan), 3,350-4,250m.

A distinctive species on account of its attractive foliage. It resembles *R. nigroglandulosum* and *R. bureavioides* (see under those species for the differences). It is also allied to *R. elegantulum*, from which it may be distinguished by its broader leaves.

AM 1939 (L. de Rothschild, Exbury); flowers at first flushed rose, fading to white, with crimson spots.

AM 1972 (Royal Botanic Gardens Wakehurst) as a foliage plant.

AM 1988 (P.A. Cox, Glendoick) to a clone 'Ardrishaig'; trusses 10-11-flowered, corolla white, upper throat densely spotted, sometimes flushed red-purple.

R. BUREAVIOIDES BALF.F. - SUBSECT. TALIENSIA.

Shrub, to 2.5m. Leaves 7-14 × 3.5-6cm,

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elliptic to broadly obovate, apex acute to acuminate; lower surface covered with a dense two-layered indumentum, the upper layer white at first, becoming rufous at maturity, composed of ramiform hairs with stiff branches, the lower white and compacted; petioles densely rufous-tomentose. Flowers *c.*10, in a dense truss; calyx 7-12mm; corolla white suffused rose to rose, with crimson flecks and basal blotch, funnel-campanulate, nectar pouches lacking, 40-45mm; ovary and lower half of style stalked-glandular. H4b. May. China (W Sichuan - Kangding), 3,000-?4,770m

This species clearly differs from *R. bureavii* in its two-layered leaf indumentum, a characteristic that suggests an affinity with *R. rufum* rather than with the former species.

R. BURMANICUM HUTCH. - SUBSECT. MADDENIA.

Shrub, to 2m; young shoots densely covered with setae that are soon deciduous; vegetative bud scales broad and conspicuous. Leaves 5-5.5 × 2-2.5cm, obovate, apex obtuse, margin ciliate when young, more or less crenate above, upper surface with impressed midrib, lower surface with overlapping or touching scales. Flowers 4-6(-10), in a terminal inflorescence, scented; calyx disc-like; corolla greenish yellow, funnel-campanulate, 30-35mm, outer surface scaly throughout, pilose below; stamens 10; ovary densely scaly, impressed below the style that is scaly below. H2-3. March-April. C Burma (Mt Victoria), 2,700-2,900m.

A distinctive species, with characteristic vegetative buds, and with a restricted distribution.

AM 1980 (Mrs E. Mackenzie, Fressingfield, Norfolk) to a clone 'Elizabeth David'; trusses 4-flowered; corolla campanulate, yellow within, outer corolla a deeper shade of yellow.

♀ 1993

R. caeruleum H.Lév. - is a synonym of **R. rigidum** Franch.

R. CAESIUM HUTCH. - SUBSECT. TRICHOCLADA.

Shrub, 1-2m; young shoots sparsely scaly. Leaves more or less deciduous, 3-4.2 × 1.3-1.8cm, oblong-elliptic to (rarely) oblong-ovate, apex subacute to rounded, margin slightly revolute, lower surface white-papillose, scales distant, equal, golden, sparsely covered with straight or slightly curved setae. Flowers (1)-2-3, in a loose terminal inflorescence; calyx lobes to 2mm, ciliate; corolla yellow, funnel-campanulate, *c.*18mm, outer surface scaly, otherwise glabrous; stamens 10; ovary scaly, style impressed, sharply deflexed, glabrous. H3. May-June. China (Yunnan), 2,450-3,050m.

R. calciphilum Hutch. & Kingdon-Ward - is a synonym of **R. calostrotum** Balf.f. & Kingdon-Ward subsp. **riparium** (Kingdon-Ward) Cullen (Subsect. Saluensis).

R. CALENDULACEUM (MICHX.) TORR. - SUBSECT. PENTANTHERA.

Deciduous shrub or small tree, to 10m; young twigs densely eglandular-hairy. Leaves (4.5-)-5.5-7(-9) × (1.3-)-1.8-2.6 (-3.3)cm, ovate or obovate to elliptic, with lamina glabrous or covered with eglandular hairs. Flower bud scales with outer surface usually glabrous though rarely sparsely covered with unicellular hairs. Pedicels covered with gland-tipped and/or eglandular hairs. Flowers with an acrid fragrance, appearing before or with the leaves, 5-9, in a shortened raceme; calyx 1-3mm; corolla orange to flame red, funnellform, tube abruptly expanding into the limb, 35-55mm, outer surface of tube covered with unicellular and gland-tipped multicellular hairs. Capsules covered with unicellular hairs and eglandular or (less often) gland-tipped hairs. H4c. May-July. Eastern USA (Appalachians), 180-1,000m.

This species is closely allied to *R. flammeum* but is distinguished by its glandular flower bud scales and more densely glandular corolla tube.

AM 1965 (Crown Estate Commissioners, Windsor) to a clone 'Burning Light'; flowers coral red, with orange throats.

AM 1989 (Crown Estate Commissioners, Windsor) to a clone 'Amber Light'; trusses with up to 10-12 flowers; corolla with shades of orange darkening to red in throat and on lobes.

R. CALLIMORPHUM BALF.F. & W.W.SM. - SUBSECT. CAMPYLOCARPA.

Small shrub, 0.5-3m. Leaves 3.5-7 × 3-5cm, broadly ovate to orbicular, base cordate, glabrous though occasionally glandular on midrib beneath. Flowers 4-8, in a lax truss, white to rose-pink, campanulate, nectar pouches lacking, 30-40mm; ovary stalked-glandular, style glabrous. H3-4a. April-May. China (W Yunnan), 3,000-4,000m.

Var. **callimorphum**. Flowers pink.

AM 1980 (Crown Estate Commissioners, Windsor) to a clone 'Second Attempt'; trusses loosely held, of 4-5 flowers, corolla white with a large dorsal blotch of greyed-purple within, lobes and reverse flushed and rayed with shades of red-purple.

Var. **myiagrum** (Balf.f. & Forrest) D.F.Chamb. (*R. myiagrum* Balf.f. & Forrest). Flowers white.

R. calophyllum Nutt. - is a synonym of **R. maddenii** Hook.f. subsp. **maddenii** (Subsect. Maddenia).

R. CALOPHYTUM FRANCH. - SUBSECT. FORTUNEA.

Tree, (2-)5-12m. Leaves 14-30 × 4-7.2cm, oblong-oblancheolate, base cuneate, glabrous when mature or with vestiges of juvenile indumentum persisting along underside of midrib. Flowers 5-30, usually in a lax truss, 5-7-lobed, pinkish white, with purple flecks and a basal blotch, open-campanulate, nectar pouches lacking; stamens 15-20; ovary and style glabrous, stigma conspicuous, discoid. H4b. March-April. China (Sichuan, NE Yunnan, Guizhou), 1,800-4,000m.

Var. **calophytum**. Leaves 18-30cm long, apex acuminate; flowers 15-30 in a truss.

AM 1920 (G. Reuthe, Keston, Kent); flowers white, heavily flushed pink.

FCC 1933 (Dame Alice Godman, South Lodge, Horsham); flowers pale pink.

♀ 1993

Var. **openshawianum** (Rehder & E.H.Wilson) D.F.Chamb. (*R. openshawianum* Rehder & E.H.Wilson). Leaves 14-18.5cm long, apex cuspidate; flowers 5-10 in a truss.

Plants referable to both varieties occur in cultivation.

From the description, var. *pauciflorum* W.K. Hu, which is said to be in cultivation, is only doubtfully distinct from var. *openshawianum*.

This is an imposing and very distinctive species.

R. CALOSTROTUM BALF.F. & KINGDON-WARD - SUBSECT. SALUENENSIA.

Prostrate, matted or small erect shrub, to 1.5m; young shoots densely scaly, setae, if present, soon deciduous. Leaves 1-3.3 × (0.2-)0.4-2cm, suborbicular, to oblong-ovate, rarely oblong-obovate, margin ciliate, upper surface matt, with persistent dried-up scales, lower surface with dense overlapping scales, the outermost tier of which often have long stalks and cup-shaped discs. Flowers 1-5, in a loose terminal inflorescence; calyx lobes unequal, 3-8mm, ciliate; corolla magenta or pink to purple, often with darker spots on upper lobes, very openly funnel-campanulate, 18-28mm; stamens 10; ovary scaly, glabrous, impressed below the declinate style that lacks both scales and hairs. H4a-b. April-June. N Burma, China (NW Yunnan, S Tibet), 3,850-4,550m.

Subsp. **calostrotum**. Erect or decumbent shrub. Leaves obtuse, 1.2-2.2 × (0.7-)0.9-2cm broad, scales on lower surface in 3-4 clearly defined tiers; flowers 1-2 per inflorescence; pedicels 16-27mm. N Burma, China (W Yunnan), 3,300-4,250m.

Subsp. **riparium** (Kingdon-Ward)

Description of Species in Cultivation

Cullen (incl. *R. nitens* Hutch. & *R. calophilum* Hutch. & Kingdon-Ward). Erect or decumbent shrub. Leaves obtuse, 1.2-2.2 × (0.7-0.9-2cm broad, scales on lower surface in 3-4 clearly-defined tiers; flowers 2-5 per inflorescence; pedicels 10-(15)mm. India (Arunachal Pradesh), NE Burma, China (NW Yunnan, S Tibet), 3,050-4,550m.

AM 1983 (Glendoick Gardens, Perth)

Subsp. **riparioides** Cullen. Erect or decumbent shrub. Leaves obtuse, 2.2-3.3 × (0.7-0.9-2cm, scales on lower surface flat, tiers indistinct. China (W Yunnan, close to Weixi), 3,650-4,450m.

AM 1935 (Lt-Col L.C.R. Messel, Nymans, Sussex) from Forrest 27065/27497; flowers deep rosy mauve to magenta.

Subsp. **keleticum** (Balf.f. & Forrest) Cullen (*R. keleticum* Balf.f. & Forrest & incl. *R. radicans* Balf.f. & Forrest). Prostrate shrub. Leaves acute, 0.7-2.1 × 0.2-0.7 (-0.9)cm, upper surface lacking scales. NE Burma, China (NW Yunnan, SE Tibet), 4,250-4,550m.

AM 1928 (Messrs Gill, Falmouth) as *R. keleticum*; flowers lilac, darker inside, spotted red.

AM 1926 (J.B. Stevenson, Tower Court, Ascot) as *R. radicans*, from Forrest 19919).

This is a variable species. Subsp. *keleticum*, which is the most dwarf of the four recognized subspecies, apparently intergrades with, and replaces, subsp. *riparium* above 4,200m. It is closely allied to *R. saluenense* but may be distinguished by the totally glabrous ovary and by the shoots, petioles and the lower surface of the midrib that lack bristles.

FCC 1971 (E.H.M. & P.A. Cox, Glendoick Gardens, Perth) to a clone 'Gigha', as *R. calostrotum*; flowers red-purple, paler in throat, upper lobes marked with red-purple.

♀ 1993, to a clone 'Gigha'.

R. caloxanthum Balf.f. & Farrer - is a synonym of ***R. campylocarpum*** Hook.f. subsp. ***caloxanthum*** (Balf.f. & Forrest)

D.F.Chamb. (Subsect. *Campylocarpa*).

R. CALVESCENS BALF.F. & FORREST - SUBSECT. SELENSIA.

Shrub, 1-2.5m; young shoots and petioles shortly stalked-glandular, also with a detersile dendroid indumentum. Leaves 6-10 × 2.5-4cm, elliptic to ovate, lower surface with a few stalked glands and a thin detersile indumentum that is sometimes restricted to the vicinity of the midrib at the base. Flowers c.5, in a lax truss; calyx 2-3mm; corolla white flushed rose, with a few crimson flecks, funnel-campanulate, without nectar pouches, c.35mm; ovary densely glandular, also with a varying proportion of rufous dendroid hairs, style glabrous. H4. China (SE Tibet, NW Yunnan), 3,350-4,550m.

Var. ***calvescens***. Leaves 1.5-2.5 × as long as broad; pedicels 15-20mm.

Var. ***duseimatum*** (Balf.f. & Forrest) D.F.Chamb. Leaves c.3 × as long as broad; pedicels 20-28mm.

R. calvescens, which may well be a hybrid of *R. selense*, is rare in cultivation.

R. CAMELLIFLORUM HOOK.F. - SUBSECT CAMELLIFLORA.

Shrub, often epiphytic, to 2m; young shoots scaly. Leaves (5.3-)6-0-10.5 × (1.6-)2-3(-3.7)cm, narrowly elliptic to oblong-elliptic, apex bluntly acute, lower surface densely covered with almost touching broadly rimmed brown scales, a few of which are darker than the rest. Pedicels densely scaly. Flowers 1-2 per inflorescence; calyx lobes 5-8mm, oblong; corolla white to deep rose, open-campanulate, 14-18(-20)mm, scaly outside, villose within; stamens 11-16; ovary with 5-10 cells, scaly, tapering into the short sharply deflexed style. H3-4a. May-June. Nepal, India (Sikkim) Bhutan, 2,750-3,650m.

This species, the only member of its subsection, is distantly allied to species in Subsect. *Boothia* but is clearly distinct in its 12-16 stamens and multi-celled ovary, characters that suggest an affinity with Subsect. *Maddenia*.

R. CAMPANULATUM D.DON - SUBSECT. CAMPANULATA.

Dwarf shrub to a small tree, 0.5-4.5m. Leaves 7-14 × 3.8-7.5cm, ovate to broadly elliptic, upper surface glabrous, with a dense fulvous lanate tomentum composed of capitellate to ramiform hairs. Flowers 8-15 in a truss, white to pale mauve or deep plum purple, with purple flecks, open-campanulate, nectar pouches lacking, 30-50mm; ovary and style glabrous. H3-4b. April-May. N India (Kashmir to Sikkim, Nepal, Bhutan), 2,700-4,500m.

Subsp. **campanulatum**. Shrub or small tree, to 4.5m; flowers white to pale mauve; leaves 9.5-14cm long without a metallic bloom when young. N India (Kashmir to Sikkim), Nepal, Bhutan, 2,700-3,500m.

Plants from NW India, typified by the clone 'Roland Cooper', differ from those from E Nepal, Sikkim and Bhutan in having relatively large leaves.

Subsp. **aeruginosum** (Hook.f.) D.F.Chamb. (*R. aeruginosum* Hook.f.). Dwarf shrub, 0.5-2.5m; flowers pale mauve to plum purple; leaves 7-9.5cm long, with a bluish metallic bloom when young. Sikkim, Bhutan, ?E Nepal, 3,800-4,500m.

Plants from Bhutan, with deep plum purple flowers and a very thick leaf indumentum, which are very slow-growing in cultivation, are perfectly distinct from subsp. *campanulatum*. However, plants from E Nepal, known only to me from photographs, apparently have much paler flowers and are intermediate in stature. *R. campanulatum* is close to *R. wallichii* but can be distinguished by the more dense and paler leaf indumentum.

AM 1925 (L. de Rothschild, Exbury) to a clone 'Knaphill'; flowers a fine lavender blue.

AM 1964 (Royal Botanic Garden, Edinburgh) to a clone 'Roland Cooper'; flowers white, shaded mauve.

AM 1965 (Royal Botanic Garden, Edinburgh) to a clone 'Waxen Bell'; flowers purple, with darker spots.

♀ 1993, to a clone 'Knaphill'

R. CAMPYLOCARPUM HOOK.F. - SUBSECT. CAMPYLOCARPA.

Shrub or small tree, 1-6.5m. Leaves 3.2-10 × 1.5-5 cm, orbicular to elliptic, base cordate, glabrous though rarely with a few glands at base. Flowers 3-10(-15), in a lax to more or less dense truss, pale to sulphur yellow, sometimes tinged with red in bud, with or without a basal blotch, campanulate, nectar pouches lacking, 25-40mm; ovary densely stalked-glandular, style glabrous. H4a. April-May. Nepal, NE India, NE Burma, China (S Tibet, Yunnan), 3,000-4,600m.

Subsp. **campylocarpum**. Leaves elliptic, 1.6-2.5 × as long as broad. Nepal, NE India, China (S Tibet), 3,000-4,600m.

FCC 1892 (Veitch & Sons, Chelsea) as *R. campylocarpum*; flowers Lemon Yellow.

Subsp. **caloxanthum** (Balf.f. & Farrer) D.F.Chamb. (*R. caloxanthum* Balf.f., & Farrer & incl. *R. telopeum* Balf.f. & Forrest). Leaves sub-orbicular, 1.1-1.7 × as long as broad. NE Burma, SW China (SE Tibet, Yunnan), 3,000-4,300m.

AM 1934 (L. de Rothschild, Exbury) as *R. caloxanthum*, from Farrer seed; buds pink, opening deep yellow, suffused red.

Subsp. *caloxanthum* is generally a smaller plant than is subsp. *campylocarpum*; the two apparently intergrade in Southern Tibet.

R. CAMPYLOGYNUM - SUBSECT. CAMPYLOGYNA.

Dwarf prostrate shrub, to 0.6(-1)m; young shoots sparsely scaly, glabrous or pubescent. Leaves (1-)1.4-2.5(-3.5) × (0.4-)0.7-1.2cm, apex obtuse to (rarely) subacute, upper surface pubescent along midrib; lower surface whitish- or silvery-papillose, glabrous but with scattered deciduous vesicular scales. Pedicels 25-50mm, elongating to 75mm in fruit, sparsely scaly and pubescent. Flowers 1-2(-3)-flowered; calyx lobes usually 4-7mm, oblong or obovate; corolla pink to red or purple, pruinose, campanulate, (10-)13-20(-23)mm, tube glabrous outside, sparsely pubescent within; stamens 10; ovary sparsely scaly, impressed below the sharply deflexed

Description of Species in Cultivation

style. H3-4b. May-June. India (Arunachal Pradesh), NE Burma, China (S Tibet, Yunnan), 2,750-4,250(-4,900)m.

A distinct species, assigned to its own subsection.

AM 1973 (Capt. C. Ingram, Benenden, Kent) to a clone 'Baby Mouse'; flowers deep plum purple.

AM 1971 (Crown Estate Commissioners, Windsor) to a clone 'Bodnant Red', as var. *cremastum*; flowers greyed-purple.

AM 1966 (Capt. C. Ingram, Benenden, Kent) to a clone 'Thimble', as var. *cremastum*; flowers salmon pink.

AM 1925 (L. de Rothschild, Exbury) as var. *myrtilloides*.

FCC 1943 (E. de Rothschild, Exbury) as var. *myrtilloides*; flowers Magenta Rose.

AMs have been awarded to the clones 'Leucanthum' and 'Beryl Taylor'; both are now considered to be hybrids of *R. campylogynum*.

R. CAMTSCHATICUM PALLAS - SUBGEN. THERORHODION.

Prostrate or low shrub, usually less than 0.2m; bud scales persistent. Leaves 1-6 × 4-2.2cm, obovate or spatulate, apex rounded, with a glandular apiculus, margin toothed and ciliate, lower surface pubescent on veins, otherwise glabrous. Flowers solitary or to 3, in a raceme, the peduncle bearing leafy bracts; calyx 8-18mm, lobes oblong; corolla rose-purple (rarely white), with darker flecks, rotate, divided to the base on the lower side, 20-25mm; stamens 10; ovary pubescent, style pubescent at base. H4b-c. May-June. N Japan, E Russia, USA (Aleutian Islands, Alaska).

Subsp. **camtschaticum**. Corolla lobes pubescent outside, margin ciliate; leaves of vegetative shoots without or with sparse glandular hairs. Japan (N Honshu, Hokkaido), Russia (Kamtschatka, Kuriles), USA (Aleutian Islands, S Alaska).

Subsp. **glandulosum** (Small) Hultén (*R. glandulosum* Small). Corolla lobes glabrous outside, margins not ciliate; Leaves of vegetative shoots glandular-

hairy. Russia (E Siberia), USA (W Alaska).

This species is very distinctive on account of the leafy peduncles and the form of the corolla. Both subspecies are probably in cultivation.

R. CANADENSE (L.) TORR. - SECT. RHODORA.

Deciduous rhizomatous shrub, to 1m; young twigs sparsely covered with eglandular and gland-tipped hairs. Leaves 1-8.3 × 0.4-3 cm, elliptic or oblong to obovate, often bluish, lower surface covered with eglandular and gland-tipped hairs. Flower bud scales usually covered with unicellular hairs. Pedicels usually sparsely covered with gland-tipped hairs. Flowers not fragrant, usually appearing before, occasionally with, the leaves, 3-9, in a terminal umbellate raceme; calyx 0.5-1.5mm; corolla rose-purple to pink, rarely white, with or without red flecks on upper three lobes, rotate-campanulate, two-lipped, tube lacking, 12-22mm, capsule covered with unicellular and multicellular eglandular and gland-tipped hairs. H4c. April. Eastern Canada, NE USA, s.l.-1,900m.

A distinctive species without close relatives.

R. × candelabrum Hook.f. - is a hybrid between **R. thomsonii** and **R. campylocarpum**. It differs from subsp. **thomsonii**, (which it otherwise resembles), in its pink flowers, glandular ovaries and relatively shorter calyces, 2-8(-15)mm long. H3-4a.

R. CANESCENS (MICHX.) SWEET (INCL. *R. ROSEUM* [LOIS.] REHDER) - SUBSECT. PENTANTHERA.

Deciduous shrub or small tree, to 6m, young twigs sparsely to densely covered with eglandular multicellular hairs, occasionally some gland-tipped, rarely glabrous. Leaves (4.7-)-5.9-8.5(-9.8) × (1.4)1.9-2.8(-3.6)cm, ovate or obovate, to elliptic, lower surface covered with a dense covering of eglandular hairs, rarely also with gland-tipped hairs. Flower bud scales with outer surface covered with

unicellular hairs, margin unicellular-ciliate occasionally also with gland-tipped hairs. Flowers with a musky sweet fragrance, appearing with or before the leaves; calyx 1-4mm; corolla pink, or the tube pale to deep pink and the lobes white to pale pink, funnel-form, tube gradually expanding into the limb, outer surface covered with unicellular and gland-tipped multicellular hairs, 20-45mm. Capsules eglandular-hairy. H3-4a. March-May. SE USA, s.l.-500m.

This species is closely allied to *R. periclymenoides* and to *R. prinophyllum* but is distinguished from the former by its hairy bud scales and from the latter by its hairy capsules.

R. CAPITATUM MAXIM. - SUBSECT. LAPPONICA.

Upright rounded shrub, to 1.5m. Leaves (0.7)1-1.8(-2.2) × (0.3-)0.5-0.9cm, elliptic or oblong-elliptic, apex rounded without a mucro, lower surface covered with a mixture of touching or discontinuous colourless to straw-coloured scales with golden centres, and tan to dark amber scales with darker centres. Flowers 3-5 per inflorescence; calyx lobes to 6mm, unequal; corolla pale lavender to bluish purple or deep purple, broadly funnel-shaped, 10-15mm; stamens 10, about as long as the corolla, style usually longer than (rarely the same length as) the stamens, glabrous or pubescent towards the base. H4a-b. N China (N Sichuan, Qinghai, Gansu, Shaanxi), 3,000-4,300m.

This species resembles *R. nitidulum*, with which it possibly intergrades.

R. CARNEUM HUTCH. - SUBSECT. MADDENIA.

Shrub, to 1m; young shoots lacking setae. Leaves 5-11 × 3-4cm, usually narrowly elliptic, apex acute, margin not ciliate, upper surface with impressed midrib, lower surface with scales their own diameter apart. Flowers 2-4, in a loose terminal inflorescence, slightly scented; calyx unequally lobed; corolla pink, funnel-shaped, 40-50mm, outer surface scaly

throughout, pubescent at base; stamens 10; ovary densely scaly, tapering into the scaly style. H2. April-May. This species is only known in cultivation.

This distinctive species is of uncertain provenance; it is generally grown under glass.

AM 1927 (L. de Rothschild, Exbury); flowers Magenta Rose.

R. carolinianum Rehder - is a synonym of **R. minus** Michx. var. **minus** (Subsect. Caroliniana).

R. CATACOSMUM BALF.F. EX TAGG - SUBSECT. NERIIFLORA.

Shrub, 1.3-3m. Leaves 8-10 × 4.2-5.5cm, obovate, lower surface covered with a two-layered indumentum, the upper layer loosely fulvous-tomentose, composed of dendroid hairs, the lower whitish and compacted; petioles tomentose. Flowers 6-9, in a tight truss; calyx 16-20mm, cupular; corolla fleshy, crimson, tubular-campanulate, with nectar pouches, c.45mm; ovary densely tomentose, abruptly contracted into the glabrous style. H4a. April-May. China (NW Yunnan, SE Tibet), 3,650-4,400m.

This species is closely allied to *R. haematodes*; it may however be distinguished by its larger leaves and calyces.

R. CATAWBIENSE MICHX. - SUBSECT. PONTICA.

Shrub, 2-3m; young shoots tomentose though soon glabrescent; bud scales deciduous. Leaves 6.5-11.5 × 3.5-5cm, broadly elliptic to obovate, apex more or less obtuse, upper and lower surfaces glabrous when mature though with persistent hair bases below. Flowers 15-20, in a dense truss; calyx c.1mm; corolla usually lilac-purple, with faint flecks, funnel-campanulate, nectar pouches lacking, 30-45mm; ovary densely rufous-tomentose, style glabrous. H4c. May-June. Eastern N America, 50-1,000m.

This species differs from the closely allied *R. ponticum* in its more or less glabrous ovary. It has been used widely as

a parent in breeding programmes.

AM 1990 (Crown Estate Commissioners, Windsor) to a clone 'Catalga'; trusses full, 15-20-flowered, corolla white, with some yellow-green spotting in upper throat.

R. CAUCASICUM PALLAS - SUBSECT. PONTICA.

Dwarf shrub, 0.3-1m; young shoots sparsely tomentose; bud scales deciduous. Leaves 4-7.5 × 1.3-3cm, obovate to elliptic, apex blunt to apiculate, upper surface glabrous, lower surface covered with a compacted fawn to brownish tomentum composed of dendroid hairs; petioles sparsely velutinous. Flowers 6-15, in a lax to dense truss; pedicels to 30mm in flower, elongating in fruit to 60mm; calyx 2-3mm; corolla whitish to yellow, sometimes flushed with pink, with greenish flecks, broadly campanulate, nectar pouches lacking, 30-35mm; ovary densely dendroid-pilose, style glabrous. H4b. April-May. NE Turkey and adjacent parts of Caucasia, 1,800-2,700m.

The hybrid *R. × sochadzeae* Char & Davlianidze (*R. caucasicum* × *R. ponticum*) is occasionally seen in cultivation. It occurs in the wild where the two species grow together.

R. CEPHALANTHUM FRANCH. - SECT. POGONANTHUM.

Dwarf shrub, sometimes prostrate, 0.1-1.2m; leaf bud scales persistent and conspicuous. Leaves 1.2-4.7 × 0.7-2.3cm, broadly elliptic to suborbicular, apex obtuse or rounded; lower surface covered with 2-3 tiers of overlapping scales, the upper tier fawn to brown (rarely dark brown), the lowest tier golden, paler than those of the upper tiers. Flowers many, in a dense racemose umbel; calyx lobes (3-)4-7mm; corolla white to pink, rarely yellowish, tube 6.5-13mm, densely pilose at throat, lobes (3-)4-8mm; stamens 5(-7); ovary scaly. H4a-b. April-May. India (Arunachal Pradesh), N Burma, China (S Tibet, W Yunnan), 3,050-4,500m

Subsp. *cephalanthum*. Leaves 1.2-2.6

× 0.7-1.5cm; corolla tube 6.5-13mm. India (Arunachal Pradesh) N Burma, China (S & SE Tibet, Yunnan), 3,050-4,500m.

AM 1934 (L. de Rothschild, Exbury); flowers white, tinged yellow.

AM 1979 (Mrs K.N. Dryden, Sawbridgeworth) to a clone 'Winifred Murray', as *R. cephalanthum*; flowers usually 8, in loose rounded heads, corolla red, fading white at lip.

Subsp. *platyphyllum* (Franch. ex Balf.f. & W.W.Sm.) Cullen (*R. platyphyllum* Franch. ex Balf.f. & W.W.Sm.). Leaves 2.5-4.7 × 1.8-2.3cm; corolla tube 13-14mm. NE Burma, China (NW & W Yunnan), 3,050-4,000m.

Subsp. *platyphyllum*, which is larger in all its parts than subsp. *cephalanthum*, has been recently introduced to cultivation. It is rare in the wild. *R. cephalanthum* resembles *R. primuliflorum* but may be distinguished by the persistent leaf bud scales.

R. CERASINUM TAGG - SUBSECT. THOMSONIA.

Shrub, 1.2-3.7m; bark rough; young shoots glabrescent. Leaves 4.5-7 × 1.8-4cm, narrowly obovate to elliptic, base rounded, upper and lower surfaces glabrous, lower epidermis shortly papillate, with some red sessile glands; petioles with a sparse covering of rufous dendroid hairs that extend up the midrib on the upper surface of the leaves. Flowers 4-7, in a lax truss; calyx c.1.5mm; corolla crimson to scarlet, or white with a crimson border, nectar pouches darker, campanulate, 35-45mm; ovary and style stalked-glandular. H4a. May-June. NE Burma, China (SE Tibet), 3,200-3,800m.

This is a distinctive species unlikely to be confused with any other.

R. cerochitum Balf.f. & Forrest - is a synonym of **R. tanastylum** Balf.f. & Kingdon-Ward var. *tanastylum* (Subject. Irrorata).

R. CHAMAETHOMSONII (TAGG & FORREST) COWAN & DAVIDIAN - SUBSECT. NERIIFLORA.

Dwarf shrub, 0.1-1m. Leaves 2-6 × 1.5-

3.2cm, broadly obovate to broadly elliptic, lower surface glabrous (in cultivation); petioles tomentose and/or stalked-glandular. Flowers (1-)2-5, in a lax truss; calyx 1-7(-15)mm; corolla fleshy, pink to deep crimson, campanulate, with nectar pouches, 25-45mm; ovary very sparsely to densely rufous-tomentose, sometimes also with at least some glands, abruptly contracted into the glabrous style. H4a-b. March-May. China (S Tibet, NW Yunnan), 4,000-4,600m.

Var. **chamaethomsonii**. Corolla crimson to carmine; calyx lobes to 7(-15)mm; ovary sparsely hairy, sometimes glandular. China (SE Tibet, NW Yunnan).

AM 1932 (Lady Aberconway and Hon H.D. McLaren, Bodnant) as *R. repens* var. *chamaedoxa*; flowers crimson.

Var. **chamaethauma** (Tagg & Forrest) D.F. Chamb. Corolla pale to deep pink; calyx minute, 1mm or less; ovary densely hairy. China (S Tibet).

Var. *chamaethomsonii* may be no more than a hybrid of *R. forrestii*. Var. *chamaethauma* is however more distinctive and might be a species in its own right.

R. chameunum Balf.f. & Forrest - is a synonym of **R. saluenense** Franch. subsp. **chameunum** (Balf.f. & Forrest) Cullen (Subsect. Saluenensia).

R. CHAMPIONIAE HOOK.F. - SECT. CHONIASTRUM.

Shrub or small tree, to 8m. Leaves elliptic to obovate, 7-15 × 2.5-5cm, bristly, especially on veins below, apex acuminate. Flowers 4-6, clustered at end of a leafy shoot below the vegetative bud, pink at first, becoming white, with yellow markings, funnel-shaped, tube 12-15mm, lobes 40-45mm; stamens 10. H2. April-May. S China, 500-1,300m.

Only the type variety of this species is in cultivation.

R. chapmanii A.Gray - is a synonym of **R. minus** Michx var. **chapmanii** (A.Gray) Duncan & Pullen (Subsect. Caroliniana).

R. CHARITOPES BALF.F. & FARRER - SUBSECT. GLAUCA.

Dwarf shrub, to 1.5m; shoots with a smooth brown flaking bark. Leaves 3-5.5 × (1.4-)1.8-3cm, elliptic to obovate, apex bluntly rounded to retuse, lower surface with scales of varying density. Pedicels scaly. Flowers (3-)4-5 per inflorescence; calyx (3-)5-7(-9)mm, ovate, rounded at apex; corolla pink to purplish, sometimes with flecks, campanulate, (15-)20-25mm; stamens 10, regular; ovary densely scaly, style sharply deflexed, glabrous. H3-4a. April-May.

Subsp. **charitopes**. Calyx 6-9mm; corolla pink. NE Burma, China (NW Yunnan), 3,200-4,250m.

AM 1979 (Crown Estate Commissioners, Windsor) to a clone 'Parkside'; flowers in clusters of three, red-purple, with upper lobes suffused with darker shades, upper lobes extensively spotted with red-purple.

Subsp. **tsangpoense** (Kingdon-Ward) Cullen (*R. tsangpoense* Kingdon-Ward, & incl. var. *curvistylum* Kingdon-Ward ex Cowan & Davidian). Calyx (3-)5-6mm; corolla pink or purple. China (S Tibet).

There is no clear separation between the two subspecies, the distributions of which do not however overlap.

AM 1972 (Maj. A.E. Hardy, Sandling Park, Kent) to a clone 'Cowtye', probably from Kingdon-Ward 7744; flowers purple, with darker spots and a waxy bloom.

R. chengianum Fang - is a synonym of **R. hemsleyanum** E.H. Wilson (Subsect. Fortunea).

R. CHIONANTHUM TAGG & FORREST - SUBSECT. NERIIFLORA.

Dwarf shrub, 0.6-1m. Leaves 6-7.5 × 2.2-2.8cm, obovate, lower surface with a discontinuous floccose tomentum composed of dendroid hairs; petioles setose. Flowers 4-6, in a tight truss; calyx 2-3mm; corolla white, tubular-campanulate, with nectar pouches, c.35mm; ovary densely rufous-tomentose abruptly contracted into the glabrous style. H4. April-May. NE

Burma, China (W Yunnan), c.4,400m.

This species is allied to *R. haematodes* var. *chaetomallum* but differs in its white flowers and discontinuous leaf indumentum.

R. chloranthum Balf.f. & Forrest is a synonym of **R. mekongense** var. **mekongense** (Balf.f. & Kingdon-Ward) Cullen (Subsect. Trichoclada).

R. chlorops Cowan - is almost certainly a hybrid of a species in Subsect. Fortunea. The type of this species was raised at Edinburgh from seed as Forrest 16463 (which is a species of *Acer*). The type sheet is annotated with the remark that it may have been a chance hybrid between *R. wardii* and *R. vernicosum*, a hybrid that does occur in the wild.

AM 1938 (Earl of Stair, Stanraer); from Forrest 16463; flowers pale Primrose to nearly white, with a deep crimson blotch.

R. chryseum Balf.f. & Kingdon-Ward - is a synonym of **R. rupicola** W.W.Sm. var. **chryseum** (Balf.f. & Kingdon-Ward) Philipson & N.M.Philipson.

R. CHRYSODORON TAGG EX HUTCH. - SUBSECT. BOOTHIA.

Dwarf shrub, perhaps epiphytic, to at least 1m in cultivation; young shoots bristly. Leaves to 8.8 × 4.5cm, oblong-elliptic, apex obtuse, lower surface papillose, with close golden-yellow scales slightly sunk in pits. Pedicels very short, densely scaly. Flowers 3-4 per inflorescence; calyx with obscure lobes 2-3mm long; corolla yellow, campanulate, c.30mm (to 40mm in cultivation); tube c.15mm, outer surface pubescent at base, pilose within; stamens 10, regular; ovary scaly, tapering into the sharply deflexed style. H2-3. March-April.

This is a tender plant, only suitable for gardens with a relatively frost-free climate. It is intermediate between and might be a hybrid of *R. yungchangense* and *R. sulfureum*.

AM 1934 (Lord Aberconway,

Bodnant); flowers clear yellow. This may be a hybrid.

R. CILIATUM HOOK.F. - SUBSECT. MADDENIA.

Shrub, to 2m; young shoots with setae, the bases of which persist to maturity. Leaves 4.5-9 × 2-3.5cm, elliptic to narrowly elliptic, apex acute or obtuse, margin ciliate; upper surface setose, with midrib impressed, lower surface with scattered unequal scales. Flowers 2-5, in a loose terminal inflorescence; calyx conspicuous, lobes to 6-9mm; corolla white, sometimes flushed pink, campanulate to funnel-campanulate, 30-45mm, outer surface glabrous, lacking scales; stamens 10; ovary scaly, style impressed, glabrous. H3-4a. March-May. Nepal, India (Sikkim), Bhutan, China (S Tibet), 2,400-4,000m.

This distinctive species, without close relatives, is one of the most hardy in subsection Maddenia.

AM 1953 (Col Lord Digby, Minterne, Dorset); flowers white, with a tinge of pink on the centre of the corolla lobes.

♀ 1993

R. CILICALYX FRANCH. - SUBSECT. MADDENIA.

Free-growing shrub; young shoots setose. Leaves 7-11 × 2.5-4cm, elliptic to narrowly elliptic, apex acute, margin often slightly ciliate, upper surface with impressed midrib, lower surface brownish, with dense but not touching scales. Flowers (2-)-3-5, in a loose inflorescence, slightly scented; calyx lobes to 6mm, ciliate; corolla white or pink, broadly funnel-shaped, 50-60mm, outer surface usually lacking scales, pubescent below; stamens c.10; ovary scaly, impressed below the style that is scaly and pubescent towards the base. H2. March-May. SW & C China (Yunnan, Guizhou), c.2,400m.

This species is allied to *R. pachypodum* but may be distinguished by the corolla that usually lacks scales on the outer surface.

AM 1923 (Oxford Botanic Garden).

AM 1975 (G. Gorer, Sunte House,

Haywards Heath) to a clone 'Walter Maynard'; flowers white, yellow-green externally, at base mid-ribs of corolla lobes soft red-purple, upper throat flushed yellow-green.

R. CINNABARINUM HOOK.F. - SUBJECT. CINNABARINA.

Straggling shrub, up to 7m; young shoots scaly, often also pruinose. Leaves sometimes deciduous, 3-9 × 2.7-5cm, broadly or narrowly elliptic, apex rounded, lower surface covered in fleshy narrowly rimmed, equal or unequal scales. Pedicels scaly. Flowers 2-7 per inflorescence, yellow or orange, to purple sometimes bicoloured, yellow and orange, usually with a waxy pruinose bloom, tubular to campanulate, 25-36mm; stamens 10; ovary scaly, sometimes also puberulous, style usually glabrous. H3-4a. April-May. India (W Bengal, Sikkim), China (S Tibet), N Burma, 2,750-3,950m.

Subsp. **cinnabarinum** (incl. *R. blandfordiiflorum* Hook. & *R. roylei* Hook.f.). Corolla scaly outside, most leaves evergreen; leaves relatively narrow, more than 2.2 × as long as broad; corolla usually more or less tubular-campanulate. Nepal, India (W Bengal, Sikkim), Bhutan, China (S Tibet), 2,750-3,950m.

AM 1918 (Messrs Reuthe, Keston, Kent) to a clone 'Magnificum', as var. *roylei*; flowers exceptionally large, orange-red.

AM 1953 (Crown Estate Commissioners, Windsor) to a clone 'Vin Rosé', as var. *roylei*; flowers Currant Red outside, Blood Red inside, with a waxy bloom.

AM 1977 (Hydon Nurseries Ltd, Godalming) to a clone 'Nepal', from L., S. & H. 21283; flowers yellow, becoming red at base.

AM 1945 (Lord Aberconway, Bodnant) as var. *blandfordiiflorum*; flowers vermilion at base externally, paler above.

♀ 1993, to a clone 'Conroy'.

Subsp. **xanthocodon** (Hutch.) Cullen (*R. xanthocodon* Hutch. and incl. *R. concatenans* Hutch. & *R. cinnabarinum* Hook.f. var.

purpurellum Cowan). Corolla scaly outside, most leaves evergreen; leaves relatively broad, less than 2.2 × as long as broad; corolla usually campanulate. India (Arunachal Pradesh), Bhutan, China (S Tibet), 3,050-3,950m.

AM 1935 (L. de Rothschild, Exbury) from Kingdon-Ward 6026; flowers yellow.

AM 1950 (Capt. C. Ingram, Benenden, Kent) to a clone 'Copper', as *R. concatenans*, from L. & S. 6560; flowers coral coloured, suffused with orange and red.

FCC 1935 (Lt Col L.C.R. Messel, Nymans, Sussex) as *R. concatenans*, from Kingdon-Ward 5874; flowers apricot, flushed rose externally. There is some doubt that this plant is correctly named.

AM 1951 (Capt. C. Ingram, Benenden, Kent) as var. *purpurellum*, from L. & S. 6349A.

♀ 1993

Subsp. **tamaense** (Davidian) Cullen (*R. tamaense* Davidian). Corolla lobes scaly outside; most leaves deciduous; corolla campanulate, purple. N Burma, 2,750-3,200m.

Subsp. *tamaense*, with a more Easterly distribution than the remaining subspecies, represents the end of a geographical cline.

AM 1978 (Maj. A.E. Hardy, Sandling Park, Kent) to a clone 'Triangle' of *R. tamaense*; flowers white in throat, flushed purple, spotted red-purple.

R. CITRINIFLORUM BALF.F. & FORREST - SUBJECT. NERIIFLORA.

Dwarf shrub, 0.2-1.5m. Leaves 4-7.5 × 1.5-2.3cm, obovate to elliptic, lower surface densely covered with a thick grey-brown tomentum composed of ramiform hairs; petioles often winged, glabrous or with a white floccose tomentum when mature. Flowers 2-6, in a tight truss; calyx 2-12mm, when well-developed cupular; corolla not fleshy, yellow or orange to carmine, tubular-campanulate, with nectar pouches, 32-45mm; ovary stalked-glandular, abruptly contracted into the glabrous style. H4a-b. April-May. China (SE Tibet, NW Yunnan), 4,000-4,600m.

Description of Species in Cultivation

Var. **citriniflorum**. Corolla yellow; calyx 2-5(-10)mm; ovary and usually pedicels stalked-glandular.

Var. **horaеum** (Balf.f. & Forrest) D.F.Chamb. (incl. *R. citriniflorum* Balf.f. & Forrest subsp. *aureolum* Cowan). Corolla yellowish red to carmine; calyx (2-)7-12mm, ovary and pedicels lacking glands.

R. citriniflorum hybridizes with *R. sanguineum* and probably also *R. temenium* (q.v.); from both it may be distinguished by its thick tomentose leaf indumentum.

R. citriniflorum Balf.f. & Forrest subsp. *aureolum* Cowan - is a synonym of ***R. citriniflorum*** Balf.f. & Forrest var. **horaеum** (Balf.f. & Forrest) D.F.Chamb. (Subsect. *Neriiflora*).

R. CLEMENTINAE FORREST - SUBSECT. TALIENSIA.

Shrub, 1-3m. Leaves (6.5-)9.5-14 × (3-)4.5-8cm, ovate-lanceolate, apex rounded, obtuse, base rounded to cordate, lower surface with a thick whitish to buff two-layered indumentum, the upper layer lanate-tomentose, composed of ramiform hairs, the lower compacted; petioles glabrous when mature. Flowers 10-15, in a dense truss; calyx c.1mm; corolla 7-lobed, white to deep rose, with purple flecks, campanulate, nectar pouches lacking, 40-50mm; ovary and style glabrous. H4b. April-May. China (NW Yunnan, SW Sichuan), 3,350-3,950m.

The above description applies to subsp. *clementinae* as this is the only form in cultivation. This is a distinctive species on account of its 7-lobed corolla.

R. COELICUM BALF.F. & FARRER - SUBSECT. NERIIFLORA.

Shrub, 1.3-3m. Leaves 8-10 × 4.2-5.5cm, obovate; lower surface covered with a fulvous tomentum, composed of dendroid hairs; petioles sparsely covered with shortly stalked glands. Flowers c.10, in a tight truss; calyx 5-7mm; corolla fleshy, crimson, tubular-campanulate, with nectar pouches, 38-45mm; ovary covered with shortly stalked glands, abruptly con-

tracted into the glabrous style. H4a. April-May. NE Burma, China (W Yunnan), 2,750-4,400m.

Closely allied to *R. pocophorum* but differing in its broader leaves and non-tomentose petioles.

AM 1955 (Col Lord Digby, Minterne, Dorset); flowers a dark shade of Orient Red.

R. COELONEURON DIELS - SUBSECT. TALIENSIA.

Tree 4-8m. Leaves 7.5-12 × 2.5-4cm, oblanceolate, apex acuminate, lower surface covered with a dense two-layered indumentum, the upper layer a persistent or evanescent rufous tomentum, composed of ramiform hairs, the lower compacted, whitish and embedded in a surface film; petioles densely rufous-tomentose. Flowers 6-11, in a lax to more or less dense truss; calyx c.0.5mm; corolla white to pale pink, with crimson flecks, campanulate, nectar pouches lacking, 20-32mm; ovary densely reddish tomentose, with a few stalked glands below the style, style glabrous or with a few hairs at base. H4a. China (SE & W Sichuan, Guizhou), 1,200-2,300m.

There are apparently authentic introductions of this species from SE Sichuan.

R. COLLETTIANUM AITCH. & HEMSL. - SECT. POGONANTHUM.

Dwarf shrub, to 1m; leaf bud scales deciduous. Leaves 3-4 × (1-)1.3-1.7cm, more or less elliptic, apex acute, mucronate, lower surface covered with one tier of plastered golden-brown scales. Flowers 16-20, in an elongate, dense, racemose umbel; calyx lobes 5-5.5mm; corolla white (often pink in bud), funnel-hypocrateriform, tube 10-13mm, pilose within, lobes 6-8mm; stamens 8-10; ovary scaly. H4a. May. Afghanistan, Pakistan, 3,050-3,900m.

This species has a very restricted distribution in the wild. It is difficult in cultivation.

PC 1980 (P.A. Cox, Glendoick), from Hedge & Wendelbo seed.

R. commodum Balf.f. & Forrest - is a synonym of *R. sulfureum* Franch. (Subsect. Boothia).

R. compactum Hutch. - is a synonym of *R. polycladum* Franch. (Subsect. Lapponica).

R. COMPLEXUM BALF.F. & W.W.SM. - SUBSECT. LAPPONICA.

Fastigate or rounded dwarf shrub, 0.1-0.6m. Leaves 0.4-1.1 × 0.2-0.6cm, broadly or narrowly elliptic to ovate, apex obtuse or rounded, mucro small or absent, lower surface covered with uniformly ferruginous, touching scales. Flowers 3-4(-5) per inflorescence; calyx to 1mm, minute; corolla pale lilac to rosy purple, usually narrowly funnel-shaped, 9-13mm; stamens 5-6(-8), included within the tube; ovary scaly, style short or long, glabrous or slightly pubescent at base. H4b. April-May. China (N Yunnan), 3,400-4,600m.

This species may be distinguished from allied species with which it might be confused by the number of stamens.

R. concatenans Hutch. - is a synonym of *R. cinnabarinum* Hook.f. subsp. *xanthocodon* (Hutch.) Cullen (Subsect. Cinnabarina).

R. CONCINNUM HEMSL. (INCL. *R. PSEUDOYANTHINUM* BALF.F. EX HUTCH.) - SUBSECT. TRIFLORA.

Shrub, 0.5-2m; young shoots scaly, otherwise glabrous. Leaves 3.5-6 × 1.8-3.2cm, ovate to elliptic, apex acute to acuminate, upper surface scaly, hairy along midrib; lower surface covered with touching broad-rimmed scales that are golden and brown. Flowers 2-4, in a loose terminal inflorescence; calyx minute, ciliate; corolla rich reddish purple, rarely pale, zygomorphic, funnel-campanulate, 20-30mm, outer surface of tube scaly, otherwise glabrous; stamens 10; ovary scaly, sometimes minutely pubescent at apex, impressed below the declinate style that is glabrous or puberulent. H4a-b. April-May. China (Sichuan, Hubei, Guizhou), 2,300-4,500m.

This species is closely allied to *R. amesiae* (q.v.).

AM 1951 (RHS Garden, Wisley) as *R. pseudoyanthinum*; flowers Lilac Purple.

♀ 1993 as *R. concinnum* Pseudoyanthinum Group.

R. cookeanum Davidian - is a synonym of *R. sikangense* W.P.Fang (Subsect. Maculifera).

R. CORIACEUM FRANCH. - SUBSECT. FALCONERA.

Shrub or small tree, 2-7.5m. Leaves 12-25 × 4.8-6.2cm, oblanceolate, lower surface covered in a dense two-layered indumentum, the upper layer whitish or fawn, composed of scarcely fimbriate broadly cup-shaped hairs, the lower compacted; petioles terete. Flowers 15-20, in a tight truss, usually 7-lobed, white, sometimes flushed rose, with a crimson basal blotch, sometimes also with flecks, funnel-campanulate, nectar pouches lacking, 35-40mm; stamens usually 14; ovary densely rufous-tomentose. H3-4a. April. NE Burma, SW China (SE Tibet, NW Yunnan), 3,000-4,000m.

AM 1953 (Crown Estate Commissioners, Windsor) to a clone 'Morocco'; flowers white, with a crimson blotch and very few spots.

R. CORYANUM TAGG & FORREST - SUBSECT. ARGYROPHYLLA.

Shrub or small tree, 2.5-6m. Leaves 8.5-16 × 2.2-4cm, elliptic to oblanceolate, apex acute, lower surface with a thin compacted silvery to fawn indumentum intermixed with a few glands and embedded in a surface film. Flowers 20-30, in a dense inflorescence, whitish, with crimson flecks, funnel-campanulate, nectar pouches lacking, 25-30mm; ovary glabrous or with a few white simple hairs, style glabrous. H4a. April-May. China (SE Tibet, NW Yunnan), 3,650-4,400m.

The glabrous ovary and many-flowered inflorescence are the distinguishing features of this species.

AM 1979 (R.N.S. Clarke, Borde Hill)

Description of Species in Cultivation

to a clone 'Chelsea Chimes', from Kingdon-Ward 6311. Flowers up to 8-9 per truss; corolla widely funnel-campanulate, white, with sparse red-purple spotting in upper throat.

R. COWANIANUM DAVIDIAN - SUBSECT. LEPIDOTA.

Small shrub, 0.3-2.3m; shoots lacking scales. Leaves deciduous, 4-6.5 × 2.2-3cm, oblong-elliptic to broadly obovate, margin ciliate, lower surface with distant pale brown broad-rimmed scales. Flowers 3-5, in a loose terminal inflorescence; calyx lobes 4-6mm; corolla purplish pink, campanulate, 14-20mm; stamens 10; ovary scaly, style very short, sharply deflexed. H4a. May. Nepal, 3,200-3,950m.

A distinctive species that is included in Subsect. Trichoclada by some authors.

R. COXIANUM DAVIDIAN - SUBSECT. MADDENIA.

Upright shrub, 1-3m; young shoots setose. Leaves 5.5-11.5 × 1.5-3cm, oblanceolate, margin not setose, upper surface bristly (in the type specimen), midrib impressed; lower surface glaucous, the scales unequal, brown, 2-6 × their own diameter apart. Flowers c.3, in a loose terminal inflorescence; calyx lobes 4-5mm, ciliate; corolla white, without or with a faint yellow basal blotch, tubular-funnel-shaped, c.75mm, outer surface scaly, pubescent towards base; stamens 10; ovary densely scaly, tapering into the style that is scaly below. H2. April-May. India (Arunachal Pradesh), 1,650m.

This species may be a variant of *R. formosum* but is distinguished by the larger calyx, etc. There is some doubt about the status of cultivated plants as the leaves are significantly less setose than those of the type specimen.

R. crassum Franch. - is synonym of **R. maddenii** Hook.f. subsp. **crassum** (Franch.) Cullen.

R. CRINIGERUM FRANCH. - SUBSECT. GLISCHRA.

Shrub or small tree, 1-5m; young shoots with a sparse covering of stalked glands. Leaves subcoriaceous, (7-)10-17 × (2.3-)3-4.2cm, obovate to oblanceolate, apex cuspidate, lower surface with a fawn to red-brown tomentum composed of ramiform hairs. Flowers 8-14 to a truss; calyx 5-10mm; corolla white flushed pink, with purple flecks and a basal blotch, campanulate, nectar pouches lacking, 30-40mm; ovary stalked-glandular. H3-4a. April-May. NE Burma, China (NW Yunnan, SE Tibet), 3,350-4,000m.

Var. **crinigerum**. Leaves sparsely glandular, and with a dense matted tomentum beneath.

Var. **euadenium** Tagg & Forrest. Leaves densely glandular, usually with a sparse indumentum beneath.

R. croceum Balf.f. & W.W.Sm. - is a synonym of **R. wardii** var **wardii** (Subsect. Campylocarpa).

R. cruentum H.Lév. - is a synonym of **R. bureavii** (Subsect. Taliensia).

R. cubittii Hutch. - is a synonym of **R. veitchianum** Hook.f.

R. CUFFEANUM CRAIB EX HUTCH. - SUBSECT. MADDENIA.

Shrub, to 2m; young shoots scaly, stem swollen and tuber-like at base. Leaves 10-12.5 × 3-4cm, narrowly elliptic, apex acuminate, margin not strongly ciliate, upper surface with midrib impressed, lower surface with distant golden scales. Flowers c.5, in a loose inflorescence, not scented; calyx lobes unequal, to 7mm, ciliate; corolla white with a yellow blotch within, funnel-campanulate, 55-65mm, outer surface sparsely scaly throughout, pubescent towards base; stamens 10; ovary densely scaly, style impressed, scaly below. H1. April-May. Only known in cultivation, possibly originating in Burma.

Characterized by the swollen stem base, this species remains somewhat obscure as the specimens now in cultiva-

tion (as described above) differ significantly from the type description.

R. CUMBERLANDENSE E.L.BRAUN -
SUBSECT. PENTANTHERA.

Deciduous shrub, to 2m; young twigs covered with eglandular hairs, rarely glabrous. Leaves (3-)4.5-7(-8.1) × (1.3-)1.8-2.9(-3.5)cm, lower surface glaucous, glabrous or with a few eglandular multicellular hairs. Flower bud scales with outer surface glabrous, margin ciliate at apex, glandular below. Pedicels covered with eglandular hairs rarely with gland-tipped hairs. Flowers with an acrid fragrance, appearing after the leaves have expanded, 3-7, in a shortened raceme; calyx 1-3mm; corolla red, funnelform, tube expanding abruptly into the limb, 28-50mm, outer surface densely covered with unicellular hairs and sparsely covered with gland-tipped hairs. Capsule with eglandular hairs. H4a-b. E USA (Cumberland Mountains), above 900m.

This species is allied to *R. canescens* but may be distinguished by the flowers appearing after the leaves. It has been confused with *R. × bakeri*, a hybrid of *R. flammeum* and *R. canescens* (see under *R. flammeum*).

R. CUNEATUM W.W.SM. (INCL. *R. RAVUM* BALF.F. & W.W.SM.) - SUBSECT. LAPPONICA.

Small shrub, 1-2(-4)m. Leaves 1.1-7 × 0.5-2.5cm, narrowly to broadly elliptic; apex acute to rounded, lower surface covered with uniformly fawn or deep rust, touching or overlapping scales. Flowers up to 6 per inflorescence; calyx (2-)5-8 (-12)mm; corolla rose-lavender to deep purple, often with darker flecks, rarely almost white, funnel-shaped, (12-)22-31mm; stamens 10; ovary scaly, style declinate, pubescent towards base. H4a-b. March-May. China (N & W Yunnan, SW Sichuan), 3,000-3,650m

This is an anomalous and distinctive member of Subsect. Laponica showing some affinities with species in Subsect. Heliolepida.

R. CYANOCARPUM (FRANCH.) W.W.SM. -
SUBSECT. THOMSONIA.

Shrub or small tree, 1-3.8m; bark rough; young shoots glabrous. Leaves 6.5-12.5 × 4.2-9cm, broadly elliptic to orbicular, base rounded; upper surface glabrous, lower surface more or less glaucous, with a mamillate epidermis, glabrous or with a few scattered hairs on the midrib towards the base. Flowers 6-11, in a lax truss; calyx (2-)7-15mm, cupular; corolla white or cream, to clear pink, with darker nectar pouches, campanulate to funnel-campanulate, (40-)50-60mm; ovary glabrous or rarely with a few glands, style glabrous. H4a. February-April. China (W Yunnan), 3,000-4,000m.

This species has a very local distribution. It apparently hybridizes in the wild with *R. lacteum*.

AM 1933 (Lady Loder, Leonardslee, Sussex); flowers white, flushed rose.

R. dabanshanense Fang & Wang - is a synonym of **R. przewalskii** Maxim. subsp. **dabanshanense** (W.P.Fang & S.X.Wang) W.P.Fang & S.X.Wang (Subsect. Taliensia).

R. DALHOUSIAE HOOK.F. - SUBSECT. MADDENIA.

Usually an epiphytic shrub (in the wild), in cultivation 1-3m; young shoots setose. Leaves (7.5-)10-17 × 3.5-7cm, usually narrowly elliptic, apex rounded, margins often crenulate, upper surface with raised midrib, lower surface greyish, with small unequal reddish scales that are more than their own diameter apart. Flowers 2-3 in a loose terminal inflorescence, slightly scented, pedicels pubescent and scaly; calyx lobes 10-15mm, pubescent on outer surface; corolla white or cream, often yellowish inside, sometimes with five reddish lines running up lobes, narrowly funnel-campanulate to funnel-campanulate, 85-105mm; stamens 10; ovary scaly, tapering into the style that is scaly below. H2. April-May. India (Sikkim, W Bengal, Arunachal Pradesh), Bhutan, China (S Tibet), 1,800-2,600m.

Var. **dalhousiae**. Corolla lacking

longitudinal lines. Nepal, India (Sikkim, W Bengal), Bhutan, China (S Tibet), 1,800-2,450m.

AM 1930 (Vice Adm. A.W. Heneage-Vivian, Clyne Castle, Swansea); flowers soft yellow, shaded green in tube.

AM 1974 (Maj. A.E. Hardy, Sandling Park, Kent) to a clone 'Tom Spring Smythe'; flowers green, fading to greenish white.

FCC 1974 (Maj. A.E. Hardy, Sandling Park, Kent) to a clone 'Frank Ludlow', from L., S. & T. 6694; flowers white, stained yellow at base internally.

Var. **rhabdotum** (Balf.f. & Cooper) Cullen (*R. rhabdotum* Balf.f. & Cooper). Corolla with five longitudinal red lines. Bhutan, India (Arunachal Pradesh), China (S Tibet), 1,500-2,600m.

AM 1931 (Lady Aberconway & Hon. H.D. McLaren, Bodnant).

FCC 1936 (L. de Rothschild, Exbury).
♀ 1993

This species is closely allied to *R. lindleyi* but may be distinguished by the pubescent pedicels. The small differences between the two varieties do not justify their recognition as separate species.

R. dasycladum Balf.f. & W.W.Sm. - is a synonym of **R. selense** Franch. subsp. **dasycladum** (Balf.f. & W.W.Sm.) D.F.Chamb. (Subsect. Selensia).

R. DASYPETALUM BALF.F. & FORREST - SUBSECT. LAPPONICA.

Much-branched dwarf shrub, to 0.75m. Leaves 0.8-1.5 × 0.3-0.8cm, elliptic to oblong-elliptic, apex obtuse or rounded, mucronate, lower surface covered with uniformly tawny brown touching scales. Flowers 2 per inflorescence; calyx c.3mm, lobes broadly strap-shaped; corolla bright purplish rose, broadly funnel-shaped, outer surface pilose, 12-15(-18)mm; stamens 10, about as long as corolla; ovary scaly, style longer than stamens, pubescent at base. H4a-b. April-May. China (NW Yunnan), 3,500m.

This species, which is only known from a single wild collection, may be dis-

tinguished from its immediate relatives by the pilose outer surface of the corolla.

R. DAURICUM L. - SUBSECT. RHODORASTRA.

Straggling shrub, 0.5-1.5m; young shoots scaly and puberulous. Leaves thick and leathery, some persisting, 1-3.5 × 0.5-2cm, elliptic to oval, apex rounded, mucronate, upper surface with midrib shortly puberulent, otherwise glabrous, lower surface densely scaly. Flowers solitary, axillary but at the ends of the branches; calyx rim-like; corolla pink or violet pink, openly funnel-shaped, 14-21mm, outer surface pilose towards base; stamens 10; ovary scaly, otherwise glabrous, impressed below the declinate style. H4c. January-March. Russia (Eastern Siberia), Mongolia, N China, Japan (Hokkaido), s.l.-1,600m.

This species is closely allied to *R. mucronulatum* but differs in the partially persistent leaves that are more densely scaly below, and in the smaller flowers.

AM 1990 (Crown Estate Commissioners, Windsor) to a clone 'Hiltingbury'; flowers in clusters of 3-4, corolla purple within, reverse a darker purple.

♀ 1993, to an FCC clone 'Midwinter'.

R. DAVIDSONIANUM REHDER & E.H.WILSON - SUBSECT. TRIFLORA.

Shrub, 0.6-5m; young shoots scaly. Leaves 2.7-6.2 × 1.1-2cm, lanceolate to oblong, apex acute, upper surface scaly, midrib sometimes hairy; lower surface densely covered in small brown, narrow-rimmed scales that are 1-2 × their own diameter apart. Flowers 3-6(-10), in a terminal inflorescence; calyx disc-like, sometimes ciliate; corolla usually pink to lavender, sometimes with darker spots, widely funnel-campanulate, zygomorphic, (19-)23-33mm, stamens 10; ovary densely scaly, impressed below the declinate style that is glabrous or puberulent at base. H(3-)4a. April-May. China (N Yunnan, W Sichuan, Guizhou), 2,000-3,300m.

This species may be recognized from

R. yunnanense and its immediate allies by a combination of the relatively dense narrowly rimmed leaf scales and the size of the flowers.

AM 1935 (Lord Aberconway, Bodnant) and FCC 1953 (Lord Aberconway and National Trust, Bodnant) to a pale rose form.

AM 1993 (David Clulow, Tilgates, Bletchingly, Surrey) to a clone 'Ruth Lyons'; trusses 8-10-flowered, corolla deep purplish pink with light red spotting in upper throat.

♀ 1993

R. DECANDRUM (MAKINO) MAKINO - SECT. BRACHYCALYX.

Shrub or small tree; young shoots soon glabrous. Leaves in whorls of up to three, at the ends of the branches, 2-3(-6) × 2-4cm, broadly rhombic, apex acuminate, lower surface with glands, especially on midrib and veins; petioles sparsely glandular, also with villose hairs. Pedicels villose, densely so at base, also glandular. Flowers solitary or up to 3 per inflorescence, appearing before the leaves; calyx minute; corolla magenta, with flecks, open-funnel-campanulate, 25-28mm; stamens 10; ovary glandular, with a few villose hairs, style glabrous. H4a-b. April-May. Japan (Honshu, Shikoku), c.800m.

Distinguished from the apparently allied *R. dilatatum* by the presence of 10 stamens.

R. × decipiens Lacaita - is a naturally occurring hybrid between **R. hodgsonii** and **R. falconeri** (Subsect. Falconera, see under **R. hodgsonii**).

R. DECORUM FRANCH. - SUBJECT FORTUNEA.

Shrub or small tree, 1-14m. Leaves 5.5-19(-30) × 2.2-11cm, elliptic to ovate, base rounded, glabrous. Flowers 5-10, in a lax truss, 6-8-lobed, scented, white, sometimes flushed rose, sometimes also with purple flecks, open- to funnel-campanulate, nectar pouches lacking, 45-100mm; stamens 14-20, hairy below; ovary and

style covered with stalked glands that are usually white. H3-4a. May-June.

Subsp. **decorum**. Flowers 45-60mm; leaves 5.5-15cm. NE Burma, SW China (Yunnan, Sichuan, Guizhou), (1,800-) 2,500-3,600m.

AM 1923 (Lt Col L.C.R. Messel, Nymans, Sussex) to a clone 'Mrs. Messel'; flowers pure white, broad and open, in a truss of c.12.

Subsp. **diaprepes** (Balf.f. & W.W.Sm.) T.L.Ming (*R. diaprepes* Balf.f. & W.W.Sm.). Flowers 65-100mm; leaves 12-19(-30)cm long. NE Burma, China (S Yunnan), Laos, c.2,000m.

Subsp. *diaprepes* is larger in all its parts than is subsp. *decorum* but otherwise the two are very similar. It comes from the humid part of the range of the species and generally occurs at relatively modest altitudes.

AM 1926 (L. de Rothschild, Exbury) to subsp. *diaprepes*; flowers white, tinged pink externally.

AM 1953 (Mrs R.M. Stevenson, Tower Court, Ascot) and FCC 1974 (Crown Estate Commissioners, Windsor) to a clone 'Gargantua', as *R. diaprepes*, from Forrest 11958; flowers very large, white, with a green basal flush.

R. DEGRONIANUM CARRIÈRE - SUBJECT PONTICA.

Shrub, 0.5-2.5m; young shoots sparsely tomentose to floccose-tomentose, lacking glands; bud scales generally not persistent. Leaves 6-14 × 2.5-3.5cm, elliptic to oblanceolate, apex acute, upper surface glabrous, lower surface covered with a dense, compacted to lanate, white to fawn or reddish brown indumentum composed of dendroid hairs; petioles usually densely floccose-tomentose. Flowers 9-12, in a tight truss; calyx 2-3mm; corolla 5-7-lobed, pink to soft rose, with conspicuous flecks, widely funnel-campanulate, nectar pouches lacking; ovary white-tomentose, style glabrous. H4a-c. April-May. Japan, 200-1,200m.

Subsp. **degronianum** (incl. *R. metternichii* Sieb & Zucc. var. *pentamerum* Max-

im.). Corolla 5-lobed; leaves with a felted fawn to reddish brown indumentum below. C Japan.

AM 1974 (Royal Botanic Gardens, Wakehurst) to a clone 'Gerald Loder'; flowers white, with shades of red-purple and spots.

Subsp. **heptamerum** (Maxim.) H.Hara (incl. *R. metternichii* Sieb. & Zucc. & *R. japonicum* (Blume) Schneider). Corolla 5-7-lobed; leaf indumentum tawny to reddish brown, velutinous to agglutinated below. C & S Japan.

Var. **heptamerum** (Maxim.). Leaf indumentum felted, velutinous; corolla 6-7-lobed.

AM 1976, FCC 1982 (R.N.S. Clarke, Borde Hill, Sussex) to a clone 'Ho Emma', as *R. metternichii*; flowers white, flushed red-purple on veins and with spots in throat.

Var. **hondoense** (Nakai) Sealy. Leaf indumentum agglutinated, shining, usually red-brown; corolla 7-lobed.

Var. **kyomaruense** (T.Yamaz.) H.Hara. Leaf indumentum agglutinated; corolla 5-lobed.

Subsp. **yakushmanum** (Nakai) H.Hara. Leaf indumentum whitish to fawn, dense, lanate; corolla 5-lobed. S Japan (Yakushima), 500-2,000m.

Var. **yakushmanum**. (*R. yakushmanum* Nakai). Leaves 5-7cm long; bushes 0.5-1m high.

FCC 1947, (RHS Wisley) to a clone 'Koichiro Wada', as *R. yakushmanum*; flowers pink in bud, opening white.

♀ 1993, to a clone 'Koichiro Wada'.

Var. **intermedium** (Sugim.) H.Hara. Leaves 8-12cm long; bushes to 2.5m high.

The present nomenclature of this species follows that proposed by Hara. The subspecies recognized have essentially different distributions within Japan. Var. *yakushmanum* is distinctive on account of its low stature and the thick leaf indumentum. It is restricted to Yakushima Island, in the south of the Japanese Archipelago; there it is a plant of exposed mountain tops. This is linked with subsp. *degronianum*, with which it

shares a 5-lobed corolla, through var. *intermedium*, which occurs at lower levels on Yakushima and is generally larger, with larger leaves.

R. yakushmanum has been used as a parent to produce a series of garden hybrids that are relatively dwarf and retain its heat tolerance.

Subsp. *heptamerum* has been known as *R. metternichii*, which is an invalid name.

R. delavayi Franch. - is a synonym of **R. arboreum** Sm. subsp. **delavayi** (Franch.) D.F.Chamb. - (Subsect. Arborea).

R. delavayi Franch. var. *albomentosum* Davidian - is a synonym of **R. arboreum** Sm. subsp. **albomentosum** (Davidian) D.F.Chamb. (Subsect. Arborea).

R. DENDRICOLA HUTCH. (INCL. *R. NOTATUM* HUTCH & *R. TARONENSE* HUTCH.). - SUBSECT. MADDENIA.

Epiphytic or free-growing shrub, to 2m; young shoots usually lacking setae. Leaves 7-12 × 3-5cm, narrowly elliptic to narrowly obovate, apex abruptly acute, with a short drip tip, upper surface with impressed midrib, lower surface with a variably dense covering of scales. Flowers c.3, in a loose terminal inflorescence, not scented; calyx disc-like, not ciliate; corolla white to white flushed pink, often with yellow, orange or greenish blotch, sometimes flushed pink, 75-80mm, outer surface scaly, pilose at base; stamens 10; ovary scaly, impressed below the style that is scaly below. H1b. April-May. India (Arunachal Pradesh), N Burma, China (SE Tibet, Yunnan), 1,200-1,400m.

This is a variable species, without close allies.

FCC 1935 (L. de Rothschild, Exbury) as *R. taronense*; flowers white, flushed pink, darker externally, especially on lobes.

R. DENDROCHARIS FRANCH. - SUBSECT. MOUPINENSIA.

Shrub, to 0.7m, often epiphytic; young growth setose. Leaves 1.3-1.7 × 0.6-1cm,

elliptic to obovate, apex rounded, margin ciliate, lower surface densely scaly. Flowers 1-2, terminal; calyx lobes to 3mm, pubescent; corolla rose-pink, open-funnel-campanulate, 20-22mm, outer surface glabrous, lacking scales; stamens 10; style longer than stamens, declinate, sometimes pubescent at base. H4a. May. China (W Sichuan), 2,600-3,000m.

This species, which has only recently been introduced to cultivation, is closely allied to, and possibly conspecific with, *R. moupinense*. It is however consistently smaller in all its parts.

R. DENUDATUM H.LÉV. - SUBSECT. ARGYROPHYLLA.

Shrub, 2-3m. Leaves 12.5-20 × 4-7cm, elliptic to oblanceolate, apex apiculate, upper surface with deeply impressed veins, lower surface with a two-layered indumentum, the upper layer of loose woolly yellow to cinnamon ramiform hairs that ultimately rub off, the lower layer whitish, compacted. Flowers 8-10, in a loose inflorescence, rose to wine-red, campanulate, nectar pouches lacking, c.40mm; ovary densely whitish-tomentose, style glabrous. H4a?. May. SW China (N Yunnan, S Sichuan, Guizhou), c.3,200m.

Only recently introduced to cultivation, this species is closely allied to *R. floribundum* but differs in the impermanent upper layer of the leaf indumentum.

R. desquamatum Balf.f. & Forrest - is a synonym of **R. rubiginosum** Franch. (Subsect. *Helirolepida*).

R. detonsum Balf.f. & Forrest - is a hybrid of **R. adenogynum** (Subsect. *Taliensia*). It may be distinguished from the parent species by the broader leaves that have a sparse 1-layered evanescent indumentum.

R. diacritum Balf.f. & W.W.Sm. - is a synonym of **R. telmateium** Balf.f. & W.W.Sm. (Subsect. *Lapponica*).

R. diaprepes Balf.f. & W.W.Sm. - is a synonym of **R. decorum** Franch. subsp.

diaprepes (Balf.f. & W.W.Sm.) T.L.Ming (Subsect. *Fortunea*).

R. DICHROANTHUM DIELS - SUBSECT. NERIIFLORA.

Dwarf shrub, 0.3-2.3m. Leaves 4-9.5 × 2-4cm, oblanceolate to elliptic, lower surface with a continuous white to fawn, more or less loose to compacted indumentum composed of rosulate hairs; petioles covered with a white floccose indumentum. Flowers 3-6, in a tight truss; calyx coloured, 3-15mm, cupular when well-developed; corolla fleshy, usually orange-red, occasionally yellow flushed red or carmine, tubular-campanulate, with nectar pouches, 35-50mm; ovary rufous-tomentose, with or without stalked glands, abruptly tapering into the glabrous style. H4a. May-June. NE Burma, China (W Yunnan), 2,750-4,400m.

Subsp. **dichroanthum**. Leaves 2.5-3× as long as broad, indumentum silvery; ovary lacking glands; young shoots not setose. China (W Yunnan).

AM 1923 (Lady Aberconway and Hon. H.D. McLaren, Bodnant); flowers brick red.

Subsp. **apodectum** (Balf.f. & W.W.Sm.) Cowan. Leaves 1.9-2.5× as long as broad, indumentum silvery to fawn; ovary lacking glands; young shoots not setose. NE Burma, China (W Yunnan).

Subsp. **scyphocalyx** (Balf.f. & Forrest) Cowan. (*R. scyphocalyx* Balf.f. & Forrest, & incl. *R. herpesticum* Balf.f. & Kingdon-Ward). Leaves 1.9-2.7× as long as broad, indumentum fawn; ovary stalked-glandular; young shoots often glandular-setose. NE Burma, China (W Yunnan).

Subsp. **septentrionale** Cowan. (*R. scyphocalyx* Balf.f. & Forrest var. *septentrionale* Davidian). Leaves 3-3.3× as long as broad, indumentum whitish to fawn; ovary with or without stalked glands; young shoots not setose.

Some of the variation of this species is correlated with geographical distribution. It is closely allied to *R. sanguineum*.

R. dictyotum Balf.f. ex Tagg - is a synonym

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of **R. traillianum** Forrest & W.W.Sm. var. **dictyotum** (Balf.f. ex Tagg) D.F.Chamb. (Subsect. Taliensia).

R. DIGNABILE COWAN - SUBSECT. TALIENSIA.

Shrub or small tree, 0.6-4m. Leaves 7.5-18 × 4-6.5cm, elliptic to obovate-lanceolate, apex acute to apiculate, lower surface with a thin discontinuous one-layered brown indumentum composed of the scattered remains of hairs and glands; petioles sparsely floccose or glabrescent. Flowers 5-15, in a lax to dense truss; calyx 0.5-3mm; corolla white to yellow, sometimes flushed pink, with or without purple flecks and/or a purple basal blotch, campanulate to funnel-campanulate, nectar pouches lacking, 25-45mm; ovary glabrous or with a brownish red floccose indumentum that is sometimes interspersed with glands, style usually glabrous, occasionally glandular below. H4b. China (E Tibet), 3,350-4,550m.

This variable species, which is apparently related to or a hybrid of *R. beesianum*, has been recently reintroduced. Although it has been recorded in living collections for some time there has been some doubt as to the authenticity of the plants.

R. DILATATUM MIQ. - SECT. BRACHYCALYX.

Shrub or small tree, to 2m; young shoots glabrous. Leaves in whorls of up to three, at the ends of the branches, 3-5 × 1.5-3.5cm, rhombic, apex acuminate, lower surface covered with adpressed pilose hairs, eglandular; petioles papillate. Flowers solitary or up to 3, appearing before the leaves; calyx minute; corolla rose-purple (rarely white), open-campanulate, 20-30mm; stamens 5; ovary glandular, style glabrous. H4a-b. May-June. Japan (S Honshu), c.1,000m.

Allied to *R. decandrum* (q.v.). Only the type form is in cultivation.

R. dimitrium Balf.f. & Forrest - is intermediate between the species of Subsect. Irrorata and those of Subsect. Neriiflora,

with a corolla suggesting the former subsection and the large calyx of the latter. It may be a hybrid between species belonging to the two subsections.

R. DIPHROCALYX BALF.F. - SUBSECT. GLISCHRA.

Shrub, 1-5m; young shoots bristly. Leaves subcoriaceous, 9-14 × 3.5-5cm, elliptic to obovate, apex apiculate, lower surface with a few bristles at base of midrib, otherwise glabrous. Flowers c.10, in a lax truss; calyx fleshy, red, 8-20mm; corolla light to deep crimson, with poorly defined nectar pouches, funnel-campanulate, 30-40mm; ovary densely rufous-tomentose, with a few stalked glands. H3. April. China (W Yunnan), 3,000-3,350m.

An anomalous member of Subsect. Glischra on account of its calyx and red corolla. It may have originated as a hybrid between *R. habrotrichum* and a species in Subsect. Neriiflora.

R. discolor Franch. - is a synonym of **R. fortunei** Lindl. subsp. **discolor** (Franch.) D.F.Chamb. (Subsect. Fortunea).

R. doshongense Tagg - is a synonym of **R. aganniphum** Balf.f. & Kingdon-Ward var. **aganniphum** (Subsect. Taliensia).

R. drumonium Balf.f. & W.W.Sm. - is a synonym of **R. telmateium** Balf.f. & W.W.Sm. (Subsect. Lapponica).

R. dryophyllum Balf.f. & Forrest - is a synonym of **R. phaeochrysum** Balf.f. & W.W.Sm. var. **phaeochrysum** (Subsect. Taliensia), but see also note under var. **levistratum**.

R. dumulosum Balf.f. & Forrest - is a synonym of **R. phaeochrysum** Balf.f. & W.W.Sm. var. **agglutinatum** (Balf.f. & Forrest) D.F.Chamb. (Subsect. Taliensia).

R. ECLECTEUM BALF.F. & FORREST - SUBSECT. THOMSONIA.

Shrub, 1-3(-4.5m); bark smooth and peeling; young shoots usually sparsely glan-

dular. Leaves 4-14.5 × 3-5.6cm, obovate-lanceolate (jargonelle-shaped), base acute to rounded, upper surface glabrous, lower epidermis lacking papillae, glabrous though often with some straight simple hairs on either side of the midrib; petioles 4-10mm, narrowly winged, glabrous or with a few stalked glands. Flowers 6-11, in a dense truss; calyx 2-15mm, usually cupular; corolla white or cream, or more usually deep crimson, with darker nectar pouches and sometimes also purple flecks, campanulate to widely funnel-campanulate, (30-)40-50mm; ovary densely stalked-glandular, style glabrous. H3-4a. February to April. NE Burma. China (SE Tibet, NW Yunnan, SW Sichuan), 3,000-4,000m.

AM 1949 (E. de Rothschild, Exbury); flowers Primrose Yellow.

AM 1978 (R.N.S. Clarke, Borde Hill, Sussex) to a clone 'Kingdom Come', Kingdon-Ward 6869; flowers white, flushed yellow green, slightly spotted red-purple.

R. eclecctum Balf.f. & Forrest var. *bellatulum* Balf.f. ex Tagg is a hybrid between var. *eclectum* and *R. selense*. This natural hybrid may be recognized by its paler flowers, shorter calyces and longer petioles. Plants with yellow flowers, but otherwise resembling *R. eclecctum* occur in the cultivation. It is not clear what status these have.

R. × edgarianum Rehder & E.H.Wilson - is a hybrid of *R. nivale* Hook.f. subsp. *boreale* M.N.Pilipson & Philipson (Subsect. *Lapponica*). It is occasionally seen in cultivation.

R. EDGEWORTHII HOOK.F. - SUBSECT. *EDGEWORTHIA*.

Shrub, to 2.5m, sometimes epiphytic. Leaves 6-15 × 2.5-5cm, oblong-ovate to (rarely) elliptic, apex acuminate, upper surface strongly bullate, lower surface with the small distant golden scales completely obscured by a dense indumentum. Pedicels densely tomentose. Flowers usu-

ally fragrant, 2-3 per inflorescence; calyx lobes conspicuous; corolla white, sometimes flushed pink and/or with a yellow blotch at base, funnel-campanulate, (35-) 45-65mm; stamens 10, declinate; ovary densely tomentose; style declinate. H2-3. April-May. India (Sikkim, W Bengal, Arunachal Pradesh), Bhutan, NE Burma, China (S Tibet, Yunnan), 2,100-3,300m.

This is a distinctive and attractive species that requires protection from frost.

AM 1923 (T.H. Lowinsky, Sunninghill) as *R. bullatum*, from Farrer 842; flowers white.

AM 1946 (Lord Aberconway, Bodnant) as *R. bullatum*; flowers bluish pink, flushed rose externally.

FCC 1933 (Lt Col L.C.R. Messel, Nymans); flowers white.

FCC 1937 (L. de Rothschild, Exbury) as *R. bullatum*; flowers white.

FCC 1981 (Sir Giles Loder, Leonard-slee, Horsham, Sussex) to a clone 'Red Collar', from Kingdon-Ward 20840; trusses 3-5-flowered, corolla white, suffused pink, usually on three upper lobes and most strongly on reverse as a diffused central band, some light to faint yellow-orange spotting deep in upper throat.

♀ 1993

R. ELEGANTULUM TAGG & FORREST - SUBSECT. *TALIENSIA*.

Shrub 1-1.6m. Leaves 7-13 × 2.5-3.5cm, elliptic-oblong, apex acute; lower surface covered with a dense one-layered lanate indumentum composed of ramiform hairs that are deep pink when young, maturing to a rich rufous brown; petioles tomentose at first, later glabrescent. Flowers 10-20, in a dense truss; calyx c.12mm, lobes oblong; corolla pale purplish pink, with crimson flecks, campanulate, nectar pouches lacking, 30-40mm; ovary densely stalked-glandular, style with a few glands at base. H4b. May. China (border of Sichuan and Yunnan, near Yungning), 3,650-3,950m.

This species, which has a very limited

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distribution in the wild, is allied to *R. bureavii* and *R. adenogynum*.

R. ELLIOTTII WATT - SUBSECT. PARISHIA. Small straggling shrub or small tree, to 4.5m; young shoots and petioles reddish stellate-tomentose, also with stalked glands. Leaves 8.5-10 × 2.5-5.1cm, oblanceolate to elliptic, both surfaces glabrous and shining when mature. Flowers 6-10, in a lax truss; calyx 3-4mm; corolla rose-purple, with darker flecks, funnel-campanulate, with nectar pouches, 40-50mm; ovary densely rufous-stellate-tomentose, style tomentose and glandular to tip. H2-3. May-July. NE India (Nagaland), 2,700-3,000m.

This species is allied to *R. facetum* and to *R. kyawii* but differs from both in the corolla shape and in its smaller leaves.

AM 1934 (J.J. Crosfield, Embley Park, Romsey) from Kingdon-Ward 7725; flowers deep blood red, faintly spotted.

FCC 1937 (Adm. A.W. Heneage-Vivian, Clyne Castle, Swansea) from Kingdon-Ward 7725; flowers deep scarlet, with light chocolate spots.

R. ellipticum Maxim. - is a synonym of **R. moulmainense** Hook.f. (Sect. Choniastrum).

R. epapillatum Balf.f. & Cooper - is a synonym of **R. papillatum** Balf.f. & Cooper (Subsect. Irrorata).

R. epipastum Balf.f. & Forrest - is a synonym of **R. eudoxum** Balf.f. & Forrest var. **mesopolium** (Balf.f. & Forrest) D.F. Chamb. (Subsect. Neriiflora).

R. eriandrum H.Lév. - is a synonym of **R. rigidum** Franch. (Subsect. Triflora).

R. ERIOCARPUM (HAYATA) NAKAI (INCL. *R. TAMURAE* [MAKINO] MASAMUNE) - SECT. TSUTSUSI.

Dwarf shrub, to 0.4m or more; young shoots and petioles densely covered with broad flattened brown adpressed hairs. Leaves of one kind, persistent, 1.7-2.5 × 1-

1.5cm, obovate to elliptic, apex bluntly mucronate, both surfaces stiffly hairy, especially on the midrib. Pedicels densely and stiffly adpressed-hairy. Flowers 1-2 per inflorescence; calyx 2-3mm; corolla white to purplish-pink, with darker flecks, broadly funnel-campanulate, c.30mm; stamens 9-10; ovary stiffly hairy, style glabrous. H2-3. S Japan, (Kyushu, Ryukyu Islands), c.300m.

This is a tender species that is affected by frosts. It rarely flowers in Britain when grown outside.

R. eritimum Balf.f. & W.W.Sm. - is a synonym of **R. anthosphaerum** Diels (Subsect. Fortunea).

R. EROSUM COWAN - SUBSECT. BARBATA. Large shrub or small tree, 3.5-6.5m; bark smooth and flaking, reddish brown; young shoots and petioles with long stiff bristles. Leaves 8-12.5 × 3.5-6.5cm, broadly elliptic to oblong, apex rounded, apiculate, base cordate, upper surface with strongly impressed veins, lower surface with a floccose dendroid indumentum. Flowers fleshy, 10-15, in a tight truss, crimson to blood-red, with darker nectar pouches, tubular-campanulate, 30-35mm; ovary densely stalked-glandular, style glabrous. H3-4a. March-April. China (SE Tibet), 3,000-3,800m.

R. erosum is the most Easterly of a complex of three closely allied species, also including *R. barbatum* and *R. argipeplum*. Some cultivated plants of this species have been called *R. argipeplum*, but it may be distinguished from that species by the relatively broader (1.5-2× as long as broad) and more rounded leaves.

R. erubescens Hutch. - is a synonym of **R. oreodoxa** Franch. var. **fargesii** (Franch.) D.F.Chamb. (Subsect. Fortunea).

R. × ERYTHROCALYX BALF.F. & FORREST - IS A NATURAL HYBRID BETWEEN *R. SELENSE* AND *R. WARDII*.

Shrub, 1-2.5m; young shoots stalked-glandular. Leaves 6-10 × 3.6-5cm, obovate to

oblong, upper surface glabrous, lower surface punctulate, otherwise glabrous. Flowers 4-10, in a lax truss; calyx 3-7mm; corolla pale yellow or white flushed rose, with or without purple flecks and a basal blotch, campanulate to open-campanulate, 35-45mm; ovary stalked-glandular, style glabrous or stalked-glandular for half its length. H4a. April-May. China (SE Tibet, NW Yunnan), 3,350-3,950m.

This hybrid is seen occasionally in gardens and is morphologically intermediate between the parents. It occurs with them in NW Yunnan, especially around the type locality (Beima Shan).

R. ESETULOSUM BALF.F. & FORREST -
SUBSECT. SELENSIA.

Shrub, 1.5-2m; young shoots and petioles glabrous or with minute stalked glands. Leaves thick, 6-12 × 3-4cm, ovate to elliptic, lower surface with a thin adpressed indumentum of scattered dendroid hairs. Flowers 8-10, in a lax truss; calyx (1-)4-10mm; corolla white flushed rose, with or without purple flecks, funnel-campanulate, nectar pouches lacking, 30-35mm; ovary densely stalked-glandular, style glandular, at least near the base. H4a. April-May. China (SE Tibet, NW Yunnan), 3,000-4,250m.

As there is no direct connection between the few plants in cultivation and wild-collected herbarium specimens, there is some doubt as to their status. In any case *R. esetulosum* may be a hybrid between *R. selense* and *R. vernicosum*.

R. euchaites Balf.f. & Forrest - is a synonym of **R. neriiflorum** Franch. subsp. **neriiflorum** (Subsect. Neriiflora).

R. EUDOXUM BALFF. & FORREST -
SUBSECT. NERIIFLORA.

Dwarf shrub, 0.3-1.2m. Leaves 3.5-9 × 1-3cm, elliptic, lower surface with a green epidermis and a thin discontinuous whitish to brown indumentum; petioles usually tomentose, sometimes also weakly setose. Flowers 2-6, in a tight truss; calyx 2-7mm, cupular when well-devel-

oped; corolla not fleshy, pink to rose-carmine, tubular-campanulate to campanulate, 25-40mm; ovary predominantly glandular to predominantly tomentose, abruptly contracted into the glabrous style. H4a. April-May. China border (between Tibet & Yunnan), 3,350-4,250m.

Var. **eudoxum**. (incl. *R. trichomiscum* Balf.f. & Forrest & *R. trichophlebium* Balf.f. & Forrest). Ovary predominantly glandular.

AM 1960 (E.H.M. & P.A. Cox, Glendoick, Perth); flowers Solferino Purple with a basal crimson fringe.

Var. **brunneifolium** (Balf.f. & Forrest) D.F.Chamb. (*R. brunneifolium* Balf.f. & Forrest) Ovary predominantly tomentose; leaves 7-9cm, indumentum brownish; corolla c.40mm.

Var. **mesopolium** (Balf.f. & Forrest) D.F.Chamb. (incl. *R. epipastum* Balf.f. & Forrest). Ovary predominantly tomentose; leaves 3.5-7cm, indumentum whitish; corolla 30-35mm.

A variable species that may have arisen as a hybrid of *R. sanguineum*. It is also allied to *R. temenium* (q.v.).

R. EURYSIPHON TAGG & FORREST -
SUBSECT. THOMSONIA.

Dwarf shrub, 1-1.8m; bark rough; young shoots minutely stalked-glandular. Leaves 3.5-5.5 × 1.8-2.1cm, elliptic to oblanceolate, base rounded, upper and lower surfaces glabrous, lower epidermis glaucous but not papillate; petioles glabrous or stalked-glandular at maturity. Flowers solitary or up to 3, in a lax truss; calyx c.3mm; corolla creamy white flushed pale rose, with conspicuous flecks, campanulate, with nectar pouches, 30-40mm; ovary and most of style densely stalked-glandular. H4. May. China (SE Tibet), 4,000m.

This is a rare species, both in the wild and in cultivation, that may prove to be a hybrid of *R. stewartianum*.

R. EXASPERATUM TAGG - SUBSECT.
BARBATA.

Shrub or small tree, 2-5m; bark smooth,

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reddish brown; young shoots and petioles densely covered with gland-tipped bristles. Leaves 11-13.5 × 6-7.5cm, broadly elliptic to obovate, apex and base rounded, upper surface with impressed veins, lower surface with gland-tipped stiff hairs or bristles. Flowers 10-15, in a dense truss, brick-red, with darker nectar pouches, tubular-campanulate, 35-45mm; ovary densely stalked-glandular, style glabrous. H4a. April-May. Upper Burma and adjacent parts of NE India and SW China (Tibet), 3,000-3,700m.

A rare species that is difficult to cultivate. The newly flushed leaves are an attractive plum purple colour.

R. EXCELLENS HEMSL. & E.H. WILSON - SUBSECT. MADDENIA.

Shrub, to at least 3m; young shoots scaly. Leaves 15-19 × 4-5.5cm, oblong-elliptic, apex obtuse, margin not ciliate, upper surface with raised midrib, lower surface glaucous, with the scales their own diameter apart. Flowers 3-4, in a loose inflorescence; calyx conspicuous, lobes 5-15mm, glabrous; corolla white to cream, funnel-campanulate, 100-110mm, outer surface scaly; stamens 10(-15); ovary densely scaly, tapering into the style which is scaly at base. H1b-2. May. China (S Yunnan, Guizhou), Northern Vietnam, 1,800-2,500m.

While plants in cultivation and herbarium specimens recently collected in Vietnam generally have 10-11 stamens, the type has 15, suggesting an affinity with *R. maddenii*. Vegetatively there is a similarity with *R. nuttallii*, with which it grows in the wild, but the leaves are narrower than those of the latter species.

R. eximium Nuttall - is a synonym of **R. falconeri** Hook.f. subsp. **eximium** (Nuttall) D.F.Chamb. (Subsect. Falconera).

R. FABERI HEMSL. (INCL. *R. FABERIOIDES* BALF.F. & *R. WUENSE* BALF.F.) - SUBSECT. TALIENSIA.

Shrub, 2-3m. Leaves 6-11 × 2.8-4.5cm,

oblanceolate to elliptic, apex acuminate to apiculate, lower surface covered with a two-layered indumentum, the upper layer loose, composed of brown to rust-red detersile ramiform hairs, the lower compacted, whitish; petioles 0.5-2cm, densely tomentose. Flowers 7-20, in a more or less dense truss; calyx 7-10mm, lobes broad; corolla white, occasionally flushed pink, sometimes with crimson flecks, campanulate or funnel-campanulate, nectar pouches lacking, 30-40mm; ovary densely stalked-glandular, style glabrous or glandular at base. H4b. April-May. China (C Sichuan), 2,650-3,350m.

This species is allied to *R. prattii* (q.v.).

R. faberi Hemsl. subsp. *prattii* (Franch.) D.F.Chamb. - is a synonym of **R. prattii** Franch. (Subsect. Taliensia).

R. faberioides Balf.f. - is a synonym of **R. faberi** Hemsl. (Subsect. Taliensia).

R. FACETUM BALF.F. & KINGDON-WARD - SUBSECT. PARISHIA.

Shrub or tree, 2-10m; young shoots and petioles rufous stellate-tomentose. Leaves 10-18.5 × 3-7.2cm, oblanceolate to elliptic, both surfaces glabrous and shining when mature, or with vestiges of indumentum, especially on the midrib towards the base. Flowers c.10, in a lax truss; calyx 3-5mm; corolla deep rose to scarlet, tubular-campanulate, with nectar pouches, 40-50mm; ovary rufous stellate-tomentose; style with floccose stellate hairs and glands. H2-3. June-July. NE Burma, China (W Yunnan), 2,700-3,350m.

This species is allied to *R. kyawii* but lacks the setose glands on the young shoots that characterize the latter species.

AM 1924 (T.H. Lowinsky, Sunninghill); flowers reddish salmon, with darker spots.

FCC 1980 (R.N.S. Clarke, Borde Hill, Sussex) to a clone 'Eric Rudd', from Forrest 26045; truss loose, rounded, comprising up to 13 flowers, corolla red, with overall red mottling.

R. FALCONERI HOOK.F. - SUBSECT. FALCONERA.

Tree, 6-12m; old branches with a smooth cinnamon bark. Leaves 18-35 × 8-17cm, broadly elliptic to obovate, upper surface rugulose with deeply impressed veins, lower surface densely covered with a two-layered indumentum, the upper layer rufous, composed of strongly fimbriate cup-shaped hairs, the lower compacted; petioles terete. Flowers 15-20, in a dense truss, 8(-10)-lobed, fleshy, whitish to cream or pale pink, with a purple basal blotch, obliquely campanulate, nectar pouches lacking, 40-50mm; stamens usually 16; ovary densely sticky-glandular. H3-4a. April-May. NE India (Bengal to Arunachal Pradesh), E Nepal, Bhutan, 2,700-3,750m

Subsp. **falconeri**. Flowers white to cream; leaves glabrous above at maturity. E Nepal, NE India (Bengal to Arunachal Pradesh), Bhutan.

AM 1922 (Messrs Gill, Falmouth); flowers yellowish white, with a dark purple blotch.

♀ 1993

Subsp. **eximium** (Nuttall) D.F.Chamb. (*R. eximium* Nuttall). Flowers pale pink with darker tips; leaves with a rufous scurfy indumentum above when mature. NE India (Arunachal Pradesh).

R. falconeri hybridizes with *R. hodgsonii* in the wild (q.v.).

AM 1973 (Royal Botanic Gardens, Wakehurst) as a foliage plant, as *R. eximium*.

R. fargesii Franch. - is a synonym of **R. oreodoxa** Franch. var. **fargesii** (Franch.) D.F.Chamb. (Subsect. Fortunea).

R. FARRERAE TAIT - SECT. BRACHYCALYX. Dwarf shrub; young shoots glabrescent. Leaves in whorls of up to three, at the ends of the branches, thick, 1.5-3 × 1-2cm, ovate, apex acute, lower surface covered with long brown simple hairs; petioles densely villose. Pedicels villose. Flowers 1-2, appearing before the leaves; calyx minute; corolla pale purple or lilac, upper

lobe spotted, open-campanulate, 20-30mm; stamens 10; ovary densely hairy, eglandular, style glabrous. H1b-2. June. S China, 600m.

R. farrerae is closely allied to *R. mariesii* but differs in its small thick leaves and densely villose petioles. As this is a very tender species it is very rare in cultivation.

R. FASTIGIATUM FRANCH. - SUBSECT. LAPPONICA.

Prostrate or cushion-forming shrub, to 1.5m. Leaves often bluish, (0.5-)0.7-1.6 × 0.3-0.6(-0.9)cm, broadly elliptic or oblong to ovate, apex rounded to subacute, mucronate, lower surface covered with white or pinkish milky scales that are touching in groups or more scattered. Flowers 1-3(-4) per inflorescence; calyx 3-6mm, lobes oblong to bluntly triangular; corolla bright lavender-blue to rich purple, funnel-shaped, 10-16(-18)mm; stamens (6-)10, as long as the corolla; ovary scaly, style longer than the stamens, glabrous (rarely scaly and pubescent at base). H4a-b. April-May. China (N & C Yunnan), 3,400-4,400m.

R. fastigiatum may be distinguished by the milky scales on the lower surface of the leaves.

AM 1914 (G. Reuthe, Keston, Kent); flowers bluish lilac.

♀ 1994

R. FAUCIUM D.F.CHAMB. - SUBSECT. THOMSONIA.

Shrub or small tree, 1.5-6.5m; bark smooth; young shoots glabrous. Leaves 7-12 × 2.5-3cm, oblanceolate, base cuneate, upper surface glabrous, lower surface with a greenish epidermis, papillae lacking, also with a few weak fasciculate hairs near the midrib, and with persistent red punctate hair bases overlying the veins; petioles often winged, 7-15mm, stalked-glandular. Flowers 5-10, in a lax truss; calyx 3-5mm; corolla pink, white tinged pink or (rarely) sulphur yellow, with purple flecks, campanulate, with nectar pouches, 37-40mm; ovary densely stalked-glandular, style glabrous. H3-4a. April-

Description of Species in Cultivation

May. China (SE Tibet), 2,600-3,350m.

This species is allied to *R. hylaenum* but differs in the smaller leaves that taper below, in the shorter petioles and in the glandular ovary.

R. fauriei Franch. - is a synonym of **R. brachycarpum** D.Don ex D.Don subsp. **fauriei** (Franch.) D.F.Chamb. (Subsect. Pontica).

R. FERRUGINEUM L. - SUBSECT. RHODODENDRON.

Small shrub, to 1.5m; young shoots densely scaly, sometimes with a few hairs. Leaves 2.8-4 × 0.8-1.6cm, narrowly elliptic to elliptic, apex acute or mucronate, margin not ciliate, upper surface dark shining green, lower surface reddish brown, with dense overlapping scales. Flowers many, in a dense inflorescence; rhachis 10-20mm; calyx lobes to 1.5mm, scaly, ciliate; corolla deep pink, rarely pale pink or white, tubular-campanulate, 12-15(-17)mm, outer surface scaly and usually pubescent; stamens 10; style glabrous, up to 2× as long as ovary. H4b. June-July. Europe (Austria, France, Germany, Italy, Switzerland), 1,700-2,500m.

This, and the related *R. hirsutum* are known as the Alpenrose. It is also closely allied to *R. myrtifolium* (q.v.).

AM 1969 (Crown Estate Commissioners, Windsor) as var. *album*; flowers White.

AM 1990 (Valerie Finnis, Kettering, Northants); trusses 12-14-flowered, corolla red-purple, inner surface red-purple.

R. ficolacteum Balf.f. - is a synonym of **R. rex** H.Lév. subsp. **ficolacteum** (Balf.f.) D.F.Chamb. (Subsect. Falconera).

R. fimbriatum Hutch. - is a synonym of **R. hippophaeoides** Balf.f. & W.W.Sm. var **hippophaeoides** (Subsect. Lapponica).

R. FLAMMEUM (MICHX.) SARGENT - SUBSECT. PENTANTHERA.

Deciduous shrub, to 2.5m; young twigs densely covered with eglandular hairs.

Leaves (3-)3.9-6.3(-8.2) × 1.5-2.4(-2.7)cm, ovate or obovate to elliptic, lower surface densely eglandular-hairy or glabrous. Flower bud scales with outer surface covered with unicellular hairs, rarely glabrous. Flowers with an acrid fragrance, appearing before or with the leaves, 6-11, in a shortened raceme; calyx 1-3(-5)mm; corolla scarlet to orange, funnel-form, tube abruptly expanding into the limb, outer surface of corolla covered with eglandular hairs, 27-45mm. Capsule with eglandular-hairs. H4a-b. April. SE USA, s.l.-500m.

R. flammeum differs from the allied *R. prunifolium* and *R. cumberlandense* in the precocious flowers that appear before the leaves.

R. FLAVIDUM FRANCH. - SUBSECT. LAPPONICA.

Erect shrub, to 2.5m. Leaves 0.7-1.5 × 0.3-0.7cm, broadly elliptic to oblong, apex rounded, shortly mucronate, lower surface with brown to dark brown scales that are 0.5-2× their own diameter apart. Flowers 1-3 per inflorescence; calyx 2-4 (-7)mm, lobes strap-shaped or deltoid; corolla yellow, broadly funnel-shaped, pubescent outside and inside, scaly outside, 12-18mm; stamens 8-10, as long as corolla; ovary scaly, style longer than stamens, pubescent towards the base. H4a-b. April-May. China (NW Sichuan), 3,000-4,000m.

Var. *psilostylum* Rehder & E.H.Wilson, which differs from var. *flavidum* in having leaf scales of two kinds, some dark, the rest golden, is probably not in cultivation.

R. flavorufum Balf.f. & Forrest - is a synonym of **R. aganniphum** Balf.f. & Kingdon-Ward var. **flavorufum** Balf.f. & Forrest (Subsect. Taliensia).

R. FLETCHERIANUM DAVIDIAN - SUBSECT. MADDENIA.

Compact shrub 0.6-1.2m; young shoots covered with setae. Leaves 2.3-5.5 × 1-2.8cm, elliptic to oblong-lanceolate, apex obtuse or acute, mucronate, margin dis-

tinctly crenate, upper surface with impressed midrib, lower surface with distant scales. Flowers 2-4(-5), in a loose inflorescence, not scented; calyx lobes 8-10mm, ciliate; corolla pale yellow, broadly funnel-shaped, 35-42mm, outer surface scaly or not, base glabrous; stamens 10; ovary scaly, conspicuously setose towards apex. H4a. March-May. China (SE Tibet), 4,000-4,300m.

Closely allied to *R. valentinianum* but differing in the partially setose ovary and in the leaves that are crenulate, with distant scales below.

AM 1964 (E.H.M. & P.A. Cox, Glendoick Gardens, Perth) from Rock 22302, to a clone 'Yellow Bunting'; flowers Primrose Yellow

R. FLINCKII DAVIDIAN - SUBSECT. LANATA.

Shrub, 1.5-2.5m. Leaves thin, 4-10 × 2-4.5cm, oblong-lanceolate to elliptic, apex rounded, apiculate, lower surface covered in a dense rufous, somewhat matted indumentum composed of dendroid hairs. Flowers 3-8, in a lax truss, pale yellow (to pink?), with purple flecks, campanulate, lacking nectar pouches, 35-50mm; ovary densely covered with a whitish to brown tomentum, without glands, style glabrous. H4a-b. April-May. E Bhutan., c.3,000m.

This species apparently hybridizes with *R. wallichii* and/or *R. campanulatum*. This may be the origin of the pink-flowered forms that have been reported from the wild and have been named *R. poluninii* Davidian.

R. FLOCCIGERUM FRANCH. - SUBSECT. NERIIFLORA.

Shrub, 0.6-3m. Leaves 3.5-11 × 1-2.7cm, narrowly oblong to narrowly elliptic, lower surface with a glaucous papillate epidermis, and with varying amounts of a rufous floccose, usually patchy, tomentum composed of ramiform hairs; petioles floccose-tomentose, rarely also setulose-glandular. Flowers 4-7 per truss; calyx 1-4mm; corolla fleshy, crimson to scarlet, rarely yellowish to pink, tubular-campanulate,

with nectar pouches, 30-40mm; ovary densely stellate-tomentose, lacking glands, tapering into the glabrous style. H3-4a. March-May. China (SE Tibet, NW Yunnan), 2,750-3,950m.

Allied to *R. neriiflorum*, *R. sperabile* and *R. sperabiloides* but distinguished from all three by the characteristic patchy leaf indumentum.

AM 1957 (Col Lord Digby, Minterne, Dorset); flowers pale cream, edged very pale Cherry, with pale greenish spots.

R. FLORIBUNDUM FRANCH. - SUBSECT. ARGYROPHYLLA.

Shrub or small tree, 2-5m. Leaves 10-18 × 3.2-5.5cm, elliptic to oblanceolate, apex apiculate, upper surface with deeply impressed veins, lower surface with a two-layered indumentum, the upper layer loose, woolly, persistent, yellowish at first but soon becoming white or greyish, composed of ramiform hairs, the lower layer white and compacted. Flowers 7-12, in a loose inflorescence, magenta-rose fading pale pink, with crimson flecks and a basal blotch, broadly campanulate, nectar pouches lacking, c.40mm; ovary densely tomentose, style glabrous. H4a. March-April. China (W Sichuan, Guizhou), 1,300-2,600m.

Allied to *R. denudatum* (q.v.). It is susceptible to bark-split in cold winters in Britain.

AM 1963 (E. de Rothschild, Exbury) to a clone 'Swinhoe'; flowers Roseine Purple, with a dark crimson blotch.

R. FLUMINEUM W.P.FANG & M.Y.HE - SECTION TSUTSUSI.

Shrub, 2-3m; young shoots densely adpressed-bristly. Leaves of two kinds; spring leaves deciduous, 5.7-9 × 2.3-3cm, elliptic, apex acute to cuspidate, both surfaces with scattered adpressed hairs; summer leaves persistent, (1.2)-2.5-3 × 0.8-1.5cm. Flowers 3-7 per inflorescence; calyx c.1mm, bristly; corolla pinkish white to red, with darker flecks, funnel-campanulate, c.18mm, outer surface glabrous; stamens 5; ovary densely bristly, style bristly

Description of Species in Cultivation

towards base. H?. China (S Yunnan), 1,400-1,750m.

This recently introduced species will almost certainly prove frost-sensitive.

R. fokiense Franch. - is a synonym of *R. simiarum* Hance (Subsect. *Argyrophylla*).

R. FORMOSANUM HEMSL. - SUBSECT. ARGYROPHYLLA.

Shrub or small tree, 2-5.5m. Leaves 7-13 × 1.5-3cm, elliptic to oblanceolate, apex cuspidate, upper surface reticulate, lower surface with a one-layered compacted fawn indumentum intermixed with a few glands; petioles 1-2cm. Flowers 10-20, in an open inflorescence, white to pink, with purplish flecks, widely funnel-shaped, nectar pouches lacking, 30-40mm; ovary densely reddish-tomentose, style glabrous. H3-4a. April. China (Taiwan), 800-2,000m.

The relatively narrow leaves with a one-layered indumentum and short petioles will distinguish this from the remaining species in Subsect. *Argyrophylla*. It is little grown as some forms are tender.

R. FORMOSUM WALL. - SUBSECT. MADDENIA.

Erect free-growing shrub, to 2m; young shoots covered with setae. Leaves (2.5-)4-7.2 × 1-2cm, elliptic to linear-obovate, apex acute or acuminate, margin fringed with long white hairs, upper surface with midrib impressed, lower surface with unequal scales their own diameter apart. Flowers 2-3, in a loose inflorescence, not scented; calyx disc-like, weakly ciliate; corolla white, sometimes flushed pink, often with a yellow blotch, openly-funnel-campanulate, 40-55mm, outer surface pilose at base and variably scaly; stamens 10; ovary scaly, impressed below the style that is scaly below. H2-3. April-May. NE India, 1,450-2,300m.

Var. **formosum** (incl. *R. iteaphyllum* Hutch.). Leaves 10-16mm broad. India (Meghalaya).

AM 1960 (Royal Botanic Garden, Edinburgh); flowers white, pale orange in

throat internally, slightly pink-stained externally.

AM 1979 (Mrs E. Mackenzie, Fressingfield, Norfolk) to a clone 'Lucy Elizabeth', as *R. iteaphyllum*. Flowers in trusses of 2-3; corolla white, flushed yellow, white in upper throat.

AM 1988 (P.A. Cox, Glendoick) to a clone 'Khasia', from Cox and Hutchison 320; trusses 3-4-flowered, corolla white, with slight flush of greyed yellow in throat, strongly fragrant.

♀ 1993

Those forms with linear leaves have been referred to *R. iteaphyllum*. However, in the wild there is a complete gradation between these forms and those that match the type of *R. formosum*.

Var. **inaequale** C.B. Clarke (*R. inaequale* Hutch.). Leaves 15-21mm broad. India (Meghalaya, Manipur, Arunachal Pradesh).

The broad-leaved var. *inaequale* is more widespread in the wild than var. *formosum*.

AM 1947 (Lord Aberconway, Bodnant) as *R. inaequale*; flowers white, with a yellow band on posterior lobe, sweetly scented.

FCC 1981 (Mrs E. Mackenzie, Fressingfield, Norfolk) as *R. inaequale* to a clone 'Elizabeth Bennet', from Cox & Hutchison 301; truss 3-5-flowered, corolla white with a blotch of yellow-green in the upper throat.

R. FORRESTII BALF.F. EX DIELS - SUBSECT. NERIIFLORA.

Dwarf creeping shrub; stems up to 60cm long though rarely more than 10cm high; bud scales persistent. Leaves 1-2.8 × 0.9-1.8cm, obovate to orbicular, lower surface glabrous or with a few stalked glands and branched hairs towards base. Flowers solitary or rarely up to 3 per truss; calyx c.1mm; corolla fleshy, crimson, tubular-campanulate, with nectar pouches, 30-35mm; ovary densely stalked-glandular and rufous-tomentose, abruptly contracted into the glabrous style. H4. April-May. China (S Tibet, NW Yunnan), NE Burma,

3,050-4,500m.

Subsp. **forrestii**. Leaves 1.1-1.5(-2.2) × as long as broad, lower epidermis purple or green, not papillate, stalked glands absent. China (SE Tibet, NW Yunnan), NE Burma.

FCC 1935 (J.B. Stevenson, Tower Court, Ascot) as *R. repens* from KW 6832; flowers deep scarlet crimson.

AM 1957 (Mrs R.M. Stevenson, Tower Court, Ascot) as var. *tumescens*, from Rock 11169 (= USDA 59174); flowers Cherry.

Subsp. **papillatum** D.F.Chamb. Leaves 2.2-2.6(-3.2) × as long as broad, lower epidermis glaucous, papillate, with conspicuous stalked glands. China (S Tibet).

Subsp. *papillatum* apparently intergrades with *R. chamaethomsonii* in S Tibet. *R. forrestii* Diels var. *tumescens* Cowan & Davidian is one of the intermediate forms.

♀ 1994, to a clone 'Seingku'.

R. FORTUNEI LINDL. - SUBSECT. FORTUNEA.

Shrub or tree, 3-10m. Leaves 8-18 × 2.5-6cm, broadly oblanceolate to obovate, base rounded, lower surface glabrous except for persistent punctulate hair bases. Flowers scented, 5-12, in a lax truss; calyx 1-3mm; corolla 7-lobed, pale rose, sometimes fading white, open- to funnel-campanulate, nectar pouches lacking, 55-70mm; stamens 14-16, filaments glabrous; ovary and entire style stalked-glandular. H4a-b. May-July. C, S & E China, 600-2,300m.

Subsp. **fortunei**. Leaves obovate, 1.8-2.5 × as long as broad.

Subsp. **discolor** (Franch.) D.F.Chamb. (*R. discolor* Franch., & incl. *R. houlstonii* Hemsl. & E.H. Wilson & *R. kwangfuense* Chun & Fang). Leaves oblanceolate, 2.8-4 × as long as broad.

AM 1921 (Messrs Wallace, Tunbridge Wells) as *R. discolor*; flowers white, tinted pink externally.

AM 1922 (Hon. H.D. McLaren, Bodnant) as *R. discolor*; flowers pale pink, with a dull crimson blotch.

AM 1974 (Crown Estate Commis-

sioners, Windsor) to a clone 'John R. Elcock', as *R. houlstonii*; flowers purple, yellow in throat, with some spots in upper part.

FCC 1922 (Royal Botanic Gardens, Kew) as *R. discolor*; flowers white, tinted pink externally.

AM 1981 (R.N.S. Clarke, Borde Hill) to a clone 'Random Harvest', as *R. houlstonii*, from an E.H. Wilson collection; flowers in trusses of 10-12, corolla white, tinged pink, with some yellow-green in upper throat.

♀ 1993

The two subspecies have partially overlapping distributions and apparently also overlap morphologically. *R. fortunei* can be confused with *R. decorum* but may be distinguished by the glabrous stamens. In cultivation it often has reddish petioles. *R. fortunei* has been much used as a parent in the generation of garden hybrids.

R. FRAGARIIFLORUM KINGDON-WARD - SUBSECT. FRAGARIIFLORA.

Dwarf shrub, to 40 cm; young shoots scaly and puberulent. Leaves 1-1.7 × 0.5-1cm, oblong-elliptic, rounded at base and apex, margin bluntly toothed, ciliate, lower surface with distant golden vesicular scales. Flowers 2-3, in a loose terminal inflorescence; calyx lobes 5-7mm, reddish, apex rounded; corolla red to purple, open-campanulate, 13-18mm; ovary scaly, style declinate, glabrous. H4a-b. Bhutan, China (SE Tibet), 3,650-4,500m.

This species may be distantly related to *R. setosum* but is sufficiently distinctive to be placed in its own subsection.

R. FULGENS HOOK.F. - SUBSECT. FULGENSIA.

Shrub, 1.5-4.5m. Leaves (7-)9-11 × (4-)5-7cm, broadly ovate to obovate, apex and base rounded, lower surface with dense fulvous lanate indumentum composed of fasciculate hairs. Flowers 8-14, in a dense truss; calyx 1-2mm; corolla scarlet to blood-red, with darker nectar pouches, tubular-campanulate, 20-35mm; ovary glabrous. H4a. March-April. E Nepal,

Description of Species in Cultivation

Bhutan, NE India (Sikkim, Bengal, Arunachal Pradesh) China (S Tibet), 3,200-4,300m.

A distinctive species unlikely to be confused with any other.

AM 1933 (G.W.E. Loder, Wakehurst Place, Sussex); flowers blood red.

R. fulvastrum Balf.f. & Forrest - is intermediate between and probably a hybrid of **R. temenium** and **R. sanguineum** (Subsect. Neriiflora).

R. fulvastrum Balf.f. & Forrest var. *albipetalum* Cowan - is an albino form of **R. eudoxum** Balf.f. & Forrest var. **eudoxum** (Subsect. Neriiflora).

R. fulvoides Balf.f. & Forrest - is a synonym of **R. fulvum** Balf.f. & W.W.Sm. subsp. **fulvoides** (Balf.f. & Forrest) D.F.Chamb. (Subsect. Fulva).

R. FULVUM BALF.F. & W.W.SM. - SUBSECT. FULVA.

Shrub or small tree, 2-8m. Leaves 8-22 × 3.6-8cm, oblanceolate to elliptic, lower surface covered with a two-layered indumentum, the upper layer reddish brown to fulvous, largely composed of capitellate hairs, giving the surface a granular appearance. Flowers 10-20, in a dense truss, white to pink, with a basal blotch, with or without purple flecks, campanulate, nectar pouches lacking, 25-45mm; ovary glabrous. H4a. March-May. NE Burma, China (SE Tibet, W Yunnan, SW Sichuan), 3,000-4,000m.

Subsp. **fulvum**. Leaves 1.8-2.5× as long as broad, indumentum rich reddish brown. NE Burma, China (W Yunnan), 3,000-3,700m.

AM 1933 (Hon. R.H. McLaren, Bodnant); flowers pink, with a crimson blotch.

FCC 1981 (R.N.S. Clarke, Borde Hill); trusses tight, rounded, up to 20-flowered, inner corolla rich creamy white, suffused towards the rim with shades of red-purple, and with a red-purple blotch deep in throat, reverse white to red-purple, veined with a darker red-purple.

Subsp. **fulvoides** (Balf.f. & Forrest) D.F. Chamb. (*R. fulvoides* Balf.f. & Forrest). Leaves (2.5-)2.8-3× as long as broad, indumentum fulvous to brown. NE Burma, China (SE Tibet, NW Yunnan, SW Sichuan), 3,350-4,000m.

The two subspecies apparently intergrade though there is at least partial geographical separation between them.

♀ 1993

R. fumidum Balf.f. & W.W.Sm. - is a synonym of **R. heliolepis** Franch. var. **heliolepis** (Subsect. Heliolepidia).

R. GALACTINUM BALF.F. EX TAGG - SUBSECT. FALCONERA.

Tree, 5-6m; bark rough. Leaves 14-20 × 5-6.5cm, ovate-lanceolate, upper surface reticulate, lower surface covered with a two-layered indumentum, the upper layer dense, cinnamon, composed of strongly fimbriate narrowly cup-shaped hairs, the lower compacted; petioles terete. Flowers 9-15 in a truss, 7-lobed, pale rose with a crimson blotch, campanulate, nectar pouches lacking, (30-)40-50mm; stamens 14; ovary glabrous or with a few rufous hairs. H4a-b. April-May. China (Sichuan), c.2,000m.

This species may be distinguished from the remaining members of the subsection by the almost glabrous ovary.

R. GENESTIERIANUM FORREST - SUBSECT. GENESTIERIANA.

Shrub, to 5m; bark of older branches smooth, purplish; young shoots glabrous. Leaves 6.5-12 × 2.5-4cm, narrowly elliptic to narrowly elliptic-oblanceolate, apex abruptly acuminate; lower surface with a white papillate epidermis, the scales distant, equal, golden-yellow to brown. Pedicels thin. Flowers c.12, in a lax raceme; calyx to 2mm; corolla fleshy, reddish purple, pruinose, campanulate, 12-17mm; stamens (8-)10, regular; ovary scaly, style sharply deflexed, glabrous. H2-3. April-May. NE Burma, China (NW Yunnan, SE Tibet), 2,450-4,250m.

This is a distinctive species that is

probably distantly allied to *R. campylogynum*. It is generally tender in cultivation and is only suitable for relatively frost-free sites.

R. × GERALDII (HUTCH.) IVENS - ?*R. PRAEVERNUM* HUTCH. × *R. SUTCHUENENSE* FRANCH. (SUBSECT. FORTUNEA). Resembling *R. sutchuenense* in the leaf characters and flower shape but the corolla has a marked basal blotch. H4b. February-April.

While it is presumed to be the above mentioned hybrid, further fieldwork is required to confirm the status of this taxon.

AM 1945 (The Misses Godman, Horsham); flowers Amaranth Rose, with a Beetroot Purple blotch.

AM 1971 (G. Gorer, Sunte House, Haywards Heath) to a clone 'Sunte Rose'; flowers red-purple in bud, paling on opening, with red-purple basal blotch and some spotting.

R. giganteum Tagg - is a synonym of **R. protistum** Balf.f. & Forrest var. **giganteum** (Tagg) D.F.Chamb. (Subsect. Grandia).

R. GLANDULIFERUM FRANCH. - SUBSECT. FORTUNEA.

Shrub; young shoots sparsely stalked-glandular. Leaves 12-16 × 2-4cm, oblong-lanceolate, glabrous below. Rhachis elongate. Flowers 5-6 in a truss; pedicels densely covered with long-stalked glands; calyx c.3mm; corolla 7-8-lobed, white, funnel-campanulate, 50-60mm, outer surface densely long-stalked-glandular; stamens 14-16; ovary and style stalked-glandular. H4a? China (NE Yunnan), 2,300-2,400m.

This species, which may be distinguished by the stalked glands on the corollas and flower stalks, has only recently been introduced into cultivation.

R. glandulosum Small - is a synonym of *R. camtschaticum* Pall. var. *glandulosum* (Small) Hultèn (subgen. Therorhodion).

R. glaphyrum Balf.f. & Forrest - is a syn-

onym of **R. temenium** Balf.f. & Forrest var. **dealbatum** Cowan (Subsect. Neriiflora).

R. glaucopeplum Balf.f. & Forrest - is a synonym of **R. aganniphum** Balf.f. & Kingdon-Ward var. **aganniphum** (Subsect. Taliensia).

R. GLAUCOPHYLLUM REHDER - SUBSECT. GLAUCA.

Low shrub, to 1.5m; shoots with a peeling reddish brown bark. Leaves (3.5-4-6 × (1.3-)1.5-2.5cm, narrowly elliptic to elliptic, lower surface with a glaucous papillate epidermis, the scales 1-3× their own diameter apart, unequal, the smaller golden, the larger brown. Pedicels scaly. Flowers (2-)4-6 per inflorescence; calyx lobes 6-9(-11)mm, acuminate, with a tuft of hairs inside at the apex; corolla pink or white flushed pink, rarely white, sometimes also with flecks; campanulate to tubular-campanulate, (18-)20-27(-32)mm; stamens 10, regular; ovary scaly, style sharply deflexed or declinate, glabrous. H(3-)4a?. April-May. India (Sikkim, Arunachal Pradesh), Bhutan, China (S Tibet), 2,750-3,650m.

Subsp. **glaucohyllum**. Corolla campanulate; style sharply deflexed. Nepal, India (Sikkim) Bhutan, 3,050-3,350m

Subsp. **tubiforme** (Cowan & Davidian) D. G. Long (*R. tubiforme* [Cowan & Davidian] Davidian). Corolla tubular-campanulate; style declinate. India (Arunachal Pradesh), Bhutan, China (S Tibet), 2,750-3,650m.

Subsp. *tubiforme* has a more Easterly distribution than subsp. *glaucohyllum*.

This species closely resembles *R. luteiflorum* (q.v.). White-flowered forms have been referred to var. **album** Davidian.

R. GLISCHROIDES TAGG & FORREST (*R. GLISCHRUM* BALF.F. & FORREST SUBSP. *GLISCHROIDES* (TAGG & FORREST) D.F.CHAMB.) - SUBSECT. GLISCHRA.

Shrub, 1.3-4.5m; young shoots setose-glandular. Leaves herbaceous, 8-11 × 2.8-5cm, elliptic to oblanceolate, apex cuspi-

date, upper surface rugulose, with deeply impressed veins, lower surface setose, especially on the veins, usually also with a thin whitish arachnoid tomentum on the veins. Flowers 7-12, in a lax truss; calyx 5-10mm; corolla white or pale rose, with purple flecks and a basal blotch, campanulate, nectar pouches lacking, 30-40mm; ovary densely covered with stalked glands. H3-4a. April-May. NE Burma, China (W Yunnan), 2,700-3,350m.

R. glischroides is allied to *R. vesiculiferum*, with which it shares rugulose leaves. It can however be distinguished by the lack of vesiculate leaf hairs.

AM 1990 (E. de Rothschild, Exbury) to a clone 'Glister'; trusses loosely borne with up to 12 flowers, corolla white with central part and lobe of each section flushed red-purple with a darker chocolate purple blotch in upper throat.

R. GLISCHRUM BALF.F. & W.W.SM. - SUBSECT. GLISCHRA.

Shrub or small tree, 2-8m; young shoots densely glandular-setose. Leaves herbaceous, 11.5-30 × 3.3-8cm, obovate to elliptic, apex cuspidate, upper surface smooth, lower surface covered with glandular setae, especially on veins and midrib. Flowers 10-14 in a truss; calyx 5-10mm; corolla rose-pink to scarlet, with purple flecks and usually also a purple basal blotch, campanulate, 30-50mm; ovary densely stalked-glandular. H3-4a. April-May. China (S Tibet, NW Yunnan), 2,100-4,000m.

Subsp. **glischrum**. Leaves glabrous above at maturity though sometimes with a few setae above midrib at base. NE Burma, China (S Tibet, NW Yunnan).

Subsp. **rude** (Tagg & Forrest) D.F.Chamb. (*R. rude* Tagg & Forrest). Leaves with persistent setae on upper surface, even when mature. China (NW Yunnan).

AM 1968 (Crown Estate Commissioners, Windsor) to a clone 'High Flier', as *R. rude*; flowers red-purple in bud, opening white, flushed red-purple up centre of lobes.

AM 1969 (A.C. & J.F.A. Gibson, Glenarn, Dunbartonshire) to a clone 'Frank Kingdon-Ward', as *R. rude*; flowers pinkish purple, spotted.

R. glischrum is allied to *R. habrotrichum*, from which it may be distinguished by the leaf shape, and to *R. glischroides*, from which it differs in its smooth upper leaf surface.

R. glischrum Balf.f. & W.W.Sm. subsp. *glischroides* (Tagg & Forrest) D.F.Chamb. - is a synonym of **R. glischroides** Tagg & Forrest - Subsect. Glischra.

R. globigerum Balf.f. & Forrest - is a synonym of **R. alutaceum** Balf.f. & W.W.Sm. var. **alutaceum** (Subsect. Taliensia).

R. glomerulatum Hutch. - is a synonym of **R. yungningense** Balf.f. (Subsect. Lapponica).

R. GORERI DAVIDIAN - SUBSECT. MADDENIA.

Differs from the closely allied *R. nuttallii* in its leaves with lower surface greenish (not glaucous), the veins less prominent, and with the upper surface not or only slightly bullate. H1-2. China (S Tibet - Tsangpo Valley), 2,150-2,300m.

The status of this species is uncertain. As it grows with the related *R. nuttallii*, it could be a natural hybrid of the latter species. It does however have a distinctive appearance.

R. GRANDE WIGHT - SUBSECT. GRANDIA. Tree, 5-12m. Leaves 15-27 × 5-9.5cm, elliptic to oblanceolate, lower surface with a thin silvery compacted indumentum. Flowers 15-25, in a dense truss, 8-lobed, cream to pale yellow, rarely with a purplish tinge, with purple nectar pouches, ventricose-campanulate, 50-70mm; stamens 16; ovary covered with stalked glands, sometimes also with a dense pale brown tomentum. H2-3. February-April. E Nepal, NE India, Bhutan, China (S Tibet), 2,500-3,000m.

The glandular ovary will distinguish

this from the remaining species in Subsect. *Grandia*.

FCC 1901 (F.D. Godman, South Lodge, Horsham); flowers creamy white, with a purple blotch.

R. GRIERSONIANUM BALF.F. & FORREST - SUBSECT. GRIERSONIANA.

Shrub, 1.5-3m. Leaves 10-20 × 2-5cm, elliptic, apex acute to acuminate, lower surface covered with a dense whitish to pale brown lanate tomentum composed of dendroid hairs; petioles densely setulose-glandular. Flowers 5-12, in a lax truss; corolla deep rose to scarlet, tubular- to funnel-campanulate, 55-80mm, outer surface of tube densely hairy; ovary densely covered with dendroid hairs. H3. May-June. China (W Yunnan), NE Burma, 2,150-2,700m.

A distinctive species that has been often used as a parent in garden hybrids.

FCC 1924 (T.H. Lowinsky, Sunninghill and L. de Rothschild, Exbury); flowers fiery salmon, with striking red filaments.

R. GRIFFITHIANUM WIGHT - SUBSECT. FORTUNEA.

Shrub or tree, 1.3-10m. Leaves 10-19(-30) × 4-7.5(-10)cm, oblong, base rounded, glabrous. Flowers 4-5, in a lax truss; calyx 7-20mm long, lobes rounded; corolla 5-lobed, pale pink at first, soon fading white, open-campanulate, nectar pouches lacking, 55-80mm; stamens 12-18; ovary and entire style glandular. H2-3. April-May. E Nepal, NE India (Bengal, Sikkim, Arunachal Pradesh), Bhutan, 2,100-2,850m

A distinctive species that requires a mild climate in Britain and is thus rare in cultivation. It has been used widely to produce many worthy garden hybrids.

FCC 1866 (J. Standish, Ascot) as *R. griffithii*.

R. GROENLANDICUM (OEDER) KRON & JUDD (*LEDUM GROENLANDICUM* OEDER) - SUBSECT. LEDUM.

Erect shrub, 0.5-2m; young shoots ferruginous-lanate. Leaves 1.2-6 × 0.5-1.5cm,

linear-elliptic, margins revolute, upper surface dark green, lower surface with a thickly ferruginous lanate indumentum that usually conceals the midrib, epidermis papillose covered with short white setulose hairs, scales dense, rimless, golden, intermixed with red-brown glands; petioles 1-5mm. Flowers numerous, in a loose terminal umbellate corymb; calyx minute; corolla white, rotate, 4-8mm; stamens 7-10; ovary glandular, style glabrous. H4. May-June. Greenland, Canada, Northern USA, s.l.-1,800m.

R. GROTHAUSII DAVIDIAN - SUBSECT. MADDENIA.

Differs from *R. lindleyi* in its smaller flowers, 5-7.5cm long, and perhaps also in the bullate upper surfaces of the leaves. H2-3. China (S Tibet), Bhutan?

The status of this species is uncertain as at least some of the material cited in the type description falls outside the limits of the species as defined. The type itself is extreme but does not have the bullate leaves as described. It is treated as a synonym of *R. lindleyi* by some recent authors.

R. gymnocarpum Balf.f. ex Tagg - is a synonym of **R. microgynum** Balf.f. & Forrest (Subsect. *Neriiflora*).

R. HABROTRICHUM BALF.F. & W.W.SM. - SUBSECT. GLISCHRA.

Shrub, 1-4m; young shoots densely glandular-setose. Leaves subcoriaceous, 7-16 × 3-7.5cm, ovate to obovate, apex acute, lower surface with midrib and main veins glandular-setose. Flowers c.10 in a truss; calyx red, 10-15mm; corolla white flushed rose to pink, with or without purple flecks and a basal blotch, campanulate, nectar pouches absent, 40-50mm; ovary densely glandular-setose. H3-4a. April-May. NE Burma, China (W Yunnan), 2,700-3,350m.

Allied to *R. glischrum* but with broader leaves.

AM 1933 (R. White, Sunningdale); flowers pink.

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R. HAEMATODES FRANCH. - SUBSECT. NERIIFLORA.

Small shrub, 0.6-1.8m. Leaves 4.5-10 × 1.8-5.5cm, obovate to oblong, lower surface with a two-layered indumentum, the upper layer a fawn to red-brown densely matted tomentum, composed of dendroid hairs, the lower whitish, compacted; petioles densely tomentose or setose and tomentose. Flowers 4-8, in a tight truss; calyx 1-15mm, when well-developed cupular, but with irregular lobes; corolla fleshy, scarlet to deep crimson, tubular-campanulate, with nectar pouches, 35-45 (-50) mm; ovary densely rufous-tomentose, abruptly contracted into the glabrous style. H4a-b. March-June. China (SE Tibet, W Yunnan), 3,350-4,450m.

Subsp. **haematodes**. Petioles and young shoots predominantly tomentose, setae, when present, few and slender. China (W Yunnan).

FCC 1926 (A.M. Williams, Launceston, Cornwall); flowers bright scarlet.

Subsp. **chaetomallum** (Balf.f. & Forrest) D.F.Chamb. (*R. chaetomallum* Balf.f. & Forrest). Petioles and young shoots predominantly setose, setae stout. NE Burma, China (SE Tibet, NW Yunnan).

AM 1959 (E. de Rothschild, Exbury) as *R. chaetomallum*, from Forrest 25601; flowers Turkey Red.

The two subspecies merge in NW Yunnan where the ranges of the two overlap, perhaps as a result of hybridization. However, only subsp. *haematodes* occurs in the Dali region of W Yunnan, and some populations in NW Yunnan contain only subsp. *chaetomallum*.

R. HANCEANUM HEMSL. - SUBSECT. TEPHROPEPLA.

Shrub, to 2m; bark smooth, bronze. Leaves 7-11.5 × 3.5-5.7cm, oblong-elliptic to narrowly ovate, apex acuminate, upper surface green, lower surface pale green, scales flat, golden-brown, distant. Flowers 5-15, in a loose or dense terminal inflorescence with a rhachis up to 12mm long; calyx lobes c.5mm, not ciliate but fringed with scales; corolla white to yellow, nar-

rowly funnel-campanulate, c.20mm, outer surface scaly, glabrous; stamens 10; ovary scaly, style impressed, declinate, glabrous. H3-4b. April-June. China (C Sichuan), 1,200-1,500m.

A dwarf form, no more than 0.2m high, with small leaves 2-3.5cm long is grown under the name *Nanum* Group.

This species is considered by some authors to belong to Subsect. *Triflora*.

AM 1957 (Crown Estate Commissioners, Windsor) to a clone 'Canton Consul', as var. *nanum*; habit rather dwarf, flowers creamish green in bud, opening cream.

R. HAOFUI CHUN & W.P.FANG - SUBSECT. ARGYROPHYLLA.

Shrub, 4-6m. Leaves leathery, 7-22 × 3-7cm, elliptic, upper surface shining, lower surface covered with a thick cinnamon tomentum that becomes greyish-white and thinner on maturity. Flowers 5-9 per inflorescence; calyx c.1mm; corolla white, sometimes flushed with rose and/or with a red basal blotch, broadly campanulate, without nectar pouches; stamens 18-21; ovary covered with a dense whitish to pale brown tomentum, style glabrous. H4a. May. C & S China (Guizhou, Guangxi, Hunan), 1,500m.

The large number of stamens and characteristic leaves make this a very distinctive species. It has only recently been introduced into cultivation but appears to be relatively hardy despite its provenance.

R. hardingii Tagg - is a synonym of **R. annae** (Subsect. *Irrorata*).

R. hardyi Davidian - is a synonym of **R. augustinii** Hemsl. subsp. **hardyi** (Davidian) Cullen (Subsect. *Triflora*).

R. headfortianum Hutch. - is a synonym of **R. taggianum** Hutch. (Subsect. *Maddenia*).

R. hedyosmum Balf.f. - is probably a hybrid

of **R. trichostomum** Franch. (Sect. Pogonanthum; see note under the latter species).

R. heftii Davidian - is a form of **R. wallichii** Hook.f. (Subsect. Campanulata).

R. HELIOLEPIS FRANCH. - SUBSECT. HELIOLEPIDA.

Shrub, to 3m; young growth scaly, purplish. Leaves strongly aromatic when crushed, (5-)5.7-10.5 × (1.8-)2-4cm, oblong-ovate to oblong-elliptic, apex acute, upper surface dark green and shining, lower surface with close but not touching conspicuous brownish scales. Flowers (4-)6-10 per inflorescence; calyx minute to 3mm; corolla white to pink or purple, usually with greenish or brownish flecks on upper lobes, funnel-shaped, (22-)24-34mm; stamens 10; ovary densely scaly, usually pubescent above, style straight, pubescent below. H4a. June-July.

Var. **heliolepis** (incl. *R. fumidum* Balf.f. & W.W.Sm.). Leaves with base truncate or rounded, 2.2-2.8(-3.3) × as long as broad; inflorescence (4-)5-8-flowered. NE Burma, China (Yunnan, SE Tibet), 2,500-3,700m.

AM 1954 (Mrs R.M. Stevenson, Tower Court, Ascot) from Forrest 26961; flowers white, spotted with green and brown.

Var. **brevistylum** (Franch.) Cullen (*R. brevistylum* Franch. & incl. *R. pholidotum* Balf.f. & W.W.Sm.). Leaves cuneate at base, (2.2-)2.7-3.3(-3.6) × as long as broad; inflorescence (5-)6-10-flowered. China (SE Tibet, Yunnan, SW Sichuan), 3,000-3,700m.

AM 1933 (J.J. Crosfield, Kensington, London) from Kingdon-Ward 7108; flowers pink externally, white inside, with pink spots.

R. hemidartum Tagg - is a synonym of **R. pocophorum** Balf.f. ex Tagg var. **hemidartum** (Tagg) D.F.Chamb. (Subsect. Neriiflora).

R. HEMITRICHOTUM BALF.F. & FORREST - SUBSECT. SCABRIFOLIA.

Shrub, 0.6-2m; young shoots scaly, also covered with filiform hairs. Leaves 2.5-4 ×

0.7-1.3cm, narrowly elliptic, upper surface covered with filiform hairs only, lower surface shining, white-papillose, glabrous except for a few hairs along the midrib, scales scattered, rimless. Flowers 2-3, in an axillary inflorescence; calyx rim-like, scaly, ciliate; corolla pink or white edged with pink, openly funnel-shaped, 10-15mm, outer surface glabrous and lacking scales; stamens 10; ovary densely scaly, sparsely pilose, style impressed, declinate. H4a. April-May. China (N Yunnan, SW Sichuan), 2,900-4,300m.

This species is closely allied to *R. mollicomum* but differs in its smaller flowers and in the less densely hairy leaf lower surfaces.

R. HEMSLEYANUM E.H.WILSON (INCL. *R. CHENGIANUM* FANG) - SUBSECT. FORTUNEA.

Shrub to tree, 2-8m; Leaves 10-20 × 4-10cm, ovate to ovate-elliptic, base cordate, margin undulate, lower surface with scattered punctulate hair bases and a few stalked glands at base, otherwise glabrous. Flowers 5-8, in lax trusses; calyx c.1mm; corolla 6-7-lobed, white, without flecks, campanulate, nectar pouches lacking, 45-60cm; stamens c.14; ovary and style glandular. H4a. May-June. China (W Sichuan), 1,100-2,000m.

A distinctive species with a very restricted distribution in the wild.

R. herpesticum Balf.f. & Kingdon-Ward - is a synonym of **R. dichroanthum** Diels subsp. **scyphocalyx** (Balf.f. & Forrest) Cowan (Subsect. Neriiflora).

R. HIDAKANUM H.HARA - SECT. BRACHYCALYX.

Shrub, to 3m; young shoots more or less glandular, later glabrescent. Leaves in whorls of up to three, at the ends of the branches, 2.5-6 × 1.5-5cm, broadly rhombic-ovate, apex shortly cuspidate, lower surface pale, with adpressed hairs or glabrous except for minute papillate glands and long hairs on midrib; petioles glandular. Pedicels glandular, pilose

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below. Flowers 1-3 per inflorescence, appearing with the leaves; calyx c.3mm, lobes purple, ribbon-like; corolla magenta, funnel-campanulate, 25-30mm; stamens 10; ovary shortly stalked-glandular, with scattered pilose hairs, style glabrous. H4a-b. April-May. Japan (S Hokkaido), mountains, c.175m.

This species is probably allied to *R. decandrum* but it is distinguished from it and all the remaining members of the section by the conspicuous calyx. It is isolated from the related species and has a very restricted distribution.

R. × hillieri Davidian - is a hybrid of *R. temenium* Balf.f. & Forrest.

R. HIPPOPHAEOIDES BALF.F. & W.W.SM. - SUBSECT. LAPPONICA.

Erect shrub, to 1.7m. Leaves (0.6-1.2-2.5 (-3) × 0.4-1.1cm, elliptic to oblong, apex obtuse to rounded, lower surface covered with uniformly yellowish buff overlapping scales. Flowers 4-7 per inflorescence, calyx to 2mm, the lobes often unequal; corolla bright rose to lavender blue, rarely white, broadly funnel-shaped, 11-15mm; stamens 10, shorter than corolla; ovary scaly, style glabrous. H4b-c. March-May.

Var. **hippophaeoides** Balf.f. & W.W.Sm. (incl. *R. fimbriatum* Hutch.). Style 4-11mm.

AM 1927 (Lady Aberconway and Hon. H.D. McLaren, Bodnant); flowers lavender blue.

Var. **occidentale** Philipson & N.M.Philipson. Style 13-16mm.

The pale leaf scales and several-flowered inflorescence are distinguishing features of this species.

♀ 1993, to a clone 'Haba Shan'.

R. hirsuticostatum Hand.-Mazz. - is a synonym of *R. augustinii* Hemsl. subsp. **chamanthum** (Diels) Cullen (Subsect. Triflora).

R. HIRSUTUM L. - SUBSECT. RHODODENDRON.

Small shrub, to 1m; young shoots sparsely

scaly, pubescent and setose. Leaves 1.3-3 × 0.7-1.4cm, narrowly obovate to obovate-orbicular, apex acute, margin ciliate, glabrous above, lower surface with well-spaced golden scales. Flowers many, rhachis to 10mm; pedicels scaly and puberulent; calyx lobes 2-4mm, scaly, ciliate; corolla pink, tubular-campanulate, outer surface scaly and sparsely pubescent; stamens 10; style as long as ovary, sparsely pubescent at base. H4b. June-July. European Alps (Austria, France, Italy, Yugoslavia, Switzerland, mountainous regions, 400-1,900m.

Along with *R. ferrugineum*, this is known as the Alpenrose.

R. HIRTIPES TAGG - SUBSECT. SELENSIA.

Low shrub or tree, 0.5-8m; young shoots and petioles covered with glandular bristles. Leaves 5-11 × 3.5-6cm, broadly obovate, lower surface with scattered stalked glands and a sparse floccose indumentum. Flowers 3-5, in a lax truss; calyx 4-10mm; corolla white to pink, usually with a few purple flecks, campanulate, nectar pouches lacking, c.40mm; ovary and style base densely stalked-glandular. H4a. April. China (SE Tibet), 3,000-4,000m.

A distinctive species, more closely allied to *R. selense* subsp. *dasycladum* than to *R. glischrum*, with which it has been traditionally allied.

AM 1965 (A.C. & J.F.A. Gibson, Glenarn, Dunbartonshire) to a clone 'Ita'; flowers Phlox Pink, stained and striped.

R. HODGSONII HOOK.F. - SUBSECT. FALCONERA.

Tree, 3-11m; bark smooth, peeling, reddish brown. Leaves 17-24 × 6.5-10cm, obovate to oblanceolate, upper surface smooth, reticulate, lower surface with a dense two-layered indumentum, the upper layer silvery to cinnamon, composed of slightly fimbriate, broadly cup-shaped hairs, the lower compacted; petioles terete. Flowers 15-25, in a dense truss, 7-10-lobed, pink to magenta or purple, with a darker blotch, tubular-campanulate, nectar pouches lacking; stamens 15-

18; ovary tomentose. H4a. April-May. E Nepal, N India (Sikkim, Bengal, Arunachal Pradesh), Bhutan, China (S Tibet), 3,000-4,000m.

The hybrid with *R. falconeri* (known as *R. hodconeri* Group [or *R. × decipiens* Lacaita] which also occurs in the wild) may be distinguished by its paler flowers and often darker brown leaf indumentum.

AM 1964 (Crown Estate Commissioners, Windsor) to a clone 'Poet's Lawn'; flowers white, shaded Rhodamine Purple.

R. HONGKONGENSE HUTCH. - SECT. AZALEASTRUM.

Shrub, to 5m. Leaves 3-6.5 × 1.5-3.5 cm, elliptic to narrowly elliptic, apex blunt or notched. Flowers slightly scented, single, borne laterally below vegetative buds, white with purple spots on upper lobes, rotate, tube short, lobes spreading, c.50mm across; stamens 5. H1b-2?. March-April. S China (Hong Kong, Guangdong), c.1,000m.

Closely allied to *R. ovatum* and only doubtfully distinct.

R. HOOKERI NUTT. - SUBSECT. THOMSONIA.

Shrub or small tree, c.4m; bark smooth; young shoots glabrous. Leaves 8-14 × 3-5cm, broadly oblanceolate, base rounded; upper surface glabrous, lower surface with epidermis lacking papillae, glabrous except for large fasciculate hairs overlying the veins; petioles slightly winged, glabrous. Flowers 8-15, in a dense truss; calyx (5-10-20mm, cupular; corolla deep rose to crimson, with darker nectar pouches and a few flecks, tubular-campanulate, 35-45mm; ovary and style glabrous. H3 (-4a). March-April. NE India (Arunachal Pradesh), 2,500-3,700m.

The large fasciculate hairs on the veins of the lower surface of the leaves characterize this species. In cultivation the flowers are either a clear crimson or a muddy deep rose pink.

FCC 1933 (Hon. H.D. McLaren, Bodnant); flowers of the darkest red, with a large, similarly coloured calyx.

R. HORLICKIANUM DAVIDIAN - SUBSECT. MADDENIA.

Epiphytic or free-growing shrub, to 3m; young shoots setose. Leaves 8.5-10 × c.3cm, narrowly elliptic, apex long-acuminate, margin ciliate, upper surface with midrib impressed, lower surface covered with lax dark scales. Flowers 2-3, in a lax terminal inflorescence; calyx more or less disc-like, fringed with setae; corolla white flushed pink, with a yellow blotch inside, funnel-campanulate, 60-70mm, outer surface pubescent, especially on tube, scaly, more densely so on lobes; stamens 10; ovary densely scaly, tapering into the scaly style. H1b-2. April. N Burma, 1,200-2,150m.

A distinctive species on account of its hairy corolla and long-acuminate leaves.

R. hormophorum Balf.f. & Forrest - is a synonym of **R. yunnanense** Franch. (Subsect. Triflora).

R. houlstonii Hemsl. & E.H.Wilson - is a synonym of **R. fortunei** Lindl. subsp. **discolor** (Franch.) D.F.Chamb.(Subsect. Fortunea).

R. HUIANUM FANG - SUBSECT. FORTUNEA. Shrub or small tree, 2-9m; shoots soon becoming glabrous. Leaves 10-12.5 × 2-3cm, oblanceolate, apex cuspidate to acuminate, lower surface glabrous. Flowers 6-10, borne on a 3-6cm rhachis; pedicels glabrous; calyx 5-10mm, lobes rounded; corolla 7-lobed, pale red to purplish or lilac, open-campanulate, 35-50mm, glabrous; stamens 12-14; ovary and style glandular. H4a. China (NE Yunnan & adjacent parts of Sichuan), 1,000-2,700m.

This species is allied to *R. davidii* but differs in the larger calyx. It has only recently been introduced into cultivation from seed collected in NE Yunnan.

R. HUNNEWELLIANUM REHDER & E.H.WILSON - SUBSECT. ARGYROPHYLLA. Shrub or small tree, 2-6m. Leaves 7-15 × 1.6-2.8cm, narrowly oblanceolate, apex

Description of Species in Cultivation

acuminate, upper surface reticulate; lower surface with a two-layered indumentum, the upper layer loose, white, persisting or rubbing off, composed of ramiform hairs, the lower compacted and whitish. Flowers 6-10, in a loose truss, white to pale rose or purple, with purple flecks, widely campanulate, nectar pouches lacking, 40-50mm; ovary densely and coarsely yellowish-tomentose, style glabrous. H4a-b. March-April. China (Sichuan, Gansu), 2,000-3,000m.

Subsp. **hunnewellianum**. Leaves (7-) 10-15cm long, upper layer of leaf indumentum remaining whitish. China (C Sichuan), 2,000-3,000m.

Subsp. **rockii** (E.H.Wilson) D.F. Chamb. (*R. rockii* E.H.Wilson). Leaves 7-12cm long, upper layer of leaf indumentum turning yellow. China (N Sichuan, S Gansu), 2,000-2,400m.

R. HYLAEUM BALF.F. & FARRER - SUBSECT. THOMSONIA.

Shrub or tree, 2.5-12m; bark smooth, peeling; young shoots more or less glabrous. Leaves 8.5-14.5 × 3.3-5.7cm, base rounded, upper surface glabrous, lower surface with epidermis greenish and lacking papillae, with scattered fasciculate hairs arising from red persistent hair bases on the veins, otherwise glabrous; petioles 1.5-2cm, narrowly winged, stalked-glandular when young, soon glabrous. Flowers 10-12, in a dense truss; calyx 2-8mm, cupular when well-developed; corolla fleshy, rose-pink, with dark flecks, tubular-campanulate, with nectar pouches; ovary and style glabrous. H3. May. NE Burma, China (SE Tibet), 2,700-3,700m.

This species is allied to *R. faucium* (q.v.).

R. hypenanthum Balf.f. - is a synonym of **R. anthopogon** D.Don subsp. **hypenanthum** (Balf.f.) Cullen (Sect. Pogonanthum).

R. HYPERYTHRUM HAYATA - SUBSECT. PONTICA.

Shrub, to 2.5m; young shoots and petioles with a floccose indumentum though soon

glabrescent; bud scales deciduous. Leaves 8-12 × 2.5-3.5cm, elliptic, apex more or less cuspidate, upper surface glabrous, lower surface with persistent punctate hair bases, otherwise glabrous, or with some persistent dendroid hairs, especially towards base and on midrib. Flowers c.10, in a lax truss; calyx c.3mm; corolla white, with reddish flecks, funnel-campanulate, without nectar pouches, 35-45mm; ovary densely glandular, style glandular below. H4b. April-May. Taiwan, 1,000-1,300m.

R. hyperythrum is a distinctive species without close allies.

AM 1976 (Capt. C. Ingram, Benenden, Kent) to a clone 'Omo'; flowers white.

R. hypoglaucum Hemsl. - is a synonym of **R. argyrophyllum** Franch. subsp. **hypoglaucum** (Hemsl.) D.F.Chamb.

R. HYPOLEUCUM (KOM.) HARMAJA (*LEDUM HYPOLEUCUM* KOM., *L. PALUSTRE* L. VAR. *DIVERSIPILOSUM* NAKAI) - SUBSECT. LEDUM.

Erect shrub, 0.5-1.1m; young shoots covered with a ferruginous tomentum. Leaves 1.7-8 × 0.5-2cm, oblong-elliptic, apex acuminate, margins revolute, ciliate with long brown crisped hairs, upper surface dark green, with ferruginous hairs, lower surface glaucous, more or less papillate, densely white-pubescent, scales rimless, golden, 1-3× their own diameter apart, midrib with long crisped ferruginous hairs; petioles 2-7mm. Flowers numerous, in a loose terminal umbellate corymb; calyx lobes 1-2mm, orbicular; corolla white, rotate, 5-7mm; stamens 9-12; ovary ovoid, densely pubescent and scaly, style glabrous. H4. June-July. NE Russia, Japan.

R. hypoleucum may be distinguished from the remaining species in Subsect. Ledum by the pubescent undersurfaces of the leaves, on which the longer ferruginous hairs are restricted to the midrib.

R. hypophaeum Balf.f. & Forrest - is a synonym of **R. tatsienense** Franch. (Subsect. Triflora).

R. idoneum Balf.f. & W.W.Sm. - is a synonym of *R. telmateium* Balf.f. & W.W.Sm. (Subsect. Laponica).

R. igneum Cowan - is a synonym of *R. keysii* Nuttall (Subsect. Cinnabarina).

R. imberbe Hutch. - is probably a hybrid between *R. barbatum* Wall. ex G.Don and *R. arboreum* Sm.

R. IMPEDITUM BALF.F. & W.W.SM. (INCL. *R. LITANGENSE* BALF.F. EX HUTCH.) - SUBSECT. LAPPONICA.

Compact, much-branched shrub, to 0.9 (-1.2)m. Leaves (0.4-)0.5-1.5 × 0.3-0.7cm, broadly elliptic to ovate or oblong, apex obtuse or acute, mucronulate, lower surface covered with uniformly rusty, markedly to slightly spaced scales. Flowers to 4 per inflorescence; calyx 2.5-4mm, lobes strap-shaped; corolla violet or purple to rose-lavender, rarely white, broadly funnel-shaped, 7-15mm; stamens usually 10, about as long as the corolla; ovary scaly, style variable in length shorter or longer than the stamens, glabrous or pubescent towards base. H3-4b. April-May. China (N Yunnan, SW Sichuan), 3,300-4,600m

This species is similar to *R. polycladum* but differs in the longer calyx, etc.

AM 1944 (Sunningdale Nurseries, Windlesham, Surrey) from Rock 11469 (= USDA 59263); flowers violet.

♀ 1993

R. imperator Kingdon-Ward - is a synonym of *R. uniflorum* Kingdon-Ward var. **imperator** (Kingdon-Ward) Cullen (Subsect. Uniflora).

R. inaequale Hutch. - is a synonym of *R. formosum* Wall. var. **inaequale** C.B. Clarke (Subsect. Maddenia).

R. INDICUM SWEET - SECT. TSUTSUSI.

Much-branched shrub, usually low and prostrate though sometimes to 2m; young shoots and petioles covered with adpressed flattened chestnut brown bris-

les. Leaves of two kinds; spring leaves deciduous, 2-3 × 0.8-1cm, narrowly lanceolate to oblanceolate, apex acute, upper surface with scattered bristles, lower surface paler, with bristles restricted to midrib, summer leaves persistent, 1-1.8 × 0.3-0.5cm. Pedicels covered with stiff brown hairs. Flowers 1-2 per inflorescence; calyx c.1mm; corolla bright red to scarlet, occasionally rose-red, broadly funnel-shaped, 30-50mm; stamens 5; ovary densely covered with adpressed shining brown hairs, style glabrous. H3-4a. June-July. Japan (Honshu, Kyushu), 60-1,100m.

This is a widely cultivated species in its native Japan; selected forms are also to be found in gardens in Britain. It is closely allied to *R. kaempferi* (q.v.).

AM 1975 (RHS Garden, Wisley) to a very free-flowering form, with flowers red speckled crimson.

R. inopinum Balf.f. - is a chance hybrid of *R. wasonii* (Subsect. Taliensia). It was raised at Edinburgh, along with typical *R. wasonii*, from seed as Wilson 1866.

R. INSIGNE HEMSL. & E.H.WILSON - SUBSECT. ARGYROPHYLLA.

Shrub, 1.5-3.5m. Leaves 7-13 × 2-4.5cm, stiff, elliptic, apex acuminate, lower surface with a compacted fawn indumentum embedded in a shining surface film. Flowers c.8, in a lax truss, pink with a darker median stripe down each lobe, widely campanulate, nectar pouches lacking, c.40mm; ovary densely hairy, without glands, style glabrous. H4b. May-June. China (Sichuan), 2,300-3,000m.

The stiff leaves and shining fawn indumentum will distinguish this species. It has not been seen in the wild since it was originally collected by Wilson.

AM 1923 (Lady Aberconway and Hon. H.D. McLaren, Bodnant); flowers pink.

AM 1990 (E. de Rothschild, Exbury) to a clone 'Annie Darling'; trusses 14-16-flowered, white, strongly marked along the centre of each lobe and lip with red-

purple, and with numerous small spots of red in upper throat. ♀ 1993

R. INTRICATUM FRANCH. (INCL. *R. BLEPHAROCALYX* FRANCH. & *R. PERAMABILE* HUTCH.) - SUBJECT. LAPPONICA.

Compact shrub, to 1.5m. Leaves (0.4-)0.6-1.4 × 0.3-0.8cm, oblong or elliptic to rotund, apex rounded, usually mucronate, lower surface covered with uniformly buff to straw-coloured touching or overlapping scales. Flowers (1-)2-6(-8) per inflorescence; calyx 0.5-2mm; corolla pale lavender to dark blue, rarely yellowish, hypocrateriform, 8-12(-14)mm; stamens 10, included within tube; ovary scaly, style short, glabrous. H4a-b. March-May. China (N Yunnan, W Sichuan), 2,800-4,900m

The short stamens included within the corolla tube characterize this distinctive species.

FCC 1907 (Messrs J. Veitch, Chelsea); flowers rosy lilac.

R. iodes Balf.f. & Forrest - is a synonym of **R. alutaceum** Balf.f. & W.W.Sm. var. **iodes** (Balf.f. & Forrest) D.F.Chamb. (Subject. Taliensia).

R. IRRORATUM FRANCH. - SUBJECT. IRRORATA.

Shrub or small tree, 1.5-9m. Leaves coriaceous, 7-14 × 2-3.7cm, oblanceolate to elliptic, apex acuminate, lower surface glabrous though with persistent red punctate hair bases overlying the veins. Flowers 12-17, in a dense truss, white or cream to deep pink (in cultivation), with at least a few greenish or more commonly purple flecks, campanulate or tubular-campanulate, with nectar pouches, 35-50mm; ovary and style stalked-glandular. H3-4a. March-May. Extending from SW China to Tropical Malesia.

Subsp. **irroratum** (?incl. *R. ningyuenense* Hand.-Mazz.). Ovary and calyx stalked-glandular, not tomentose. China (W & C Yunnan, SW Sichuan, Guizhou), 2,500-3,350m.

AM 1957 (Col Lord Digby, Minterne); flowers white, faintly tinged pink.

R. ningyuenense is said to differ from subsp. **irroratum** in its more hairy leaf stalks and in the more open, unspotted corollas. Plants under that name have been introduced into cultivation recently; this should allow its status to be checked.

AM 1957 (E. de Rothschild, Exbury) to a clone 'Polka Dot'; flowers white, heavily spotted deep purple, suffused pink.

Subsp. **pogonostylum** (Balf.f. & W.W.Sm.) D.F.Chamb. (*R. pogonostylum* Balf.f. & W.W.Sm.). Ovary and calyx tomentose and glandular. China (Yunnan, SW Sichuan), 2,100-3,000m.

There is a complete range of variation from the white to cream-flowered forms with strong flecks and exclusively glandular ovaries and calyces that occur in the north of the range of the species to forms with pink flowers, with few flecks and ovaries that are glandular and tomentose, that occur further south. Some populations contain both forms.

R. iteaphyllum Hutch. - is a synonym of **R. formosum** Wall. var. **formosum** (Subject. Maddenia).

R. japonicum (A.Gray) Valcken - is a synonym of **R. molle** (Blume) G.Don subsp. **japonicum** (A.Gray) K.Kron (sect. Pentanthera).

R. japonicum (Blume) Schneider - is a synonym of **R. degronianum** Carrière var. **heptamerum** (Maxim.) H.Hara (Subject. Pontica).

R. JOHNSTONEANUM WATT EX HUTCH. - SUBJECT. MADDENIA.

Shrub, 1.2-3.7m; young shoots setose. Leaves 5.5-7.5 × 2.4-3cm, broadly elliptic, apex obtuse or subacute, margins variably ciliate, upper surface with impressed midrib, lower surface brownish, with touching or overlapping scales. Flowers 3-4, in a loose terminal inflorescence, not scented; calyx disc-like, ciliate; corolla white or cream, often with a yellowish blotch and pink or purplish flush, funnel-shaped, 48-55mm, outer surface pilose

only at base, scaly; stamens 10; ovary scaly, impressed below the style that is scaly below. H2-3. April-May. India (Manipur, Mizoram), 1,850-3,100m.

This is a distinctive species.

AM 1934 (Col S. Clay, Lingfield, Surrey and Lt Col L.C.R. Messell, Nymans); flowers creamy white, with a yellow blotch.

AM 1941 (Lt Col E.H.W. Bolitho, Penzance) to a probable hybrid clone 'Rubeo-tinctum' from Kingdon-Ward 7732; flowers white, with a deep pink stripe on each corolla lobe and a pink or yellow blotch.

AM 1975 (Sir Giles Loder, Leonardslee, Sussex) to a clone 'Demi-john'; flowers white, throat flushed yellow-green.

♀ 1993

R. jucundum Balf.f. & W.W.Sm. - is a synonym of *R. selense* Franch. subsp. **jucundum** (Balf.f. & W.W. Sm.) D.F. Chamb. (Subsect. Selensia).

R. KAEMPFERI PLANCH. - SECT. TSUTSUSI. Shrub, 1-3m; young shoots and petioles densely covered with adpressed flattened red-brown hairs. Leaves of two kinds; spring leaves deciduous, 2-4(-5) × 1-2.5cm, lanceolate to elliptic, apex acute or obtuse, both surfaces covered with stiff hairs especially on midrib; summer leaves persistent or deciduous, 1-2 × 0.5-1cm. Pedicels densely covered with adpressed brown stiff hairs. Flowers 2-3 per inflorescence; calyx 3-5mm; corolla red (in cultivated forms from pink to salmon-red), funnel-shaped, 20-30mm; stamens 5(-6); ovary densely covered with stiff red-brown hairs, style glabrous. H4a-b. May-June. Japan (Hokkaido to Yakushima), 600-1,000m.

Var. **kaempferi**. Flowers usually red; the smaller summer leaves usually deciduous

AM 1953, FCC 1955 (Crown Estate Commissioners, Windsor) to a clone 'Eastern Fire'; flowers Camellia Rose, darker at tips

AM 1988 (Crown Estate

Commissioners, Windsor) to a clone 'Mikado'; flowers red, with some darker spotting in throat

Var. **macrogemma** Nakai. Flowers usually light purple, only occasionally red; the smaller summer leaves usually persistent.

Var. *macrogemma* is much less common in cultivation than is var. *kaempferi*.

R. kaempferi is only doubtfully distinct from *R. indicum*; it may be distinguished by its broader leaves and greater stature. In the wild it hybridizes with *R. kiusianum* where the ranges of the two species overlap (q.v.).

♀ 1993

R. KANEHIRAE E.H.WILSON - SECT. TSUTSUSI.

Much-branched shrub, 1-2.5m; young shoots and petioles densely covered with adpressed stiff broad flattened chestnut-brown hairs. Leaves of two kinds; spring leaves deciduous, 2-5 × 0.5-1.5cm, oblanceolate to narrowly obovate, apex acute, gland-tipped, both surfaces sparsely covered with stiff hairs, especially on midrib; summer leaves persistent, 1.5-3 × 0.2-0.6cm. Pedicels densely covered with stiff chestnut-brown hairs. Flowers 1(-2) per inflorescence; calyx c.1mm; corolla pink or carmine to scarlet, funnel-campanulate, 25-40mm; stamens 10; ovary densely covered with stiff grey or chestnut-brown hairs, style usually glabrous. H2?. March. N Taiwan, c.400m.

This species is apparently closely allied to *R. tashiroi*.

R. KEISKEI MIQ. - SUBSECT. TRIFLORA.

Small shrub, (0.1)-0.3-3m; young shoots scaly, sometimes also puberulent. Leaves (2.5)-3.5-7.5 × (0.8)-1.1-2.8cm, lanceolate to narrowly elliptic, apex acute or acuminate, upper surface with midrib puberulent, also hairy towards base of lamina, lower surface with large distant brown scales. Flowers 2-3(-4), in a loose terminal inflorescence; calyx with lobes absent or to 2.5mm, frequently ciliate; corolla pale yellow, unspotted, zygomorphic, funnel-

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campanulate, 18-24mm, outer surface scaly, sometimes also puberulent; stamens 10; ovary scaly, impressed below the declinate, glabrous style. H4a-b. April-May. Japan, 600-1,850m.

Var. **keiskei**. Shrub, 1-2m; leaves 3-9 × 1.1-2.8cm; flowers yellow.

AM 1929 (H. White, Windlesham); flowers pale yellow.

Var. **hypoglaucum** Suto & Suzuki. Dwarf shrubs 0.3-0.5m; leaves 2-4 × 1-1.5cm, glaucous beneath; flowers white tinged yellow.

Var. **ozawae** T.Yamaz. Dwarf shrubs, 10-15cm tall; leaves 1.5-2.5 × 1-1.5cm; flowers yellow.

AM 1970 (B.N. Starling, Epping Upland, Essex) to a clone of var. *ozawae*, 'Yaku Fairy'; habit very dwarf, flowers yellow.

♀ 1993, to a clone of var. *ozawae*, 'Yaku Fairy'.

The dwarf forms of this distinctive species, especially those of var. *ozawae* from Yakushima, are good rock garden subjects.

R. keleticum Balf.f. & Forrest - is a synonym of **R. calostrotum** Balf.f. & Kingdon-Ward subsp. **keleticum** (Balf.f. & Forrest) Cullen (Subsect. *Saluenensia*).

R. KENDRICKII NUTTALL (?INCL. *R. SHEPHERDII* NUTTALL) - SUBSECT. *ERRORATA*.

Shrub or small tree, 3-8m. Leaves subcoriaceous, 10-13.5 × 2-3.5cm, narrowly elliptic to narrowly oblanceolate, apex acuminate, margin usually strongly undulate, lower surface with hairs on midrib, otherwise glabrous, punctate hair bases not persisting. Flowers fleshy, 10-20, in a dense truss, deep rose to scarlet, with darker flecks, tubular-campanulate, with nectar pouches, 30-40mm; ovary with a few dendroid hairs, eglandular, style glabrous. H2-3. April-May. Bhutan, NE India (Arunachal Pradesh), China (S Tibet), 2,300-2,800m.

Closely allied to *R. ramsdenianum*, which may be distinguished by its broader leaves.

R. shepherdii, which is not now in cultivation, is probably a form of *R. kendrickii* but material is not available to confirm this.

R. KESANGIAE D.G.LONG & RUSHFORTH - SUBSECT. *GRANDIA*.

Large shrub or tree, 3-12m; bark rough. Leaves (15-)20-30 × (7-)10-16cm, broadly elliptic to obovate, apex rounded to more or less truncate and mucronate, lower surface covered with a dense white to silvery matted floccose indumentum composed of dendroid hairs; petioles terete. Flowers 7-8-lobed, 20-25, in a dense truss, pale to deep pink, with a large purple basal blotch and nectar pouches, funnel-campanulate, 30-47mm; stamens 14-16; ovary densely glandular, with or without a sparse eglandular tomentum. H4a. April-May. Bhutan, 2,750-3,500m.

Var. **kesangiae**. Flowers rich purple.

Var. **album** D.G.Long. Flowers white.

A recently described species that is apparently quite common in C Bhutan.

R. KEYSII NUTTALL (INCL. VAR. *UNICOLOR* HUTCH. & *R. IGNEUM* COWAN) - SUBSECT. *CINNABARINA*.

Straggling shrub, 1-3.5m; young shoots scaly. Leaves 6-10(-15) × 1.9-3(-3.6)cm, elliptic, apex acute, lower surface densely covered with close to distant unequal flat broad-rimmed scales. Flowers pendulous, 2-5 per inflorescence, the individual inflorescences often fusing together; calyx minute; corolla tubular, deep red to salmon pink, lobes usually yellow, (14-)20-25mm; stamens 10, declinate; ovary scaly, slightly pubescent at top, style declinate, pubescent towards base. H3-4a. June-July. India (Sikkim, Arunachal Pradesh), Bhutan, China (S Tibet), 2,440-3,650m.

A distinctive species without close allies.

AM 1933 (L. de Rothschild, Exbury) as var. *unicolor*, from Kingdon-Ward 6257; flowers Carthamus Red, tips of corolla lobes slightly yellowish.

R. KIUSIANUM MAKINO - SECT. *TSUTSUSI*.

Dwarf, much-branched shrub, 0.6-1m; young shoots covered with adpressed flattened red-brown hairs. Leaves of one kind, deciduous, 0.5-3 × 0.2-1.5cm, oval-ovate, apex acute, both surfaces, and petioles, covered with stiff red-brown hairs. Pedicels covered with stiff red-brown hairs. Flowers 2-3 per inflorescence; calyx 2-3mm; corolla usually rose-pink, occasionally rose to deep purple, funnel-shaped, 15-20mm; stamens 5; ovary densely covered with stiff red-brown hairs, style glabrous. H4a-b. May-June. Japan (Kyushu), 600-800m.

Var. **kiusianum**. Leaves 0.5-2 × 0.2-1cm, oval to obovate.

AM 1977 (Capt. C. Ingram, Benenden, Kent) to a clone 'Chidori'; flowers white.

AM 1981 (Crown Estate Commissioners, Windsor) to a clone 'Mountain Gem'; flowers in clusters of 2-3, corolla red-purple.

♀ 1993

Var. **sataense** (Nakai) D.F.Chamb. Leaves 1-3 × 0.5-1.5cm, ovate-elliptic.

Var. *sataense* is intermediate between var. *kiusianum* and *R. kaempferi* and may have arisen as a hybrid. Hybrids with this parentage occurs in the wild and selected forms have almost certainly been cultivated for several hundred years, giving rise to at least some of the cultivars described under *R. obtusum* and also those known as the 'Kurume' azaleas.

R. stenopetalum and *R. ripense* are also involved as parents in some of these cultivars.

R. saisiuense Nakai is apparently a dwarf form of *R. kiusianum* that originated in Korea.

R. KIYOSUMENSE (MAKINO) MAKINO - SECT. BRACHYCALYX.

Shrub or small tree; young shoots glabrous. Leaves in whorls of up to three, at the ends of the branches, 3-5 × 2.5-3cm, rhombic, apex acuminate, lower surface sparsely covered with brown simple hairs, at least when young, midrib glabrous or shortly pilose; petioles glabrous or with scattered brown hairs near base of lamina.

Flowers 1-2 per inflorescence, appearing before the leaves; calyx minute; corolla purple, open-campanulate, 20-30mm; stamens 10; ovary densely and stiffly hairy, style glabrous H4a-b. Japan (E Honshu), c. 650m.

This species is probably allied to *R. maybarae* and *R. nudipes* but differs in the shape of the leaf apex.

R. KONGBOENSE HUTCH. - SECT. POGONANTHUM.

Spindly much-branched low shrub, to 1m; leaf bud scales deciduous. Leaves 1.3-2.8 × 0.6-1.2cm, oblong or elliptic-oblong, apex subacute, lower surface with 1 tier of plastered pale brown more or less overlapping scales, most with well-developed domed centres. Flowers many, in a dense racemose umbel; calyx lobes 3-4mm; corolla pink to red, rarely pinkish white, hypercrateriform, tube 6-8mm, pilose on outer surface, densely so within, especially at mouth, lobes 2.5-4mm; stamens 5; ovary scaly. H4a-b. March-May. China (S Tibet), 3,200-4,700m.

Closely resembling *R. primuliflorum*, but differing in the form of the scales, the leaf shape, habit and flower colour.

R. kuluense D.F.Chamb. - is a synonym of **R. adenosum** Davidian (Subsect. Glischra).

R. kwangfuense Chun & Fang - is a synonym of **R. fortunei** Lindl. subsp. **discolor** (Franch.) D.F.Chamb. (Subsect. Fortunea).

R. KYAWII LACE & W.W.SM. (INCL. *R. AGAPETUM* BALF.F. & KINGDON-WARD) - SUBSECT. PARISHIA.

Shrub or small tree, 3-9m; young shoots densely stellate-tomentose and glandular-setose. Leaves 9-22(-30) × 4-9(-10)cm, elliptic to oblong, upper surface glabrous, lower surface glabrescent or with a more or less persistent stellate tomentum intermixed with a few glands. Flowers 10-15, in a lax truss; calyx 1-2mm; corolla bright crimson to scarlet, without flecks, tubular-

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campanulate, with nectar pouches, 45-60mm; ovary densely stellate-tomentose, also with setose glands, style floccose and stalked-glandular, at least in the lower half. H2(-3). July. NE Burma, China (W Yunnan), 1,800-3,650m.

This species may be distinguished from the allied *R. facetum* and *R. elliotii* by its setose hairs.

R. LACTEUM FRANCH. - SUBSECT. TALIENSIA.

Shrub or small tree, 2-7.5m. Leaves 8-17 × 4.5-7cm, elliptic to obovate, apex rounded, apiculate, lower surface covered with a thin one-layered compacted indumentum composed of grey-brown radiate hairs; petioles glabrescent. Flowers 15-30, in a dense truss; calyx c.1mm; corolla pure yellow, without flecks though a purple blotch is sometimes present, widely campanulate, nectar pouches lacking, 40-50mm; ovary densely tomentose, style glabrous. H4a-b. April-May. China (W & N Yunnan), 3,700-4,000m.

A distinctive species on account of its yellow flowers and stellate indumentum. In cultivation there are forms with a pink flush to the corolla. These may be hybrids with *R. cyanocarpum*.

FCC 1926 (A.M. Williams, Werrington Park, Cornwall); flowers Sulphur White, with a dark crimson blotch.

FCC 1965 (S.F. Christie, Blackhills, Elgin) to a clone 'Blackhills'; flowers yellow, without a blotch or spots.

R. LAGOPUS NAKAI - SECT. BRACHYCALYX.

Shrub or small tree; young shoots glabrous. Leaves in whorls of up to three, at the ends of the branches, 3.5-5 × 2.5-4cm, rhombic, apex acute, lower surface sparsely pilose, more densely so over lower part of midrib; petioles densely lanate. Pedicels covered with brown pubescent hairs. Flowers 1-2, appearing before or with the leaves; calyx minute; corolla rose-purple, funnel-campanulate, 20-30mm; stamens 8-10; ovary densely pale brown villose, style glabrous. H4. May.

Var. *lagopus* differs from the closely allied *R. nudipes* in the densely lanate petioles, etc. and is the only form of this species in cultivation.

R. lampropeplum Balf.f. & Forrest - is a synonym of **R. proteoides** Balf.f. & W.W.Sm. (Subsect. Taliensia).

R. LANATOIDES D.F.CHAMB. - SUBSECT. LANATA.

Shrub, 2-4m. Leaves coriaceous, 9-11 × 2-3.2cm, lanceolate, apex acuminate, lower surface covered with a dense thick dark fawn to light brown indumentum composed of dendroid hairs with long straight branches. Flowers 10-15, in a dense truss, white flushed pink, with a few flecks, campanulate, lacking nectar pouches, 35-40mm; ovary densely brown-tomentose, style glabrous. H4a-b?. February-April. China (SE Tibet), 3,200-3,650m.

This species is apparently quite distinct from all the remaining members of the subsection, though it is probably allied to *R. luciferum*.

R. LANATUM HOOK.F. - SUBSECT. LANATA.

Shrub, 0.5-3m. Leaves coriaceous, leathery, 6-12 × 1.8-5cm, elliptic to obovate, apex rounded, apiculate, lower surface covered with a dense thick, coffee-brown indumentum composed of dendroid more or less crisped hairs. Flowers 5-10, in a lax truss, creamy yellow, with crimson flecks, campanulate, without nectar pouches, 32-50mm; ovary densely tomentose, style glabrous. H4a-b. April-May. NE India (Sikkim), W Bhutan, China (S Tibet), 3,000-4,500m.

A difficult species to cultivate, apparently liking relatively dry sites. It is closely allied to *R. flinckii* but it is distinguished by the darker and thicker leaf indumentum.

R. LANIGERUM TAGG (INCL. *R. SILVATICUM* COWAN) - SUBSECT. ARBOREA.

Shrub or small multi-stemmed tree, 2.7-6m. Leaves 16-22 × 5-7cm, elliptic to

oblanceolate, lower surface with a two-layered white to fawn indumentum, the upper layer dense and woolly, composed of dendroid hairs, the lower compacted. Flowers 20-25(-50), in a dense inflorescence, deep rose-pink to reddish purple, with darker nectar pouches, campanulate, c.35mm. H3-4a. March-April. China (S Tibet), NE India, 2,550-3,350m.

The red-flowered forms of this species have been referred to *R. silvaticum*.

AM 1949 (Col E.H.W. Bolitho, Trengwainton, Cornwall); flowers Carmine.

AM 1951 (Mrs R.M.Stevenson, Tower Court, Ascot) as *R. silvaticum*, from Kingdon-Ward 6258.

AM 1951 (Crown Estate Commissioners, Windsor) to a clone 'Round Wood', as *R. silvaticum*, from Kingdon-Ward 6258; flowers crimson.

AM 1954 (R.O. Hambro, Logan House, Stranraer) to a clone 'Sylvia', as *R. silvaticum*; flowers pale crimson, suffused white, with a dark crimson ring in the throat.

AM 1961 (R. Strauss, Stonehurst, Ardingly, Sussex) to a clone 'Stonehurst'; flowers a light shade of Cherry, in clusters of c.35.

AM 1961 and FCC 1967 (Crown Estate Commissioners, Windsor) to a clone 'Chapel Wood'; flowers Neyron Rose, in trusses of up to 50.

R. LAPPONICUM (L.) WAHLENB. (INCL. *R. PARVIFOLIUM* ADAMS) - SUBSECT. LAPPONICA.

Prostrate to erect shrub, to 1m. Leaves 0.4-2(-2.5) × 0.2-0.7(-0.9)cm, oblong-elliptic to elliptic-ovate, apex obtuse or rounded, mucronate, lower surface covered with a mixture of touching, straw-coloured to fawn and ferruginous scales. Flowers 3-6; calyx lobes 1-2mm, deltoid; corolla violet-rose to purple or sometimes white, broadly funnel-shaped, 7-15mm; stamens 5-10, about as long as the corolla; ovary scaly, style longer than the stamens, glabrous. H4b-c. March-April. Circumpolar, USA (Alaska), Canada, Greenland,

Scandinavia, Arctic Russia.

A distinctive and widespread species that is difficult in cultivation.

PC 1993 (A.J. Richards, Newcastle upon Tyne) to a clone 'Brian Davidson', from seed collected in Norway by Brian Davidson.

R. lasiopodum Hutch. - is a synonym of **R. rosseatum** Hutch. (Subsect. Maddenia).

R. LATOUCHEAE FRANCH. (INCL. *R. WILSONIAE* HEMSL. & E.H.WILSON) - SECT. CHONIASTRUM.

Shrub, to 7m. Leaves 5-10 × 1.8-5cm, broadly obovate to elliptic-lanceolate, glabrous when mature, apex acuminate. Flowers single, axillary below terminal vegetative bud, pink to purple, with darker spots on upper lobe, funnel-shaped; tube c.10mm; lobes c.25mm, spreading; stamens 10. H1b-3. April-May. C, S & E China, Japan, 1,000-2,000m.

Rare in cultivation and tender.

AM 1971 (Crown Estate Commissioners, Windsor) as *R. wilsoniae*; flowers purple, red-purple at base, with brown mottling in throat.

R. LAUDANDUM COWAN - SECT. POGONANTHUM.

Small shrub, usually to 0.6m; leaf bud scales persistent but not conspicuous. Leaves 1.1-1.7 × 0.6-0.9cm, oblong to ovate or almost orbicular, apex rounded, slightly mucronate; lower surface covered with 2-3 tiers of overlapping chocolate-brown scales, the lowest tier as dark as or darker than the upper tiers. Flowers many, in a dense racemose umbel; calyx lobes 5-6mm; corolla white or pink, rarely yellowish, hypocrateriform, tube 4.5-11.5mm, outer surface pilose, inner surface densely pilose at mouth, lobes 3.5-6mm; stamens 5-6; ovary scaly, sometimes also sparsely puberulent. H4a-b. April-May. China (SE Tibet), 2,900-4,700m.

Var. **laudandum**. Leaves 2 or more times as long as broad; corolla usually pink, tube densely pilose outside.

Var. **temoense** Kingdon-Ward ex

Cowan & Davidian. Leaves less than 2× as long as broad; corolla usually white, tube laxly pilose outside.

The two varieties intergrade; it is therefore not always possible to assign individual plants to a variety.

R. laxiflorum Balf.f. & Forrest - is a synonym of *R. annae* Franch. (Subsect. *Irrorata*).

R. lei Fang - is a synonym of *R. prattii* Franch. (Subsect. *Taliensia*).

R. LEPIDOSTYLUM BALF.F. & FORREST - SUBSECT. *TRICHOCLADA*.

Shrub, 0.5-1.5m; young shoots scaly and densely setose. Leaves evergreen, thick, with a persistent bluish bloom, 3-3.5 × 1.5-1.8cm, obovate to obovate-elliptic, apex rounded, margin revolute, lower surface with equal golden scales. Flowers 2(-3) in a loose terminal inflorescence; calyx lobes 1-7mm, ciliate; corolla clear yellow, sometimes with orange spots, funnel-campanulate, 20-33mm, outer surface scaly and sparsely setose; stamens 10; ovary scaly and densely setose, impressed below the style that is strongly deflexed and usually glabrous, though rarely with a few scales at base. H4a-b. May-June. China (SW Yunnan), 3,050-3,650m.

The thick bluish leaves make this a distinctive species.

AM 1969 (Capt. C. Ingram, Benenden, Kent); flowers green-yellow.

♀ 1993

R. LEPIDOTUM WALL. EX D.DON - SUBSECT. *LEPIDOTA*.

Small shrub, to 2m; young shoots densely scaly. Leaves semi-persistent or persistent, thick, 0.6-2.5(-3) × 0.3-1.2(-1.6)cm, narrowly elliptic to obovate, margin not ciliate, lower surface with distant to overlapping large brownish scales with translucent rims. Flowers 1-2, in a loose terminal inflorescence; calyx lobes 2-4mm; flowers white, yellow or pink to purple, often with darker spots, campanulate, 10-17mm; stamens 10; ovary scaly, style very

short, deflexed. H3-4b. April-May. N India (Kashmir to Arunachal Pradesh), Nepal, Bhutan, N Burma, China (S Tibet, NW Yunnan), 2,450-4,550m.

A widespread and variable species, especially in respect to flower colour and leaf shape.

R. LEPTOCARPUM NUTT. (INCL. R. MICROMERES TAGG) - SUBSECT. *BOOTHIA*.

Usually an epiphytic shrub, to 2m; young shoots scaly, glabrous. Leaves 5.5-7.5 × 1.8-2.5cm, elliptic or narrowly elliptic, apex rounded, mucronate, lower surface papillose, scales close, yellow, unequal, the smaller sunk in pits, their rims upturned. Pedicels thin, 25-35mm, scaly; Flowers 4-10 per inflorescence; calyx lobes 2-5mm, well-developed, spreading or reflexed; corolla yellow, campanulate, 9-13mm; tube 4-6mm, scaly outside, hairy within; stamens 10, regular; ovary scaly, tapering into the declinate style. H3-4a. April-May. NE India (Arunachal Pradesh), Bhutan, NE Burma, China (NW Yunnan, S Tibet), 2,450-3,350(-4,300)m.

A distinctive species, without close relatives.

R. LEPTOTHRIUM BALF.F. & FORREST (INCL. R. BACHII H.LÉV.) - SECT. *AZALEASTRUM*.

Shrub, to 8m. Bark red-brown, peeling. Leaves 3.5-12 × 1.5-3.5cm, narrowly elliptic to lanceolate, apex acute to blunt. Flowers single, borne laterally below vegetative buds, rose to purple, with darker markings, rotate, c.50mm across, tube short, lobes spreading; stamens 5. H2-3. April-May. NE Burma, SW China, 2,150-3,300m.

This species is usually frost sensitive and hence difficult to grow outside in Britain.

R. LEUCASPIS TAGG - SUBSECT. *BOOTHIA*.

Small shrub, to 1m; young shoots densely covered with straight bristles. Leaves 3-4.5 × 1.8-2.2cm, broadly elliptic, apex obtuse, upper surface densely covered with setae, lower surface with vesicular scales sunk in pits. Flowers 1-2 per inflorescence; calyx

lobes 7-8mm, obovate; corolla white, often tinged pink, broadly campanulate to rotate, 25-30mm; tube scaly outside, pilose within; stamens 10; ovary scaly, tapering into the sharply deflexed style. H3. March-April. China (S Tibet), 2,450-3,050m.

AM 1929 (L. de Rothschild, Exbury) from Kingdon-Ward 6273; flowers with a touch of Sulphur Yellow at the base of the corolla internally.

♀ 1994

R. LEVINEI MERR. - SUBSECT. MADDENIA. Shrub, 3-4m; young shoots with or without setae. Leaves thick and coriaceous, 6-6.5 × c.3cm, oblong-obovate, apex rounded, mucronate; margin setose, upper surface with an impressed midrib, lower surface covered with slightly unequal golden scales. Flowers solitary or up to 3, in a loose terminal inflorescence, scented; calyx lobes c.8mm, scaly; corolla white, funnel-campanulate, c.45mm, outer surface scaly; stamens 10; ovary scaly, tapering into the style that is scaly at base. H1b?. China (Guizhou, Guangdong), c.950m.

It is not clear whether any of the plants in cultivation fit the above description; material collected in S China by Walder differs in its significantly larger (8-9cm) flowers.

R. leovistratum Balf.f. & Forrest - is a synonym of **R. phaeochrysum** Balf.f. & W.W.Sm. var. **levistratum** (Balf.f. & Forrest) D.F.Chamb. (Subsect. Taliensia).

R. LINDLEYI T.MOORE - SUBSECT. MADDENIA.

A straggly upright usually epiphytic shrub, 1-4m; young shoots lacking setae. Leaves 8.5-13 × 3-4.5cm, narrowly elliptic to oblong-elliptic, apex obtuse or rounded, margin not setose, upper surface with raised midrib, lower surface greyish green, with distant unequal reddish brown scales. Flowers 2-3(-5), in a loose terminal inflorescence, scented; calyx conspicuous, lobes 11-18 × 5-8(-10)mm, ciliate;

corolla white or cream with an orange-yellow blotch at base, openly funnel-campanulate, 65-95mm, outer surface without or with a few scales, glabrous or pubescent at base; stamens 10; ovary densely scaly, tapering into the style that is scaly in the lower half. H2-3. Nepal, India (W Bengal, Arunachal Pradesh, Manipur), Bhutan, China (S Tibet), 2,000-2,750m.

This species is close to *R. dalhousiae* (q.v.).

AM 1935 (L. de Rothschild, Exbury); flowers flushed rose magenta.

AM 1965 (G. Gorer, Sunte House, Haywards Heath) to a clone 'Dame Edith Sitwell'; flowers white, tinged pale pink. This may be a hybrid.

AM 1969 (A.C. & J.F.A. Gibson, Glenarn, Dunbartonshire) to a clone 'Geordie Sherriff'; flowers strongly flushed externally with red-purple.

FCC 1937 (Vice Adm. A.W. Heneage-Vivian, Clyne Castle, Swansea); flowers with a tinge of pink at the ends of the corolla lobes.

♀ 1993

R. linearifolium Sieb & Zucc. - is a synonym of **R. stenopetalum** (Sect. Tsutsusi).

R. litangense Balf.f. ex Hutch. is a synonym of **R. impeditum** Balf.f. & W.W.Sm. (Subsect. Lapponica).

R. lithophilum Balf.f. & Kingdon-Ward - is a synonym of **R. trichocladum** Franch. var. **trichocladum** (Subsect. Trichoclada).

R. litiense Balf.f. & Forrest - is a synonym of **R. wardii** W.W.Sm. var. **wardii** (Subsect. Campylocarpa).

R. LONGESQUAMATUM SCHNEIDER - SUBSECT. MACULIFERA.

Shrub, 3-4m; young shoots and petioles densely rufous tomentose. Leaves 6-11 × 2-3.5cm, elliptic to oblanceolate, apex shortly cuspidate, upper surface shortly stalked-glandular and rufous-tomentose when young; lower surface ultimately with lamina glabrous though with a

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rufous tomentum composed of flagellate hairs covering the midrib. Flowers 4-6, in a lax truss; calyx 6-10mm, lobes lingulate; corolla rose-pink, with a basal blotch, open-campanulate, without nectar pouches, 40-45mm; ovary and lower half of style stalked-glandular. H4b. May. China (Sichuan, Guizhou), 2,300-3,350m.

A distinctive species without close allies.

R. LONGIPES REHDER & E.H.WILSON - SUBSECT. ARGYROPHYLLA.

Shrub or small tree, 1-10m; young shoots pubescent. Leaves 5-11 × 1.5-3cm, oblanceolate, apex cuspidate, lower surface covered with a felted to compacted fawn or brownish indumentum that is intermixed with a few glands. Flowers 8-15, in a lax truss; calyx 1-2mm; corolla pinkish to pale purple, with darker flecks, funnel-campanulate, 30-35mm; ovary rufous-tomentose and glandular, style glabrous. H4a-b. China (Sichuan, Guizhou), 2,000-2,900m.

This species has only recently been introduced into cultivation.

R. LONGISTYLUM REHDER & E.H.WILSON - SUBSECT. TEPHROPEPLA.

Shrub, 0.5-2m. Leaves 3.5-5.2 × 1-1.5cm, apex acute, upper surface persistently scaly, lower surface pale green, papillose, scales distant, unequal, golden and brown, with broad rims. Flowers (1)-2-3, in a loose terminal inflorescence that has a 3-12mm rhachis; calyx lobes narrowly triangular, to 4mm, not ciliate but fringed with scales; corolla white, narrowly funnel-shaped, c.20mm, outer surface lacking scales, glabrous; stamens 10; ovary impressed below the declinate, glabrous style. H3. April-May. China (Sichuan), 1,300-2,300m.

This species has a restricted distribution in the wild and is rare in cultivation.

R. lophogynum Balf.f. & Forrest ex Hutch. - is a synonym of **R. trichocladum** Franch. var. **trichocladum** (Subsect. Trichoclada).

R. lopsangianum Cowan - is a synonym of **R. thomsonii** Hook.f. subsp. **lopsangianum** (Cowan) D.F.Chamb. (Subsect. Thomsonia).

R. LOWNDESII DAVIDIAN - SUBSECT. LEPIDOTA.

Creeping shrub, to 0.25m; young shoots glabrous. Leaves deciduous, thin, 1.5-2.5 × 0.6-1.1cm, narrowly elliptic to oblanceolate, margin slightly crenulate, ciliate, lower surface with distant yellow scales with broad translucent margins. Flowers 1-2, in a terminal inflorescence; calyx lobes c.3mm; corolla yellow, sometimes spotted or streaked with red, campanulate, 13-15mm, outer surface usually densely scaly; stamens 10; ovary scaly, style short, deflexed. H3-4a. May-June. Nepal, 3,800-4,550m.

R. LUCIFERUM (COWAN) COWAN - SUBSECT. LANATA.

Shrub or small tree, 1.5-7.5m. Leaves coriaceous, 8.5-11 × 3-4.5 cm, elliptic to ovate, apex acute to acuminate, lower surface covered with a thick rusty brown indumentum composed of dendroid hairs. Flowers 8-10, in a dense truss, pale yellow, with at least a few red flecks, funnel-campanulate, without nectar pouches, 30-45mm; ovary densely covered with a pale brown tomentum; style glabrous. H4a-b. April-May. China (SE Tibet), 3,350-4,000m.

This species is closely allied to *R. lanatum* but it is usually a larger plant, with a reddish brown leaf indumentum. It also has a more Easterly distribution.

R. LUDLOWII COWAN - SUBSECT. UNIFLORA

Small spreading shrub, to 0.3m; young shoots scaly, glabrous. Leaves c.1.5 × 1cm, broadly obovate or oblong-obovate, apex obtuse, margin crenate, lower surface with distant narrowly rimmed brown scales. Flowers solitary, terminal; calyx lobes c.7mm, ciliate, corolla yellow, drying greenish yellow, sometimes with red spots, broadly funnel-campanulate, 20-

23mm, tube c.14mm, outer surface densely scaly and pubescent; stamens 10; ovary scaly, impressed below the declinate, glabrous style that is longer than the stamens. H4a. April-May. China (S Tibet), c.4,000m.

This is a distinctive species that is rare in the wild.

R. LUDWIGIANUM HOSSEUS - SUBSECT. **MADDENIA**.

Free-growing shrub, to 1.5m; young shoots lacking setae. Leaves 3-7 × 1.5-3.5cm, obovate, apex rounded, margin not ciliate, upper surface with midrib impressed; lower surface covered with dense but not overlapping brownish scales. Flowers 2-3, in a loose terminal inflorescence, not scented; calyx disc-like, ciliate; corolla white and pink, funnel-campanulate, c.65mm, outer surface pubescent, with scales restricted to the lobes; stamens 10; ovary scaly, tapering into the style that is scaly and pubescent below. H1b. March-April. Thailand, 1,600-2,180m.

R. LUKIANGENSE FRANCH. - SUBSECT. **IRRORATA**.

Shrub or small tree, 1-7.5m. Leaves coriaceous, 8-16.5 × 3-5.2cm, elliptic to oblanceolate, apex acuminate, lower surface of leaves glabrous though with persistent red punctate hairs bases overlying the veins. Flowers 6-15, in a truss, pale to deep magenta rose, darker on the lobe margins, with darker flecks and usually also a basal blotch; tubular-campanulate; ovary glabrous to sparsely rufous-tomentose, style glabrous. H2-3. March-April. China (SE Tibet, NW Yunnan, SW Sichuan), 2,100-3,350m.

This species is closely allied to *R. irroratum* but may be distinguished from the latter species by its glabrous style. The subspecies that have been recognized in the past intergrade to such an extent that their maintenance is not justified.

R. LUTEIFLORUM (DAVIDIAN) CULLEN - SUBSECT. **GLAUCA**.

Shrub, to 1m; shoots with a peeling brown bark. Leaves (4-)6.8 × 1.5-2.6cm, elliptic, apex obtuse, lower surface with a glaucous papillate epidermis, scales 3-8× their own diameter apart, unequal, the smaller golden, the larger brown. Pedicels scaly. Flowers 3-6 per inflorescence; calyx lobes 6-8mm, lacking a tuft of hairs at the obtuse apex; corolla bright yellow, campanulate, 20-22mm; stamens 10, regular; ovary scaly, style sharply deflexed, glabrous. H3. April-May. NE Burma, 3,050-3,350m.

Closely allied to *R. glaucophyllum* but differing in the obtuse elliptic leaves, the calyx lobes lacking a tuft of hairs at the apex, and in the bright yellow flowers.

AM 1960 and FCC 1966 (National Trust for Scotland, Brodick Castle Gardens) to a clone 'Glen Cloy', from Kingdon-Ward 21556; flowers Dresden Yellow.

R. LUTESCENS FRANCH. - SUBSECT. **TRIFLORA**.

Straggling shrub, to 6m; bark brown, flaking; young shoots scaly, otherwise glabrous. Leaves 5-9 × 1.3-2.6(-3.7)cm, lanceolate to oblong, apex acuminate, with a long drip-tip, margins crenulate, upper surface scaly, usually glabrous; lower surface with large distant broad-rimmed golden scales. Flowers 1-3, in a loose, usually axillary inflorescence; calyx minute, ciliate; corolla pale yellow with greenish spots, zygomorphic, widely funnel-campanulate, 18-25mm, outer surface with tube pubescent, the hairs retrorse; stamens 10; ovary scaly, style impressed below the declinate, glabrous style. H3-4a. February-April. China (Yunnan, W Sichuan, Guizhou), (550-)1,750-3,000m.

This species is distinctive on account of its well-developed leaf drip-tip.

AM 1953 (Mrs R.M. Stevenson, Tower Court, Ascot) to a clone 'Bagshot Sands'; flowers Primrose Yellow with darker spots.

FCC 1938 (L. de Rothschild, Exbury) to a clone 'Exbury'; flowers clear Lemon Yellow.

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♀ 1993, to a clone 'Bagshot Sands'.

R. LUTEUM SWEET - SUBSECT. PENTANTHERA.

Deciduous shrub, to 2m; young twigs densely covered with gland-tipped and/or eglandular multicellular hairs. Leaves 6.5-12(-14.5) × 1.6-3.4(-4.2)cm, ovate or obovate to elliptic, lower surface sometimes glaucous, covered with glandular or eglandular hairs. Flower bud scales glabrous to (occasionally) covered with unicellular hairs, margins glandular. Pedicels densely covered with gland-tipped hairs. Flowers with a sweet fragrance, appearing before or with the leaves, 9-17, in a shortened raceme; calyx 1-4(-7)mm; corolla yellow, with a darker yellow blotch on the upper lobe, funnel-form, tube gradually expanding into the limb, outer surface covered with unicellular and gland-tipped hairs, 25-50mm. Capsule covered with unicellular and gland-tipped hairs. H4b. May-June. Eastern Europe, Turkey, Caucasia, s.l.-2,300m.

R. luteum may be distinguished from the allied *R. austrinum* by the yellow flowers with a darker blotch and by the less hairy capsules.

♀ 1993.

R. LYI H.LÉV. - SUBSECT. MADDENIA.

Shrub, to 2m; young shoots with persistent setae. Leaves 7-8 × 2.5-3cm, narrowly obovate, apex bluntly acute, margin with or without bristles, upper surface with impressed midrib, lower surface brown, with dense, but not touching, scales. Flowers (2-3)-4, in a loose terminal inflorescence, scented; calyx lobes 1-2mm, usually fringed with setae; corolla white, funnel-campanulate, 45-60mm, outer surface scaly throughout; stamens 10; ovary densely scaly, tapering into the style which is scaly below. H1b-2. China (Guizhou), Vietnam, Laos, 1,400-2,200m.

This species, which is rare in cultivation, is allied to *R. ciliicalyx* and to *R. roseatum*, but differs in the more persistent setae on the young stems.

R. lysolepis Hutch. - is a hybrid of **R. flavidum** Franch. (Subsect. Lapponica).

R. MACABEANUM WATT EX BALF.F. - SUBSECT. GRANDIA.

Tree, to 15m; bark rough. Leaves 14-25 × 9-18.5cm, broadly ovate to broadly elliptic, apex rounded, often apiculate, lower surface with a dense two-layered indumentum, the upper layer lanate-tomentose, composed of rosulate and ramiform hairs, the lower compacted; petioles terete. Flowers 15-25, in a dense truss, 8-lobed, lemon yellow, with a purple blotch in the throat, tubular- to narrowly funnel-campanulate, with nectar pouches, c.50 mm; stamens 16; ovary densely rufous-tomentose. H3-4a. March-May. NE India (Manipur, Nagaland), 2,500-3,000m.

In cultivation the hybrids with *R. sino-grande* are often difficult to distinguish from this species, but usually can be separated by the floccose leaf indumentum that tends to rub off.

AM 1937 and FCC 1938 (Lt Col E.H.W. Bolitho, Trengwainton, Cornwall); flowers yellowish white, with a bright red stigma.

♀ 1993

R. MACROPHYLLUM D.DON EX G.DON - SUBSECT. PONTICA.

Shrub, 2-4m; young shoots and petioles soon more or less glabrous. Leaves (6.5-) 8.5-12(-17) × 3-5.2(-7.5cm), broadly elliptic, apex acute to minutely apiculate, upper and lower surfaces glabrous when mature. Flowers 10-20, in a dense truss; calyx c.1mm; corolla white to pink, with yellowish flecks, broadly campanulate, without nectar pouches, 30-40mm; ovary densely rufous-pilose, style glabrous. H4a-b. May-June. Western seaboard of America, s.l.-150m.

Closely allied to *R. maximum* though with relatively broader leaves, 2.5-2.8× as long as broad.

R. macrosepalum Maxim. - is a synonym of **R. stenopetalum** (Hogg) Mabb. (sect. Tsutsusi).

R. macrosmithii Davidian - is a synonym of **R. argioplum** Balf.f. & Cooper.

R. MACULIFERUM FRANCH. - SUBSECT. MACULIFERA.

Shrub or small tree, 1-10m; young shoots and petioles with an evanescent tomentum. Leaves 5-10 × 2.7-4.2cm, oblong to obovate, apex rounded, apiculate, lower surface with lamina glabrous at maturity though with a thick tomentum composed of folioliferous hairs overlying the midrib. Flowers 5-10, in a lax truss; calyx c.1mm; corolla white, sometimes suffused with pale pink, with a purple blotch and a few flecks, open-campanulate, nectar pouches lacking, 25-30mm; ovary densely rufous-tomentose, style glabrous. H4b. April. N, C & S China, 1,200-3,000m.

A rare species in cultivation. It is probably allied to *R. anwheiense*.

R. maculiferum Franch. var. *anwheiense* (E.H.Wilson) D.F. Chamb. - is a synonym of **R. anwheiense** E.H.Wilson (Subsect. Maculifera).

R. MADDENII HOOK.F. - SUBSECT. MADDENIA.

Free-growing or epiphytic shrub, to 2.5m; young shoots lacking setae. Leaves 6-16 (-18) × 2.8-6(-8)cm, elliptic to broadly obovate, apex acute or obtuse, margin not ciliate, upper surface with midrib impressed; lower surface often brownish, the scales overlapping. Flowers (1-)2-5 (-7), in a loose terminal inflorescence, scented; calyx lobes (3-)5-12(-16)mm; corolla white, often flushed pink or purplish, rarely totally pink, usually with a yellow blotch at base, at first narrowly funnel-campanulate, later funnel-campanulate, (35-)60-85(-100)mm, outer surface scaly from base to middle of lobes; stamens (15-)17-27; ovary divided into (8-)10(-12) chambers, densely scaly, tapering into the scaly style. H2-3. May-June. N India, Bhutan, N Burma, SW China, N Vietnam.

Subsp. **maddenii** (incl. *R. calophyllum* Nuttall, *R. brachysiphon* Balf.f. ex Hutch. &

R. polyandrum Hutch.). Leaves 6-11(-15) × 2.8-4(-5.5)cm, often obovate; filaments of stamens often glabrous; capsule ovoid-globose, apex rounded. India (Sikkim, Arunachal Pradesh), Bhutan, China (SE Tibet), 1,900-2,600m.

R. brachysiphon is distinctive, with small flowers, 45-48mm long, but is no more than an extreme among a series of forms that do not have clear morphological boundaries.

AM 1933 (Lt Col L.C.R. Messel, Nymans) as *R. polyandrum*; flowers white, with a yellow blotch.

AM 1938 (Lt Col L.C.R. Messel, Nymans) as *R. polyandrum*; flowers white, flushed pink.

AM 1938 (Lt Col E.H.W. Bolitho, Trengwainton, Cornwall); buds greenish yellow, flushed pink, opening white, greenish within.

AM 1978 (Maj. A.E. Hardy, Sandling Park, Kent) to a clone 'Ascreavie', from L. & S. 1141; flowers white, flushed red-purple externally.

♀ 1993

Subsp. **crassum** (Franch.) Cullen (*R. crassum* Franch., and incl. *R. manipurensis* Balf.f. & Watt & *R. odoriferum* Hutch.). Leaves 9-15(-18) × (4-)5.5-8cm, usually elliptic; stamen filaments usually pubescent; capsule oblong-cylindrical, apex abruptly rounded to truncate. India (Manipur), Burma, China (SE Tibet, Yunnan), Vietnam, 2,400-3,650m.

This is a very variable species as the synonymy quoted indicates. However, *R. maddenii* is consistently characterized by the large number of stamens and by the number of ovary chambers.

AM 1924 (T.H. Lowinsky, Sunninghill) to subsp. *crassum*; buds tinted pink, flowers white.

♀ 1993

R. MAGNIFICUM KINGDON-WARD - SUBSECT. GRANDIA.

Tree, 13-18m; bark rough. Leaves 20-32 × 10-14 (-17)cm, broadly obovate, apex rounded, lower surface with a thin continuous, apparently two-layered indumen-

Description of Species in Cultivation

tum, the upper arachnoid, buff, the lower compacted; petioles slightly flattened and winged. Flowers c.30, in a dense truss, c.8-lobed, rosy purple, with darker nectar pouches, funnel-campanulate, 45-60mm; stamens 16; ovary densely rufous-tomentose. H2-3. February-April. NE Burma, China (W Yunnan), 1,800-2,500m.

This species is rare in cultivation; as it is relatively tender; it is only to be found in the mildest gardens in Britain.

AM 1950 (Lt Col D.R. Carrick-Buchanan, Corsewell, Stranraer) from Kingdon-Ward 9200; flowers Fuchsine Pink, with darker veins.

FCC 1966 (National Trust for Scotland, Brodick Castle Gardens) to a clone 'Kildonan', from Kingdon-Ward 9200; flowers Fuchsine Pink.

R. MAKINOI TAGG (*R. YAKUSHIMANUM* NAKAI SUBSP. *MAKINOI* (TAGG) D.F.CHAMB.). - SUBSECT. PONTICA.

Shrub, 1-2.5m; young shoots floccose-tomentose; bud scales persistent. Leaves 7-18 × 1-2.5cm, narrowly lanceolate, apex acute, upper surface glabrous, lower surface with a thick white to fulvous tomentum composed of dendroid hairs; petioles tomentose at first, usually soon glabrescent. Flowers 5-10, in a tight truss; calyx 2-5mm; corolla 5-lobed, pale rose, with or without flecks, funnel-campanulate, nectar pouches lacking, 30-40mm; ovary densely whitish to brown-tomentose, style glabrous. H4b. May-June. C Japan (Honshu), to 2,000m.

Allied to *R. degronianum* but differing in the persistent bud scales and narrower leaves, 7.5-10× as long as broad.

♀ 1993

R. MALLOTUM BALF.F. & KINGDON-WARD - SUBSECT. NERIIFLORA.

Shrub or small tree, 1.5-6.5m. Leaves 10-13 × 4.5-6.3cm, broadly oblanceolate to obovate, lower surface covered with a dense rufous lanate tomentum composed of dendroid hairs; petioles densely tomentose. Flowers 7-14, in a dense truss; calyx 2-3mm; corolla fleshy, crimson, tubular-

campanulate, with nectar pouches, 40-45mm; ovary densely rufous-tomentose, abruptly contracted into the glabrous style. H3-4a. March-April. NE Burma, China (W Yunnan), 3,350-3,650m.

A distinctive and fine species in cultivation.

AM 1933 (Col S.R. Clarke, Borde Hill, Sussex); flowers crimson.

AM 1973 (Crown Estate Commissioners, Windsor), as a foliage plant.

R. manipurens Balf.f. & Watt. - is synonym of **R. maddenii** Hook.f. subsp. **crassum** (Franch.) Cullen (Subsect. *Maddenia*).

R. MARIESII HEMSL. & E.H.WILSON - SECT. BRACHYCALYX.

Shrub or small tree, 1-3m; young shoots covered at first with adpressed yellowish hairs, later glabrescent. Leaves in whorls of up to three, at the ends of the branches, 3-7.5 × 2-4.5cm, ovate-lanceolate, apex acute, lower surface glabrescent; petioles glabrous. Pedicels villose. Flowers 1-2 per inflorescence, appearing before the leaves; calyx minute; corolla rose-purple, upper lobe with flecks, funnelform, 25-30mm; stamens 10; ovary yellowish grey-villose, style glabrous. H3?. April-May. C, S & E China, incl. Taiwan, 200-1,300m

Closely allied to *R. farrerae* (q.v.).

R. MARTINIANUM BALF.F. & FORREST - SUBSECT. SELENSIA.

Much-branched shrub, 0.8-3.5m; young shoots usually stalked- or setose-glandular. Leaves 4.5-5 × 1.4-2.4cm, elliptic to obovate, lower surface punctulate, otherwise glabrous; or (rarely) with a few tufts of hairs, even at maturity; petioles with a few setulose glands or more or less glabrous at maturity. Flowers solitary or up to 4, in a lax truss; calyx 1-3mm; corolla pale yellow, or white flushed rose to pink, with or without purple flecks, funnel-campanulate, nectar pouches lacking, c.30mm; ovary and style base densely stalked-glandular. H4a. April-May. China (SE Tibet, NW Yunnan), 3,000-4,250m.

Closely allied to *R. selense* but distinguished by its smaller leaves and fewer flowers per truss. In the wild it apparently has a narrower corolla but it is not certain whether this is a consistent diagnostic character.

R. MAXIMUM L. - SUBSECT. PONTICA.

Shrub or small tree, 1.3-3.5m; young shoots tomentose and stalked-glandular though soon glabrescent; bud scales deciduous. Leaves 10-16 × 3-5cm, oblanceolate to elliptic, upper surface glabrous, lower surface with a thin fugaceous indumentum that is embedded in a surface film that usually persists towards the leaf base, especially near the midrib; petioles usually sparsely tomentose, even when mature. Flowers 14-25, in a dense truss; calyx 3-5mm; corolla white to rose-purple, with yellowish green flecks, campanulate, nectar pouches lacking, 25-30mm; ovary pilose and stalked-glandular, style glabrous. H4c. July. Eastern USA & adjacent Canada, 300-1,700m.

Closely allied to *R. macrophyllum* but with narrower leaves, 3.3-4× as long as broad.

AM 1974 (Crown Estate Commissioners, Windsor) to a clone 'Summertime'; flowers white, suffused at tip with shades of red-purple, throat with yellow-green spots.

R. MAYBARAE NAKAI & H.HARA - SECT. BRACHYCALYX.

Shrub; young shoots glabrous. Leaves in whorls of up to three, at the ends of the branches, 2.5-3 × 1.5-1.7cm, apex acute, lower surface with lamina glabrous, veins and midrib with brown hairs, especially towards base. Pedicels densely and stiffly brownish-pubescent. Flowers solitary, appearing before the leaves; calyx minute; corolla deep magenta, upper lobe with darker flecks, open-campanulate, c.25mm; stamens 10; ovary densely covered with brownish bristles, style glabrous. H4a-b. Japan (S Kyushu), 600-1,000m.

Closely allied to *R. nudipes* but differing in the less hairy leaf under surfaces

and in the densely pubescent pedicels.

R. MEDDIANUM FORREST - SUBSECT. THOMSONIA.

Shrub, 1-2.3m; bark slightly rough; young shoots glabrous. Leaves 8-11(-15) × 4.5-5.2(-8.2)cm, obovate to broadly elliptic, base rounded to more or less cuneate, entirely glabrous, lower epidermis green and lacking papillae; petioles glabrous. Flowers 6-10, in a lax truss; calyx fleshy, 3-12(-18)mm, cupular, reddish; corolla fleshy, deep rose to deep blackish crimson, tubular-campanulate, with nectar pouches, 40-65mm; ovary glabrous to densely glandular and viscid, style glabrous. H3-4a. April. NE Burma, China (W Yunnan), 2,700-3,600m.

Var. *meddianum*. Ovary more or less glabrous. NE Burma, China (W Yunnan).

Var. *atrokermesinum* Tagg. Ovary densely glandular and viscid. NE Burma.

AM 1954 (R.O. Hambro, Logan House, Stranraer); flowers light red, with a little dark spotting on upper lobes.

AM 1965 (National Trust for Scotland, Brodick Castle Gardens) to a clone 'Machrie'; this is now regarded as a hybrid of *R. meddianum*..

AM 1977 (National Trust for Scotland, Brodick Castle Gardens) to a clone 'Bennan'; flowers red, with darker markings.

This species resembles *R. thomsonii* but may be distinguished by characters of the lower leaf epidermis.

R. MEGACALYX BALF.F. & KINGDON-WARD - SUBSECT. MADDENIA.

Shrub, 1-3.5m; young shoots not setose. Leaves 10-16 × 4.5-7.5mm, elliptic to obovate, apex rounded, margin not ciliate, upper surface usually bullate with midrib impressed, lower surface brownish, with unequal more or less touching golden or brownish scales, the smaller of which are rimless. Flowers 2-6, in a loose terminal inflorescence, strongly scented; calyx lobes 22-30mm, whitish-pruinose, becoming papery in fruit, glabrous and lacking scales; corolla white or cream, rarely

flushed pinkish purple, funnel-campanulate, with an oblique mouth, 65-95mm, outer surface sparsely scaly; stamens 10; ovary densely scaly, tapering into the style that is scaly at base. H2-3. April-June. India (Arunachal Pradesh), NE Burma, China Yunnan, SE Tibet), 2,000-3,350m.

This is a very distinctive species.

AM 1937 (Vice Adm. A.W. Heneage-Vivian, Clyne Castle, Swansea); flowers pure white.

R. MEGERATUM BALF.F. & FORREST - SUBJECT. BOOTHIA.

Small shrub, sometimes epiphytic, 0.3-1m; young shoots with setae persisting for at least one year. Leaves 2-3.5 × 1.2-2cm, elliptic to more or less orbicular, apex obtuse, upper surface glabrous except for a few setae at the base of the midrib, lower surface whitish-papillose, with vesicular scales sunk into pits. Pedicels short, more or less lacking scales, covered with setae. Flowers 1-3 per inflorescence; calyx lobes 6-10mm, obovate; corolla yellow or (rarely) cream, broadly campanulate, 16-23 mm; stamens 10; ovary scaly, tapering into the strongly deflexed style. H3. March-April. India (Arunachal Pradesh), NE Burma, China (SE Tibet, NW Yunnan), 3,050-4,150m.

R. megeratum is probably allied to *R. leucaspis*.

AM 1935 (Lord Swaythling, Townhill Park, Southampton); flowers deep yellow.

AM 1970 (Lord Aberconway and the National Trust, Bodnant); flowers yellow-green.

R. MEKONGENSE FRANCH. - SUBJECT. TRICHOCLADA.

Shrub, to 2m; young shoots scaly and variably setose. Leaves deciduous, obovate to obovate-elliptic, 2.5-4.5(6.5) × 1.4-2.1(-2.7)cm, apex rounded, margin ciliate, upper surface usually lacking setae at maturity, lower surface with a varying number of setae that are sometimes restricted to the base of the midrib and the margins, the scales of two kinds, the

smaller tend to become greyish to purple or even black and are half the size of the larger. Flowers precocious, 2-4, in a terminal and sometimes also axillary inflorescence; calyx small; corolla yellow to greenish, 17-23mm; stamens 10; ovary scaly, style sometimes puberulent at base. H4a-b. May. Nepal, China (S Tibet, W Yunnan), NE Burma, 2,900-4,400m.

Var. **mekongense**. (incl. var. *melinanthum* (Balf.f. & Kingdon-Ward) Cullen, *R. melinanthum* Balf.f. & Kingdon-Ward & *R. chloranthum* Balf.f. & Forrest). Corolla yellow or greenish-yellow, scales polymorphic in size and colour. Nepal, NE Burma, China S Tibet, NW Yunnan), 2,900-4,400m.

Var. *mekongense* has a surprisingly disjunct range, extending from SW China to Nepal.

AM 1979 (R.N.S. Clarke, Borde Hill) to a clone 'Yellow Fellow'; flowers in trusses of 3-5, yellow, with yellow-green spotting in throat on upper 3 lobes.

Var. **rubrolineatum** (Balf.f. & Forrest) Cullen (*R. rubrolineatum* Balf.f. & Forrest). Corolla reddish yellow, scales varying in size but uniformly golden. China (SE Tibet, W Yunnan), 3,200-4,500m.

R. mekongense is closely allied to *R. trichocladium* (q.v.).

R. mekongense Franch. var. *longipilosum* (Cowan) Cullen - is a synonym of **R. trichocladium** Franch. var. *longipilosum* Cowan (Subsect. Trichoclada).

R. melinanthum Balf.f. & Kingdon-Ward - is a synonym of **R. mekongense** Franch. var. **mekongense** - Subsect. Trichoclada.

R. metternichii Sieb. & Zucc. - is a synonym of **R. degrobianum** Carrière var. **heptamerum** (Maxim.) H.Hara (Subsect. Pontica).

R. metternichii Sieb. & Zucc. var. *pentamerum* Maxim. - is a synonym of **R. degrobianum** Carrière subsp. **degronianum** (Subsect. Pontica).

R. MICRANTHUM TURCZ. - SUBJECT. MICRANTHA.

Shrub, to 2.5m; young shoots scaly and puberulent. Leaves (1.6-)3-4(-5.6) × (0.5-)1-2.5cm, oblong-elliptic, sometimes narrowly so, apex acute, midrib sparsely puberulent above, lower surface with brown broad-rimmed touching or overlapping scales. Flowers usually more than 20, in a dense terminal inflorescence with a conspicuous rhachis; pedicels puberulent; calyx lobes 1-2mm, triangular, ciliate; corolla white, unspotted, funnel-campanulate, 5-8mm, outer surface densely scaly; stamens 10, longer than corolla; ovary scaly, impressed, below the straight style that is shorter than the stamens, and glabrous or with a few hairs at base. H4a-b. May-July. N & C China (Heilongjiang, Jilin, Hebei, Hubei, Gansu, Shanxi, Shandong, Sichuan), Korea, 1,600-2,600m.

A distinct species, though in some respects resembling members of Subject. Ledum.

R. MICROGYNUM BALF.F. & FORREST (INCL. *R. GYMNOCARPUM* BALF.F. EX TAGG & *R. PERULATUM* BALF.F. & FORREST) - SUBJECT. NERIIFLORA.

Shrub, usually dwarf, 0.6-2m. Leaves 5.5-7.5 × 1.5-2(-3)cm, elliptic, lower surface covered with a dense felted, cinnamon to buff indumentum composed of rosulate hairs; petioles glabrescent. Flowers 3-7, in a tight truss; calyx 2-10mm; corolla fleshy, pale rose to deep crimson, sometimes with faint flecks, 30-35mm; ovary brown-tomentose and glandular, abruptly contracted into the glabrous style. H4a. April-May. China (SE Tibet, NW Yunnan), 3,650-4,250m.

Allied to *R. sanguineum* but generally a larger plant, with a thicker leaf indumentum.

AM 1940 (L. de Rothschild, Exbury) as *R. gymnocarpum*; flowers deep rich crimson.

R. microleucum Hutch. - is a synonym of **R. orthocladum** Balf.f. & Forrest var. **microleucum** (Balf.f. & Forrest)

N.M.Philipson & Philipson (Subject. Lapponica).

R. micromeres Tagg - is a synonym of **R. leptocarpum** Nuttall (Subject. Boothia).

R. MICROPHYTON FRANCH. - SECT. TSUTSUSI.

Upright, usually dwarf shrub, 1.3-2m; young shoots covered with adpressed flattened brown hairs. Leaves of one kind, persistent, 1-4 × 0.5-1.5cm, apex obtuse to acute, mucronulate, both surfaces with adpressed red-brown hairs, lower surface paler; petioles covered with brown bristles. Pedicels covered with shining chestnut-brown hairs. Flowers 3-6 per inflorescence; calyx 1-2mm; corolla usually purple-rose, occasionally white flushed pink, with crimson flecks, funnel-campanulate, 10-15(-22)mm; stamens 5; ovary densely covered with shining chestnut-brown hairs, style glabrous. H2-3. April-May. NE Burma, China (Yunnan, SW Sichuan, Guizhou), ?Thailand, 1,800-3,050m.

This species has no obvious allies. It is frost sensitive in Britain.

R. MIMETES TAGG & FORREST. - SUBJECT. TALIENSIA.

Shrub, 1-2.2m. Leaves 8.5-11 × 3-4.5cm, lanceolate to oblanceolate, apex acute to apiculate, lower surface covered with a two-layered indumentum, the upper layer fulvous, lanate-tomentose and often deterrent by maturity, or cinnamon, persistent, composed of ramiform hairs, the lower whitish, compacted and persistent; petioles glabrescent by maturity. Flowers 6-10 in a lax to dense truss; calyx 3-10mm, lobes broad, rounded, or narrow and reflexed, irregular; corolla white to rose, with crimson flecks, funnel-campanulate, nectar pouches lacking, 35-45mm; ovary densely rufous-tomentose and stalked-glandular, style glabrous. H4b. May. China (SW Sichuan), 3,350-4,450m.

Var. **mimetes**. Leaf indumentum with upper layer often deterrent, fulvous; calyx with broad lobes.

Var. **simulans** Tagg & Forrest (*R. sim-*

Description of Species in Cultivation

ulans [Tagg & Forrest] D.F.Chamb.). Leaf indumentum persistent, cinnamon; calyx with narrow reflexed lobes.

Both varieties may have a hybrid origin with *R. adenogynum* as one parent. The other parent of var. *simulans* could be *R. sphaeroblastum*.

R. MINUS MICHX. - SUBSECT. CAROLINIANA.

Shrub, 2(-5)m; young shoots sparsely scaly. Leaves (1-)5.5-8(-11) × (1.8-)2.5-3.5 (-5)cm, elliptic to broadly elliptic, lower surface densely covered with small-rimmed brownish scales. Pedicels scaly. Flowers 5-8, in a dense inflorescence; calyx lobes 1-2mm; corolla white to pink, usually with greenish flecks, (21-)25-30(-35)mm, tube scaly, occasionally also hairy on outside, pubescent within; stamens 10; ovary scaly, style more or less glabrous. H3-4a. May-June. E & S USA.

Var. *minus* (incl. *R. carolinianum* Rehder). Leaf apex acute or acuminate; branches usually not erect and rigid. E & S USA (Tennessee to Alabama).

AM 1968 (Col N.R. Colville, Launceston, Cornwall) as *R. carolinianum*; flowers Red-Purple.

Var. *chapmanii* (A.Gray) Duncan & Pullen (*R. chapmanii* A.Gray). Leaf apex obtuse or retuse; branches erect and rigid. SE USA (Florida).

R. mishmiense Hutch. & Kingdon-Ward - is a synonym of *R. boothii* Nuttall (Subsect. Boothia).

R. miyazawae Nakai & Hara - is a synonym of *R. tosaense* Makino (sect. Tsutsusi).

R. MOLLE (BLUME) G.DON. - SUBSECT. SINENSIA.

Deciduous shrub, to 2m; young twigs with eglandular hairs. Leaves (4-)5-9.5 (-13.2) × 1.7-2.9(-4.3)cm, ovate or obovate to elliptic, sparsely covered with eglandular hairs. Flower bud scales with outer surface covered with unicellular hairs, margin ciliate. Pedicels densely covered

with eglandular and gland-tipped hairs. Flowers with a sweet fragrance, appearing before or with the leaves, 3-13, in a shortened raceme; calyx to 1-4mm; corolla yellow to red, with flecks on the upper corolla lobe, broadly funnelform, tube broadly expanding into limb, both surfaces usually covered with eglandular hairs, 30-70mm. Capsules eglandular-hairy. H3-4a. May. China, Japan, s.l.-2,500m.

Subsp. *molle*. Flowers yellow; capsules sparsely hairy. C, S & E China.

Subsp. *japonicum* (A.Gray) K.Kron. (*R. japonicum* (A.Gray) Valcken. & incl. *R. sinense* (Lodd.) Sweet). Flowers yellow to red; capsules more densely hairy. Japan.

This is the most distinctive of the species in Sect. Pentanthera.

R. MOLLICOMUM BALF.F. & W.W.SM. - SUBSECT. SCABRIFOLIA.

Small shrub, 0.5-2m; young shoots scaly, pubescent, with or without setae. Leaves 1.2-3.5 × 0.3-1.5cm, lanceolate or rarely oblong, upper surface covered with fili-form hairs, usually without setae; lower surface green, not shining, lamina densely pubescent, the setae restricted to midrib, the scales their own diameter apart. Flowers 1-3, in an axillary inflorescence; calyx rim-like, ciliate; corolla pale to deep pink, narrowly funnel-shaped, 19-30mm; outer surface glabrous and lacking scales; stamens 10; ovary scaly and sparsely pilose, style impressed, often slightly pilose at base. H3-4a. April-May. China (N Yunnan, SW Sichuan), 2800-3800m.

This species is closely allied to *R. hemitrichotum* (q.v.).

AM 1931 (Lady Aberconway and Hon. H.D. McLaren, Bodnant); flowers bright rose.

R. monosematum Hutch. - is a synonym of **R. pachytrichum** Franch var. **monosematum** (Hutch.) D.F.Chamb. (Subsect. Maculifera).

R. MONTROSEANUM COWAN & DAVIDIAN - SUBSECT. GRANDIA.

Tree 12-15m; bark rough. Leaves 20-30 (-50) × 5.5-10(-20)cm, oblanceolate, apex rounded, apiculate, lower surface covered with a thin one-layered silvery compacted indumentum; petioles terete. Flowers c.20, 8-lobed, in a dense truss, rose-pink, with a crimson blotch at base, ventricose-campanulate, nectar pouches lacking, c.50mm; stamens 16; ovary densely rufous-tomentose. H3. March-May. ?NE Burma, China (S Tibet), c.2,600m.

This species may be distinguished by the pink flowers and the silvery leaf indumentum.

FCC 1957 (Younger Botanic Garden, Argyll) to a clone 'Benmore' from Kingdon-Ward 6261a; flowers Fuchsine Pink, with deep pink staining and a crimson blotch.

R. MORII HAYATA - SUBSECT. MACULIFERA.

Shrub or small tree, 4-8m; young shoots with a dense blackish floccose indumentum, soon becoming glabrous. Leaves 7-14 × 2.8-3.5cm, lanceolate to elliptic, apex acuminate, lower surface with lamina glabrous though with a floccose tomentum composed of folioliferous hairs overlying the midrib; petioles finely hirsute and glandular. Flowers 5-12, in a lax truss; calyx c.2mm; corolla white, sometimes tinged pink, with a red basal blotch and flecks, widely campanulate, lacking nectar pouches, 30-50mm; ovary densely tomentose, also with a few stalked glands, style tomentose at base, otherwise glabrous. H3-4a. April-May, Taiwan, 2,000-2,200m.

Closely allied to *R. pseudochrysanthum*, the two apparently merge with one another in some wild populations. It is therefore treated by some as a synonym of the latter species, but the differences in leaf shape and general size of plant are maintained in cultivation.

AM 1956 (Capt. C. Ingram, Benenden, Kent); flowers white, blotched and spotted crimson.

♀ 1993

R. MOULMAINENSE HOOK.F. (INCL. *R. ELLIPTICUM* MAXIM., *R. OXYPHYLLUM* FRANCH., *R. PECTINATUM* HUTCH., *R. STENAUULUM* BALF.F. & FORREST & *R. WESTLANDII* HEMSL.) - SECT. CHONIASTRUM.

Shrub or tree, to 15m. Leaves 6-17 × 2-5cm, narrowly elliptic to elliptic, glabrous when mature, apex acuminate. Flowers 3-5 (rarely solitary), clustered at end of a leafy shoot below the vegetative buds, white or pink to magenta, with a yellow blotch, funnel-shaped; tube 16-22mm; lobes 30-40mm, broad, spreading; stamens 10. H1b-2. March-April. Widespread in SE Asia, from E India to Cambodia, China and Malaya, 100-3,000m.

A cool glasshouse subject in temperate regions. A widespread and variable species in the wild.

AM 1937 (L. de Rothschild, Exbury & Earl of Stair, Stranraer) as *R. stenaulum*; flowers silvery lilac, with violet tinge, dark on lobes, spotted pale brown, tube pale crimson externally.

R. MOUPINENSE FRANCH. - SUBSECT. MOUPINENSIA.

Shrub, 1-1.3m, often epiphytic; young shoots setose. Leaves 3-4 × 1.6-2.2cm, narrowly ovate to elliptic or obovate, apex rounded, margin ciliate, lower surface densely scaly. Flowers 1-2, terminal; calyx lobes c.2mm, pubescent; corolla white, often flushed pink, usually with dark red spots, open-funnel-campanulate, 30-35mm, outer surface glabrous, lacking scales; stamens 10; style longer than stamens, declinate. H3-4a. February-March. China (W Sichuan, Guizhou), 2,000-4,000m.

This species is closely allied to *R. dendrocharis* (q.v.) and one of the earliest species to flower in cultivation.

FCC 1994 (Crown Estate Commissioners, Windsor) to a clone 'Ice Cool'; truss 1-3-flowered, greenish white, with two small clusters of moderate red spots in the dorsal throat.

♀ 1993

R. mucronatum (Blume) G. Don - is presumed to be an artificial hybrid of *R. ripense* Makino and *R. stenopetalum* (Sect. Tsutsusi).

R. MUCRONULATUM TURCZ. - SUBSECT. RHODORA STRA

Straggling shrub, to 2m; young shoots scaly and puberulous. Leaves thin, completely deciduous, 4-6 × 1.5-3cm, elliptic to lanceolate, apex mucronate, upper surface puberulent on midrib, with strigose hairs towards the margin, lower surface sparsely scaly. Flowers solitary, axillary, but at the tips of the branches, opening before the leaves; calyx rim-like; corolla bright mauve pink, rarely white, very openly funnel-shaped, 21-26mm, outer surface pilose near base; stamens 10; ovary scaly, style impressed, declinate. H4b-c. January-March. Russia (E Siberia), China (Hubei, Shandong), Mongolia, Korea, Japan (Honshu, Kyushu), 300m upwards.

This species is closely allied to *R. dauricum* (q.v.).

A dwarf form, 10-50cm high, from Cheju Island & the mainland of S Korea, has been given the name var. **taquetii** (H. Lévy) Nakai (syn. var. *chejuense* Davidian).

AM 1924 (Royal Botanic Gardens, Kew); flowers rich purplish rose.

AM 1935 (Royal Botanic Gardens, Kew) to a clone 'Roseum'; flowers bright rose.

AM 1965 (Crown Estate Commissioners, Windsor) to a clone 'Winter Brightness'; flowers a rich purplish rose.

♀ 1993, to a clone 'Cornell Pink'.

♀ 1993 to a clone 'Winter Brightness'.

R. myiagrum Balf.f. & Forrest - is a synonym of *R. callimorphum* Balf.f. & W.W.Sm. subsp. *myiagrum* (Balf.f. & Forrest) D.F. Chamb.

R. MYRTIFOLIUM SCHOTT & KOTSCHY - SUBSECT. RHODODENDRON.

Small shrub, to 0.5m; young shoots densely scaly, sometimes with a few hairs.

Leaves 1.4-2.3 × 0.5-0.8cm, narrowly obovate, apex obtuse; margin not ciliate, obscurely crenulate, upper surface dark green, shining, lower surface scaly but not densely so. Flowers many, in a dense inflorescence; rhachis 10-20mm; pedicels scaly and pubescent; calyx lobes to 2mm, narrowly triangular, usually fringed with scales and a few hairs; corolla pink, tubular-campanulate, 15-17mm, outer surface sparsely scaly, densely pubescent; stamens 10; style shorter than to as long as the ovary. H4a-b. Mountains of E Europe (Bulgaria, Yugoslavia, Romania, W Russia), 1,200-2,400m.

This species is closely allied to *R. ferrugineum*, replacing it in the East. It differs in its hairy pedicels, paler flowers and shorter style.

R. NAKAHARAE HAYATA - SECT. TSUTSUSI.

Much-branched prostrate shrub, rarely more than 0.3m high; young shoots covered with adpressed flattened shining brown hairs. Leaves of one kind, persistent, 0.5-1.2 × 0.2-1cm, elliptic to elliptic-obovate, apex acute or mucronulate, upper surface with scattered pilose hairs borne on raised pustules, lower surface paler, with scattered adpressed shining brown hairs; petioles densely bristly. Pedicels covered with flattened brown shining hairs. Flowers 2-3 per inflorescence; calyx c.2mm; corolla dark red, funnel-campanulate, 20-25mm; stamens 10; ovary densely bristly, style glabrous. H4a. June-August. N Taiwan, 350-2,300m.

This is a distinctive species on account of its dwarf, creeping habit.

AM 1970 (Hydon Nurseries, Godalming) to a clone 'Mariko'; flowers red, flushed deeper in centre of upper throat.

R. NAKOTILTUM BALF.F. & FORREST - SUBSECT. TALIENSIA.

Shrub, 1-3.5m. Leaves 8-11 × 3-4.3cm, elliptic, apex acute, lower surface covered with a two-layered indumentum, the upper layer loose and fawn, composed of long-

rayed stellate hairs, the lower compacted; petioles glabrescent. Flowers 12-15, in a dense truss; calyx c.1mm; corolla white flushed rose to pale pink, with purple flecks and sometimes also a basal blotch, funnel-campanulate, nectar pouches lacking, 30-35mm; ovary densely rufous-tomentose, style glabrous. H4. May. China (NW Yunnan), 3,350-4,000m.

This is a rare species, both in the wild and in cultivation. There is some doubt as to the authenticity of cultivated plants as none can be linked for certain with any of the available preserved material.

R. nankotaisanense Hayata - is a synonym of *R. pseudochrysanthum* Hayata var. **nankotaisanense** (Hayata) T.Yamaz. (Subsect. Maculifera).

R. NEOGLANDULOSUM HARMAJA (*LEDUM GLANDULOSUM* MURR.) - SUBSECT. LEDUM.

Erect shrub, 0.5-2.0m; young shoots puberulent, gland-dotted. Leaves 1.5-3.5 (-4) × 0.5-2cm, broadly elliptic-oval, apex acuminate, margins flat or slightly incurved, upper surface dark green, lower surface lighter green, papillate, glabrous or more or less pubescent, scales rimless, golden, 1-2× their own diameter apart; petioles 4-10mm. Flowers many, in a loose terminal umbellate corymb; calyx small, lobes rounded, margins ciliate; corolla white, rotate, c.6mm; pedicels 1.5-4cm, often glandular; stamens 8-12; ovary densely glandular and scaly, style sparsely glandular. H4. May-August. NW USA.

Intermediates (that occasionally occur in cultivation) between this species and *R. groenlandicum*, with leaves 4-6 × 1-2cm, slightly revolute and sometimes with a few ferruginous hairs on the lower surfaces, have been called *R. × columbianum* (Piper) Harmaja (*Ledum columbianum* Piper).

R. NERIIFLORUM FRANCH. - SUBSECT. NERIIFLORA.

Shrub or small tree, 1-6m. Leaves 4-11 ×

1.9-3.2cm, elliptic to oblong or oblanceolate, lower surface glabrous with a glaucous, strongly papillate epidermis; petioles sparsely floccose-tomentose or glabrescent, rarely setose-glandular. Flowers 5-8(-12), in a tight truss; calyx 2-15mm, cupular when well-developed; corolla fleshy, crimson to light red, occasionally straw yellow, tubular-campanulate, with nectar pouches, 35-45mm; ovary densely tomentose, sometimes also with at least some glands, tapering into the glabrous style. H3-4a. April-May. Bhutan, NE India, China (S Tibet, W Yunnan), NE Burma, 275-3,350m.

Subsp. **neriiflorum** (incl. *R. euchaites* Balf.f. & Forrest & *R. phoenicodum* Balf.f. & Farrer). Pedicels, calyx and ovary lacking glands; leaves 4-9cm, 1.7-3× as long as broad, plane below, lacking reticulations. NE Burma, China (SE Tibet, W Yunnan).

AM 1929 (Lady Abernconway and Hon. H.D. McLaren, Bodnant) as subsp. *euchaites*; flowers a rich ruby red.

Subsp. **agetum** (Balf.f. & Forrest) Tagg. As for subsp. *neriiflorum* but with lower leaf surface reticulate, forming alveoli with some papillae horizontal. China (W Yunnan).

Subsp. **phaedropum** (Balf.f. & Farrer) Tagg. Pedicels, calyx and ovary with at least some glands; leaves 8-11cm, 3-5(-7)× as long as broad, plane below. Bhutan, NE India (Arunachal Pradesh), China (S Tibet, W Yunnan).

The status of subsp. *agetum* is uncertain, even though the cited difference is striking. Subsp. *neriiflorum* merges with the more Westerly subsp. *phaedropum* where the distributions of the two meet.

R. NIGROGLANDULOSUM NITZELIUS - SUBSECT. TALIENSIA.

Shrub or small tree, 3-5m; young shoots tomentose and with blackish purple stalked glands. Leaves 12-17 × 4-5cm, lanceolate to oblong, apex apiculate, lower surface with a light reddish brown, loosely lanate, one-layered indumentum composed of ramiform hairs; petioles floccose-tomentose, and with black glands.

Description of Species in Cultivation

Flowers 8-10 in a dense truss; calyx c.1mm; corolla deep pink at first, later yellowish pink, with conspicuous purple flecks, campanulate, nectar pouches lacking; ovary stipitate-glandular and tomentose, style glabrous. H4b. May. China (Sichuan), c.3,500m.

A rare species in cultivation that may be distinguished from its immediate relatives, *R. bureavii* and *R. elegantulum*, by its small calyx. The black glands on the young shoots and petioles are also diagnostic.

R. nigropunctatum Franch. - is a synonym of *R. nivale* subsp. *boreale* Philipson & N.M.Philipson (Subsect. Lapponica).

R. ninguenense Hand.-Mazz. - is a synonym of *R. irroratum* Franch. subsp. *irroratum* (Subsect. Irrorata).

R. NIPPONICUM MATSUM. - SECT. VISCIDULA.

Deciduous shrub, to 2m. Leaves 4-18 × 1.5-8.5cm, obovate, often broadly so, to broadly elliptic, lower surface with scattered eglandular and gland-tipped hairs, the midrib fringed with straight to crisped unicellular hairs. Flowers appearing with or after the leaves, 6-15, in an umbellate raceme; calyx 1-6mm; corolla white, lacking spots, regular, tubular-campanulate, tube broadly expanding into the shorter limb, 15-25mm. Capsule covered with gland-tipped hairs. H4a-b. May-June, S Japan, 1,000-1,850m.

This is a very distinctive species on account of its regular tubular-campanulate flowers. It may be distantly allied to *R. albiflorum*. It is considered to be one of the most primitive species in the genus.

R. nitens Hutch. - is a synonym of *R. calostrotum* Balf.f. & Kingdon-Ward subsp. *riparium* (Kingdon-Ward) Cullen (Subsect. Saluenensia).

R. NITIDULUM REHDER & E.H.WILSON - SUBSECT. LAPPONICA.

Erect or ascending much-branched low

shrub, to 1.3m. Leaves 0.5-1.1 × 0.3-0.7cm, ovate to elliptic, apex obtuse or rounded, mucro absent or obscure, base widening abruptly from the petiole, lower surface covered with uniformly fawn, golden-centred touching scales sometimes also with scattered darker scales. Flowers 1-2 per inflorescence; calyx (1.5-)2.5-3mm, lobes strap-shaped, rounded; corolla rosy-lilac to violet-purple, funnel-shaped, outer surface without scales, 12-15mm; stamens (8-)10, more or less equalling the corolla; ovary lepidote, style exceeding the stamens, sometimes pubescent at base. H4a-b. April-May. China (Sichuan), 3,200-5,000m.

Var. *nitidulum*. Leaves covered with uniformly pale scales beneath. China (NW Sichuan), 3,300-5,000m.

Var. *omeiense* Philipson & N.M.Philipson. Leaf scales predominantly pale (though with a few dark) beneath. China (C Sichuan - Mt Emei), 3,200-3,500m.

This species is allied to *R. websterianum* but may be distinguished by the golden-centred leaf scales.

R. NIVALE HOOK.F. - SUBSECT. LAPPONICA.

Prostrate or compact shrub, 0.6-0.9(-1.2)m. Leaves 0.4-0.9(-1.2) × 2-6cm, elliptic to broadly elliptic, apex rounded to subacute, with at most a very short mucro, lower surface covered with more or less touching scales, the majority usually pale gold but with a few darker. Flowers 1-2 (-3) per inflorescence; calyx minute or lobes 2-5mm and oblong or oblong-deltoid; corolla rich purple to lilac or pink, broadly funnel-shaped, (7-)9-13(-16)mm; stamens usually 10, longer or shorter than the corolla; ovary scaly, style usually longer than stamens, glabrous or slightly pubescent at base. H4a-b. April-May. Nepal, India (Sikkim), China (S Tibet, Yunnan, W Sichuan), 3,100-5,800m.

Subsp. *nivale* (incl. *R. paludosum* Hutch. & *R. ramosissimum* Franch.). Calyx lobes 2-5mm, margins with scales; leaf apex rounded. Nepal, India (Sikkim),

China (S Tibet), to 5,800m.

Subsp. **australe** Philipson & N.M.Philipson. Calyx lobes 2-5mm, ciliate; leaf apex more or less acute. China (NW & C Yunnan), 3,100-4,300m.

Subsp. **boreale** Philipson & N.M.Philipson (incl. *R. alpicola* Rehder & E.H.Wilson, *R. nigropunctatum* Franch., *R. oresbium* Balf.f. & Kingdon-Ward, *R. ramosissimum* Franch., *R. stictopyllum* Balf.f. & *R. violaceum* Rehder & E.H.Wilson). Calyx more or less obsolete; leaf apex more or less acute. China (SE Tibet, NW Yunnan, W Sichuan), 3,200-5,000m.

This is a variable and widespread species.

R. NIVEUM HOOK.F. - SUBSECT. ARBOREA. Multi-stemmed tree, to 6m. Leaves 11.5-17 × 4-4.5cm, elliptic to oblanceolate, lower surface with a compacted fawn dendroid indumentum. Flowers 15-20, in a dense inflorescence, deep magenta to deep lilac, with darker nectar pouches, tubular-campanulate, 30-35mm. H3-4a. April-May. N India (Sikkim), W Bhutan, 2,900-3,650m.

This distinctive species is rare and threatened in the wild.

AM 1951 (Mrs R.M. Stevenson, Tower Court, Ascot); flowers Imperial Purple, with darker staining.

FCC 1979 (Crown Estate Commissioners, Windsor) to a clone 'Crown Equerry'; trusses containing up to 32 flowers, corolla purple-violet, with darker lip and deeper veining.

♀ 1993

R. NORIAKIANUM SUZUKI - SECT. TSUTSUSI.

Low shrub; young shoots densely covered with adpressed bristles. Leaves of one kind, deciduous, 0.7-1.5 × 0.4-0.6cm, ovate to ovate-oblong, apex obtuse, apiculate; upper surface glabrescent; petioles covered with bristles. Pedicels densely pilose. Flowers 3-4 per inflorescence; calyx small; corolla red, funnel-shaped, c.15mm; stamens 7-10; ovary pubescent, style glabrous. H4a?. May. N Taiwan, 2,000-3,000m.

This species is allied to *R. nakaharae* but is said to differ in its smaller corolla and slightly exerted stamens. It may no longer be in cultivation.

R. notatum Hutch. - is a synonym of **R. dendricola** Hutch.

R. nudiflorum (L.) Torr. - is a synonym of **R. periclymenoides** (Michx.) Shinnery (Subsect. Pentanthera).

R. NUDIPIES NAKAI - SECT. BRACHYCALYX.

Shrub or small tree; young shoots glabrous. Leaves in whorls of up to three, at the ends of the branches, 2-8 × 1-6.5cm, broadly rhombic, apex acute with tip blunt, lower surface covered with long brown hairs; petioles densely brown-villose above, glabrous below. Pedicels covered with brown pubescent hairs. Flowers 1-2 per inflorescence, appearing before the leaves; calyx minute; corolla rose-purple, funnel-campanulate, 20-30mm; stamens 8-10; ovary densely pale brown villose, style glabrous. H4a-b. May. Japan (Honsu, Kyushu), 200-1,000m.

Var. *kirishimense* T.Yamaz., which is said to differ in its pubescent young shoots and smaller leaves (1.5-4.5 × 1.2-3cm) with apex obtuse, may be in cultivation.

R. nudipes is allied to *R. reticulatum* (q.v.).

R. NUTTALLII BOOTH (INCL. *R. SINONUTTALLII* BALF.F. & FORREST - SUBSECT. MADDENIA.

Shrub or small tree, sometimes epiphytic, 2-10m; young shoots not bristly. Leaves 17-26 × 7.5-13cm, oblong-elliptic to oblong-obovate, apex bluntly acute or obtuse, margin not ciliate, upper surface rugose, midrib raised; lower surface glaucous, with a conspicuous reticulum of secondary veins, scales brown, unequal, up to 2× their own diameter apart. Flowers 2-5, in a loose terminal inflorescence, not scented; calyx 15-25mm, without or with a few scales, sometimes with a few hairs;

Description of Species in Cultivation

corolla white with a yellow blotch, funnel-campanulate, with an oblique mouth, (75-)100-125mm, outer surface sparsely scaly; stamens 10; ovary densely scaly, tapering into the style that is scaly below. H1b(-2). April-May. India (Arunachal Pradesh), China (NW Yunnan, SE Tibet, Vietnam), 1,200-3,650m.

AM 1936 (L. de Rothschild, Exbury) as var. *stellatum*, from Kingdon-Ward 6333; flowers small, scented.

AM 1955 (Sunningdale Nurseries, Windlesham, Surrey) as *R. sinonuttallii*.

FCC 1864 (Victoria Nursery, Highgate).

♀ 1993

R. oblongifolium (Small) Millais - is a synonym of *R. viscosum* (L.) Torr. (Subsect. Pentanthera).

R. obtusum (Lindl.) Planchon - and the many of the forms and varieties described under that name are cultivated selections of *R. kiusianum*, or hybrids between it and *R. kaempferi* (see note under the former species).

AM 1898 (W. Nicholson, Basing Park, Alton); flowers clear orange-scarlet.

AM 1965 (Knaphill Nursery, Woking) to a clone 'Splendens'; flowers Rose Bengal.

R. OCCIDENTALE (TORR. & A.GRAY) A.GRAY - SUBSECT. PENTANTHERA.

Deciduous shrub or small tree, to 8(-10)m; young twigs glabrous to densely covered with gland-tipped and/or eglandular hairs. Leaves (2.5-)3.5-8.2(-10.8) × (0.8)1.2-2.9(-3.6)cm, ovate to obovate or elliptic, lower surface usually covered with unicellular and gland-tipped multicellular hairs. Flower bud scales with outer surface covered with unicellular and eglandular or gland-tipped multicellular hairs, margin ciliate with gland-tipped or eglandular hairs. Pedicels covered with hairs that are usually gland-tipped. Flowers with a sweet fragrance, appearing with the leaves or after they have expanded; calyx 1-4(-9)mm; corolla white and pink to

salmon or pink, with an orange blotch on the upper corolla lobe, funnelform, with tube gradually expanding into the limb, 30-60mm. Capsule sparsely covered with eglandular or gland-tipped hairs. H4a-b. June-July. W USA (Oregon & California), s.l.-2,700m.

R. occidentale may be distinguished from the allied *R. austrinum* and *R. luteum* by the colour of the corolla.

AM 1944 (Royal Botanic Gardens, Kew); flowers white, heavily flushed rose pink, with a yellow blotch.

♀ 1993

R. OCHRACEUM REHDER & E.H.WILSON - SUBSECT. MACULIFERA.

Small tree, c.3m; young shoots covered with glandular setae. Leaves 5.5-10 × 1.3-2cm, apex cuspidate, lower surface covered with a dense matted yellow-brown indumentum composed of flagellate hairs. Flowers 8-12, in a dense inflorescence; calyx c.1mm; corolla dark red, with nectar pouches, tubular-campanulate, c.35mm; ovary densely covered with small gland-tipped bristles, style glabrous. H4a?. China (Sichuan), 2,600-3,000m.

This distinctive species is probably allied to *R. strigillosum* but differs in the characteristic leaf indumentum. As it has only recently been introduced, it is not known how it will perform in cultivation.

R. odoriferum Hutch. - is synonym of *R. maddenii* Hook.f. subsp. *crassum* (Franch.) Cullen.

R. OLDHAMII MAXIM. (INCL. *R. OVATOSEPALUM* YAMAMOTO) - SECT. TSUTSUSI.

Much-branched shrub, to 3m; young shoots densely covered with spreading red-brown gland-tipped hairs intermixed with scattered more or less spreading flattened hairs. Leaves of two kinds; spring leaves deciduous, 3.5-6 × 1.8-2.5cm, ovate-lanceolate, apex acute to mucronate, both surfaces covered with light brown pilose hairs that are longer on the midrib; summer leaves 1.5-2 × 0.8-1cm; petioles cov-

ered with spreading pilose hairs. Pedicels covered with spreading gland-tipped red-brown hairs. Flowers 1-3 per inflorescence; calyx c.2mm; corolla orange-red to coral-pink, funnel-shaped, 25-35mm; stamens (8-)10; ovary densely covered with gland-tipped bristles, style glabrous. H2-3. May-August. Taiwan, s.l.-2,450m.

This is a distinctive species, with no close allies.

R. oleifolium Franch. - is a synonym of *R. virgatum* Hook.f. subsp. *oleifolium* (Franch.) Cullen (Subsect. *Virgata*).

R. ombrochares Balf.f. & Kingdon-Ward - is a synonym of *R. tanastylum* Balf.f. & Kingdon-Ward var. *tanastylum* (Subsect. *Irrorata*).

R. openshawianum Rehder & E.H.Wilson - is a synonym of *R. calophytum* Franch. var. *openshawianum* (Rehder & E.H.Wilson) D.F.Chamb. (Subsect. *Fortunea*).

R. ORBICULARE DECNE. - SUBSECT. FORTUNEA.

Shrub or tree, 1.5-15m. Leaves 7-12.5 × 5.6-7.7cm, orbicular to ovate-orbicular, base cordate, lower surface glabrous. Flowers 10-17 in a truss; calyx c.0.5mm; corolla 7-lobed, deep rose-pink, campanulate to open-campanulate, nectar pouches lacking, 35-40mm; stamens 14; ovary stalked-glandular, style glabrous. H4a-b. April-May. China (Sichuan, Guangxi), 2,500-4,000m.

Only subsp. *orbiculare*, with orbicular leaves, is known in cultivation.

AM 1922 (Hon. H.D. McLaren, Bodnant); flowers rose pink.

R. OREODOXA FRANCH. - SUBSECT. FORTUNEA.

Shrub or small tree, 1.3-5m. Leaves 6-8.5 × 2.2-4cm, obovate-elliptic to elliptic, base rounded, lower surface with persistent punctulate hair bases, otherwise glabrous. Flowers 6-8, in a lax truss; calyx 2-3mm; corolla 5-7-lobed, pink, campanulate, nec-

tar pouches lacking, 35-40mm; stamens 10-14; ovary glabrous or with stalked glands, style glabrous. H4b. March-April. China (NW Yunnan, Sichuan, S Gansu, W Hubei, Shaanxi), 2,650-4,100m.

Var. *oreodoxa*. Ovary glabrous; corolla 6-7-lobed; pedicels glandular. China (Sichuan).

AM 1937 (L. de Rothschild, Exbury); flowers pale rose, with darker stripes.

Var. *fargesii* (Franch.) D.F.Chamb. (*R. fargesii* Franch. & incl. *R. erubescens* Hutch.). Ovary stalked-glandular; corolla (5-)6-7-lobed; pedicels glandular. China (NW Yunnan, Sichuan, Gansu, Hubei).

AM 1926 (G.W.E. Loder, Wakehurst Place, Sussex) as *R. fargesii*; flowers rose pink, with crimson spots.

AM 1969 (Lord Aberconway and National Trust, Bodnant) to a clone 'Budget Farthing', as *R. fargesii*; flowers white, suffused Red-Purple.

♀ 1993

Var. *shensiense* D.F.Chamb. Ovary stalked-glandular; pedicels sparsely rufous-tomentose; corolla 5-lobed. China (Shaanxi).

Plants now referred to var. *shensiense* have in the past been grown as *R. purdomii* Rehder & E.H.Wilson, the type specimen of which is too poorly preserved to be sure that it is the same as the former. The affinities of var. *shensiense* are unclear but it seems that the plants in cultivation have a close affinity with *R. oreodoxa*.

R. OREOTREPES W.W.SM. - SUBSECT. TRIFLORA.

Shrub or small tree, 1-8m; young shoots scaly. Leaves evergreen or semi-deciduous, often bluish, 2.1-6.3(-8.7) × 1.8-3.1 (-4)cm, orbicular to oblong or obovate, apex rounded to acute, upper surface often slightly hairy along midrib, lower surface with dense (but not touching) reddish brown to grey, opaque narrow-rimmed scales, often puberulent below. Flowers 1-3(-4), in a loose terminal inflorescence; calyx minute, sometimes ciliate; corolla rose-pink to rose-lavender, with darker spots, rarely white, funnel-shaped

Description of Species in Cultivation

to funnel-campanulate, 21-34mm, outer surface lacking scales, glabrous; stamens 10; ovary scaly, impressed below the declinate, glabrous style. H4a. April-May. China (S Tibet, N Yunnan, SW Sichuan), 2,750-4,250m.

This is a distinctive species, with no close allies.

AM 1932 (L. de Rothschild, Exbury) as *R. timetum*; flowers rosy purple.

AM 1935 (J.J. Crosfield, Embley Park, Hants) as *R. siderophylloides*; flowers bright pinkish mauve, with darker spots.

AM 1937 (L. de Rothschild, Exbury) as *R. exquisitum*, from Forrest 20489; flowers light mauve pink, spotted red.

AM 1990 (P.A. Cox, Glendoick) to a clone 'Pentland'; trusses compound, containing up to 21 flowers, corolla purple, paling in throat, with sparse green and red-brown spotting in upper throat.

R. oresbium Balf.f. & Kingdon-Ward - is a synonym of **R. nivale** Hook.f. subsp. **boreale** Philipson & N.M.Philipson (Subsect. Laponica).

R. ORTHOCLADUM BALF.F. & FORREST - SUBSECT. LAPPONICA.

Much-branched erect low shrub, to 1.3m. Leaves 0.8-1.6 × 0.3-0.6cm, narrowly elliptic to lanceolate, apex obtuse, obscurely mucronate, lower surface covered with more or less touching yellow-brown scales, intermixed with few to many that are dark brown. Flowers (1-)2-5 per inflorescence; calyx 0.5-1.5mm, lobes rounded to deltoid, unequal; corolla pale to deep lavender-blue to purple or whitish pink, funnel-shaped, 7-14mm; stamens 8-10, shorter than to equalling corolla; ovary scaly, style short or long, glabrous or sparsely scaly. H4a-b. April-May. China (N Yunnan, SW Sichuan), 2,500-4,500m.

Var. **orthocladum**. Corolla blue or purple; style 3.5-5mm. China (N Yunnan, SW Sichuan), 2,500-4,500m.

Var. **longistylum** Philipson & N.M.Philipson. Corolla blue or purple; style 15-16mm. China (N & NW Yunnan), 3,500m.

Var. **microleucum** (Hutch.) Philipson & N.M.Philipson (*R. microleucum* Hutch.). Corolla white; style 3.5-5mm. Only known in cultivation.

FCC 1939 (L. de Rothschild, Exbury); flowers white.

♀ 1994

This is a variable species; var. *microleucum* may be no more than an albino form of var. *orthocladum*.

R. oulotrichum Balf.f. & Forrest - is a synonym of **R. trichocladum** Franch. var. **trichocladum** (Subsect. Trichoclada).

R. ovatosepalum Yamamoto - is a synonym of **R. oldhamii** Maxim. (sect. Tsutsusi).

R. OVATUM (LINDL.) MAXIM. - SECT. AZALEASTRUM.

Shrub, to 4m. Leaves 3-6 × 1.5-2.5cm, broadly ovate to broadly elliptic, apex acute or obtuse. Flowers single, borne laterally below vegetative buds, white to pale purple, upper lobes with darker spots, rotate; tube short; lobes spreading, 40-50mm across; stamens 5. H3-4a. May-June. C, S & E China, Taiwan, c. 1,000m.

This species is rare in cultivation and somewhat tender.

R. oxyphyllum Franch. - is a synonym of **R. moulmainense** Hook.f. (Sect. Choniastrum).

R. PACHYPODUM BALF.F. & W.W.SM. (INCL. *R. SCOTTIANUM* HUTCH. & *R. SUPRANUBIUM* HUTCH.) - SUBSECT. MADDENIA.

Shrub or small tree, 0.6-7.5m; young shoots lacking bristles. Leaves 5-10 × 2-4cm, obovate, apex abruptly acute, margin not ciliate, upper surface with midrib impressed, lower surface with the brown unequal scales touching or to a half their own diameter apart. Flowers 1-5, in a loose terminal inflorescence, not scented; calyx lobes 1-3mm, usually setose; corolla white with a yellowish basal blotch, sometimes tinged pink, funnel-shaped, 45-65mm, outer surface scaly throughout,

pubescent at base; stamens 10; ovary scaly, tapering into the glabrous style. H2-3. March-April. N Burma, China (Yunnan), 1,800-4,000m.

This species is closely allied to *R. ciliicalyx* (q.v.).

FCC 1936 (L. de Rothschild, Exbury); flowers white, with a pale yellow streak.

R. PACHYSANTHUM HAYATA (SYN. *R. PSEUDOCHRYSANTHUM* HAYATA VAR. *RUFUVELUTINUM* (T.YAMAZ.) T.YAMAZ. - SUBSECT. MACULIFERA.

Shrub, young shoots tomentose, later glabrous. Leaves 6-9 × 2.5-3.5cm, oblong, apex acute to apiculate, lower surface with a whitish brown to rufous tomentum that usually persists, occasionally only over the midrib; petioles tomentose. Flowers 10-20, in a dense truss; calyx c.1mm; corolla white to pale pink, with or without purple flecks, blotch apparently absent, 40mm, widely campanulate, without nectar pouches; ovary densely stalked-glandular, style glabrous. H4a-b. April-May. Taiwan,

Cultivated plants are distinctive on account of their usually persistent leaf indumentum. However, recent Japanese authors treat this as a variety of *R. pseudochrysanthum*.

In the wild this taxon has an extremely restricted distribution.

AM 1989 (P.A. Cox, Glendoick, Perthshire), from Rhododendron Venture, Taiwan, RV 72/001; corolla white and densely spotted.

♀ 1993

R. PACHYTRICHUM FRANCH. - SUBSECT. MACULIFERA.

Shrub or small tree, 1-6m; young shoots and petioles tomentose or stalked-glandular. Leaves 9-15 × 2-4.2cm, elliptic to obovate, apex more or less cuspidate, lower surface with lamina glabrous though with short foliiferous hairs on or near the midrib. Flowers 7-10, in a lax truss; calyx c.1.5mm; corolla white suffused pink to pink, with a purple blotch and flecks, narrowly campanulate, lacking nectar pouch-

es, 35-50mm; ovary densely tomentose or stalked-glandular, style glabrous or glandular at base. H4a. March-April. China (NE Yunnan, SW Sichuan), 2,500-3,600m.

Var. **pachytrichum**. Petioles, pedicels, calyx and ovary tomentose, eglandular.

AM 1963 (Lord Aberconway and National Trust, Bodnant) to a clone 'Sesame'; flowers white, tinged purple.

Var. **monosematum** (Hutch.) D.F.Chamb. (*R. monosematum* Hutch.). Petioles, pedicels, calyx and ovary stalked-glandular.

Var. *monosematum* is only known for certain from Emei Shan in W Sichuan, and has apparently arisen as a stabilized back-cross from the hybrid swarms of var. *pachytrichum* and *R. strigillosum* that occur close by. It was originally described from cultivated material that resembled var. *pachytrichum*. It is therefore more appropriate to treat it as a variety of *R. pachytrichum* rather than of *R. strigillosum* as do some Chinese authors.

R. paludosum Hutch. - is a synonym of **R. nivale** Hook.f. var. **nivale** (Subsect. Lapponica).

R. PAPILLATUM BALF.F. & COOPER (INCL. *R. EPAPILLATUM* BALF.F. & COOPER) - SUBSECT. IRRORATA.

Shrub or small tree, 2-5m. Leaves subcoriaceous, 9-14 × 3-5cm, oblanceolate to oblong, apex acuminate, lower surface usually with a papillate cuticle and a thin persistent or detersile stellate indumentum, lacking punctate glands. Flowers 5-10, in lax truss, pale cream to pink, with purple flecks and a basal blotch, campanulate, nectar pouches lacking, 40-55mm; ovary with a dense dendroid tomentum intermixed with stalked glands. H3-4. April-May. Bhutan, NE India (Arunachal Pradesh), 1,800-3,300m.

Rarely grown; plants in cultivation are sometimes wrongly named *R. agastum*, a species that may be distinguished by its 6-7-lobed corolla, etc.

R. paradoxum Balf.f. - is probably a chance

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hybrid of *R. wiltonii* (Subsect. Taliensia). It was raised at Edinburgh from seed as Wilson 1353, herbarium specimens of which are referable to *R. wiltonii*.

R. PARMULATUM COWAN - SUBSECT. NERIIFLORA.

Dwarf shrub, 0.6-3m. Leaves 4.5-8 × 2-3.5cm, obovate to elliptic, lower surface glabrous except for a few white hairs on the midrib and main veins; petioles glabrescent. Flowers 4-6, in a tight truss; calyx c.5mm; corolla white or pale yellow flushed pink, occasionally red, with red flecks, tubular-campanulate, with nectar pouches, 40-50mm; ovary with a few scattered hairs, abruptly contracted into the glabrous style. H4a. March-May. China (S Tibet), 3,000-3,700m.

The conspicuous red flecks on the corolla are an unusual feature in Subsect. Neriiflora. This is a rare species, both in cultivation, and in the wild.

AM 1977 (Maj.Gen. E.G.W.W. Harrison, Tremear, Cornwall) to a clone 'Ocelot'; flowers yellow-green, lobes with a darker central band, upper throat heavily spotted with greyed purple.

AM 1983 (Lord Aberconway and National Trust, Bodnant) to a clone 'Palma'; trusses loose, 3-7-flowered, corolla green-white, each lobe having a slightly deeper coloured central band, with heavy spotting of greyed purple in upper throat.

R. PARRYAE HUTCH. - SUBSECT. MADDENIA.

Shrub, 1.5-3m, sometimes epiphytic; young shoots with or without setae. Leaves 6-14 × 3-6cm, elliptic to oblong-elliptic, apex acuminate to rounded, margin lacking setae, upper surface with impressed midrib; lower surface with unequal brown scales that are 1-2× their own diameter apart. Flowers 3-5, in a loose terminal inflorescence, scented; calyx minute, ciliate; corolla white with a yellowish blotch at base, funnel-shaped, 70-85mm, outer surface with scales throughout, pilose at base; ovary scaly, tapering into the style that is scaly below.

H1-2. May. India (Arunachal Pradesh), 1,750-2,150m.

Material introduced from the Apa Tani Valley suggests an affinity with *R. walongense*, not with *R. johnstoneanum*, as has been proposed by some authors.

AM 1957 (Royal Botanic Garden, Edinburgh); flowers white, with a yellow-orange blotch.

FCC 1973 (G. Gorer, Sunte House, Haywards Heath).

♀ 1993

R. parvifolium Adams - is a synonym of **R. lapponicum** (L.) Wahlenb. (Subsect. Lapponica).

R. patulum Kingdon-Ward - is a synonym of **R. pemakoense** Kingdon-Ward (Subsect. Uniflora).

R. pectinatum Hutch. - is a synonym of **R. moumainense** Hook.f. (sect. Choniastrum).

R. PEMAKOENSE KINGDON-WARD (INCL. R. PATULUM KINGDON-WARD) - SUBSECT. UNIFLORA.

Prostrate or erect dwarf shrub, to 0.3m; young growth scaly and pubescent. Leaves 1.7-2.6 × 0.6-1.3cm, obovate or obovate-elliptic, apex rounded, margin revolute, entire, lower surface densely covered with unequal scales that are golden when young, becoming brown, the larger of which have undulate rims. Flowers 1-2, in a terminal inflorescence; calyx lobes oblong, 2.5-4mm, not ciliate; corolla pink to pale purplish mauve, funnel-campanulate, 24-30mm, tube 13-18mm, outer surface densely pilose and sparsely scaly; stamens 10; ovary scaly, style impressed, declinate, pubescent, scaly or glabrous at base, longer than stamens. H3-4a. March-April. India (Arunachal Pradesh), China (SE Tibet), 2,900-3,050m.

The markedly unequal leaf scales and the larger corolla will distinguish this species from the allied *R. uniflorum*.

AM 1933 (Sir John Ramsden, Bulstrode, Gerrards Cross) from Kingdon-

Ward 6301; flowers white, suffused mauve externally.

R. PENDULUM HOOK.F. - SUBSECT. EDGEWORTHIA.

Straggling epiphytic shrub, 0.3-1.3m. Leaves 3.5-5 × 1.5-2.5cm, oblong-elliptic, apex obtuse, upper surface smooth; lower surface with a glaucous papillate epidermis, scales small, distant, golden, also with a dense woolly cinnamon tomentum. Pedicels densely tomentose. Flowers 2-3 per inflorescence; calyx lobes c.6mm; corolla white, sometimes flushed pink, or cream, open-funnel-campanulate, 15-22mm; stamens 10, regular; ovary scaly and densely tomentose, style sharply deflexed, usually with a few scales at base. H3-4a. April-May. Nepal, India (Sikkim) Bhutan, China (S Tibet), 2,270-3,630m.

This species is allied to *R. seinghkuense* (q.v.).

R. pennivenium Balf.f. & Forrest - is a synonym of **R. tanastylum** Balf.f. & Kingdon-Ward var. **pennivenium** (Balf.f. & Forrest) D.F.Chamb. (Subsect. Irrorata).

R. PENTAPHYLLUM MAXIM. - SECT. SCIADORHODION.

Deciduous shrub or small tree, to 4(-8)m; vegetative shoots arising from buds in the axils of the previous year's leaves; young twigs glabrous or sparsely covered with eglandular and gland-tipped hairs. Leaves turning red in autumn, arranged in pseudowhorls of 5(-7) at the apices of the branches, 2.1-6.3 × 1.1-3.8cm, elliptic to obovate, apex acuminate to acute, base cuneate, lower surface glabrous to very sparsely unicellular-pubescent towards base, veins and midrib sometimes covered with straight or crisped eglandular or glandular hairs. Pedicels glabrous or covered with gland-tipped hairs. Flowers fragrant, appearing before or with the leaves, 1-2, in a contracted raceme; calyx 0.5-5mm; corolla pink to deep rose, usually with red-brown flecks on upper three lobes, rotate-campanulate, the short tube gradually expanding into the longer limb,

15-35mm. Capsule glabrous. H4a-b. March-April. Japan (Honshu, Shikoku, Kyushu), 500-1,700m.

This species is most closely allied to *R. quinquefolium* (q.v.).

AM 1942 (Lord Aberconway, Bodnant); flowers Rose Bengal, paler with age.

R. peramabile Hutch. - is a synonym of **R. intricatum** Franch. (Subsect. Lapponica)

R. peramoenum Balf.f. & Forrest - is a synonym of **R. arboreum** Sm. var. **peramoenum** (Balf.f. & Forrest) D.F.Chamb.

R. peregrinum Tagg - is almost certainly a rogue hybrid of *R. galactinum* (Subsect. Falconera) that was raised from seed of that species as Wilson 4254, by Mr Magor at Lamellan in Cornwall. It differs in the leaf indumentum that lacks the cup-shaped hairs of *R. galactinum*.

R. PERICLYMENOIDES (MICHX.) SHINNERS (INCL. *R. NUDIFLORUM* (L.) TORR.) - SUBSECT. PENTANTHERA.

Deciduous shrub or small tree, to 5m; young twigs eglandular-hairy. Leaves 5.2-9(-11) × 1.5-3(-3.5)cm, ovate or obovate to elliptic, lower surface eglandular-hairy, or glabrous. Flower bud scales with outer surface glabrous or occasionally covered with unicellular hairs; margin unicellular-ciliate, rarely also glandular. Pedicels covered with unicellular and/or multi-cellular eglandular hairs. Flowers with a sweet fragrance, appearing before or with the leaves, 6-15, in a shortened raceme; calyx 1-2(-4)mm; corolla deep pink, sometimes with a dark pink to crimson tube, funnelform, tube gradually expanding into limb, outer surface covered in a mixture of eglandular and gland-tipped hairs, 20-47mm. Capsules eglandular-hairy. H4b-c. May-June. E USA, 100-1,000m.

Allied to *R. canescens* but differing in the usually glabrous flower bud scales and the more gradually tapering corolla tube. The name *R. nudiflorum*, used in the past for this plant, is illegitimate.

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R. perulatum Balf.f. & Forrest - is a synonym of **R. microgynum** Balf.f. & Forrest (Subsect. Neriiflora).

R. PHAEOCHRYSUM BALF.F. & W.W.SM. - SUBSECT. TALIENSIA.

Shrub, 1.2-4.5m. Leaves 4-14.5 × 1-6.5cm, elliptic to ovate-oblong, apex acute to apiculate, lower surface covered with a one-layered compacted or felted, sometimes agglutinated, brown indumentum composed of radiate to sub-ramiform hairs; petioles floccose. Flowers 8-15, in a dense truss; calyx c.1mm; corolla white flushed pink, with crimson flecks, funnel-campanulate, nectar pouches lacking; ovary glabrous or with a few papillate hairs, style glabrous. H4b. April-May. China (S Tibet, NW Yunnan, SW & C Sichuan), 3,350-4,200m.

Var. **phaeochrysum**. (incl. *R. dryophyllum* Balf.f. & Forrest). Leaves 8-14.5cm, indumentum felted, not splitting; corolla 32-50mm.

Var. **agglutinatum** (Balf.f. & Forrest) D.F.Chamb. (*R. agglutinatum* Balf.f. & Forrest & incl. *R. dumulosum* Balf.f. & Forrest). Leaves 4-9cm, indumentum agglutinated, sometimes splitting; corolla 20-35mm.

Var. **levistratum** (Balf.f. & Forrest) D.F.Chamb. (*R. levistratum* Balf.f. & Forrest). Leaves 4-9cm, indumentum felted, continuous; corolla 20-35mm

This species shows considerable variation in the leaf indumentum. It apparently merges with *R. przewalskii* in C Sichuan (q.v.) and hybridizes with *R. aganiphum* and perhaps other species in Subsect. Taliensia. Most cultivated plants named *R. dryophyllum* should be referred to var. *levistratum*; the type of *R. dryophyllum* is however referable to var. *phaeochrysum*.

AM 1977 (R.N.S. Clarke, Borde Hill, Sussex) to a clone 'Greenmantle', Rock 11325 (=USDA 59229); flowers white, with a small red blotch.

R. phoenicodum Balf.f. & Farrer - is a synonym of **R. neriiflorum** Franch. subsp.

neriiflorum (Subsect. Neriiflora).

R. pholidotum Balf.f. & W.W.Sm. - is a synonym of **R. heliolepis** Franch. (Subsect. Helirolepida).

R. PIERCEI DAVIDIAN - SUBSECT. NERIIFLORA.

Straggling shrub, 1.5-2.5m. Leaves 6-11 × 2.7-5.2cm, ovate to elliptic, upper surface rugulose; lower surface with a two-layered indumentum, the upper layer a thick fulvous tomentum composed of dendroid hairs, the lower layer white and adpressed; petioles tomentose. Flowers 6-8, in a tight truss; calyx 3-6mm, irregular; corolla fleshy, crimson with darker nectar pouches, tubular-campanulate, 28-35mm; ovary densely tomentose, abruptly contracted into the glabrous style. H3-4a. March-May. China (S Tibet).

This species is closely allied to *R. beanianum*, with which it shares the rugulose upper surface of the leaves. It does however differ in the form of the leaf indumentum that is thicker and lighter in colour.

R. PINGIANUM FANG - SUBSECT. ARGYROPHYLLA.

Shrub or small tree, 4-8m. Leaves 8-13.5 × 3-4.2cm, lanceolate to oblanceolate, apex acute, upper surface reticulate, lower surface with a white compacted indumentum embedded in a surface film. Pedicels 30-40mm. Flowers 8-20, in a loose to dense truss, pinkish to pale purple, funnel-campanulate, nectar pouches lacking, 28-35mm; ovary rufous (or white?)-tomentose, eglandular, style glabrous. H4b. May-June. China (W Sichuan), 2,000-2,750m.

Closely allied to *R. argyrophyllum* but it may generally be distinguished by the rufous-tomentose ovary and the longer pedicels.

R. planetum Balf.f. - is probably a hybrid of **R. decorum** (Subsect. Fortunea). The type of this species was raised from Wilson seed number 1882 (perhaps a mistake for

1782) at Caerhays. the seed is supposed to have originated near Tatsienlu (Kangding) in W Sichuan though no matching wild collected specimens are known. This species should not therefore be accorded any formal status.

R. platyphyllum Franch. ex Balf.f. & W.W.Sm. - is a synonym of **R. cephalanthum** Franch. subsp. **platyphyllum** (Franch. ex Balf.f. & W.W.Sm.) Cullen (sect. Pogonanthum).

R. PLEISTANTHUM BALF.F. EX WILDING - SUBSECT. TRIFLORA.

Differs from *R. yunnanense* in the absence of setose hairs on the leaf margins and upper surface, and the puberulent petioles that also lack setae. H3-4a. May. China (N Yunnan, W Sichuan), 2,000-4,500m.

This species is very closely allied to *R. yunnanense* and may prove to be synonymous with it. Its wild distribution is however more northerly.

R. pogonostylum Balf.f. & W.W.Sm. - is a synonym of **R. irroratum** Franch. subsp. **pogonostylum** (Balf.f. & W.W.Sm) D.F.Chamb. (Subsect. Irrorata).

R. POCOPHORUM BALF.F. EX TAGG - SUBSECT. NERIIFLORA.

Shrub, 0.6-3m. Leaves 8-15 × 3.2-5.2cm, oblong to obovate, lower surface covered with a thick, continuous or patchy rufous tomentum composed of dendroid hairs; petioles tomentose and stalked-glandular. at least when young. Flowers 10(-20), in a tight truss; calyx 5-10mm, lobes irregular; corolla fleshy, light to deep crimson, tubular-campanulate, 40-50mm; ovary densely stalked-glandular. H3-4a. NE India (Arunachal Pradesh), China (S Tibet, NW Yunnan), 3,650-4,600m.

Var. **pocophorum**. Leaves with a continuous indumentum beneath.

AM 1971 (National Trust and Countess of Rosse, Nymans); to a clone 'Cecil Nice' from Kingdon-Ward 8289; flowers uniform deep red above, with dark markings in throat.

Var. **hemidartum** (Tagg) D.F.Chamb. (*R. hemidartum* Tagg). Leaves with a patchy discontinuous indumentum beneath.

This species is closely allied to *R. coelicum* but differs in the narrower leaves and non-tomentose petioles.

R. polifolium Franch. - is a synonym of **R. thymifolium** Maxim. (Subsect. Lapponica).

R. poluninii Davidian (incl. *R. tsariense* Cowan var. *magnum* Davidian) - Subsect. Lanata; probably a hybrid of *R. flinckii* and *R. wallichii* or *R. campanulatum*. It differs from *R. flinckii* in the ivory-white to pink flowers but otherwise resembles it closely.

R. polyandrum Hutch. is a synonym of **R. maddenii** Hook.f. subsp. **maddenii** (Subsect. Maddenia).

R. POLYCLADUM FRANCH. (INCL. *R. COM-PACTUM* HUTCH. & *R. SCINTILLANS* BALF.F. & W.W.SM.) - SUBSECT. LAPPONICA.

Erect low shrub, to 1.2m. Leaves (0.4-)0.8-2 × 0.2-0.6(-0.8)cm, narrowly elliptic to elliptic, acute or obtuse, obscurely mucronulate, lower surface covered with uniformly reddish brown scales that are either, not touching, or in groups touching one another. Flowers to 5 per inflorescence; calyx obsolete to 2.5mm, lobes sometimes unequal, deltoid to rounded; corolla lavender to rich purple-blue, rarely white, broadly funnel-shaped, 8-13mm; stamens 10, as long as the corolla; ovary scaly, style longer than the stamens, glabrous or pubescent towards the base. H4a-b. April-May. China (Yunnan), 3,000-4,300m.

R. polycladum is probably allied to *R. impeditum* but differs in the shorter calyx, etc.

AM 1924 (Lady Aberconway and Hon. H.D. McLaren, Bodnant); flowers purplish rose.

FCC 1934 (L. de Rothschild, Exbury) to a clone 'Policy'; flowers lavender blue.

♀ 1993, to a clone 'Policy'.

R. POLYLEPIS FRANCH. - SUBSECT. TRIFLORA.

Shrub or small tree, 1-6m; young growth scaly. Leaves 5-10 × 1.5-3cm, narrowly elliptic, apex acute to rounded, upper surface scaly or not, glabrous, lower surface covered with dark to yellowish brown overlapping large flaky scales. Flowers 3-4, in a loose terminal inflorescence; calyx minute, usually not ciliate; corolla purple, zygomorphic, widely funnel-shaped, 25-30mm, outer surface scaly; stamens 10; ovary scaly, pubescent at apex, impressed below the declinate, glabrous style. H3-4a. April-June. China (W Sichuan), 2,000-3,000m.

This is a distinctive species.

R. PONTICUM L. - SUBSECT. PONTICA.

Shrub or small tree, 2-5(-8)m; young shoots glabrous; bud scales deciduous. Leaves 6-18 × 2.4-5.5cm, oblanceolate to broadly elliptic, apex acute to acuminate; upper and lower surfaces glabrous when mature; petioles glabrous or with a few stalked glands and a sparse floccose tomentum. Flowers 8-20, in a dense truss; calyx 1-2mm; corolla lilac-pink to purple, usually with greenish yellow flecks, campanulate, nectar pouches lacking, 35-50mm; ovary and style glabrous. H4a-b. June-July. Spain, Portugal, Bulgaria, N Turkey, Georgia, Armeniya, Lebanon, s.l.-1,800m.

R. ponticum is closely allied to *R. catawbiense* (q.v.). It has become naturalized in Britain where it is extremely invasive and difficult to eradicate, once established. It hybridizes with *R. caucasicum* (q.v.), and with other members of the subsection where the ranges overlap.

R. PRAESTANS BALF.F. & W.W.SM. - SUBSECT. GRANDIA.

Shrub or small tree, 3-10m; bark rough. Leaves 14-40 × 5.2-12cm, oblong-obovate to oblanceolate, apex rounded, base cuneate, lower surface covered in a one-layered silvery compacted agglutinated

indumentum; petioles strongly flattened and winged. Flowers 12-20, in a dense truss, 7-8-lobed, pale yellow or white flushed pink, to pink, with crimson flecks and a basal blotch, obliquely campanulate, nectar pouches lacking, 35-50mm; stamens c.16; ovary covered with a dense buff tomentum. H4a. April-May. China (SE Tibet, NW Yunnan), 3,350-4,250m.

R. praestans may be distinguished by the strongly flattened petiole and the shining silvery compacted leaf indumentum. This species apparently hybridizes with several other species in the wild, including *R. arizelum*, and perhaps also *R. fulvum*.

AM 1963 (E. de Rothschild, Exbury) to a clone 'Exbury', as *R. coryphaeum*; flowers white, tinged pale yellow, with a crimson blotch.

R. PRAETERITUM HUTCH. - SUBSECT. FORTUNEA.

Shrub. Leaves 6-8 × 2.5-3.2cm, obovate-elliptic, base rounded, lower surface glabrous. Flowers 5-lobed, c.7, in a lax truss; calyx 1-2mm; corolla white flushed pink to pale pink, with purple flecks, open-campanulate, with nectar pouches, 30-40mm; stamens 10; ovary and style glabrous. H4. March-April. China (W Hubei).

This species was described from plants in cultivation that were supposed to have been raised from Wilson seed, apparently collected in W Hubei. *R. praeteritum* is the only member of Subsect. Fortunea with nectar pouches; in view of its origins its status is uncertain.

R. PRAEVERNUM HUTCH. - SUBSECT. FORTUNEA.

Shrub, 1.5-5m. Leaves 10-18 × 2.5-6cm, elliptic-oblanceolate, base broadly cuneate, lower surface entirely glabrous. Flowers c.10 in a truss; calyx 1-2mm; corolla 5-lobed, white, sometimes suffused with pink, with flecks and a conspicuous basal blotch, campanulate, nectar pouches lacking; stamens 10; ovary and style glabrous. H4b. February-April.

China (Sichuan, Hubei), 1,500-2,500m.

R. praevernium is closely allied to *R. sutchuenense* and apparently hybridizes with it in the wild.

AM 1954 (Col Lord Digby, Minterne, Dorset); flowers white, with a pinkish blue flush and crimson chocolate blotch.

R. PRATTII FRANCH. (*R. FABERI* FRANCH. SUBSP. *PRATTII* (FRANCH.) D.F.CHAMB. & INCL. *R. LEEI* FANG) - SUBSECT. TALIENSIA.

Shrub, 1.5-5m. Leaves 10-17 × 4.2-8cm, elliptic to broadly ovate, apex acuminate, lower surface covered with a thin two-layered indumentum, the upper layer more or less detersile, brown, composed of ramiform hairs, the lower whitish, compacted; petioles 1-2.5cm, covered with an arachnoid tomentum that is intermixed with glands. Flowers 12-20, in a dense truss; calyx 8-10mm, lobes broad, apex rounded; corolla white or (rarely) creamish, often flushed pink, crimson flecks and a basal blotch often present; ovary rufous-tomentose, style glabrous or glandular below. H4b. April-May. China (W Sichuan), 3,100-4,450m.

This species is allied to *R. faberi* but differs in its larger leaves and in the leaf indumentum. It is also allied to *R. bureavioides* (q.v.).

AM 1967 (Maj. A.E. Hardy, Sandling Park, Kent) to a clone 'Perry Wood'; flowers white, flushed red-purple in throat.

R. PREPTUM BALF.F. - SUBSECT. FALCONERA.

Shrub or small tree, 2.5-9m; bark rough. Leaves 13.5-15 × 5.5-6.2cm, upper surface with impressed veins, lower surface with a two-layered indumentum, the upper layer buff, composed of strongly fimbriate cup-shaped hairs, the lower compacted; petioles terete. Flowers 10-20, in a dense truss, 6-7-lobed, white with a purple basal blotch, ventricose-campanulate, nectar pouches lacking, 35-45mm; stamens (10-) 12-14; ovary densely tomentose. H3-4a. April-May. NE Burma, c.3,350m.

R. preptum may be a hybrid of *R. rex*

and *R. coriaceum*.

R. PRIMULIFLORUM BUREAU & FRANCH. - SECT. POGONANTHUM.

Small shrub, to 1(-1.5)m; leaf bud-scales quickly deciduous. Leaves 1.1-3.5 × 0.5-1 (-1.5)cm, narrowly elliptic to elliptic, apex rounded or tapered, lower surface with 2-3 tiers of dense overlapping scales, the lowest tier, golden yellow, the upper tiers pale brown to brown. Flowers several, in a dense racemose umbel; calyx lobes 2.5-6mm; corolla white flushed pink to pink, often yellowish orange towards base of tube, hypocrateriform, tube 6-12mm, outer surface usually glabrous, more rarely sparsely pilose or scaly, densely pilose within at throat; stamens 5(-6); capsule scaly. H4a-b. April-May, China (N Yunnan, S Tibet, SW Sichuan), 3,350-4,600m.

This widespread species resembles *R. cephalanthum* but it may be distinguished by the deciduous leaf bud scales, etc.

AM 1980 (P.A. Cox, Glendoick) to a clone 'Doker-la', as *R. primuliflorum* var. *cephalanthoides*; truss compact, 10-12-flowered, corolla red-purple, paling to near white at rim.

R. PRINCIPIS BUREAU & FRANCH. (INCL. *R. VELLEREUM* HUTCH.) - SUBSECT. TALIENSIA.

Shrub, 2-6m. Leaves 6-12 × 1.8-5cm, oblong to ovate-lanceolate, apex more or less acute, lower surface covered with a white to fawn two-layered indumentum, the upper layer spongy, lanate-tomentose, composed of ramiform hairs, the lower compacted; petioles tomentose. Flowers 10-20, in a dense truss; calyx c.1mm; corolla white to pink, with purple flecks, campanulate, nectar pouches lacking, 25-37mm; ovary and style usually glabrous. H4b. March-April. China (E Tibet), 2,900-3,950m.

This species is allied to *R. aganniphum* but the leaves are relatively narrower.

AM 1976 (R.N.S. Clarke, Borde Hill, Sussex) to a clone 'Lost Horizon', as *R. vellereum*, from Kingdon-Ward 5656; flow-

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ers white suffused red-purple, spotted red.

AM 1979 (R.N.S. Clarke, Borde Hill, Sussex) to a clone 'Far Horizon', as *R. vellereum*, from Kingdon-Ward 5656.

R. PRINOPHYLLUM (SMALL) MILLAIS - SUBSECT. PENTANTHERA.

Deciduous shrub, to 3m; young twigs densely covered with eglandular (rarely gland-tipped) hairs. Leaves (4-)5-7.4(-8.7) × (1.2-)1.8-3(-3.7)cm, ovate or obovate to elliptic, lower surface covered with eglandular hairs, rarely glabrous. Flower bud scales densely covered with unicellular hairs, rarely glabrous. Pedicels with a mixture of glandular and gland-tipped multicellular hairs. Flowers with a spicy fragrance, appearing before or with the leaves, 4-13, in a shortened raceme; calyx 1-3mm; corolla deep to rose pink, rarely white, funnellform, tube gradually expanding into the limb, 23-42mm. Capsule covered with unicellular and gland-tipped multicellular hairs. H4b. April-May. NE & C USA, 150-1,500m.

Resembling *R. periclymenoides* and *R. canescens* but differing from both in its more gradually tapered corolla tube and the gland-tipped hairs on the pedicels and capsules.

AM 1955 (Mrs R.M. Stevenson, Tower Court, Ascot) as *R. roseum*; flowers Phlox Pink, with darker tube and buds.

FCC 1981 (Anne, Countess of Rosse and the National Trust, Nymans) to a clone 'Philip Holmes'; flowers in trusses of 6-9, corolla white flushed pink, deepening in throat to red-purple.

R. PRONUM TAGG & FORREST - SUBSECT. TALIENSIA.

Creeping shrub, 0.15-0.6m; perulae persistent. Leaves (4-)6-7.5 × 1.8-2.8cm, elliptic, apex acuminate, lower surface with a dense greyish to fawn two-layered indumentum, the upper layer loosely lanate-tomentose, composed of ramiform hairs, the lower compacted; petioles glabrescent. Flowers 6-10, in a tight truss; calyx 1-2mm; corolla white or cream to pink, with pur-

ple flecks, funnel-campanulate, nectar pouches lacking, 35-45mm; ovary and style glabrous. H4b. May. China (W Yunnan), 3,650-4,400m.

This is a rare species in the wild that rarely flowers in cultivation. Its dwarf habit and a greyish leaf indumentum make this a distinctive species that has no close allies.

R. prostratum W.W.Sm. - is a synonym of **R. saluenense** Franch. subsp. **chameunum** (Balf.f. & Forrest) Cullen (Subsect. *Saluenensia*).

R. PROTEOIDES BALF.F. & W.W.SM. (INCL. *R. LAMPROPEPLUM* BALF.F. & FORREST) - SUBSECT. TALIENSIA.

Dwarf shrub, 0.15-1m. Leaves 2-4 × 0.7-1cm, elliptic, apex cucullate, lower surface with a dense two-layered indumentum, the upper layer brown to rufous, bleaching with age, loosely lanate-tomentose, composed of ramiform hairs, the lower radiate, compacted; petioles densely tomentose. Flowers 5-10, in a tight truss, white or pale cream, flushed rose, with purple flecks, 25-35mm, campanulate, nectar pouches lacking; ovary rufous-tomentose, eglandular, style glabrous. H4b. April-May. China (SE Tibet, NW Yunnan, SW Sichuan), 3,650-4,550m.

This species is allied to *R. roxieanum*, especially var. *cucullatum*, but differs in its smaller leaves and lower stature. It hybridizes with *R. roxieanum* (see under that species) and with *R. aganniphum* (see *R. bathythyllum*). This dwarf alpine is very slow-growing in cultivation.

R. PROTISTUM BALF.F. & FORREST - SUBSECT. GRANDIA.

Tree, 6-30m; bark rough. Leaves (12-)20-37 × (4-)8.8-16cm, obovate to elliptic, apex rounded, sometimes apiculate, lower surface glabrous in the juvenile state though sometimes developing a continuous buff adpressed tomentum, at least along a marginal band; petioles terete. Flowers c.25, in a dense truss, 8-lobed, rose, sometimes whitish at base, with a dark basal blotch

and nectar pouches, sometimes also with a few purple flecks, funnel-campanulate, 50-75mm; stamens c.16; ovary densely rufous-tomentose. H2-3. February-March. NE Burma, China (W Yunnan), Northern Vietnam, 2,450-3,350m.

Var. **protistum**. Mature leaves with a sparse discontinuous indumentum below though sometimes denser along a marginal band.

AM 1983 (Maj. S.E. Bolitho and the National Trust, Trengwainton), from Kingdon-Ward 8609; truss averaging 25 flowers, corolla creamy white flushed rose.

Var. **giganteum** (Tagg) D.F.Chamb. (*R. giganteum* Tagg). Mature leaves with a continuous indumentum beneath.

FCC 1953 (Duchess of Montrose, Brodick Castle) as *R. giganteum*, from Forrest 19335; flowers heavily veined and streaked Magenta Rose, with dark nectaries.

Var. *protistum* may represent an arrested juvenile stage of development that is retained into maturity in some plants, especially those from higher altitudes in NW Yunnan. This species requires a relatively frost-free climate and is therefore rare in cultivation. It is one of the first species to flower.

R. PRUNIFLORUM HUTCH. & KINGDON-WARD - SUBSECT. GLAUCA.

Dwarf shrub, to 1m; shoots with a shredding brownish bark. Leaves 3-4.2 × 1.4-2.5cm, obovate to narrowly obovate, apex rounded, lower surface covered with pale yellow, clouded or milky scales, the smaller more or less touching. Pedicels scaly. Flowers 4-6 per inflorescence; calyx lobes 3.5-5mm, rounded at apex; corolla dull crimson to plum purple, campanulate, 10-13mm; stamens 10, regular; ovary scaly, style sharply deflexed, glabrous. H3-4a. July-August. India (Arunachal Pradesh, NE Burma), 3,050-3,950m.

This is a distinctive species.

R. PRUNIFOLIUM (SMALL.) MILLAIS - SUBSECT. PENTANTHERA.

Deciduous shrub or small tree, to 5m; young twigs glabrous. Leaves (5.5-)6-11.5(-15.2) × (2.5-)2.8-4.2cm, ovate to elliptic, lower surface glabrous except for unicellular hairs on midrib and main veins. Flower bud scales with outer surface glabrous, margin uncellular-ciliate. Pedicels covered with eglandular hairs, occasionally glabrous. Flowers not fragrant, appearing after the leaves have fully expanded, 4-7, in a shortened raceme; calyx 1-4mm; corolla coral-orange to deep red, with a darker red blotch on the upper lobe, funnellform, tube abruptly expanding into limb, outer surface usually glabrous though occasionally sparsely covered with eglandular hairs, 38-52mm. Capsule sparsely covered with eglandular hairs. H3-4a. June-August. SE USA, 90-200m.

Allied to *R. flammeum*, *R. cumberlandense* and *R. calendulaceum* but generally less hairy and differing from all three in the indistinctly blotched corolla. This species has an extremely restricted distribution, along the border of Georgia and Alabama.

AM 1950 (Crown Estate Commissioners, Windsor) to a clone 'Summer Sunset'; flowers Vermilion.

R. PRZEWALSKII MAXIM. - SUBSECT. TALIENSIA.

Shrub, 1-2.7m. Leaves (4.5-) 6-10 × 2-4.5cm, broadly elliptic, apex apiculate, lower surface covered with a compacted, more or less agglutinated, one-layered, whitish to pale brown indumentum composed of long-rayed stellate hairs, or glabrous at maturity; petioles glabrous, yellow. Flowers 10-15, in a dense truss; calyx c.0.5mm; corolla white to pale pink, with purple flecks, campanulate, nectar pouches lacking, 25-35mm; ovary and style glabrous. H4b. April-May. China (Qinghai, Gansu, N & C Sichuan), 3,050-4,250m.

Subsp. **przewalskii**. Lower surface of leaves covered with a whitish to pale brown, thin indumentum at maturity.

Subsp. **dabanshanense** (W.P.Fang &

S.X.Wang) W.P.Fang & S.X.Wang (*R. dabanshanense* Fang & Wang). Lower surface of leaves glabrous at maturity.

Subsp. *dabanshanense* apparently only differs from subsp. *przewalskii* in its glabrous leaves. The latter closely resembles *R. phaeochrysum*. While material from the north of the range of *R. przewalskii* is generally distinct, it apparently merges with the latter species in C Sichuan. When there is any doubt *R. przewalskii* may be distinguished by its bright yellow petioles.

R. PSEUDOCRYSANTHUM HAYATA -
SUBJECT. MACULIFERA.

Low shrub, 0.5-2m; young shoots and petioles covered with a rufous to grey floccose tomentum. Leaves 3-8 × 1.5-5cm, ovate to elliptic, apex acuminate, lower surface with a floccose indumentum when young, with a few scattered hair remains on the lamina at maturity, though with a more persistent tomentum of folioliferous hairs overlying the midrib. Flowers 5-12, in a tight truss; calyx c.2mm; corolla white, sometimes tinged pink, usually with a red basal blotch and flecks, widely campanulate, nectar pouches lacking, 30-50mm; ovary densely tomentose, also with a few stalked glands, style tomentose at base. H4a-b. April-May. Taiwan, to 4,000m.

Var. **pseudochrysanthum**. Ovary densely rufous-tomentose or more or less glabrous; pedicels 13-20mm.

AM 1956 (E. de Rothschild, Exbury); flowers white flushed pink, spotted crimson.

Var. **nankotaisanense** (Hayata) T.Yamaz. (*R. nankotaisanense* Hayata). Ovary stalked-glandular; pedicels 25-30mm.

The status of var. *nankotaisanense* is somewhat problematical as there is very little material available. *R. pseudochrysanthum* apparently merges with *R. morii* in the wild but generally occurs at higher altitudes. In cultivation the two are generally distinct; the present species is a smaller plant, with smaller leaves.

♀ 1993

R. pseudoyanthinum Balf.f. ex Hutch. - is a synonym of **R. concinnum** (Subsect. Triflora).

R. PUBESCENS BALF.F. & FORREST -
SUBJECT. SCABRIFOLIA.

Small shrub, to 1.3m; young shoots scaly, and with an indumentum of filiform hairs. Leaves 1.8-2.4 × 0.3-0.6cm, narrowly elliptic to narrowly lanceolate, margin strongly revolute, both surfaces with a persistent indumentum of filiform hairs, the upper surface also with ultimately deciduous setae that lack swollen bases. Flowers 2-3, in a loose terminal inflorescence; calyx rim-like, ciliate; corolla rose-pink, funnel-shaped, 6-11mm, outer surface not scaly, glabrous; stamens 10; ovary scaly and pilose, impressed below the declinate style. H3-4a. March-April. China (Yunnan, Sichuan), 2,800-3,000m.

AM 1955 (Crown Estate Commissioners, Windsor) to a clone 'Fine Bristles'; flowers white, suffused with shades of Persian Rose, buds a deep shade of pink.

R. PUDOROSUM COWAN - SUBJECT.
GRANDIA.

Tree, 6-15m; bark rough; bud scales persistent on the apical shoots. Leaves 14-20 × 5-7cm, oblanceolate, apex more or less acute, apiculate, lower surface with a thin whitish compacted and agglutinated indumentum; petioles terete. Flowers 15-25, in a dense truss, 6-8-lobed, rose pink, with a darker blotch, ventricose-campanulate, nectar pouches absent, 30-35mm; stamens 12-16; ovary whitish-tomentose. H4a. March-April. China (S Tibet), 3,600-3,800m.

This is a rare species in cultivation; it is vulnerable to late frosts.

R. pulchrum Sweet - is one of the 'Indica' Azalea garden hybrids.

R. PUMILUM HOOK.F. - SUBJECT.
UNIFLORA.

Creeping shrub, to 0.1m; young shoots scaly and puberulent. Leaves 0.9-1.9 × 0.5-

1.2cm, elliptic to broadly elliptic, apex acute to rounded, margin entire, lower surface with distant small equal golden scales. Flowers 1-3, in a loose terminal inflorescence; calyx lobes oblong, 2-4mm, not ciliate; corolla pink or purple, campanulate, slightly oblique, 11-21mm, tube 7-14mm, outer surface densely pilose, scales few, mostly on lobes; stamens 10; ovary scaly, impressed below the straight, glabrous style that is shorter than the stamens. H3-4a. April-June. Nepal, India (Sikkim, Arunachal Pradesh), Bhutan, N Burma, China (S Tibet), 3,500-4,250m.

This species differs from the remaining species in the subsection in its small campanulate corolla and short style.

AM 1935 (Lord Swaythling, Townhill Park, Southampton) from Kingdon-Ward 6961; flowers pinkish mauve.

R. puralbum Balf.f. & W.W.Sm. - is a synonym of *R. wardii* W.W.Sm. var. **puralbum** (Balf.f. & W.W.Sm.) D.F.Chamb. (Subsect. Campylocarpa).

R. purdomii Rehder & E.H. Wilson - may be the same entity as *R. oreodoxa* subsp. *shensiense* (Subsect. Fortunea, q.v.).

R. QUINQUEFOLIUM BISSET & S. MOORE - SUBSECT. SCIADORHODION.

Shrub or small tree, to 6(-8)m; vegetative shoots arising from axillary buds associated with the lowest scaly leaves of the present year's shoots; young twigs glabrous. Leaves turning red in autumn, arranged in pseudowhorls of 3(-5) at the apices of the branches, 1-5.8 × 0.6-3.6cm rhombic-elliptic to obovate, apex acute to rounded, base cuneate, lower surface glabrous or unicellular-pubescent, the midrib usually with long straight or crisped unicellular hairs, especially towards base. Pedicels glabrous or with eglandular or gland-tipped hairs. Flowers not scented, appearing with the leaves, solitary or up to 3, in a contracted raceme; calyx 1-3mm; corolla white, with greenish spots on upper lobes, rotate-funnel-form, the short tube abruptly contracted into the longer limb, 17-32mm.

Capsule glabrous to sparsely unicellular-pubescent, especially at apex. H4a-b. April-May. Japan (Honshu, Shikoku), 300-1,700m.

This species is probably closely allied to *R. pentaphyllum* but may be distinguished by the position of the vegetative buds and by the flower colour.

AM 1931 (Dowager Countess Cawdor, Haslemere); flowers white, spotted pale green.

AM 1958 (E. de Rothschild, Exbury) to a clone 'Five Arrows' flowers white, with olive green spots.

♀ 1993

R. RACEMOSUM FRANCH. - SUBSECT. SCABRIFOLIA.

Small shrub, 0.2-3m; young shoots scaly, glabrous or finely puberulent. Leaves 1.5-5 × 0.7-3cm, broadly obovate to oblong-elliptic, apex usually rounded and mucronate, upper surface with a few filiform hairs overlying the midrib, otherwise glabrous, lower surface with epidermis white-papillose, densely covered with rimless scales, glabrous. Flowers 2-3, in a loose axillary terminal inflorescence; calyx rim-like, not ciliate; corolla pale to deep pink, occasionally white, openly funnel-shaped, 7-17mm; stamens 10; ovary densely scaly, glabrous, impressed below the declinate, glabrous style. H3-4b(-4c). March-May. China (Yunnan, SW Sichuan, Guizhou), (800-)2,750-4,300m.

This is a common species with distinctive leaves.

AM 1970 (Hydon Nurseries, Godalming) to a clone 'Rock Rose', from Rock 11265 (=USDA 59578); flowers red-purple.

AM 1974 (Glendoick Gardens, Perth) to a clone 'White Lace'; flowers white.

FCC 1892 (J. Veitch and Sons, Chelsea).

♀ 1993, to a clone 'Rock Rose'.

R. radicans Balf.f. & Forrest - is a synonym of *R. calostrotum* Balf.f. & Kingdon-Ward subsp. **keleticum** (Balf.f. & Forrest) Cullen (Subsect. Saluenensia).

Description of Species in Cultivation

R. ramosissimum Franch. - is a synonym of **R. nivale** Hook.f. subsp. **boreale** N.M. Philipson & Philipson (Subsect. Lapponica).

R. RAMSDENIANUM COWAN - SUBSECT. IRRORATA.

Shrub or tree, 1.5-12m. Leaves coriaceous, 8.5-14 × 3-4.5cm, oblanceolate to elliptic, apex acute to acuminate, lower surface glabrous or with the vestiges of a brown indumentum, with persistent red punctate hair bases overlying the veins. Flowers 15-20, in a dense truss, scarlet to deep crimson, tubular-campanulate, with prominent nectar pouches, 35-40mm; ovary glabrous or with a few rufous hairs (rarely densely tomentose and glandular), style glabrous. H2-3. China (SE Tibet), 2,100-2,700m.

Closely allied to *R. kendrickii* but with broader leaves.

R. ravum Balf.f. & W.W.Sm. - is a synonym of **R. cuneatum** W.W.Sm. (Subsect. Lapponica).

R. RECURVOIDES TAGG & KINGDON-WARD - SUBSECT. GLISCHRA.

Generally a dwarf shrub, 1-1.5m; young shoots glandular-setose; bud scales persistent. Leaves coriaceous, 3-7 × 1-2cm, lanceolate to oblanceolate, apex blunt, margins strongly inrolled, lower surface with a dense cinnamon tomentum composed of ramiform hairs. Flowers 4-7 to a truss; calyx 8-10mm; corolla white flushed pink to rose, lacking a basal blotch though with crimson spots, campanulate, nectar pouches absent, c.30mm; ovary densely glandular-setose. H4a-b. April-May. NE Burma, 3,350m.

R. recurvoides superficially resembles *R. roxieanum* in Subsect. Taliensia, but the glandular-setose young shoots indicate a closer affinity with species in Subsect. Glischra.

AM 1941 (Col E.H.W. Bolitho, Trengwainton, Cornwall); flowers pale Rose Bengal, flushed with deeper shades.

R. RETICULATUM D.DON - SECT. BRACHYCALYX.

Shrub or small tree, 1-8m; young shoots soon glabrous. Leaves in whorls of up to three, at the ends of the branches, 3-6 × 1.5-4cm, rhombic-ovate, apex acute, lower surface with short brown hairs, mainly on the midrib and veins; petioles covered with bristle-like hairs. Pedicels covered with adpressed brown hairs. Flowers 1-2(-3) per inflorescence, appearing before the leaves; calyx minute; corolla rose-purple (rarely white), funnel-campanulate, 25-30mm; stamens 10; ovary villose, style glabrous. H4a-b. April-May. Japan (S Honshu, Shikoku, Kyushu), 400-700m.

R. reticulatum is allied to *R. nudipes* but differs in the pilose petioles and leaf midrib.

FCC 1982 (Hydon Nurseries, Godalming) to a clone 'Sea King', raised from seed from Japan; corolla solitary, red-purple, with upper lobe slightly paler and sparingly spotted.

♀ 1993

R. REX LÉVL. - SUBSECT. FALCONERA.

Large shrub or small tree, 2.5-12m; bark rough; leaves 8-37 × 5.5-13.5cm, obovate to oblanceolate; upper surface reticulate, lower surface covered with a dense fawn to rufous indumentum composed of slightly to moderately fimbriate cup-shaped hairs; petioles terete. Flowers 12-20, in a dense truss, fleshy, 7-8-lobed, white, with a crimson basal blotch and flecks, more or less regularly campanulate, nectar pouches lacking; stamens 14-16; ovary densely brown-tomentose. H4a-b. April-May. China (Tibet, W Yunnan, S Sichuan), 3,000-4,000m.

Subsp. *rex*. Leaf indumentum fawn, composed of only slightly fimbriate cup-shaped hairs. China (S Sichuan, NE Yunnan), c.3,500m.

AM 1946 (Lord Aberconway, Bodnant) to a clone 'Roseum', as *R. fictolacteum* var. *roseum*, from Kingdon-Ward 4509; flowers pale rose, with deeper coloured buds and with a small blotch.

AM 1955 (Crown Estate

Commissioners, Windsor) to a clone 'Quartz', from Rock 18234 (=USDA 3800); flowers pale pink, with a dull crimson blotch and spots.

FCC 1935 (J.J. Crosfield, Embley Park, Romsey) as *R. fictolacteum*, Ward's var., from Kingdon-Ward 4509; flowers white, with a crimson blotch.

♀ 1993, to a clone 'Quartz'.

Subsp. **fictolacteum** (Balf.f.) D.F.Chamb. (*R. fictolacteum* Balf.f.). Leaf indumentum rufous to dark brown, composed of moderately fimbriate cup-shaped hairs. China (W Yunnan, SE Tibet), 3,000-4,000m.

AM 1923 (G. Reuthe, Keston, Kent); flowers white, blotched crimson, with a few crimson spots.

AM 1953 (Col. Lord Digby, Minterne, Dorset) to a clone 'Cherry Tip', as *R. fictolacteum*, from Rock 11385 (= USDA 59255); flowers white, margined pink, with a deep crimson blotch and numerous spots.

A variable subspecies in respect of the size of the leaves and the colour of the leaf indumentum; those forms with small leaves, 8-14cm long, and small flowers, have been referred to *R. fictolacteum* Balf.f. var. *miniforme* Davidian, here treated as a synonym of subsp. *fictolacteum*.

The morphological boundary between the two subspecies is not clear-cut. It does however seem that those plants that equate with subsp. *rex*, with a paler leaf indumentum and large leaves, occur in the NE of the distribution of the species. These are replaced by typical subsp. *fictolacteum* in the West. In parts of SE Tibet subsp. *fictolacteum* apparently hybridizes with *R. arizelum* to produce mixed populations in which it is not possible to assign some individuals to either taxon.

R. rex Lévl. subsp. *arizelum* (Balf.f. & Forrest) D.F.Chamb. - is a synonym of **R. arizelum** Balf.f. & Forrest (Subsect. Falconera).

R. rhabdotum Balf.f. & Cooper - is a synonym of **R. dalhousiae** Hook.f. var. **rhab-**

dotum Balf.f. & Cooper (Subsect. Maddenia).

R. rhaibocarpum Balf.f. & W.W.Sm. - is a synonym of **R. selense** Franch. subsp. **dasycladum** (Balf.f. & W.W.Sm.) D.F.Chamb. (Subsect. Selensia).

R. RIGIDUM FRANCH. (INCL. *R. CAERULEUM* H.LÉV. & *R. ERIANDRUM* H.LÉV.) - SUBSECT. TRIFLORA.

Shrub, 1-10m; young shoots sparsely scaly, with a bloom. Leaves 3-6.5 × 1.3-2.5cm, elliptic to narrowly elliptic, apex acute, upper surface glabrous, lower surface with narrowly rimmed golden or brown scales 5-8× their own diameter apart; petioles glabrous. Flowers 2-6, in a loose terminal inflorescence; calyx minute, usually glabrous; corolla white to rose-pink or lilac, sometimes with red flecks, widely funnel-shaped, (21-)24-27(-30)mm, outer surface usually lacking scales, glabrous; stamens 10; ovary scaly, impressed below the declinate, glabrous style. H3-4a. April-May. China (N Yunnan, SW Sichuan, Guizhou), 2,000-3,350m.

This species differs from the closely allied *R. pleistanthum* in its more distant leaf scales and glabrous petioles.

AM 1933 (H. White, Sunningdale Nurseries) as *R. eriandrum*, from Rock 11288 (=USDA 59207); flowers white, slightly pink-flushed.

AM 1939 (L. de Rothschild, Exbury) as *R. caeruleum*, from Rock 11288 (=USDA 59207); flowers white, spotted red.

R. RIPENSE MAKINO - SUBSECT. TSUTSUSI

Shrub, 1-2m; young shoots and petioles densely covered with loosely adpressed flattened bristles that are intermixed with softer grey-brown, sometimes gland-tipped hairs. Leaves of two kinds; spring leaves deciduous, 3.5-5 × 1.5-2cm, ovate-lanceolate, apex mucronate, both surfaces covered with adpressed reddish grey pilose hairs, especially on the midrib; summer leaves 1.5-3 × 0.5-1cm, oblanceo-

late. Pedicels covered with soft spreading pilose hairs, sometimes with glandular and flattened bristles. Flowers 1-3 per inflorescence; calyx to 15mm; corolla white or rose-pink to red, widely funnel-shaped, 25-50mm; stamens 10; ovary covered with bristles, style glabrous. H3-4a. April-May. Japan (Honshu, Shikoku, Kyushu), 50-500m.

This species is closely allied to *R. stenopetalum* but differs in the smaller leaves and adpressed-hairy shoots, etc.

R. mucronatum, with white flowers, is presumed to be an artificial hybrid derived from *R. ripense* and *R. stenopetalum*.

AM 1933 (Hon. H.D. McLaren, Bodnant); flowers delicate pink.

R. RIRIEI HEMSL. & E.H.WILSON - SUBSECT. ARGYROPHYLLA.

Tree, 3.5-16m. Leaves 9.5-17 × 3-5.5cm, elliptic to oblanceolate, apex acute, upper surface reticulate, lower surface with a white, thin, compacted indumentum embedded in a surface film. Flowers 4-10, in a lax truss, purplish to violet, with darker nectar pouches, campanulate, 40-50mm; ovary covered with a grey felted tomentum, style glabrous. H4a-b. February-April. China (W Sichuan, Guizhou), c.2,000m.

This is the only species in Subsect. Argrophylla that has nectar pouches.

AM 1931 (Lady Aberconway and Hon. H.D. McLaren, Bodnant); flowers light magenta, with darker nectaries.

R. rockii E.H.Wilson - is a synonym of **R. hunnewellianum** Rehder & E.H.Wilson subsp. **rockii** (E.H.Wilson) D.F.Chamb. (Subsect. Argrophylla).

R. ROSEATUM HUTCH. (INCL. *R. LASIOPODUM* HUTCH.) - SUBSECT. MADDENIA.

Shrub, 1-4m; young shoots sparsely setose, the setae soon deciduous. Leaves 7-12 × 3.5-6cm, obovate, apex abruptly acute, margin ciliate, upper surface with midrib impressed, lower surface brownish with scales up to their own diameter

apart. Flowers (2-)3-5, in a loose terminal inflorescence, scented; calyx obscurely lobed, ciliate; corolla white, sometimes flushed pink, with a yellow basal blotch, funnel-shaped, (50-)55-75mm, outer surface scaly throughout, pubescent at base; stamens 10; ovary scaly, tapering into the style that is scaly below. H1b-2. April-May. China (W Yunnan), 1,800-2,750m.

This species is closely allied to *R. pachypodum* but differs in its broader leaves, with less densely spaced scales.

R. roseum (Lois.) Rehder is a synonym of **R. prinophyllum** (Small) Millais.

R. ROTHSCHILDII DAVIDIAN - SUBSECT. FALCONERA.

Large shrub or small tree, 5-6m; bark rough. Leaves 26.5-35 × 10-14cm, obovate-oblongate, upper surface reticulate, lower surface with a dense two-layered indumentum, the upper layer agglutinated, patchy, often red-brown, composed of strongly fimbriate cup-shaped hairs, the lower compacted; petioles flattened and with a marked wing. Flowers 12-17, in a dense truss, 8-lobed, pale yellow, with a purple blotch, obliquely campanulate, nectar pouches lacking, 35-45mm; stamens 16; ovary densely tomentose. H4a. April-May. China (NW Yunnan), 3,700-4,000m.

R. rothschildii may have originated as a hybrid. It has a very restricted distribution in the wild.

R. ROXIEANUM FORREST - SUBSECT. TALIENSIA.

Shrub, sometimes dwarf, 0.15-2.5(-4)m. Leaves 5-12 × 0.6-4cm, apex acute to cucullate, margins strongly recurved, lower surface covered with a thick two-layered indumentum, the upper layer rufous, loose, lanate-tomentose, composed of ramiform hairs, the lower radiate, compacted; petioles rufous-tomentose to glabrescent. Flowers 6-15, in tight truss; calyx 0.5-2mm; corolla white to (rarely) pale yellow, sometimes flushed with pink, with purple flecks, funnel-campanulate,

nectar pouches lacking; ovary densely rufous-tomentose and/or glandular, style glabrous. H4b. April-May. China (SE Tibet, NW Yunnan, SW Sichuan), 3,050-4,250m.

Var. **roxieanum** (incl. *R. recurvum* Balf.f. & Forrest). Leaves linear, 4-8× as long as broad; ovary and pedicels tomentose, with or without glands.

Var. **cucullatum** (Hand.-Mazz.) D.F.Chamb. Leaves elliptic, 2.2-4× as long as broad; ovary and pedicels glandular and/or tomentose.

Var. **oreonastes** (Balf.f. & Forrest) Davidian. Leaves linear, 8-15× as long as broad; ovary and pedicels glandular.

AM 1973 (Crown Estate Commissioners, Windsor); flowers white, corolla lobes tipped red-purple, with darker spots in throat.

♀ 1993

R. roxieanum hybridizes in the wild with *R. proteoides* and probably also with several other species, thus blurring the distinctions between the taxa. Var. *oreonastes* is a marked form with short, extremely narrow leaves. The variable var. *cucullatum* is morphologically intermediate between var. *roxieanum* and *R. proteoides* and is probably of hybrid origin. *R. aganniphum*, *R. alutaceum* and perhaps *R. phaeochrysum* may also be involved as parents in this hybrid complex.

R. roxieanum Forrest var. *parvum* Davidian - is either a synonym of **R. proteoides** or a hybrid of it (see under **R. proteoides**).

R. RUBIGINOSUM FRANCH. (INCL. *R. DESQUAMATUM* BALF.F. & FORREST) - SUBSECT. HELIOLEPIDA.

Shrub or small tree, to 10m; young growth purplish, scaly. Leaves (4-)6-11.5 × (1.2-)2-4.5cm, narrowly elliptic to elliptic or lanceolate, apex acute to acuminate, lower surface pale or dark brown as a result of the dense overlapping or touching, unequal scales, the larger of which are usually darker than the smaller. Pedicels scaly. Flowers to 10 per inflorescence; calyx very small; corolla pink, rarely white

flushed pink, openly funnel-shaped, (15-)20-30(-38)mm; stamens 10; ovary densely scaly, style declinate, glabrous. H4a-b. April-May. NE Burma, China (SE Tibet, Yunnan, SW Sichuan), 2,500-3,500m.

A variable and widespread species.

AM 1938 (Capt. A.W.T. Fletcher, Port Talbot, Wales) from Forrest 24535, as *R. desquamatum*; flowers ranging from pale mauve to reddish mauve, with reddish spots.

AM 1960 (Sir Henry Price, Wakehurst, Sussex) to a clone 'Wakehurst'; flowers Mallow Purple with prominent purple spots. This clone may be a hybrid.

R. rubrolineatum Balf.f. & Forrest) - is a synonym of **R. mekongense** Franch. var. **rubrolineatum** (Balf.f. & Forrest) Cullen (Subsect. Trichoclada).

R. RUBROPILOSUM HAYATA - SECT. TSUTSUSI.

Shrub, to 3m; young shoots densely covered with adpressed flattened grey to reddish brown hairs. Leaves of one kind, persistent, 1-3(-5.5) × 0.5-1(-2.5)cm, oblong-lanceolate to elliptic, apex acute, with a glandular micro, upper surface with pale grey adpressed hairs, lower surface covered with flattened adpressed red-brown hairs, especially on the midrib; petioles densely covered with adpressed flattened red-brown hairs. Pedicels densely bristly. Flowers 2-4 per inflorescence; calyx minute; corolla pink, with rose flecks, funnel-shaped, 10-15(-25)mm; stamens 7-10; ovary covered with pale grey soft hairs, style more or less glabrous. H3-4a. May. Taiwan, 2,400-3,000m.

Var. **rubropilosum**. Stamens not appendiculate.

Var. **breviperulatum** (Hayata) T.Yamaz. Stamens appendiculate.

The only significant difference between these two varieties, both of which are rare in cultivation and frost-sensitive, is in the form of the stamens.

R. rude Tagg & Forrest - is a synonym of **R. glischrum** Balf.f. & W.W.Sm. subsp. **rude**

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(Tagg & Forrest) D.F.Chamb. - Subsect. Glischra.

R. RUFUM BATALIN (INCL. *R. WELDIANUM* REHDER & E.H.WILSON) - SUBSECT. TALIENSIA.

Shrub, 1.3-4.5m. Leaves 6.5-11 × 2.5-5cm, obovate to elliptic, apex apiculate, lower surface covered with a two-layered indumentum, the upper layer a thin to dense reddish brown tomentum composed of ramiform hairs, the lower compacted, whitish, embedded in a surface film; petioles tomentose. Flowers 6-11, in a tight truss; calyx c.0.5mm; corolla white to pale pink, with crimson flecks, campanulate, nectar pouches lacking; ovary densely reddish-tomentose, with a few stalked glands below the more or less glabrous style. H4b. April-May. China (N Sichuan, Gansu), 3,050-3,650m.

R. rufum is allied to *R. bureavioides* (q.v.), and perhaps also to *R. przewalskii*.

AM 1980 (National Trust for Scotland, Brodick). Trusses 10-flowered; corolla widely funnel-campanulate, white with red dorsal spotting.

R. RUPICOLA W.W.SM. - SUBSECT. LAPPONICA.

Much-branched dwarf shrub, to 0.6 (-1.2)m. Leaves 0.7-2 × 0.3-1.3cm, broadly elliptic to ovate, apex rounded, mucronate, lower surface covered with overlapping to slightly separated, predominantly dark brown (though with some amber to pale golden) scales. Flowers to 6 per inflorescence; calyx lobes 3-6mm, oblong or broadly ovate, with a central band of scales; corolla usually an intense purple or yellow, occasionally deep crimson, magenta, or even white, broadly funnel-shaped, (8-)10-16(-18)mm; stamens 5-10, about as long as the corolla; ovary entirely pubescent or with scales on the upper half and a tuft of hairs at the apex, style longer than the stamens, glabrous or pubescent at base. H4a-b. April-May. N Burma, China (SE Tibet, W Yunnan, SW Sichuan), 3,000-4,875m.

Var. **rupicola** (incl. *R. achroanthum*

Balf.f. & W.W.Sm). Corolla purple to crimson, rarely white. N Burma, China (SE Tibet, Yunnan, SW Sichuan), to at least 4,000m.

Var. **chryseum** (Balf.f. & Kingdon-Ward) N.M.Philipson & Philipson (*R. chryseum* Balf.f. & Kingdon-Ward). Corolla yellow; calyx lobes margined with scales and hairs. NE Burma, China (SE Tibet, NW Yunnan), 3,300-4,750m.

Var. **muliense** (Balf.f. & Forrest) N.M.Philipson & Philipson. Corolla yellow; calyx lobes margined with hairs only. China (SW Sichuan), 3,050-4,875m.

This species is closely allied to *R. russatum* but may be distinguished by the presence of a central band of scales on the corolla lobes. It usually also has rather smaller leaves.

R. RUSSATUM BALF.F. & FORREST - SUBSECT. LAPPONICA.

Low shrub, 0.3-1.5m. Leaves 1.6-4 × 0.7-1.7cm, narrowly to broadly elliptic or oblong, apex obtuse or rounded, mucronate, lower surface covered with more or less touching scales that vary in colour from pale to dark brown, sometimes on a single leaf. Flowers up to 6 per inflorescence; calyx lobes up to 6mm, broadly oblong, without a central band of scales; corolla deep indigo purple to pink or rose, broadly funnel-shaped, 10-20mm; stamens 10, about as long as corolla; ovary scaly; style longer than stamens. H4a-b. April-May. China (N Yunnan, SW Sichuan), 3,400-4,300m.

This species is allied to *R. rupicola* (q.v.).

AM 1927 (A.M. Williams, Launceston); flowers an intense violet-blue.

FCC 1933 (L. de Rothschild, Exbury); flowers intense purple.

♀ 1993.

R. russotinctum Balf.f. & Forrest - is a synonym of **R. alutaceum** Balf.f. & W.W.Sm. var. **russotinctum** (Balf.f. & Forrest) D.F.Chamb. (Subsect. Taliensia).

R. saisiuense Nakai - is apparently a dwarf

form of *R. kiusianum* Makino (q.v., Sect. Tsutsusi).

R. SALUENENSE FRANCH. - SUBJECT. SALUENENSIA.

Prostrate or upright shrubs, 0.05-1.5m; young shoots setose, the setae persistent. Leaves 0.8-3 × 0.5-1.5cm, oblong-orbicular to oblong-elliptic, apex rounded, mucronate, upper surface usually glossy, and lacking scales, lower surface with dense overlapping brownish scales in several tiers, midrib usually with some setae. Flowers 1-3, terminal; calyx lobes 4.5-8mm, oblong-orbicular, scaly, ciliate and puberulent; corolla magenta to purple, rarely bluish purple, very openly funnel-campanulate, 17-28mm, outer surface pilose, with a few scales; stamens 10; ovary scaly, usually puberulent impressed below the usually glabrous style. H4a-b. April-June. NE Burma, China (SE Tibet, N Yunnan, SW Sichuan), 3,300-4,500m.

Subsp. **saluenense**. Erect shrub, to 1.5m; upper surface of leaves persistently scaly and usually setose. NE Burma, China (NW Yunnan, SE Tibet), 3,300-4,400m.

Subsp. *saluenense* is intermediate between subsp. *chameunum* and *R. calostrotum* subsp. *riparium* and occupies a restricted area where their ranges overlap.

AM 1965 (L. de Rothschild, Exbury); flowers Rhodamine Purple.

Subsp. **chameunum** (Balf.f. & Forrest) Cullen (*R. chameunum* Balf.f. & Forrest & incl. *R. prostratum* W.W.Sm.). Prostrate or decumbent shrub, rarely to 1m; upper surface of leaves usually glossy and lacking scales, without setae. NE Burma, China (N & NW Yunnan, SE Tibet, SW Sichuan), 3,500-4,500m.

R. saluenense is closely allied to *R. calostrotum* (q.v.).

♀ 1993

R. SANCTUM NAKAI - SECT. BRACHYCALYX.

Tree, to 5m; young shoots becoming glabrous. Leaves in whorls of up to three,

at the ends of the branches, 3-8 × 2.5-6cm, broadly rhombic, apex acuminate, lower surface glabrous except for a few hairs persisting on the midrib; petioles densely covered with red-brown hairs. Pedicels densely pilose. Flowers 3-4 per inflorescence, appearing before the leaves; calyx minute; corolla rose-pink (rarely white), with darker flecks on upper lobe, funnel-campanulate, 25-35mm; stamens 10; ovary densely pilose, style pilose in lower half. H4a-b. May-June. Japan (Hondo), mountains, 300-500m.

This species is closely allied to *R. amagianum* (q.v.).

R. SANGUINEUM FRANCH. - SUBJECT. NERIIFLORA.

Dwarf shrub, 0.3-1.5m. Leaves 3-8 × 1.5-3.2cm, elliptic to obovate, lower surface covered with a continuous compacted silvery to greyish indumentum composed of rosulate hairs; petioles floccose when young, rarely also glandular, soon glabrescent. Flowers 3-6, in a tight truss; calyx 3-10mm, coloured, cupular when well-developed; corolla fleshy, white or yellow to pink or crimson to blackish red, shortly tubular-campanulate, with nectar pouches, 25-35mm; ovary tomentose to stalked-glandular, abruptly contracted into the glabrous style. H4a-b. China (SE Tibet, NW Yunnan), 3,000-4,500m.

Subsp. **sanguineum**. Ovary tomentose, with or without glands; bud scales usually deciduous; leaves usually more than 5cm. March-May.

Var. **sanguineum**. Corolla bright crimson; ovary lacking glands.

AM 1973 (Countess of Rosse & National Trust, Nymans) from Rock (USDA 59453); flowers red.

Var. **cloiophorum** (Balf.f. & Forrest) D.F.Chamb. Corolla white or yellow suffused pink to pink; ovary lacking glands.

Var. **didymoides** (incl. *R. sanguineum* Franch. subsp. *roseotinctum* [Balf.f. & Forrest] Cowan & subsp. *consanguineum* Cowan). Corolla yellow flushed pink to pink; ovary at least partly glandular.

Var. **haemaleum** (Balf.f. & Forrest)

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D.F.Chamb. Corolla blackish crimson; ovary lacking glands.

FCC 1981 (R.N.S. Clarke, Borde Hill, Sussex) to a clone 'Phantom Rock', as *R. sanguineum* subsp. *haemaleum*; trusses 4-6 flowered, corolla red-purple.

Subsp. *didymum* (Balf.f. & Forrest) Cowan. Corolla deep blackish crimson; ovary at least partly glandular; leaves 3-5cm. June.

Subsp. *didymum* is the most distinct of the taxa recognized within *R. sanguineum*. It is generally a dwarf shrub with tiny leaves, a blackish red corolla and an at least partly glandular corolla. In some respects var. *didymoides* is intermediate between subsp. *didymum* and the remaining varieties in subsp. *sanguineum*. While the most obvious differences between the varieties involve the colour of the corolla, there is some variation in the colour and texture of the leaf indumentum. This complex variation pattern has arisen, at least in part, through hybridization with both *R. temenium* and *R. citriniflorum*; hybrid populations involving all three parents occur in the wild in NW Yunnan.

R. SARGENTIANUM REHDER & E.H.WILSON - SECT. POGONANTHUM. Dwarf shrub, to 0.6m; leaf bud scales persistent. Leaves 0.9-1.5 × 0.5-0.8cm, elliptic, apex rounded with a conspicuous mucro, lower surface with 2-3 tiers of dense overlapping scales the upper tiers brown or pale brown, the lowest pale, golden yellow. Flowers 5-12, in a dense racemose umbel; calyx lobes c.3mm; corolla whitish to yellow, hypocrateriform, tube c.8mm, scaly and puberulent outside, densely pilose within, lobes c.6mm; stamens 5; ovary scaly. H4b. April-June. China (Sichuan), 3,000-3,600m.

A distinctive species that apparently has a restricted distribution in the wild.

AM 1923 (Lady Aberconway and Hon. H.D. McLaren, Bodnant); flowers pale yellow.

AM 1966 (E.H.M. & P.A. Cox, Glendoick Gardens Ltd, Perth) to a clone

'Whitebait'; flowers pale Primrose Yellow. ♀ 1993

R. SAXICOLUM SLEUMER - SECT. TSUTSUSI.

Shrub, 3-6m; young shoots at first covered with adpressed red-brown bristles, soon glabrescent. Leaves of two kinds; spring leaves deciduous, 4-7.5 × 2-3.5cm, ovate to ovate-oblong, apex acuminate, upper surface glabrescent, lower surface with scattered bristles that persist on the lamina; summer leaves persistent, 1.5-2 × 0.5-1cm; petioles densely covered with adpressed bristles. Pedicels densely covered with rufous bristles. Flowers 3-4(-5) per inflorescence; calyx c.2mm; corolla white tinged rose, funnel-shaped, 15-20mm; stamens 5; ovary densely covered with rufous bristles, style hairy at base. H3?. March-April. Vietnam, 400-1,800m.

Seed of this species has been recently introduced from the wild. Its performance in cultivation is not yet known.

R. SCABRIFOLIUM FRANCH. - SUBSECT. SCABRIFOLIA.

Shrub, to 3m; young shoots with dimorphic indumentum composed of filiform hairs and setae with swollen bases. Leaves 1.5-9 × 0.4-2.5cm, narrowly elliptic to oblanceolate, upper surface with indumentum as for young shoots, bullate, lower surface scaly and densely covered with setae with swollen bases. Flowers 2-3(-5), in a loose axillary terminal inflorescence; calyx rim-like or with lobes 2-3mm, ciliate; corolla white to deep pink, 9-23mm; stamens 10; ovary scaly and densely pilose, impressed below the declinate style that is pilose at base. H2-3. March-May. China (Yunnan, Guizhou), 1,800-3,000m.

Var. *scabrifolium*. Leaves 4-9 × 1-1.8cm; corolla openly funnel-shaped, 9-15mm, tube 3-7mm. China (N Yunnan), 1,800-3,000m.

Var. *spiciferum* (Franch.) Cullen. Leaves 1.5-3.0 × 0.4-1cm; Corolla narrowly funnel-shaped, 13-15mm, tube 6-8mm. China (C & S Yunnan, Guizhou), 2,000-

2,500m.

The bullate leaves will distinguish this species from its immediate relatives. Var. *pauciflorum*, which is probably not in cultivation, differs in its larger flowers, 16-23mm long, and larger leaves, 25-90 × 8-25mm.

R. SCABRUM G.DON - SECT. TSUTSUSI.

Loosely branched shrub, 1-2m; young shoots and petioles covered with adpressed grey-brown hairs. Leaves of two kinds; spring leaves deciduous, 3-9 × 2-3.5cm, elliptic to lanceolate, apex acute, both surfaces with scattered adpressed pilose hairs, lower surface paler than upper; summer leaves persistent, 3-4 × 1-1.5cm. Pedicels densely covered with fulvous eglandular or gland-tipped bristles. Flowers 2-6 per inflorescence; calyx c.5mm; corolla rose-red to scarlet, with dark flecks on upper lobes, broadly funnel-shaped, 45-60mm; stamens 10; ovary covered with eglandular or gland-tipped hairs. H2. April-May. Japan (Ryukyu Islands), s.l.-400m.

Subsp. *scabrum* (incl. *R. yakuinsulare* Masamune). Pedicels, calyx and ovary eglandular.

Subsp. *amanoi* (Ohwi) D.F.Chamb. Pedicels, calyx and ovary glandular.

R. schizopeplum Balf.f. & Forrest - is a synonym of **R. aganniphum** Balf.f. & Kingdon-Ward var. **aganniphum** (Subsect. Taliensia).

R. SCHLIPPENBACHII MAXIM. - SECT. SCIADORHODION.

Deciduous shrub or small tree, to 2.5(-5)m; vegetative shoots arising from buds in the axils of the lowest scale-like leaves; young twigs usually covered with unicellular and a few gland-tipped hairs. Leaves turning yellow, orange or red in autumn, arranged in pseudowhorls of (4-)-5(-9) at the apices of the branches, 2.5-11.7 × 0.9-7.2cm, orbicular to broadly obovate or elliptic, apex obtuse or rounded and mucronate, base cuneate, lower surface glabrous to sparsely unicellular-pubes-

cent, midrib with short curled hairs and fringed with longer straight or crisped hairs. Pedicels usually covered with eglandular hairs or occasionally with unicellular hairs only. Flowers not scented, appearing before or with the leaves, 3-6, in an umbellate raceme; calyx 1.5-7mm; corolla light to deep pink, with red-brown spots on upper lobes, broadly rotate to funnelform, the short tube expanding gradually into the longer limb, 23-47mm. Capsule covered with gland-tipped hairs. H4c. April-May. Korea and adjacent parts of Eastern Russia, 400-1,500m.

This species is distantly related to *R. pentaphyllum* and *R. quinquefolium* on account of its whorled leaves but is very different from either.

AM 1896 (Messrs J. Veitch & Sons, Chelsea); flowers soft pink.

FCC 1944 (Lord Aberconway, Bodnant); flowers Rhodamine Pink.

FCC 1965 (Sir Giles Loder, Leonardslee, Sussex) to a clone 'Prince Charming'; flowers Rhodamine Pink, with darker tinges, spotted deep crimson.

♀ 1993

R. scintillans Balf.f. & W.W.Sm. - is a synonym of **R. polycladum** Franch. (Subsect. Lapponica).

R. SCOPULORUM HUTCH. - SUBSECT. MADDENIA.

Shrub, to 2.6m; young growth setose. Leaves pale, 4.7-7.5 × 1.8-3.2mm, elliptic to obovate-elliptic, apex obtuse to rounded, margin not setose, upper surface with impressed midrib, lower surface with well-spaced unequal golden scales. Flowers 2-4, in a loose terminal inflorescence, scented; calyx lobes c.3mm, not ciliate; corolla white or white flushed pink, with a yellow or golden blotch, funnel-campanulate, 50-55mm, outer surface with scales restricted to lobes, sparsely pilose over tube; stamens 10; ovary densely scaly, impressed below the style that is scaly at extreme base. H1b-2. April-May. China (SE Tibet), 1,950-2,450m.

The pale leaf colour (especially in

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dried specimens) is a distinctive feature of this species.

AM 1936 (L. de Rothschild, Exbury); flowers pale pink.

R. scottianum Hutch. - is a synonym of **R. pachypodium** Balf.f. & W.W.Sm. (Subsect. *Maddenia*).

R. scyphocalyx Balf.f. & Forrest - is a synonym of **R. dichroanthum** Diels subsp. **scyphocalyx** (Balf.f. & Forrest) Cowan - (Subsect. *Neriiflora*).

R. scyphocalyx Balf.f. & Forrest var. *septentrionale* Davidian - is a synonym of **R. dichroanthum** Diels subsp. **septentrionale** Cowan - (Subsect. *Neriiflora*).

R. SEARSIAE REHDER & E.H.WILSON - SUBSECT. *TRIFLORA*.

Shrub, 1.5-3m; young shoots scaly. Leaves 2.5-8 × 1-2.6cm, narrowly elliptic, apex acuminate or acute, upper surface usually with midrib puberulent, lower surface silvery, covered with touching polymorphic scales that are small or large and milky to golden. Flowers 3-8, in a terminal inflorescence; calyx minute to (rarely) 5mm, rarely ciliate; corolla white to pale purple, with greenish flecks, zygomorphic, widely funnel-shaped, 20-35mm, outer surface usually glabrous, rarely scaly on tube; stamens 10; ovary scaly, impressed below the declinate style that is usually glabrous, rarely puberulous at base. H4a-b. April-May. China (W Sichuan), 2,300-2,800m.

This species differs from the closely allied *R. concinnum* in its paler corolla and narrower leaves, with characteristic scales.

R. SEINGHKUENSE KINGDON-WARD - SUBSECT. *EDGEWORTHIA*.

Straggling epiphytic shrub, 0.3-1m. Leaves 2.5-5.5 × 1.5-2.8cm, ovate to elliptic, apex acuminate, upper surface bullate; lower surface with a glaucous papillate epidermis, scales dense, golden, also with a brown woolly tomentum. Pedicels densely tomentose. Flowers solitary; calyx lobes to 8mm; corolla bright yellow,

campanulate, 18-25mm; stamens 10, regular; ovary scaly and densely tomentose, especially towards apex, style glabrous. H2-3?. April. NE Burma, China (NW Yunnan, SE Tibet), 1,800-3,000m.

R. seinghkuense resembles *R. pendulum* but may be distinguished by the flower colour and the acuminate leaves.

AM 1953 (Crown Estate Commissioners, Windsor); flowers Sulphur Yellow.

R. SELENSE FRANCH. - SUBSECT. *SELENSIA*.

Shrub or small tree, 1-5m; young shoots and petioles stalked- to setose-glandular. Leaves 3.5-9 × 1.8-4cm, ovate or obovate to elliptic, lower surface occasionally with a few persistent hairs towards the base otherwise glabrous. Flowers 3-8, in a lax truss; calyx 1-10mm; corolla white or pale cream to deep pink, with or without purple flecks, funnel-campanulate, nectar pouches lacking, 25-40mm; ovary densely stalked-glandular, style glabrous. H4a. April-May. China (SE Tibet, NW Yunnan, SW Sichuan), 3,200-4,500m.

Subsp. **selense**. Young shoots with shortly stalked glands; leaves without a persistent indumentum and with a non-glaucous epidermis beneath; longest calyx lobes 2(-5)mm. China (NW Yunnan, SW Sichuan), 3,350-4,550m.

The naturally occurring hybrid between subsp. *selense* and *R. wardii* is grown as *R. × erythrocalyx*. This subspecies also hybridizes in the wild with *R. eclec-teum* (q.v.), and probably also with subsp. *dasycladum* and *R. vernicosum*

Subsp. **dasycladum** (Balf.f. & W.W.Sm.) D.F.Chamb. (*R. dasycladum* Balf.f. & W.W.Sm. & incl. *R. rhaibocarpum* Balf.f. & W.W.Sm.). Young shoots with setose glands; leaves without a persistent indumentum beneath; longest calyx lobes 1-2(-5)mm. China (W Yunnan, SW Sichuan), 3,350-4,000m.

Subsp. *dasycladum* generally occurs at a lower altitude than does subsp. *selense*, even though the two do occur at the same localities. Subsp. *dasycladum* tends to have

slightly larger leaves, darker pink flowers and a dense setose-glandular indumentum on the young shoots. However, there are intermediate forms that have in the past been referred to *R. rhaibocarpum*.

Subsp. **setiferum** (Balf.f. & Forrest) D.F.Chamb. (*R. setiferum* Balf.f. & Forrest & incl. *R. vestitum* Tagg & Forrest). Young shoots with setose glands, leaves with a persistent or discontinuous indumentum beneath; longest calyx lobes (2-)4-10mm. China (SE Tibet, NW Yunnan), 3,650-4,500m.

Intermediate between subsp. *selense* and *R. bainbridgeanum*, and possibly of hybrid origin.

Subsp. **jucundum** (Balf.f. & W.W.Sm.) D.F.Chamb. (*R. jucundum* Balf.f. & W.W.Sm.). Young shoots with long-stalked glands; leaves glabrous and glaucous beneath; longest calyx lobes (2-)4-6mm. China (W Yunnan - Dali), 3,200-3,900m.

This subspecies has a very restricted distribution.

R. selense is a variable species, the boundaries of which are ill-defined owing to widespread hybridization.

R. SEMIBARBATUM MAXIM. - SUBGEN MUMEAZALEA.

Deciduous shrub, to 2(-3)m; young shoots puberulous and with gland-tipped hairs. leaves turning wine-red in autumn, clustered at the end of short-growing branches, 2-6 × 1-2.6cm, elliptic or ovate, apex apiculate to obtuse, base rounded or cuneate, margin serrulate and sometimes ciliate, lower surface glabrous except for the puberulous midrib and ciliate veins. Flowers borne laterally, below the vegetative buds, solitary; calyx c.2mm, lobes rounded; corolla white, with a pink flush and rose-purple flecks, rotate, with a short wide tube and spreading lobes, c.20mm across; stamens 5, strongly dimorphic; ovary setose and densely glandular, style glabrous. H4a. June. S Japan (Honshu, Shikoku, Kyushu), in the mountains.

A distinctive species on account of its strongly dimorphic stamens. The

arrangement of the one-flowered inflorescence is similar to that of Subgen. *Azaleastrum* but it is very different in other characters.

R. SEMNOIDES TAGG & FORREST - SUBJECT. FALCONERA.

Shrub, 4-6m; bark rough. Leaves up to 24 × 11.5cm, obovate-lanceolate, upper surface reticulate, lower surface covered with a two-layered undumentum, the upper layer loosely tomentose, whitish to buff, composed of strongly fimbriate, narrowly cup-shaped hairs, the lower compacted; petioles more or less flattened. Flowers c.15, in a dense truss, white flushed rose, obliquely campanulate, nectar pouches lacking, 40-50mm; stamens 16; ovary densely brownish-tomentose. H3-4a. March-April. China (SE Tibet, NW Yunnan), 3,700-4,000m.

R. semnoides may have been derived as a hybrid between *R. praestans* and *R. arizelum*; plants in the wild presumed to be of that parentage are a good match.

R. SEROTINUM HUTCH. - SUBJECT. FORTUNEIA.

Straggling shrub, to 3m. Leaves 10-15 × 6-7cm, oblong-elliptic, base unequally cordate, lower surface glabrous, with a glaucous papillate epidermis. Flowers 7-8, in a loose fragrant truss; calyx c.8mm; corolla 7-8-lobed, white flushed pink, with a crimson blotch breaking into flecks within, open- to funnel-campanulate, nectar pouches lacking, 55-65mm; ovary and entire style clothed with white stalked glands. H3-4a. July-September. China (S Yunnan), Northern Vietnam?, Northern Laos.

This species was grown at Kew from seed thought to have originated in Southern Yunnan. It may however no longer be in cultivation. It is allied to *R. decorum* but differs in the blotched corolla and in the habit of the plant. The occurrence of this species in the wild has now been confirmed by recent collections though it is still not clear as to how distinct it is from *R. decorum*. It is notable for

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its very late flowering period.

AM 1925 (Royal Botanic Gardens, Kew); flowers white, flushed rose externally, blotched and tinged internally.

R. SERPYLLIFOLIUM (A.GRAY) MIQ. - SECT. TSUTSUSI.

Low, much-branched shrub; young shoots covered with adpressed flattened chestnut-brown hairs. Leaves of one kind, 0.3-1 × 0.3-0.5cm, obovate-oblong to elliptic, apex obtuse or acute, upper surface with scattered brown bristles, lower surface with hairs mainly on midrib, arising from pustules; petioles and pedicels covered with bristles. Flowers 1(-2) per inflorescence; calyx small; corolla rose-pink or occasionally white, funnellform, c.17mm; stamens 5; ovary densely covered with pale flattened hairs, style glabrous H3-4b. April-May. C & S Japan, 300-900m.

This species does not have any close allies.

R. serrulatum (Small) Millais - is a synonym of **R. viscosum** (L.) Torr. (Sect. Pentanthera).

R. setiferum Balf.f. & Forrest - is a synonym of **R. selense** Franch. subsp. **setiferum** (Balf.f. & Forrest) D.F.Chamb. (Subsect. Selensia).

R. SETOSUM D.DON - SUBSECT. LAPPONICA.

Dwarf intricate shrublet, to 0.3m; young shoots densely scaly, and with conspicuous loriform setae. Leaves 1-1.5 × 0.6-0.8cm, elliptic to obovate, apex rounded, mucronate, margins ciliate, lower surface covered with vesicular and golden, or flat, broadly rimmed and pale to dark brown dimorphic scales. Flowers 1-3 per inflorescence; calyx lobes 5-8mm, oblong-orbicular; corolla purple or pinkish, open-funnel-shaped, 15-18mm; stamens 10, about as long as corolla; ovary scaly and pubescent towards apex, style longer than stamens, glabrous. H4a-b. May. Nepal, India (Sikkim, W Bengal), Bhutan, China (S Tibet - Chumbi Valley), 3,650-4,550m.

Its general appearance places *R. setosum* in Subsect. Laponica, but it is anomalous in respect of the setose indumentum.

R. shepherdii Nuttall - is probably a synonym of **R. kendrickii** Nuttall (Subsect. Irrorata).

R. SHERRIFFII COWAN - SUBSECT. THOMSONIA.

Large shrub or small tree; bark smooth, peeling; young shoots with a mealy tomentum, also stalked-glandular. Leaves c.7.5 × 4cm, broadly obovate, base rounded, upper surface glabrous, lower surface with a dense fulvous tomentum composed of fasciculate hairs; petioles glabrous when mature. Flowers 4-5, in a lax truss; calyx 3-5mm; corolla deep carmine, with darker nectar pouches, campanulate, 35-40mm; ovary glabrous. H4a. March-April. China (S Tibet), c.4,000m.

This species has been traditionally placed in Subsect. Fulgensia on account of its dense leaf indumentum. However, it resembles *R. thomsonii* in its flower characters and is therefore better placed in Subsect. Thomsonia.

AM 1966 (Crown Estate Commissioners, Windsor) from L. & S. 2751; flowers Cardinal Red at tip, darker below.

R. SHWELIENSE BALF.F. & FORREST - SUBSECT. GLAUCA.

Compact shrub, 0.3-0.8m; shoots with a flaking brownish bark. Leaves 3.2-4 × c.1.5cm, narrowly elliptic to narrowly obovate, apex rounded, mucronate, lower surface with a glaucous papillate epidermis, scales 3-4× their own diameter apart, unequal, the smaller pale yellow, the larger brown. Pedicels scaly. Flowers yellowish flushed pink, campanulate, outer surface lacking scales, 11mm; stamens regular; ovary scaly, style sharply deflexed, puberulent over its whole length. H3-4a. April-June. China (SW Yunnan), 3,050-3,350m.

Most cultivated plants referred to this species are forms of *R. glaucophyllum* or hybrids of it. Its status in cultivation therefore remains doubtful. This species closely resembles *R. charitopes* but differs in the narrower leaves and puberulent style.

R. SIDEREUM BALF.F. - SUBSECT. GRANDIA.

Shrub or small tree, 3-9m; bark rough. Leaves (9-)16-23 × 4-6.3cm, narrowly elliptic to oblanceolate, apex acute to rounded and apiculate, lower surface covered with a one-layered buff to silvery, sometimes shining compacted and agglutinated indumentum composed of rosulate hairs; petioles terete. Flowers 12-20 to a truss, cream to clear yellow, sometimes with a red basal blotch, ventricose-campanulate, with nectar pouches, 30-40mm; stamens c.16; ovary densely rufous-tomentose. H2-3. April-May. NE Burma, China (W Yunnan), 2,500-3,700m.

This is a tender species that is only occasionally grown in Britain.

AM 1964 (National Trust for Scotland, Bridock Castle Gardens) to a clone 'Glen Rosa'; flowers Primrose Yellow, with a dark crimson blotch.

R. SIDEROPHYLLUM FRANCH. - SUBSECT. TRIFLORA.

Shrub, 1-7m; young shoots brownish, scaly. Leaves 4.8-8.4 × (1.6-)2.4-3.2cm, broadly elliptic to elliptic, rarely ovate, apex acute, upper surface lacking scales, lower surface with a dense covering of large flat broadly rimmed scales that are 1-2× their own diameter apart. Flowers 3-6, in a dense coalesced compound inflorescence; calyx minute, usually not ciliate; corolla white or pinkish violet, zygomorphic, widely funnel-shaped, 18-22 (-25)mm, outer surface lacking scales, glabrous; stamens 10; ovary scaly, impressed below the declinate, usually glabrous style. H3(-4a). May. China (C & S Yunnan, Guizhou), 840-2,100 (-2,600)m.

This somewhat tender species differs from the allied *R. tatsienense* in the form of

the leaf scales, and in its coalescing inflorescences.

AM 1945 (E. de Rothschild, Exbury).

R. SIKANGENSE FANG - SUBSECT. MACULIFERA.

Shrub or tree, 1.8m; young shoots more or less densely rufous- to white-stellate-tomentose though often soon becoming glabrous. Leaves 7-15 × 2.8-6cm, elliptic to oblanceolate, lower surface glabrous when mature, or with a rufous stellate indumentum persisting towards the base; petioles more or less glabrous when mature. Flowers 5-15 in a truss, white to pink, with or without a purple blotch, campanulate, nectar pouches lacking, 35-50mm; ovary densely to very sparsely brownish stellate-tomentose, style glabrous. H4a-b. May-June. China (W Sichuan, NE Yunnan), 3,500-4,500m.

Var. *sikangense* (incl. *R. cookeanum* Davidian). Lower surface of leaves more or less glabrous when mature. China (W Sichuan, ?Yunnan), 3,700-4,500m.

Var. *exquisitum* (T.L.Ming) T.L.Ming. Lower surface of leaves with a persistent rufous stellate tomentum towards the base. China (NE Yunnan), 3,500-4,500m.

Var. *exquisitum* has recently come into cultivation so it should soon be possible to confirm the apparently small differences between the two varieties.

R. silvaticum Cowan - is a synonym of **R. lanigerum** Tagg (Subsect. Arborea).

R. SIMIARUM HANCE (INCL. *R. FOKIENSE* FRANCH.) - SUBSECT. ARGYROPHYLLA.

Shrub, 2-6m. Leaves 7-14.5 × 1.8-4.5cm, narrowly elliptic to broadly oblanceolate, apex rounded to acuminate, upper surface reticulate, lower surface with a one-layered white thin compacted indumentum embedded in a surface film. Flowers 4-7, in a lax truss, pink, with a few darker flecks, open-campanulate, nectar pouches lacking, 25-35mm; ovary rufous-stellate-tomentose, and with shortly stalked glands, style glabrous or with a few glands at base. H2-3. April-May. S & E

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China, 600-1,000m.

Rare in cultivation as it is susceptible to frost damage; only the type variety is in cultivation.

R. SIMSII PLANCH. - SECT. TSUTSUSI.

Much-branched twiggy shrub, 1-3m; young shoots densely covered with adpressed flattened shining brown bristles. Leaves of two kinds; spring leaves deciduous, 3-7 × (0.6-)1-2cm, ovate-lanceolate to linear-elliptic, apex acute, upper surface sparingly covered with adpressed bristles, lower surface paler, more densely covered with bristles, especially on midrib and veins; summer leaves persistent, 1-2 × 0.5-1cm, elliptic to oblong-elliptic; petioles covered with adpressed red-brown bristles. Pedicels densely covered with bristles. Flowers 2-6 per inflorescence; calyx 3-7mm, lobes ovate-lanceolate; corolla white to dark red, upper lobes with darker flecks, broadly funnel-shaped, 25-60mm; stamens (8-)10; ovary densely covered with bristles, style with bristles at base, otherwise glabrous. H1-2. May. NE Burma, China, Taiwan, Laos, Thailand, S Japan, 600-2,700m.

Var. *simsii*. Corolla red to rich carmine, 35-60mm. NE Burma, China (except the N), Hong Kong, Taiwan, Laos, Thailand, S Japan (Ryukyu Islands), 600-2,700m.

FCC 1933 (G.W.E. Loder, Wakehurst Place, Sussex); flowers bright rose.

Var. *mesembrinum* Balf.f. & Forrest ex Rehder. Corolla white to rose-pink, 25-40mm. NE Burma, China (Yunnan), 1,800-2,700m.

R. simsii is cultivated widely in the warm temperate parts of the world and many cultivars are known. It has been used as a parent to produce the popular 'Pot Azaleas' that are sold for display indoors.

R. simulans (Tagg & Forrest) D.F.Chamb. - is a synonym of *R. mimetes* Tagg & Forrest var. *simulans* Tagg & Forrest (Subsect. Taliensia).

R. SINOFALCONERI BALF.F. - SUBSECT. FALCONERA.

Tree, to 7m, bark rough. Leaves 17-28 × 11.8-16cm, broadly obovate; upper surface rugulose, with deeply impressed veins, lower surface with a 1-2 layered indumentum, the upper layer dense, light brown, composed of moderately fimbriate broadly cup-shaped hairs, the lower layer, when present, compacted; petioles terete. Flowers pale yellow, 8-lobed, obliquely campanulate, nectar pouches lacking, 50-60mm; stamens 16; ovary densely fulvous-lanate-tomentose. H2-3. April-May. China (S Yunnan), 2,700-3,000m.

This species, which has been recently introduced into cultivation, is closely allied to *R. falconeri*. It differs however in the ovaries and pedicels that lack the glands that are characteristic of the latter species. It is likely to require a reasonably frost-free climate.

R. SINOGRANDE BALF.F. & W.W.SM. - SUBSECT. GRANDIA.

Tree, 6-12m; bark rough. Leaves 20-70 × 8-30cm, oblanceolate to broadly elliptic, apex rounded or retuse, minutely apiculate, lower surface with a silvery compacted and agglutinated indumentum, that is largely composed of rosulate hairs; petioles terete. Flowers 8-10-lobed, pale creamy white, with a purple basal blotch, ventricose-campanulate, with nectar-pouches, 40-60mm; stamens 18-20; ovary densely rufous-tomentose. H3. April-May. NE Burma, China (SE Tibet, Yunnan), 2,450-4,250m.

The very large leaves with an agglutinated indumentum will distinguish this tender species. Hybrids between *R. sinogrande* and *R. macabeaenum* occur in cultivation.

AM 1922 (Dame Alice Godman, Horsham); flowers creamy white, with a crimson blotch.

FCC 1926 (G.H. Johnstone, Trewithian, Cornwall); flowers ivory white, with a big crimson blotch.

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R. sinonuttallii Balf.f. & Forrest - is a synonym of *R. nuttallii* Booth.

R. SMIRNOWII TRAUTV. - SUBJECT. PONTICA.

Shrub or small tree, 1-4m; young shoots and petioles densely whitish-lanate-tomentose, sometimes also with a few scattered glands; bud scales deciduous. Leaves 7.5-11.5(-14) × 2.5-3.2cm, oblanceolate to elliptic; apex usually rounded, upper surface glabrous, lower surface covered with a dense white to cinnamon lanate indumentum composed of dendroid hairs. Flowers 7-15, in a dense truss; calyx 2-3mm; corolla pink, with yellowish flecks, funnel-campanulate, nectar pouches lacking, 35-40mm; ovary densely white-strigillose, eglandular, style glabrous. H4b-c. May-June. NE Turkey, Georgia, (500-)1,500-2,300m.

Allied to *R. ungeronii* but distinguished by the non-glandular ovary.

AM 1991 (E. de Rothschild, Exbury) to a clone 'Vodka'; trusses with 16-18 flowers, corolla shading from white deep in throat to red-purple along lip and strongly down each lobe, upper throat heavily marked with yellow-green.

R. smithii Nuttall - is a synonym of *R. argipeplum* Balf.f. & Cooper.

R. × sochadzeae Char & Davlianidze - is a hybrid of *R. caucasicum* Pallas and *R. ponticum* L.

R. SOULIEI FRANCH. - SUBJECT. CAMPYLOCARPA.

Shrub. 1-2-5m. Leaves 5.5-8 × 3.5-4cm, broadly ovate, base rounded to cordate, glabrous. Flowers 3-5, in lax trusses, pale purplish pink (? rarely white), open-campanulate (saucer-shaped), nectar pouches lacking, 25-40mm; ovary and style densely stalked-glandular. H4a-b. May-June. China (Sichuan), 3,000-3,800m.

This species may be distinguished from *R. callimorphum* by the generally larger leaves, the more open flowers and the glandular style.

FCC 1909 (Messrs J. Veitch, Chelsea); flowers pale rose, deeper towards margin.

FCC 1936 (L. de Rothschild, Exbury) to a clone 'Exbury Pink'; flowers a deeper shade of pink.

FCC 1951 (Crown Estate Commissioners, Windsor) to a clone 'Windsor Park'; flowers white, with pink flush, deepening at margins, three upper lobes stained at base with a small crimson blotch.

R. SPERABILE BALF.F. & FARRER - SUBJECT. NERIIFLORA.

Shrub, 1-2m. Leaves 5-9.5 × 1-2.6cm, elliptic, sometimes narrowly so; lower surface covered with a dense but loose continuous whitish to cinnamon indumentum composed of ramiform hairs, also with glandular setae overlying the midrib, epidermis glaucous-papillate; petioles densely tomentose, with some glandular setae. Flowers 4-5, in a dense truss; calyx 2-3mm, coloured; corolla fleshy, crimson, tubular-campanulate, 35-40mm; ovary densely rufous-tomentose and stalked-glandular, tapering into the glabrous style. H3-4a. April-May. NE Burma, China (NW Yunnan), 3,000-3,650m.

Var. **sperabile**. Leaf indumentum cinnamon when mature; leaves 2.5-3.5× as long as broad.

AM 1925 (L. de Rothschild, Exbury) from Farrer 888; flowers scarlet.

Var. **weihsiense** Tagg & Forrest. Leaf indumentum whitish when mature; leaves 3-4(-8)× as long as broad.

AM 1985 (R.N.S. Clarke, Borde Hill) to a clone 'Rouge et Noir', from Kingdon-Ward 7124; trusses loose, up to 11 flowers, corolla deep crimson, with darker spotting in throat.

This species is allied to *R. sperabiloides* (q.v.) and to *R. floccigerum*; from the latter it differs in its thicker, more persistent leaf indumentum.

R. SPERABILOIDES TAGG & FORREST - SUBJECT. NERIIFLORA.

Dwarf shrub, 1-1.5m. Leaves 5.5-6.5 × 1.8-2.5cm, elliptic, lower surface with a floc-

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cose discontinuous rufous tomentum composed of ramiform to sub-rosulate hairs, epidermis green, not papillate; petioles slightly winged, floccose-tomentose. Flowers 4-5, in a tight truss; calyx 4-7mm, cupular; corolla fleshy, crimson to deep red, tubular-campanulate, 25-35mm; ovary more or less abruptly contracted to tapering into the glabrous style. H3-4a. April-May. China (SE Tibet), 3,650-3,950m.

This species is intermediate between *R. sperabile* and related species, with the ovary tapering into the style, and the remaining species in the subsection, with the ovary abruptly contracted into the style. This may indicate a hybrid origin for *R. sperabiloides*.

AM 1933 (L. de Rothschild, Exbury); flowers lustrous deep crimson.

R. SPHAEROBLASTUM BALF.F. & FORREST - SUBSECT. TALIENSIA.

Shrub 1-3(-7)m. Leaves (6-)9-12 × 3.6-6.2cm, broadly ovate-lanceolate, apex acute to apiculate, lower surface covered with a dense two-layered indumentum, the upper layer usually rust-red, lanate-tomentose, composed of ramiform hairs, the lower compacted; petioles glabrescent. Flowers 10-20, in a dense truss; calyx 1.5-2mm; corolla white to pink, with purple flecks, funnel-campanulate, nectar pouches lacking, 35-40mm; ovary and style glabrous. H4b. April-May. China (N Yunnan, SW Sichuan), 3,350-4,550m.

This species is closely allied to *R. taliense* and to *R. mimetes*. Plants from NE Yunnan have been referred to var. *wumen-gense* K.M.Feng. These are said to differ in the thinly coriaceous leaves with a fulvous-cinereous-indumentum.

R. spilanthum Hutch. - is a synonym of **R. thymifolium** Maxim. (Subsect. Lapponica).

R. SPILLOTUM BALF.F. & FARRER - SUBSECT. GLISCHRA?

Shrub or small tree; young shoots glandular-setose. Leaves coriaceous, 7-11 × 3-

4.2cm, elliptic, apex acuminate, lower surface with punctate hair bases persistent over the veins, with scattered setose glands towards the base and a thin indumentum, especially near the midrib, Flowers c.8 in a truss; calyx c.10mm; corolla pink, with a basal blotch, funnel-campanulate, c.30mm; ovary densely stalked-glandular. H3-4a. April-May. NE Burma.

The origin of the plants in cultivation is uncertain though they are a good match with the type specimen. *R. spilotum* may be a hybrid of a species in Subsect. Glischra.

R. SPINULIFERUM FRANCH. - SUBSECT. SPICIFERA.

An upright shrub, 0.6-4.5m; young shoots covered with filiform hairs, also with setae with swollen bases. Leaves 2.5-9.5 × 0.6-4.5cm, lanceolate to elliptic, upper surface bullate, with filiform hairs that persist only along midrib, lower surface scaly and with setae that are soon deciduous though with swollen bases persisting around the margins. Flowers (1-)2-5, in a loose axillary terminal inflorescence; calyx disc-like, densely pubescent; corolla crimson to yellowish, tubular, 17-23mm; stamens 10, exerted; ovary scaly, densely tomentose, impressed below the declinate style. H2-3. April-May. China (C & S Yunnan, Guizhou), (800-)1,800-2,500m.

This is a somewhat tender species that is generally distinctive on account of its tubular flowers, though some forms of *R. scabrifolium* do approach it. Only var. *spinuliferum* is known in cultivation.

AM 1974 (N.T. Holman, Chyverton, Truro) to a clone 'Jack Hext'; flowers red, paler below.

AM 1977 (National Trust for Scotland, Brodick Castle Gardens) to a clone 'Blackwater'; flowers red, greenish white at base.

R. STAMINEUM FRANCH. - SECTION CHONIASTRUM.

Shrub or small tree, to 13m. Leaves 6-14 × 2-4.5cm, elliptic to oblanceolate, apex acuminate. Flowers 3-5 (occasionally to 8),

clustered at end of a leafy shoot below a vegetative bud, white or pink, with yellow blotch, funnel-shaped; tube narrow, 10-15mm; lobes narrowly oblong, spreading to reflexed; stamens 10, long-exserted. H2-3. April-May. NE Burma, SW, S & C China, 400-1,450m.

Rare in cultivation, this species is distinguished from the allied *R. moulmainsense* by the long-exserted stamens and the reflexed corolla lobes.

AM 1971 (Crown Estate Commissioners, Windsor); flowers white, upper lobe flushed yellow-orange.

R. stenaulum Balf.f. & Forrest - is a synonym of **R. moulmainsense** Hook.f. (sect. Choniastrum).

R. STENOPETALUM (HOGG) MABB. (INCL. *R. MACROSEPALUM* MAXIM.) - SECT. TSUTSUSI.

Low shrub, 0.3-1m; young shoots covered with greyish spreading-pilose, sometimes gland-tipped, hairs, also with a few bristles. Leaves of two kinds; spring leaves deciduous, 2.5-7 × 1.5-2.5cm, ovate-elliptic, apex acute, lower surface with gland-tipped hairs, with a few bristles on the midrib and main veins; summer leaves persistent, 1.2-2 × 0.3-0.6cm; petioles densely pilose, also with a few flattened setae. Pedicels covered with long spreading pilose, partly gland-tipped hairs. Flowers 2-10 per inflorescence; calyx 15-30mm, lobes lanceolate to broadly oblong; corolla lilac-pink to rose-purple, with purple flecks on upper lobe, broadly funnel-shaped, 35-50mm; stamens 5(-7); ovary covered with gland-tipped bristles, style glabrous. H3. May-June. Japan (Honshu, Shikoku), 150-400m.

This species is closely allied to *R. ripense* (q.v.). It may hybridize with *R. kaempferi* in the wild. *R. linearifolium* Sieb. & Zucc., which is equivalent to the type of *R. stenopetalum*, is an aberrant plant with very narrow leaves and linear corolla lobes that is only known in cultivation. Plants from the wild correspond to *R. macrosepalum* and conform to the descrip-

tion given above.

AM 1984 (E. de Rothschild, Exbury) as *R. macrosepalum* 'Linearifolium'; trusses 3-5-flowered, corolla divided almost to base, with segments widely deflexed, red-purple with some darker marking.

R. STEWARTIANUM DIELS - SUBJECT. THOMSONIA.

Shrub, 0.5-2.5m; bark smooth or rough, peeling on smaller branches; young shoots often glandular. Leaves 4-12 × 2-6.5cm, obovate to elliptic, base rounded, upper surface glabrous, lower surface with a mammillate epidermis and a thin more or less persistent to evanescent indumentum interspersed with sessile glands; petioles usually glabrous occasionally with a few glands. Flowers 3-7, in lax truss; calyx (2-)5-15mm, cupular; corolla white or cream to pale (rarely deep) rose, with or without purple flecks, campanulate to tubular-campanulate, with nectar pouches, 35-55mm; ovary usually densely glandular, style glabrous. H3-4a. February-April. NE Burma, China (SE Tibet, NW Yunnan), 3,000-4,250m.

This is a variable species, especially with respect to the flower colour. It is allied to *R. euryisiphon* and perhaps also *R. ectectum*, though the presence of a more or less persistent leaf indumentum will distinguish it from these two species.

AM 1934 (L. de Rothschild, Exbury).

R. stictophyllum Balf.f. - is a synonym of **R. nivale** Hook.f. subsp. **boreale** Philipson & N.M. Philipson (Subsect. Lapponica).

R. STRIGILLOSUM FRANCH. - SUBJECT. MACULIFERA.

Shrub or small tree, 1.5-6m; young shoots densely long-stalked-glandular. Leaves 7.5-14 × 1.8-3.8cm, elliptic to oblanceolate, apex cuspidate, lower surface with varying amounts of crisped setae with glandular or branched tips that usually persist; petioles glandular-setose. Flowers 8-12 in a truss; calyx c.1mm; corolla deep red,

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tubular-campanulate, with nectar pouches, 40-60mm; ovary with a dense covering of long weak glandular hairs, style glabrous. H4a. February-April. China (NE Yunnan, W Sichuan), 2,200-3,350m.

A distinctive species, that hybridizes in the wild with *R. pachytrichum* (q.v.).

AM 1923 (Lady Aberconway & Hon. H.D. McLaren, Bodnant); flowers a rich blood red.

R. SUBANSIRIENSE D.F.CHAMB. & P.A. COX - SUBSECT. THOMSONIA.

Shrub or tree, up to 14m; bark smooth and peeling; young shoots apparently tomentose. Leaves 7-10.5 × 2-3.5cm, oblong, base more or less rounded, upper surface glabrous, lower surface with epidermis lacking papillae, with numerous red punctate hair bases on the veins, each with the vestige of fasciculate hairs, otherwise glabrous; petioles glabrous. Flowers up to 15, in a dense truss; calyx 4-5mm, cupular; corolla fleshy, scarlet, with a few purple flecks, tubular-campanulate, with nectar pouches, up to 40mm; ovary densely tomentose, lacking glands, style glabrous. H3(-4a). April. NE India (Arunachal Pradesh), 2,600-2,800m.

This species is at present only known from the Subansiri district in NE India. In cultivation it produces a very early leaf flush that is often affected by late frosts. While it will grow outside in Britain it rarely flowers.

R. SUBSESSILE RENDLE - SECT. TSUTSUSI.

Much-branched shrub; shoots densely covered with adpressed flattened brown hairs. Leaves of two kinds; spring leaves deciduous, 2.5-4 × 0.9-1.2cm, elliptic-lanceolate, apex acute and mucronate, both surfaces at first covered with rufous-grey hairs, upper surface also with adpressed white hairs; summer leaves persistent, c.1.5 × 0.7cm; petioles covered with adpressed chestnut-brown hairs. Pedicels covered with adpressed ferruginous hairs. Flowers 2-4 per inflorescence; calyx small; corolla lilac-purple, funnel-campanulate, 15-20mm; stamens 6-10; ovary

densely covered with flattened ferruginous hairs, style with a few hairs at base. H2?. May. Philippines (Luzon), 2,100-2,600m.

This is a glasshouse subject in Britain that has no close allies.

R. SUCCOTHII DAVIDIAN - SUBSECT. BARBATA.

Shrub or small tree, 1-6m; bark smooth, reddish brown; young shoots glabrous. Leaves 5-13.5 × 2.5-5.5cm, apex rounded, base cordate, upper surface without deeply impressed veins, both surfaces glabrous; petioles very short, 1-5mm. Flowers fleshy, 10-15, in a tight truss, crimson, with conspicuous nectar pouches, tubular-campanulate, 28-35mm; ovary and style glabrous. H4a. March-April. Bhutan, 3,400-4,200m.

An anomalous species in that it lacks the bristles that characterize the remaining species in the subsection. It was originally considered to be an ally of *R. fulgens* but it differs in its glabrous leaves.

R. SULFUREUM FRANCH. (INCL. *R. COMMODUM* BALF.F. & FORREST) - SUBSECT. BOOTHIA.

Low shrub, 0.6-1.6m, sometimes epiphytic; young shoots often setose. Leaves 3.5-8.5 × 2-4.5cm, broadly obovate to (more rarely) narrowly elliptic, apex rounded to subacute, upper surface glabrous, lower surface with close unequal scales with upturned rims that are sunk in pits. Pedicels stout, to 15mm, scaly, sometimes also setose or stiffly pubescent. Flowers 3-6 per inflorescence; calyx lobes 5-6mm, ovate to oblong; corolla greenish to bright yellow, campanulate, 15-20mm, tube scaly and sometimes also pubescent outside, pilose within; stamens 10; ovary scaly, tapering into the strongly deflexed style. H2-3. March-April. NE Burma, China (W Yunnan, SE Tibet), 2,500-3,650(-4,000)m.

This species is allied to (or a parent of) *R. chrysodoron* but differs in its smaller flowers with obscure calyx lobes, etc.

AM 1937 (Earl of Stair, Stranraer) as *R. commodum*; flowers Sulphur Yellow.

R. supranubium Hutch. - is a synonym of **R. pachypodum** Balf.f. & W.W.Sm. (Subsect. Maddenia).

R. SUTCHUENENSE FRANCH. - SUBSECT. FORTUNEA.

Shrub or small tree, 1-5m. Leaves 11-25 × 3.5-5cm, oblong-lanceolate, base broadly cuneate, lower surface glabrous except for a floccose indumentum along the midrib. Flowers c.10, in a lax truss, rose-pink, with darker flecks, widely campanulate, nectar pouches lacking, 50-75mm; stamens 12-15; ovary and style glabrous. H4b. February-April. C & S China, 2,400m.

Closely allied to *R. praevernum* and apparently hybridizing with it where the ranges overlap (see under *R. × geraldii*). It may be distinguished from the latter by the absence of a blotch on the corolla and by the persistent floccose indumentum along the midrib on the lower surface.

AM 1978, FCC 1987 (R.N.S. Clarke, Borde Hill, Sussex) to a clone 'Seventh Heaven', from Wilson 1232; flowers white in throat, suffused red-purple, with numerous small spots.

R. TAGGIANUM HUTCH. (INCL. *R. HEADFORTIANUM* HUTCH.) - SUBSECT. MADDENIA.

Very similar to *R. lindleyi*, differing in the larger calyx lobes, 17-19 × c.11mm, that are not ciliate, though often margined with quickly deciduous scales. H2. April-May. N Burma, China (NW Yunnan), 1,800-3,700m.

R. taggianum occurs in an area to the east of the range of the allied *R. lindleyi*.

AM 1932 (Marquess of Headfort, Kells); flowers white, with a yellow blotch.

AM 1992 (Millais Nurseries, Churt) to a clone 'Cliff Hanger', from Kingdon-Ward 8546; trusses 5 or 6-flowered, corolla white, with a small blotch of yellow-orange in upper throat.

FCC 1943 (M. Adams-Acton, London); flowers white, buds tinged salmon pink.

R. TALIENSE FRANCH. - SUBSECT. TALIENSIA.

Shrub, 0.8-4m. Leaves emitting a musky odour, broadly ovate-lanceolate, 5-11 × 2-4cm, oblong-ovate to broadly lanceolate, apex acute; lower surface covered with a dense two-layered indumentum, the upper layer fulvous, lanate to tomentose, composed of ramiform hairs, the lower compacted; petioles glabrescent. Flowers 10-20, in a dense truss; calyx 0.5-2mm; corolla white or (rarely) pale yellow, sometimes flushed with pink, with crimson flecks, funnel-campanulate, nectar pouches lacking, 30-35mm; ovary and style glabrous. H4b. April-May. China (W Yunnan), 3,050-4,000m.

Some cultivated plants have a leaf indumentum that is speckled and very shortly tomentose; in the wild the most common form has a more densely lanate indumentum.

This species is allied to *R. alutaceum*, from which it may be distinguished by its glabrous ovary, and to *R. sphaeroblastum*. It apparently has a very restricted distribution, occurring only around Dali in W Yunnan.

R. tamurae (Makino) Masamune - is a synonym of **R. eriocarpum** (Hayata) Nakai (sect. Tsutsusi).

R. TANASTYLUM BALF.F. & KINGDON-WARD - SUBSECT. IRRORATA.

Shrub or small tree, 1-4(-10)m. Leaves coriaceous, 7.5-15 × 3-5cm, elliptic to oblanceolate, apex acuminate, lower surface glabrous or with a thin veil of indumentum, also with persistent red punctate hair bases overlying the veins. Flowers 4-8, in a lax truss, deep pink to deep crimson, with black nectar pouches and few to many flecks, tubular-campanulate, 45-55mm; ovary glabrous to rufous-tomentose and glandular, style glabrous. H2. April-May. NE India (Arunachal Pradesh, NE Burma, China (W Yunnan), 1,850-3,350m.

Var. **tanastylum** (incl. *R. cerochitum* Balf.f. & Forrest & *R. ombrochares* Balf.f. &

Description of Species in Cultivation

Kingdon-Ward). Leaves at maturity more or less glabrous beneath; pedicels eglandular.

Var. **pennivenium** (Balf.f. & Forrest) D.F.Chamb. (*R. pennivenium* Balf.f. & Forrest). Leaves with a persistent indumentum beneath; pedicels glandular.

Both varieties have been reported as being in cultivation though neither is at all common.

R. TAPETIFORME BALF.F. & KINGDON-WARD - SUBSECT. LAPPONICA.

A low matted, prostrate or rounded shrub, to 0.9m. Leaves 0.4-1.2(-1.7) × (0.2-)0.3-1cm, broadly elliptic to rotund, apex obtuse or rounded, mucro absent or minute, lower surface covered with uniformly rufous touching scales. Flowers 1-3(-4) per inflorescence; calyx to 2mm, lobes, when present, rounded or deltoid; corolla purplish or violet to rose, exceptionally yellow, broadly funnel-shaped, 9-16mm; stamens 10, rarely 5-6, about as long corolla; ovary scaly, style usually longer than stamens, glabrous or (rarely) puberulous at base. H4a-b. April. NE Burma, China (NW Yunnan, SE Tibet), 3,500-4,600m.

This species is allied to *R. orthocladum* but may be distinguished by the relatively broader leaves.

R. taronense Hutch. - is a synonym of **R. dendricola** Hutch. (Subsect. Maddenia).

R. TASHIROI MAXIM. - SECT. TSUTSUSI.

Branched shrub, 2-6m; young shoots covered with more or less flattened weak brown hairs. Leaves apparently of one kind, persistent, apparently in clusters of 2-3 at the tips of the branches, 4.5-7 × 1.5-2.5cm, apex acute, both surfaces at first covered with adpressed grey-brown hairs, glabrescent though with some hairs remaining on midrib; petioles covered with adpressed brown hairs. Pedicels densely clothed with brown bristles. Flowers 2-5 per inflorescence; calyx c.1mm; corolla pale rose-purple, with a few flecks, broadly funnel-campanulate,

25-40mm; stamens (4-)5; ovary densely covered with adpressed flattened shining brown hairs, style glabrous. H2-3. May. S Japan, ?S Taiwan, s.l.-500m.

This distinctive species shows features of both Sect. Brachycalyx and Sect. Tsutsusi; in the past it has been placed in its own section.

R. TATSIENENSE FRANCH. (INCL. *R. HYPOPHAEUM* BALF.F. & FORREST) - SUBSECT. TRIFLORA.

Shrub, 0.3-5m; young shoots scaly, deep crimson. Leaves 2.2-4.2(-5.2) × 1.2-2.3 (2.7)cm, broadly to narrowly elliptic, apex acute, upper surface usually persistently scaly and with midrib puberulent, lower surface covered with unequal brown narrowly rimmed scales that are 1-2× their own diameter apart. Flowers 3-6, in a loose terminal inflorescence; calyx disc-like, usually ciliate; corolla whitish to rose-pink or lavender, with or without red flecks, zygomorphic, widely funnel-shaped, 16-21mm, outer surface lacking scales; stamens 10; ovary scaly, impressed below the declinate style that is glabrous or puberulous at base. H3-4a. April-May. China (N Yunnan, W Sichuan, Guizhou), 2,100-4,250m.

This species resembles both *R. siderophyllum* (q.v.) and *R. davidsonianum*. It differs from the former in its broader leaves and smaller corolla, and from the latter in its narrowly rimmed leaf scales.

R. TELMATEIUM BALF.F. & W.W.SM. (INCL. *R. DIACRITUM* BALF.F. & W.W.SM., *R. DRUMONIUM* BALF.F. & W.W.SM. & *R. IDONEUM* BALF.F. & W.W.SM.) - SUBSECT. LAPPONICA.

Much-branched, prostrate or erect shrub, to 1m. Leaves 0.3-1.2(-1.4) × 0.2-0.7cm, narrowly elliptic to rotund, apex acute to rounded, strongly mucronate, lower surface covered with overlapping scales, the majority of which are pale gold to reddish brown, usually with few to many darker scales. Flowers 1-3 per inflorescence; calyx 0.5-3mm, lobes often unequal deltoid to rounded; corolla lavender or rose-

pink to purple, broadly funnel-shaped, scaly outside, 6-14mm; stamens 10× as long as corolla; ovary scaly, style of varying length, glabrous or pubescent towards base. H4a-b. China (Yunnan, SW Sichuan), 2,500-5,000m.

R. telmateium is allied to *R. nivale* but differs in the sparse covering of darker scales on the leaf undersurface.

R. telopeum Balf.f. & Forrest - is a synonym of **R. campylocarpum** Hook.f. subsp. **caloxanthum** (Balf.f. & Farrer) D.F.Chamb. (Subsect. Campylocarpa).

R. TEMENIUM BALF.F. & FORREST - SUBSECT. NERIIFLORA.

Dwarf shrub, 0.3-1.5m. Leaves 3.5-5(-8) × 1.2(-3)cm, elliptic, lower surface glabrous or with the remains of a whitish floccose indumentum persisting, especially on the midrib and main veins, lower epidermis glaucous-papillate; petioles tomentose, usually also setose. Flowers 2-6, in a lax to dense truss; calyx 2-5mm; corolla fleshy, white to pink or carmine, or yellow, campanulate to tubular-campanulate, 35-45mm; with nectar pouches; ovary tomentose, sometimes also with a few glands, abruptly contracted into the style. H4a-b. April-May. China (Border of Yunnan & Tibet), (3,650-)4,250-4,550m.

Var. **temenium**. Corolla carmine to crimson; inflorescence dense; young shoots and pedicels always setose, usually strongly so.

Var. **gilvum** (Cowan) D.F. Chamb. (incl. *R. temenium* Balf.f. & Forrest subsp. *chrysanthum* Cowan). Corolla yellow, otherwise as for var. *temenium*.

AM 1958 and FCC 1964 (Mrs K.L. Kenneth, Ardrishaig) to a clone 'Cruachan', as *R. temenium* var. *chrysanthum*; flowers Sulphur Yellow.

Var. **dealbatum** (Cowan) D.F.Chamb. (incl. *R. glaphyrum* Balf.f. & Forrest). Corolla white to deep rose-pink; inflorescence lax; young shoots and pedicels weakly setose, occasionally lacking setae.

This species is closely allied to *R.*

eudoxum and to *R. sanguineum*, and almost certainly hybridizes with both. *R. temenium* may also hybridize with *R. citriniflorum* and *R. catacosmum*.

R. temenium Balf.f. & Forrest subsp. *chrysanthum* Cowan - is a synonym of **R. temenium** Balf.f. var. **gilvum** (Cowan) D.F.Chamb. (Subsect. Neriiflora).

R. TEPHROPEPLUM BALF.F. & FARRER - SUBSECT. TEPHROPEPLA.

Shrub, 0.5-1.3m; bark flaking, brownish. Leaves 4.2-7.5(-10) × (1.1-)1.6-3(-4)cm, apex rounded, dark green above, lower surface greyish-papillose, scales unequal, soon becoming dark brown, in shallow pits, touching, to their own diameter apart. Flowers 3-9, in a terminal inflorescence that usually has a conspicuous rachis; calyx lobes spreading, 5-8mm, ciliate; corolla pink to red, campanulate (17-)20-24mm, outer surface scaly, glabrous; stamens 10; ovary scaly, style impressed, declinate, scaly in lower half. H3(-4a). April-May. India (Arunachal Pradesh), N Burma, China (SE Tibet, NW Yunnan), 2,450-4,300m.

AM 1929 (Lady Aberconway & Hon. H.D. McLaren, Bodnant); flowers pale pink.

AM 1935 (Lord Swaythling, Townhill Park, Southampton); flowers magenta pink.

AM 1975 (Maj. A.E. Hardy, Sandling Park, Kent) to a clone 'Butcher Wood', from Kingdon-Ward 20844.

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R. THAYERIANUM REHDER & E.H.WILSON - SUBSECT. ARGYROPHYLLA.

Shrub, 3-4m; bud scales persistent, at least on young shoots. Leaves stiff, 8-13 × 1.5-3cm, narrowly oblanceolate, apex cuspidate, upper surface reticulate, lower surface with a dense one-layered fawn compacted indumentum composed of ramiform hairs. Flowers 10-15 in a truss, white tinged pink, lobes sometimes with a darker median line and purple flecks, funnel-shaped, nectar pouches lacking, 25-30mm,

ovary covered with rufous stalked glands, sometimes also with a rufous tomentum, style glandular to tip. H4b. June-July. China (W Sichuan), c.2,700m.

The persistent bud scales and glandular style will distinguish this from the remaining species in the subsection.

AM 1990 (Crown Estate Commissioners, Windsor); trusses 14-16-flowered, corolla white, faintly tinged pink when fully open, colour stronger in bud stage.

R. THOMSONII HOOK.F. - SUBSECT. THOMSONIA.

Shrub or small tree, 0.6-3.5(-6)m; bark smooth, reddish, peeling; young shoots glabrous or sparsely glandular. Leaves 3-7.5(-11) × 2-5.5(-7.5)cm, orbicular to obovate or elliptic, base rounded to cordate, entirely glabrous (occasionally with a few hairs below), lower epidermis, strongly glaucous-papillate, with some red-stalked glands; petioles glabrous or sparsely glandular. Flowers 3-10, in a lax truss; calyx 2-20mm, irregular to cupular, often coloured; corolla fleshy, deep crimson, campanulate, with nectar pouches, 35-50mm; ovary glabrous or glandular, style glabrous. H3-4a. April-May. N India (Sikkim, Arunachal Pradesh), Bhutan, China (S Tibet).

Subsp. **thomsonii**. Leaves 5-11cm long, calyx (6-)10-18, shrubs 1.3-6m. Nepal, N India (Sikkim, Arunachal Pradesh), Bhutan, 3,000-4,000m.

AM 1973 (Crown Estate Commissioners, Windsor); flowers red in throat, darkening at rim.

Subsp. **lopsangianum** (Cowan) D.F.Chamb. (*R. lopsangianum* Cowan). Leaves 3-4.5cm long; calyx 2-4mm; shrubs 0.6-1.8m. China (S Tibet), 2,500-4,300m.

Subsp. *lopsangianum* is in some respects intermediate between subsp. *thomsonii* and *R. sherriffii*; some plants in cultivation have a few scattered hairs on the lower leaf surface.

R. thomsonii hybridizes in the wild with *R. campylocarpum* (see under *R. × candelabrum*).

R. THYMFOLIUM MAXIM. (INCL. *R. POLIFOLIUM* FRANCH. & *R. SPILANTHUM* HUTCH.) - SUBSECT. LAPPONICA.

Erect, shrub, to 1.2m. Leaves (0.3-)0.5-1.4 × 2-6mm, narrowly ovate or elliptic to oblanceolate, apex obtuse, usually shortly mucronate, lower surface covered with uniformly straw-coloured, touching to overlapping scales. Flowers 1(-2) per inflorescence; calyx c.1mm, rim-like or with rounded to deltoid lobes; corolla pale lavender blue to purplish, broadly funnel-shaped, 7-11mm; stamens 10, exceeding the corolla; ovary scaly, style long or short, glabrous or (rarely) with a few hairs or scales at base. H4a-b. April-May. China (N Sichuan, Qinghai, Gansu), 2,600-4,600m.

This species is probably allied to *R. websterianum* and *R. nitidulum*, but it may be distinguished from both by its short calyx.

R. TOLMACHEVII HARMAJA (*LEDUM MACROPHYLLUM* TOLM.) - SUBSECT. LEDUM.

Erect shrub, c.0.5m; young shoots ferruginous-tomentose. Leaves 2.5-8.5 × 0.5-2cm, oblong-lanceolate, more or less acuminate, margins revolute, upper surface dark green, lower surface white-pubescent, also with long crisped ferruginous hairs on midrib and lamina, scales rimless, golden, 1-2× their own diameter apart, intermixed with red-brown glands; petioles 3-6mm. Flowers many, in a loose terminal umbellate corymb; calyx lobes obsolete; corolla rotate, white, c.7mm; stamens c.11; ovary densely glandular and pubescent, style glabrous. H4. June-July. E Russia (Sachalin).

This species may be distinguished from the allied *R. hypoleucum* by the ferruginous hairs on the lamina of the lower surface of the leaves.

R. TOMENTOSUM HARMAJA - SUBSECT. LEDUM.

Small, erect or decumbent shrub, 0.3-1.2m; young shoots ferruginous-lanate, glandular. Leaves 0.6-5 × 0.1-0.5(-1.2)cm, linear to narrowly elliptic-oblong, margin strongly

revolute, upper surface dark green, dull, lower surface densely ferrugineous-lanate, epidermis with or without short setulose hairs, sometimes also with reddish glands, scales rimless, golden. Flowers many, in a loose terminal umbellate corymb; calyx minute; corolla white, rotate, 4-8mm; stamens 7-10; ovary glandular, style glabrous. H4. June-July. Holarctic, s.l.-2,000m.

Subsp. **tomentosum**. (*Ledum palustre* L.). Leaves 1.2-5 × 0.2-0.5(-1.2)cm, lower epidermis covered with short setulose hairs. N & C Europe, Russia (European part, extending to S Siberia), s.l.-2,000m.

Subsp. **subarcticum** (Harmaja) G.Wallace (*Ledum minus* hort., *L. palustre* L. var. *decumbens* Aiton, *R. subarcticum* Harmaja). Leaves 0.6-2 × 0.1-0.3cm, lower epidermis with few or no setulose hairs. Arctic regions of Europe, America and Russia, also Japan (Hokkaido) and Korea.

R. TOSAENSE MAKINO (INCL. *R. MIYAZAWAE* NAKAI & H.HARA) - SECT. TSUTSUSI. Much-branched shrub, 1.5-2m; young shoots clothed with adpressed flattened grey-brown strigose hairs. Leaves of two kinds, deciduous or persistent, spring leaves 0.7-4 × 0.2-1cm, oblanceolate to oblanceolate-spathulate, apex acute, both surfaces with scattered adpressed grey hairs; summer leaves 0.3-0.7cm long, otherwise as for spring leaves. Pedicels adpressed-strigose. Flowers 1-6 per inflorescence; calyx c.2mm; corolla purplish pink, with or without darker flecks, rarely white with a faint pink flush, funnel-shaped, 18-25mm; stamens 5(-10); ovary densely strigose, style glabrous. H3-4a. April-May. Japan (Kyushu, Shikoku, Honshu), c.100m.

AM 1978 (Countess of Rosse and National Trust, Nymans Garden) to a clone 'Ralph Clarke'; flowers red-purple, fading to white at base externally.

R. TRAILLIANUM FORREST & W.W.SM. - SUBSECT. TALIENSIA.

Shrub or small tree, 0.6-8m. Leaves 7-13 ×

3-6.5cm, obovate to elliptic, apex apiculate to acuminate, lower surface covered in a one-layered indumentum composed of radiate hairs that is either rust-red and powdery or brown and matted; petioles floccose. Flowers 6-15, in a dense truss; calyx c.1mm; corolla white, sometimes flushed rose, with crimson flecks, funnel-campanulate, nectar pouches lacking, 25-45mm; ovary glabrous or sparsely red-brown-tomentose, style glabrous. H4b. April-May. China (SE Tibet, W Yunnan, SW Sichuan), 3,350-4,550m.

Var. **traillianum**. Leaf indumentum composed of radiate hairs with short pyriform arms; corolla 25-35mm. China (W Yunnan, SW Sichuan).

Var. **dictyotum** (Balf.f. ex Tagg) D.F.Chamb. (*R. dictyotum* Balf.f. ex Tagg). Leaf indumentum composed of radiate hairs with long ribbon-like arms; corolla (35-)45mm. China (SE Tibet, NW Yunnan).

This species is closely allied to *R. phaeochrysum* but may be distinguished by the leaf indumentum.

AM 1965 (E. de Rothschild, Exbury) to a clone 'Kathmandu', as *R. dictyotum*; flowers white, with a crimson blotch and crimson spots.

R. TRICHANTHUM REHDER - SUBSECT. TRIFLORA.

Shrub, 1-3(-6)m; young shoots scaly and densely setose. Leaves 5.5-8 × 2.3-3.5cm, ovate-elliptic to narrowly elliptic, apex acute, upper surface with or without scales, glabrous or setose, lower surface pilose, at least on midrib, scales unequal, brown, 1-4× their own diameter apart; petioles densely pilose. Flowers 2-3, in a loose terminal inflorescence; calyx lobes 1-2mm, setose; corolla light to dark purple, zygomorphic, widely funnel-shaped, 30-36mm, outer surface scaly and variably setose; stamens 10; ovary scaly, pilose and setose, style impressed, declinate, usually glabrous. H4a. May-June. China (W Sichuan), 2,300-3,300m.

This species apparently has affinities with *R. concinnum* but is more hairy.

AM 1971 (Maj. A.E. Hardy, Sandling

Park, Kent) to a clone 'Honey Wood'; flowers purple-violet, paler in throat, with green mottling, becoming red-purple at base externally.

R. TRICHOCLADUM FRANCH. - SUBSECT. TRICHOCLADA.

Shrub, to 1.5m; young shoots usually with at least some twisted or curled setae. Leaves deciduous, 2.4-4 × 1-2cm, obovate or obovate-elliptic, margin ciliate, upper surface often with some setae persisting to maturity, sometimes also puberulent, lower surface with few to many twisted setae, scales uniform or of differing sizes, usually uniformly golden though occasionally with some discoloured, purplish scales. Flowers precocious, 1-3, in a terminal inflorescence; calyx 2-5mm; corolla yellow or greenish yellow, funnel-campanulate; stamens 10; ovary scaly, rarely with a few setae at apex, style sometimes puberulent at base. H(3-4)a-b. April-May. NE Burma, China (S Tibet, NW Yunnan).

Var. **trichocladum**. (incl. *R. lithophilum* Balf.f. & Kingdon-Ward, *R. lophogynum* Balf.f. & Forrest ex Hutch. & *R. oulotrichum* Balf.f. & Forrest). Upper surface of leaves with a sparse covering of setae. NE Burma, China (W Yunnan), 2,450-3,350m.

AM 1971 (Crown Estate Commissioners, Windsor) as *R. lophogynum*; flowers yellow, with darker, greenish yellow mottling.

Var. **longipilosum** Cowan (*R. mekongense* Franch. var. *longipilosum* (Cowan) Cullen). Upper surface of leaves with a dense covering of setae. NE Burma, China (S Tibet, NW Yunnan), 3,050-4,000m.

R. trichocladum has been traditionally delineated from the closely allied *R. mekongense* by the presence of uniform scales. While some forms of the present species do have uniform scales, the type of *R. trichocladum* does not. The relative abundance of twisted or curled setae on the leaves does however seem to be a reliable character.

R. trichomiscum Balf.f. & Forrest - is a syn-

onym of **R. eudoxum** Balf.f. & Forrest var. **eudoxum** (Subsect. Neriiflora).

R. trichophlebium Balf.f. & Forrest - is a synonym of **R. eudoxum** Balf.f. & Forrest var. **eudoxum** (Subsect. Neriiflora).

R. TRICHOSTOMUM FRANCH. - SECT. POGONANTHUM.

Dwarf shrub, 0.3-1(-1.5)m; leaf bud scales usually deciduous. Leaves 1.2-3 × 0.3-0.6cm, linear to oblanceolate, apex rounded, slightly mucronate to emarginate, margins usually strongly revolute, lower surface covered with 2-3 tiers of dense overlapping scales, the upper tiers usually pale brown, the lowest paler, golden yellow. Flowers many, in a racemose umbel; calyx lobes 1-2.5mm; corolla white or pink, hypocrateriform, tube 4.5-8(-10)mm, glabrous outside, hairy within; stamens 5(-6); ovary scaly. H(3-4)a. May-June. China (Yunnan, Sichuan), 3,400-4,600m.

This species is allied to *R. primuliflorum* but may be distinguished by the narrower leaves. *R. hedyosmum* Balf.f., which differs in its larger flowers, and is only known in cultivation, is probably a hybrid of *R. trichostomum*.

AM 1925 (A.K. Bulley, Neston).

AM 1971 (M. Simmons, Quarry Wood, Newbury) to a clone 'Quarry Wood', as var. *ledoides*; flowers white, flushed with a shade of red-purple.

AM 1960 (Crown Estate Commissioners, Windsor) to a clone 'Sweet Bay', as var. *radinum*; flowers Tyrian Rose, suffused white to appear soft pink.

AM 1972 (Crown Estate Commissioners, Windsor) to a clone 'Lakeside'; flowers white, flushed red-purple.

AM 1972 (Mr & Mrs M. Simmons, Quarry wood, Newbury), as var. *radinum*; flowers red-purple.

FCC 1976 (Lady Anne Palmer, Rosemoor Garden Charitable Trust, Torrington) to a clone 'Collingwood Ingram'; flowers red-purple, paler in throat.

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R. TRIFLORUM HOOK.F. - SUBSECT. TRIFLORA.

Straggling shrub, (0.5-)1-5(-7)m; young shoots scaly, mature bark smooth and peeling, reddish brown. Leaves usually evergreen, 3.8-6.5 × 2-3.2cm, ovate to lanceolate or elliptic, apex acute, upper surface lacking scales, glabrous, lower surface greyish brown, densely covered with small almost rimless brown scales. Flowers 2-4, in a loose terminal inflorescence; calyx small, scaly, not ciliate; corolla pale yellow, sometimes suffused with red, sometimes with greenish to red flecks, zygomorphic, funnel-shaped to widely funnel-shaped, 21-30mm, outer surface densely scaly, pubescent at sinuses; stamens 10; ovary scaly, impressed below the declinate, glabrous or (rarely) puberulent at base, style. H3-4a. May-June. N India (Bengal, Manipur), Bhutan, N Burma, China (S Tibet), 2,300-3,650m.

Var. **triflorum**. (incl. *R. triflorum* Hook.f. var. *mahogani* Hutch.). Corolla funnel-shaped to widely funnel-shaped. Nepal, India (Sikkim, W Bengal, Arunachal Pradesh), Bhutan, N Burma, China (S Tibet), 2,300-3,650m.

Var. **bauhiniiflorum** (Watt ex Hutch.) Cullen (*R. bauhiniiflorum* Watt ex Hutch.). Corolla very openly funnel-shaped to almost flat. India (Manipur), 2,450-2,750m.

The two varieties recognized here are distinguished only by the shape of the corolla. They apparently have different geographical distributions.

R. triplonaevium Balf.f. & Forrest - is a synonym of **R. alutaceum** Balf.f. & W.W.Sm. var. **iodes** (Balf.f. & Forrest) D.F.Chamb. (Subsect. Taliensia).

R. tritifolium Balf.f. & Forrest - is a synonym of **R. alutaceum** Balf.f. & W.W.Sm. var. **iodes** (Balf.f. & Forrest) D.F.Chamb. (Subsect. Taliensia).

R. tsangpoense Kingdon-Ward var. *tsangpoense* and var. *curvistylum* Kingdon-Ward ex Cowan & Davidian - are synonyms of

R. charitopes Balf.f. & Farrer subsp. **tsangpoense** (Kingdon-Ward) Cullen (Subsect. Glauca).

R. TSARIENSE COWAN - SUBSECT. LANATA.

Shrub, 1-3m. Leaves coriaceous, 3.5-5.5 × 1.5-3cm, obovate to oblong, apex bluntly apiculate to acute, lower surface covered with a dense reddish brown or pale fawn tomentum composed of ramiform hairs. Flowers 3-5, in a lax truss, cream, with a pink flush or white to pale pink, open-campanulate, nectar pouches lacking, 25-35mm; ovary densely tomentose, style glabrous. H4a. March-May. NE India (Arunachal Pradesh), China (S Tibet), ?E Bhutan, 3,500-4,500m.

Var. **tsariense**. Leaves with a reddish brown indumentum beneath.

AM 1964 (Maj.Gen. and Mrs E.G.W.W. Harrison, Tremear, Cornwall) to a clone 'Yum-Yum'; flowers white flushed Phlox Pink, with Carmine buds.

Var. **trimoense** Davidian. Leaves with a whitish to pale fawn indumentum beneath.

R. TSCHONOSKYI MAXIM. - SECT. TSUTSUSI.

Much-branched shrub, 0.3-1.5m; young shoots and petioles densely covered with adpressed flattened rufous hairs. Leaves of one kind, 1-3.5 × 0.3-1cm, lanceolate to elliptic, apex acute, both surfaces with scattered adpressed whitish to pale brown villose hairs, especially on the midrib. Pedicels covered with adpressed whitish hairs. Flowers 3-6 per inflorescence; calyx minute; corolla white, funnel-shaped, 7-9mm; stamens 4-5; ovary densely covered with pale brown bristles, style glabrous. H4b. May. S Korea, Japan, Russia (Kam-schatka), 700-1,800m.

Var. **tschonoskyi**. Leaves 4-5-nerved, 1-2cm. S Korea, Japan, Russia (Kam-schatka), 1,500-1,800m.

Var. **trinerve** (Franch.) Makino. Leaves 3-nerved, 2-3.5cm. Japan (Honshu), 700-1,000m.

Both varieties of this distinctive

Description of Species in Cultivation

species are cultivated.

R. TSUSIOPHYLLUM SUGIM.
(*TSUSIOPHYLLUM TANAKAE* MAXIM.) -
SECT. TSUTSUSI.

Dwarf shrub, to c.0.3m; young shoots covered with adpressed flattened bristles. Leaves of one kind, 1-1.2 × 0.5-0.7cm, obovate, apex acute, upper surface glabrous when mature, lower surface with a few bristles on the midrib, otherwise glabrous; petioles covered with bristles. Pedicels apparently hairy. Flowers 1-4 per inflorescence; calyx minute; corolla pink in bud, fading to white, tubular-campanulate, c.10mm; stamens (4-)5; ovary covered with bristles, style glabrous. H4a-b. July. Japan (S Honshu and adjacent Islands), c.500m.

A distinctive species on account of its tubular-campanulate corolla with short lobes, half as long as tube.

R. tubiforme (Cowan & Davidian) Davidian - is a synonym of **R. glaucophyllum** Rehder subsp. **tubiforme** (Cowan & Davidian) D.G.Long (Subsect. Glauca).

R. UNGERNII TRAUTV. - SUBJECT.
PONTICA

Shrub or small tree, 1-7m; young shoots densely whitish-lanate-tomentose, bud scales deciduous. Leaves 11.5-21 × 3.5-6cm, oblanceolate to obovate, apex usually rounded, acuminate, upper surface glabrous, lower surface covered with a dense whitish to fawn lanate tomentum composed of dendroid hairs; petioles lanate-tomentose and stalked-glandular at first, later glabrescent. Flowers 12-25, in a lax truss; calyx 5-9mm; corolla white, sometimes flushed pink, with greenish flecks, funnel-campanulate, nectar pouches lacking, c.35mm; ovary covered with brownish stipitate glands, also with a few whitish non-glandular hairs, style glabrous. H4b. June-July, 1,200-1,850m.

Allied to *R. smirnowii* but differing in its glandular ovary.

AM 1973 (Lord Aberconway and

National Trust, Bodnant); flowers white inside, edged pale pink, pink outside, spotted green.

R. UNIFLORUM KINGDON-WARD -
SUBJECT. UNIFLORA.

Dwarf prostrate shrub, the ends of the branches ascending to 0.5m; young growth scaly. Leaves 1.3-2.5 × 0.5-1cm, oblong-elliptic, apex acute or rounded, margin entire, lower surface with very distant scales that are equal, golden at first, soon turning brown, and have narrow rims. Flowers 1-2, in a terminal inflorescence; calyx lobes oblong, 1.5-2.5mm; corolla purple, funnel-campanulate, 21-25mm, tube 12-14mm, outer surface densely pilose, sparsely scaly; stamens 10; ovary scaly, impressed below the declinate style that is glabrous and longer than the stamens. H(3-)4a. April-May. China (SE Tibet), NE Burma, 3,050-3,650m.

Var. **uniflorum**. Leaf apex rounded. China (SE Tibet), 3,350-3,650m.

Var. **imperator** (Hutch. & Kingdon-Ward) Cullen (*R. imperator* Hutch. & Kingdon-Ward). Leaf apex acute. NE Burma, 3,050-3,350m.

This species is allied to *R. pemakoense* (q.v.).

AM 1934 (Lord Swaythling, Townhill Park, Southampton) as *R. imperator*, from Kingdon-Ward 6884; flowers rosy purple.

R. UVARIIFOLIUM DIELS - SUBJECT.
FULVA.

Large shrub or small tree, 2-10m. Leaves 8-22 × 3.3-6.5cm, oblanceolate to oblong, lower surface with a 1-2 layered silvery indumentum, the upper layer (when present) composed of more or less floccose dendroid hairs, the lower layer compacted. Flowers 6-30, in a dense truss, white to pale pink, with crimson flecks and a purple basal blotch, campanulate, nectar pouches lacking, 30-35mm; ovary glabrous. H3-4a. March-April. China (S Tibet, NW Yunnan, SW Sichuan), (2,100)-3,000-4,000m.

Var. **uvariifolium**. Leaves oblanceolate, cuneate at base, indumentum floccose.

cose. China (S Tibet, NW Yunnan, SW Sichuan).

AM 1965 (Royal Botanic Garden, Edinburgh) to a clone 'Yangtze Bend'; flowers rose-pink, spotted and blotched Indian Lake.

AM 1976 (Royal Botanic Gardens, Wakehurst) to a clone 'Reginald Childs'; flowers white, suffused red-purple and with a red blotch.

Var. **griseum** Cowan. Leaf base rounded, indumentum compacted. China (S Tibet).

These two varieties are poorly delineated from one another though there is some correlation between the morphological differences and the geographical distributions of the two taxa.

R. VALENTINIANUM FORREST EX HUTCH. - SUBSECT. MADDENIA.

Small shrub, 0.3-1.3m; young growth densely setose. Leaves 2.6-3.8(-5) × 1.6-2.2(-3.1)cm, elliptic, apex obtuse, margin entire, ciliate, upper surface with midrib impressed, lower surface brown, with dense overlapping unequal scales. Flowers (1-)2-6, in a loose terminal inflorescence, not scented; calyx 5-7mm, ciliate; corolla bright yellow, funnel-campanulate, 20-32mm, outer surface with tube pubescent and scales restricted to the lobes; stamens 10; ovary densely scaly, impressed below the style that is variably scaly towards the base. H2-3. March-April. N Burma, China (SW Yunnan, Guizhou), 2,700-3,600m.

This yellow-flowered species is allied to *R. fletcherianum* but differs in the entire leaves, with a dense brown covering of scales on the undersurface. It is one of the hardier members of Subsect. *Maddenia* that can be grown successfully outside in the more sheltered gardens of the S & W of Britain.

The recently described var. *oblongilobatum* R.C.Fang is reported to be in cultivation. It differs from the type variety (as described above) in its shorter (4-5mm), oblong calyx lobes that are glandular-scaly, not ciliate.

AM 1933 (Hon. H.D. McLaren, Bodnant); flowers yellow.

R. VASEYI A.GRAY - SECT. RHODORA.

Deciduous shrub or small tree, 2.5(-5.5)m; young twigs covered with eglandular and gland-tipped hairs. Leaves 2.3-17 × 0.8-5.5cm, elliptic to obovate, lower surface with scattered gland-tipped hairs also with larger eglandular hairs on main veins. Flower bud scales unicellular-pubescent, margin usually glandular. Pedicels pubescent, also with gland-tipped hairs. Flowers fragrant, appearing before the leaves, 5-15, in an umbellate raceme; calyx 0.5-8.5mm; corolla pink or occasionally white, with brown to red flecks on the upper three lobes, broadly rotate-funnelform, two-lipped, tube short, gradually expanding into the limb, 20-35mm. Capsule covered with gland-tipped hairs. H4b. April-May. E USA (N Carolina), 900-1,830m.

This is a distinctive species with no close relatives. It is rare in the wild and considered to be threatened.

AM 1969 (E. de Rothschild, Exbury) to a clone 'Suva'; flowers red-purple, becoming paler, throat more or less white, with sparse, dark red-purple spots.

♀ 1993

R. VEITCHIANUM HOOK.F. (INCL. *R. CUBITII* HUTCH.) - SUBSECT. MADDENIA.

Epiphytic or free-growing shrub, to 2m; young shoots sparsely setose. Leaves 6.5-10 × 2.8-4cm, obovate or narrowly elliptic, apex shortly acuminate, margin ciliate, at least when young, upper surface with impressed midrib, lower surface pale, with distant unequal golden scales. Flowers (1-)2-5, in a loose inflorescence, not scented; calyx disc-like, ciliate; corolla white, often with a yellow blotch, openly funnel-campanulate, 50-60(-65)mm; outer surface scaly only on adaxial (inner) side, pubescent at base, lobes usually crisped; stamens 10; ovary scaly, tapering into the style which is scaly well above the base. H1b-2. May-June. Burma, Thailand, Laos, Vietnam, 1,200-2,400m.

Description of Species in Cultivation

R. cubittii, as known in cultivation, does not match the type specimen and is of uncertain provenance. It is therefore not formally recognized here. The name technically applies to a plant that is clearly referable to *R. veitchianum*.

AM 1935 (Lt Col E.H.W. Bolitho, Penzance) to *R. cubittii* hort.; flowers white deeply flushed rose.

AM 1978 (G.Gorer, Sunte House, Haywards Heath) to a clone 'Margaret Mead'; truss 2-3-flowered, corolla white with faint orange flush in upper throat.

FCC 1962 (Crown Estate Commissioners, Windsor), as *R. cubittii* hort. 'Ashcombe'; flowers white with an orange-yellow blotch.

♀ 1993 to *R. veitchianum*

♀ 1993 to *R. cubittii* hort.

R. velleureum Hutch. - is a synonym of **R. principis** Bureau & Franch. (Subsect. Taliensia).

R. VENATOR TAGG - SUBSECT. VENATORA. Straggly shrub, 1-3m; young shoots and petioles with an evanescent stellate tomentum intermixed with setose glands. Leaves 8.5-14 × 2-2.4cm, elliptic to lanceolate, apex acute to acuminate, upper and lower surfaces glabrous except for a thin stellate indumentum that is intermixed with folioliferous hairs on the midrib below. Flowers 7-10, in a tight truss; calyx 3-5mm; corolla fleshy, crimson, with darker nectar pouches, tubular-campanulate, 30-35mm; ovary with a dense tomentum intermixed with stalked glands, style glabrous. H3(-4a). May-June. China (SE Tibet), 2,500m.

A distinctive species with no close allies. It has a restricted distribution in the wild and is only occasionally seen in cultivation.

AM 1933 (Hon. H.D. McLaren, Bodnant) from Kingdon-Ward 6285; flowers reddish orange.

R. VERNICOSUM FRANCH. - SUBSECT. FORTUNEA.

Shrub or tree, 1.3-8m. Leaves 7-10 × 2.7-

5cm, elliptic to ovate- or obovate-elliptic, base rounded, lower surface with persistent punctulate hair bases, otherwise glabrous when mature. Flowers 6-10 to a truss; calyx c.2mm; corolla 6-7-lobed, pale rose to pinkish purple, with crimson flecks, broadly funnel-campanulate, nectar pouches lacking, 35-50mm; stamens c.14, filaments glabrous; ovary and style covered with red stalked glands. H4a-b. May. SW & C China (N Yunnan, SW Sichuan, Guizhou), 2,600-3,650m.

This species can be confused with *R. decorum* but may be distinguished by the glabrous stamen filaments and usually by the red styler glands and broader leaves. *R. vernicosum* usually occurs at higher altitudes than *R. decorum* and is more hardy than many forms of the latter species.

AM 1964 (Younger Botanic Garden, Benmore, Argyll) to a clone 'Loch Eck'; flowers pure white.

AM 1976 (Lord Aberconway and National Trust, Bodnant) to a clone 'Spring Sonnet', from Rock 11408 (=USDA 59625); flowers white, flushed red-purple, spotted.

R. verruculosum Rehder & E.H.Wilson - is a hybrid of **R. flavidum** Franch. (Subsect. Lapponica).

AM 1932 (Col S.R. Clarke, Borde Hill, Sussex); flowers purple.

R. VESICULIFERUM TAGG - SUBSECT. GLISCHRA.

Large shrub or small tree; young shoots densely glandular-setose. Leaves 12-14.5 × 3.5-5cm, obovate to oblanceolate; upper surface rugulose, with deeply impressed veins, lower surface with veins and midrib covered with glandular setae and with white vesiculate hairs. Flowers 10-15 in a truss; calyx 8-10mm; corolla white to rose-purple, with flecks and a small basal blotch, funnel-campanulate, nectar pouches lacking, 25-35mm; ovary densely covered with rufous stalked glands, with an understorey of white vesiculate hairs. H3-4a. April-May. NE Burma, China (W Yunnan, SE Tibet), 2,500-3,350m.

This species is closely allied to *R. glischroides* but may be distinguished from that species by the presence of vesiculate hairs.

R. vestitum Tagg & Forrest - is a synonym of *R. selense* Franch. subsp. *setiferum* (Balf.f. & Forrest) D.F.Chamb. (Subsect. Selensia).

R. VIALII DELAVAY & FRANCH. - SECT. AZALEASTRUM.

Shrub, to 3m. Leaves 4-7 × 1.5-3cm, elliptic to obovate, apex obtuse or notched. Flowers single, borne laterally below vegetative buds, crimson broadly funnel-shaped; tube c.15mm; lobes rotund, c.10mm; stamens 5. H1-2. April-May. China (S Yunnan), adjacent parts of Laos and Vietnam, c.1,700m.

Some plants in cultivation under this name are referable to *R. leptothrium*, from which it may be distinguished by the shape of the corolla. Its status in cultivation is therefore doubtful.

R. vilmorinianum Balf.f. - is a synonym of *R. augustinii* Hemsl. var. *augustinii* (Subsect. Triflora).

R. violaceum Rehder & E.H.Wilson - is a synonym of *R. nivale* Hook.f. var. *boreale* Philipson & M.N. Philipson (Subsect. Lapponica).

R. VIRGATUM HOOK.F. - SUBSECT. VIRGATA.

Small shrub, 0.3-2.5m; young shoots scaly. Leaves 1.8-8 × 0.5-2cm, narrowly oblong or oblong-elliptic, apex acute to rounded, upper surface with scales, especially on midrib and at base, lower surface densely covered with brown to dark brown peltate scales. Flowers 1(-2), in an inflorescence borne in the axils of the upper leaves; calyx lobes 2-3mm, sometimes ciliate; corolla white to deep pink or mauve, funnel-shaped, 15-37mm, outer surface of tube sparsely scaly and pubescent; stamens 10; ovary densely scaly, impressed below the declinate style that is scaly

and/or pilose towards base. H2-3. April-May. India (Sikkim, Arunachal Pradesh), Bhutan, China (S Tibet, Yunnan), 2,000-4,000m.

Subsp. *virgatum*. Corolla 25-37mm, tube 11-20mm, pale or deep pink to mauve. Nepal, India (Sikkim, Arunachal Pradesh), Bhutan, China (S & SE Tibet), 2,500-3,800m.

AM 1973 (Maj. A.E. Hardy, Sandling Park, Kent); flowers white.

Subsp. *oleifolium* (Franch.) Cullen (*R. oleifolium* Franch.). Corolla 15-25mm, tube 8-15mm, white or pink. China (SE Tibet, W & N Yunnan), 2,000-4,000m.

This is a distinctive species on account of the axillary inflorescences.

R. VIRIDESCENS HUTCH. (INCL. R. RUBROLUTEUM DAVIDIAN) - SUBSECT. TRICHOCLADA.

Small shrub, 0.3-1.5m; young shoots scaly, setose, sometimes also puberulous. Leaves evergreen, 2.3-6.7 × 1.3-3cm, obovate, to elliptic, usually lacking setae, though occasionally with midrib puberulent or with a few setae, lower surface pale green, covered with large to medium-sized scales, 1-3× their own diameter apart. Flowers 3-6, in a loose inflorescence; calyx small; corolla yellowish green, yellow or reddish yellow, funnel-campanulate, zygomorphic, 15-25mm; stamens 10; ovary densely scaly, style straight or sharply bent. H4a-b. May-June. China (S Tibet), 2,850-3,300m.

Recent field observations (P. & K. Cox) have confirmed the distinctness of this species. It may be distinguished from the closely allied *R. mekongense* by its evergreen leaves.

AM 1972 (E.H.M. and P.A. Cox, Perth) to a clone 'Doshong La', from Kingdon-Ward 5829; flowers yellow, flushed rose at corolla lobe tip externally, with Olive Green flecking.

R. VISCIDIFOLIUM DAVIDIAN - SUBSECT. THOMSONIA.

Shrub, 0.6-2.4m; bark smooth; young shoots glabrous or glandular. Leaves 4-9.7

Description of Species in Cultivation

× 2.8-6.6 cm, oval to orbicular, base rounded to sub-cordate, entirely glabrous, lower epidermis strongly glaucous-papillate, with scattered viscid glands; petioles glabrous. Flowers 1-2; calyx 4-9 mm, cupular; corolla coppery red, with dark nectar pouches and flecks, tubular-campanulate, 35-45 mm; ovary densely tomentose and stalked-glandular, style glabrous. H3-4a. April-May. China (SE Tibet), 2,700-3,350 m.

This species is allied to *R. thomsonii* but differs in the flower colour, etc. The whole plant is viscid, as the name implies.

R. VISCOSUM (L.) TORR. (INCL. *R. OBLONGIFOLIUM* [SMALL] MILLAIS & *R. SERRULATUM* [SMALL] MILLAIS) - SUBSECT. PENTANTHERA.

Deciduous shrub or small tree, to 6 m; young twigs usually eglandular-hairy, occasionally with gland-tipped hairs. Leaves (3-4-6(-8) × 1.3-2.3(-3.1) cm ovate or obovate to elliptic, lower surface glabrous, sometimes glaucous, occasionally with eglandular and/or gland-tipped hairs. Flower bud scales with outer surface sparsely to densely covered with unicellular hairs or glabrous, margin unicellular-ciliate, occasionally glandular below. Flowers with a sweet fragrance, appearing after the leaves have expanded, 3-14, in a shortened raceme; calyx 1-2(-5) mm; corolla white, occasionally with a pink or purplish tinge, rarely completely pink, funnel-form, tube gradually expanding into limb, outer surface usually covered with unicellular and gland-tipped hairs, 20-57 mm. Capsule covered with eglandular or gland-tipped hairs. H4b-c. May-July. E & S USA, s.l.-1,500 m.

This is a variable and widespread species.

AM 1921 (F.G. Stover, South Norwood, London) as *Azalea viscosa glauca*; flowers white.

♀ 1993.

R. WADANUM MAKINO - SECT. BRACHYCALYX.

Shrub or small tree; young shoots villose.

Leaves in whorls of up to three, at the ends of the branches, 3-5 × 2-4 cm, rhombic, apex acute, tip blunt, lower surface sparsely villose, more densely so on the midrib; petioles densely villose. Pedicels with eglandular or glandular hairs. Flowers 1-2 per inflorescence, appearing before the leaves; calyx minute; corolla rich rose-pink, funnel-campanulate, 22-30 mm; stamens 10; ovary densely villose; style stalked-glandular in lower half. H4a-b. April-May. Japan (SE Honshu), 950-1,500 m.

A distinctive species on account of its glandular style.

R. WALLICHII HOOK.F. (INCL. *R. HEFTII* DAVIDIAN) - SUBSECT. CAMPANULATA.

Shrub, 1-4.5 m. Leaves 7-14 × 3.5-6.5 cm, elliptic to ovate, glabrous above, with a sparse discontinuous indumentum of dark brown fasciculate hairs, to more or less glabrous. Flowers 5-8, in a lax truss, white to pale mauve or lilac, with or without flecks, funnel-campanulate, nectar pouches lacking, 25-50 mm; ovary almost glabrous, style glabrous. H4a. April-May. E Nepal, N India (Sikkim, Bengal), Bhutan, China (S Tibet), 3,000-4,000 m.

White-flowered forms with leaves more or less glabrous beneath have been referred to *R. heftii* Davidian. This species is closely allied to *R. campanulatum* and treated by some as a variety of that species. Natural hybrids between *R. wallichii* and *R. arboreum* are found in cultivation.

R. WALONGENSE KINGDON-WARD - SUBSECT. MADDENIA.

Shrub, 2-3 m; young shoots not setose. Leaves 10-11 × 3.8-4.5 cm, elliptic, apex slightly acute, sometimes with a short drip-tip, margin not ciliate; upper surface with midrib impressed, lower surface brownish, covered with large scales 1-3 × their own diameter apart. Flowers 3-6, in a lax terminal inflorescence, scented; calyx disc-like, ciliate; corolla creamy white, with a greenish blotch, funnel-shaped, c. 60 mm, outer surface pubescent and

scaly throughout; stamens 10; ovary densely scaly, tapering into the style that is scaly in the lower half. H2?. April-May. India (Arunachal Pradesh), China (SE Tibet), 1,500-2,150m.

This species may be distinguished from the allied *R. dendricola* by the calyx that is not ciliate.

R. WARDII W.W.SM. - SUBSECT. CAMPYLOCARPA.

Shrub or small tree, 0.6-8m. Leaves 6-11 × 2.3-6cm, often glaucous when young, base cordate, glabrous. Flowers 5-15, in a lax to dense truss, white to sulphur yellow, buds often strongly tinged pink, with or without a basal blotch, open-campanulate (saucer-shaped), nectar pouches lacking, 25-40mm; ovary and style stalked-glandular. H4a-b. May-June. China (SE Tibet, NW Yunnan, SW Sichuan), 3,000-4,300m.

Var. **wardii**. (incl. *R. litiense* Balf.f. & Forrest and *R. croceum* Balf.f. & W.W.Sm.) Flowers clear yellow.

Forms with relatively narrow leaves that are more glaucous than the type, from a restricted zone around the Li-ti-ping in W Yunnan, have been referred to *R. litiense*. This taxon is not maintained as it merges with the type form that has broader leaves. There are no significant differences in the flower characters.

AM 1926 (A.M. Williams, Launceston) as *R. croceum*; flowers bright yellow, touched with crimson internally.

AM 1926 (A.M. Williams, Launceston) as *R. astrocalyx*; flowers flat, clear lemon yellow.

AM 1931 (L. de Rothschild, Exbury) from Kingdon-Ward 4170; flowers bright yellow, flushed green.

AM 1931 (L. de Rothschild, Exbury) as *R. litiense*; flowers yellow.

AM 1959 (Capt. C. Ingram, Benenden, Kent) to a clone 'Ellestee', from L., S. & T. 5679; flowers clear Lemon Yellow, with a crimson blotch.

AM 1963 (Crown Estate Commissioners, Windsor) to a clone 'Meadow Pond', from L., S. & T. 15764; flowers Primrose Yellow, with a crimson blotch.

FCC 1953 (Col Lord Digby, Minterne, Dorset).

Var. **puralbum** (Balf.f. & W.W.Sm.) D.F.Chamb. (*R. puralbum* Balf.f. & W.W.Sm.) Flowers pure white.

This may be no more than an albino form of the much more common var. *wardii*.

R. wardii hybridizes in the wild with *R. selense* (see under *R. × erythrocalyx*) and with *R. vernicosum*. Where its range overlaps with *R. campylocarpum* (in S Tibet) the two species apparently intergrade, probably due to local hybridization. These two are sometimes confused but *R. wardii* can always be distinguished by its glandular style.

R. WASONII HEMSL. & E.H.WILSON - SUBSECT. TALIENSIA.

Sprawling shrub, 0.6-1.5m. Leaves 4-8 × 2.5-4cm, ovate-lanceolate, apex apiculate to shortly acuminate, lower surface with a sparse to dense one-layered reddish brown indumentum composed of long-rayed hairs, also with a few glands; petioles tomentose and sparsely glandular. Flowers 8-15, in a dense truss; calyx c.0.5mm; corolla open-campanulate, yellow or white to pink, with purple flecks, open-campanulate, nectar pouches lacking, 25-40mm; ovary densely reddish hairy, glands lacking, style glabrous. H4b. April-May. China (C Sichuan), 2,300-3,800m.

Var. **wasonii**. Flowers pale yellow, 35-40mm.

Var. **wenchuanense** L.C.Hu. Flowers white to pink, 25-35mm.

The application of the varietal names within this species is problematical as it is not clear whether Hemsley & Wilson intended the name 'wasonii' to apply to the yellow- or white to pink-flowered forms. Var. *wenchuanense* is at one extreme of the variation exhibited by this species while the yellow-flowered forms are at the other. Intermediates, with the white to pink flowers of the former but the flower size of the latter, have been referred to '*R. rhododactylum*' hort., the basionym of var.

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'*rhododactylum*' (hort.) Davidian, a name that is probably invalid. In any case var. *rhododactylum* may be no more than a larger-flowered form of var. *wen-chuanense*.

AM 1974 (Crown Estate Commissioners, Windsor) as var. *rhododactylum*.

R. WATSONII HEMSL. & E.H.WILSON - SUBSECT. GRANDIA.

Shrub or small tree, 2-6m. Leaves 10-23 × 4.3-10cm, obovate to oblanceolate, apex acute to acuminate, lower surface covered with a whitish thin compacted and agglutinated indumentum; petioles to 5mm, stout and flattened. Flowers 12-15, in dense truss, c.7-lobed, white, with a crimson basal blotch, campanulate, nectar pouches lacking, 35-40mm; stamens 14; ovary glabrous. H4a-b. March-April. China (Gansu, Sichuan), 2,600-3,300m.

A distinctive species on account of its short flattened petioles. It is allied to *R. balangense*.

R. WEBSTERIANUM REHDER & E.H.WILSON - SUBSECT. LAPPONICA.

Erect much-branched shrub, to 1.5m. Leaves 0.6-1.5 × 0.3-0.9cm, ovate to oblong-elliptic, apex obtuse, base widening gradually from petiole, lower surface covered with uniformly straw-coloured or golden brown touching scales the centres of which are pale. Flowers 1(-2) per inflorescence; calyx 3-5mm, lobes broadly rounded; corolla pale purple or yellow, funnel-shaped, 14-19mm; stamens 10, equalling the corolla; ovary scaly, style exceeding the stamens, slightly pubescent and with some scales at base. H4a-b. April-May. China (NW Sichuan), 3,300-4,900m.

The yellow-flowered var. **yulongense** N.M.Philipson & Philipson is probably not in cultivation.

This species is allied to *R. nitidulum* (q.v.) and *R. hippophaeoides*.

R. weldianum Rehder & E.H.Wilson - is a synonym of **R. rufum** Batalin (Subsect. Taliensia).

R. westlandii Hemsl. - a synonym of **R. moulmainense** Hook.f. (Sect. Choniastrum).

R. WEYRICHII MAXIM. - SECT. BRACHYCALYX.

Shrub or small tree; young shoots soon becoming glabrous. Leaves in whorls of up to three, at the ends of the branches, 3.5-8 × 1.5-6cm, broadly rhombic, apex acute, lower surface with scattered brown hairs, especially on the midrib; petioles covered with brown pilose hairs at first, soon glabrescent. Pedicels densely covered with brown pilose hairs. Flowers 2-4 per inflorescence, appearing before or with the leaves; calyx minute; corolla pink to brick-red, with darker flecks on upper lobes, open-funnel-campanulate, 30-40mm; stamens 10; ovary densely pilose, style glabrous or pilose below, sometimes also papillate. H4a-b. April-May. Japan (Kyushu, Shikoku, SE Honshu), Korea, 20-1,200m.

R. weyrichii may be distinguished from the allied *R. sanctum* and *R. amagianum* by the larger flowers, to 40mm long, and the more numerous flowers per inflorescence.

R. WIGHTII HOOK.F. - SUBSECT. TALIENSIA.

Shrub, 2-4.5m. Leaves 5-14 × 3.5-6cm, broadly elliptic to obovate, apex apiculate, lower surface covered with a dense one-layered rust-brown indumentum composed of ramiform hairs; petioles sparsely tomentose to glabrescent. Flowers 10-20, in a tight or loose truss; calyx c.0.5mm; corolla 5-lobed, pale to lemon yellow, with brown or purple flecks, campanulate, nectar pouches lacking, 35-45mm; ovary densely red-brown-tomentose, style glabrous. H4b. April-May. Nepal, NE India (Assam, Arunachal Pradesh), Bhutan, China (S Tibet), 3,350-4,550m.

The above description applies to plants of wild origin that have been introduced recently. The most commonly grown plant under this name is straggly and differs in its 7-lobed, mortar-shaped

corolla. This may be a hybrid between *R. wightii* and *R. grande*; it is sufficiently different from plants of wild origin to suggest that it should not be referred to *R. wightii*.

AM 1913 (Miss C. Mangles, Littleworth, Seale, Surrey); flowers pale Sulphur Yellow, with crimson markings at base.

R. WILLIAMSIANUM REHDER & E.H.WILSON - SUBSECT. WILLIAMSIANA. A spreading dwarf shrub, 0.6-1.5m; young shoots setose-glandular; young growth coppery-coloured. Leaves 2-4.5 × 1.4-3.5cm, ovate-orbicular, base cordate, upper and lower surfaces glabrous though with red sessile glands below; petioles glabrous or setose-glandular. Flowers 2-3(-5) in a lax truss; calyx c.1mm; corolla pale rose, with darker flecks, campanulate, lacking nectar pouches, 30-40mm; ovary and style glandular. H4a-b. April-May. China (Sichuan, Guizhou), 1,800-2,800m.

This is a distinctive species without close allies that is local and rare in the wild.

AM 1938 (Lord Aberconway, Bodnant); flowers pink.

♀ 1993

R. wilsoniae Hemsl. & E.H.Wilson - a synonym of **R. latoucheae** Franch. (sect. *Choniastrum*).

R. WILTONII HEMSL. & E.H.WILSON - SUBSECT. TALIENSIA. Shrub, 1.4-5m. Leaves 5-12 × 1.5-4cm, oblanceolate to broadly elliptic, apex apiculate, upper surface with deeply impressed veins so appearing bullate, lower surface with dense one-layered brown to rust-red indumentum composed of fasciculate to ramiform hairs; petioles tomentose at first, soon glabrescent. Flowers c.10, in a dense truss; calyx c.1mm; corolla white to pink, with red flecks, campanulate, nectar pouches absent, 30-40mm; ovary densely rust-red lanate tomentose, eglandular, style

glabrous or hairy at base. H4b. April-May, China (C Sichuan, Guizhou), 2,250-3,500m.

A distinctive species on account of its bullate leaves.

AM 1957 (E. de Rothschild, Exbury); flowers white, with a dark crimson blotch in throat, flushed pink externally.

R. wongii Hemsl. & E.H.Wilson - is doubtfully distinct from and may be the correct name for **R. ambiguum**. Plants under this name are in cultivation but it is not known how these relate to the original very poor dried specimen. Cultivated plants are hybrids of **R. ambiguum** and **R. flavidum**.

R. wuense Balf.f. - is a synonym of **R. faberi** Hemsl. (Subsect. *Taliensia*).

R. xanthocodon Hutch - is a synonym of **R. cinnabarinum** Hook.f. var. **xanthocodon** (Hutch.) Cullen (Subsect. *Cinnabarina*).

R. XANTHOSTEPHANUM MERR. - SUBSECT. TEPHROPEPLA.

Shrub, 0.6-2m; mature bark smooth, reddish brown. Leaves 5-8(-10.5) × 1.5-2.5 (-3)cm, narrowly elliptic to oblong, apex acute, upper surface brownish green, lower surface silvery-papillose, scales unequal, their own diameter apart, borne in pits, the larger stalked. Flowers (3-)4-5, in a terminal inflorescence that has a rachis 1-5mm long; calyx lobes (2-)5-7mm, erect or spreading, not ciliate; corolla deep yellow, sometimes almost yellow-orange, narrowly campanulate, 18-28mm, outer surface scaly, sometimes slightly pubescent; stamens 10; ovary scaly, tapering into the declinate style that is scaly at base. H2-3. April-May. India (Arunachal Pradesh), N Burma, China (Yunnan, SE Tibet), 1,600-3,000(-3,900)m.

This is a rare species in cultivation as it is tender. It is closely allied to *R. auritum* (q.v.).

AM 1961 (Crown Estate Commissioners, Windsor) to a clone 'Yellow Garland', from Forrest 21707/

22652; flowers Aureolin.

R. yakuiinsulare Masamune - is probably a synonym of **R. scabrum** G. Don subsp. **scabrum** (Sect. Tsutsusi).

R. yakushmanum Nakai - is a synonym of **R. degronianum** Carrière var. **yakushmanum** (Nakai) H. Hara (Subsect. Pontica).

R. yakushmanum Nakai subsp. *makinoi* (Tagg) D. F. Chamb. - is a synonym of **R. makinoi** Tagg (Subsect. Pontica).

R. YEDOENSE MAXIM. - SECT. TSUTSUSI.

Compact densely branched shrub, 1-2m; young shoots covered with adpressed flattened bristles. Leaves of two kinds; spring leaves deciduous, 3-8 × 1-2.5cm, elliptic-lanceolate to oblanceolate, apex acute, mucronate; both surfaces with scattered adpressed shining brown bristles, lower surface pale; summer leaves as for the spring leaves; petioles and pedicels covered with loosely adpressed bristles. Pedicel indumentum as for petioles. Flowers fragrant; calyx 5-8mm, lobes ovate; corolla rose to pale lilac-purple, with flecks, broadly funnel-shaped, 35-40mm; ovary densely covered with adpressed hairs, style glabrous or pilose towards base. H4a-b. May. Korea, Japan (Tsushima), to c. 1,100m.

Var. **yedoense**. Flowers double; calyx to 15mm. Only known in cultivation.

Var. **poukhanense** (H. Lév.) Nakai. Flowers single; calyx 5-8mm. Korea, Japan (Tsushima), 50-1,100m.

This species is probably most closely allied to *R. ripense*, but it differs in the indumentum of the young shoots, etc.

R. youngiae Fang - is a synonym of **R. adenopodum** Franch. (Subsect. *Argyrophylla*).

R. YUNGNINGENSE BALF.F. (INCL. *R. GLOMERULATUM* HUTCH.) - SUBSECT. LAPPONICA.

Erect shrub, 1-(1.3)m. Leaves (0.6-)0.8-2 × (2-)4-8mm, elliptic to broadly elliptic or oblong, apex acute to obtuse, clearly or obscurely mucronate, lower surface covered with uniformly fawn to ferruginous touching scales. Flowers 3-4(-6) per inflorescence; calyx 2-3mm, lobes sometimes irregular, strap-shaped or deltoid; corolla deep purplish blue, rose-lavender or rarely white, broadly funnel-shaped, outer surface glabrous or minutely puberulous, 11-14(-17)mm; stamens (8-) 10, about as long as corolla; style about as long as stamens, glabrous or hairy at base. H4a-b. April-May. China (W Yunnan, SW Sichuan), 3,200-4,300m.

R. yungningense may be distinguished from the allied *R. orthocladum* by its broader leaves.

R. YUNNANENSE FRANCH. (INCL. *R. HORMOPHORUM* BALF.F. & FORREST) - SUBSECT. TRIFLORA.

Shrub, (0.3-)1-6m; young shoots scaly, sometimes also setose. Leaves evergreen to deciduous, 3-7 × 1.2-2cm, narrowly elliptic to elliptic, apex acute, margin ciliate, at least when young, upper surface usually lacking scales, setose when young, the setae variably deciduous, midrib puberulent, lower surface with flat brown scales that are 3-5× their own diameter apart. Flowers 3-5, in a loose terminal inflorescence; calyx disc-like, usually ciliate; corolla white or pink to lavender, usually with dense red or yellow flecks, zygomorphic, widely funnel-shaped, 20-35mm, outer surface usually lacking scales, glabrous; stamens 10; ovary densely scaly, occasionally puberulent at apex, style depressed, declinate, glabrous. H3-4a. May. N Burma, China (N & W Yunnan, W Sichuan, Guizhou), 2,100-3,950m.

This variable species is common in the wild. It is closely allied to *R. pleistanthum* (q.v.) and to *R. davidsonianum* (q.v.).

AM 1903 (F. W. Moore, Glasnevin, Dublin); flowers pink, with brown spots.

AM 1943 (Col Lord Digby, Minterne, Dorset) as *R. hormophorum*; flowers white,

with a few buff spots.

♀ 1993, to a clone 'Openwood'.

R. ZALEUCUM BALF.F. & W.W.SM. -

SUBSECT. TRIFLORA.

Shrub, (0.6-)2-8(-11)m; young shoots scaly. Leaves 3.8-6.2(-8.8) × (1.6-)2-2.8cm, lanceolate to oblong-lanceolate, rarely elliptic, apex acute to acuminate, margin ciliate, at least when young, upper surface usually lacking scales, midrib usually puberulent, lower surface shining, white-papillose, scales large, rimless, golden, distant. Flowers 1-4, in a loose terminal inflorescence; calyx very small, often ciliate; corolla white, white flushed pink or lavender, zygomorphic, funnel-shaped, 27-45mm, outer surface scaly and usually puberulent at base of tube; stamens 10; ovary densely scaly, impressed below the decli-

nate style that is glabrous or (rarely) pubescent at base. H3-4a. April-May. N Burma, China (W Yunnan, Guizhou), 1,800-3,500m.

Var. **zaleucum**. Flowers white or white flushed pink, to lavender; leaves generally to 8cm long. N Burma, China (W Yunnan, Guizhou), 1,800-3,500m.

AM 1932 (Col S.R. Clarke, Borde Hill, Sussex); flowers mauve-pink, spotted.

Var. **flaviflorum** Davidian. Flowers yellow; leaves to 10cm long. N Burma (Uring Bum).

The white-papillose leaf under-surface will distinguish this from the species with which it might be confused.

R. zeylanicum Booth - is a synonym of **R. arboreum** Sm. subsp. **zeylanicum** (Booth) Tagg.

The *Vireya Rhododendrons*

G Argent

Vireya rhododendrons are those in Section *Vireya*, part of Subgenus *Rhododendron*, the scaly rhododendrons. It is a large and fairly well marked group (c.300 species) both in form and geographical distribution. In form they usually have seeds with long tails at both ends, an ovary with the upper end tapering to the style and no junction or abscission layer between the two. In many other respects such as flower shape and colour they are the most variable group of rhododendrons but recognition can be aided by a number of negative characteristics. They are never spotted with colour (although they can be with scales) and are never truly blue. They are never very strongly zygomorphic (bilaterally symmetrical) and they never have a rhachis in the inflorescence. Species of this section are generally confined to the SE Asian archipelago of tropical islands but occur from India in the west to the Solomon Islands in the east, Tibet and Taiwan in the north and Queensland, Australia in the south. The largest number of species (over half) occur in New Guinea.

The subsectional groupings given here follow Sleumer's account (1966), the best known and still the only work which more or less covers the whole group. Despite being highly artificial in parts it is a reasonably workable system. The provisional revision of Bornean sections (Argent 1988) still requires finalization in its extension to *Vireyas* of other areas.

Vireyas are a predominantly epiphytic group of plants occurring in pockets of humus in the crooks of tree branches in the cool montane forests particularly at intermediate altitudes that tend to be shrouded for long periods in cloud. At higher altitude many species grow terrestrially in open situations on peaty ridges

or banks and they are sometimes among the first colonists of open situations such as land slips or road embankments. A few species occur down to sea level and may truly be regarded as tropical but generally the designation 'tropical' is misleading from the grower's point of view as they do best in cool but light situations with open acid compost. In temperate cultivation few will stand much frost and they are best regarded as intolerant despite the fact that in the wild many of the high altitude species are frequently exposed to frost.

This puzzles many people but is not difficult to understand in comparing the natural conditions on a tropical mountain with those in gardens in temperate latitudes. On the tropical mountain the temperature is high by day very often rising rapidly as the very powerful sun shines on a clear morning. As convection currents build up, cloud forms and thickens, and typically it rains in the afternoon and early evening. After the sun sets the convection currents die, the cloud disperses and the sky clears. When this happens the temperature drops fast and above 2,000m frosts can be common although they vary greatly depending on the surrounding topography. As soon as the sun rises the following morning temperatures increase again. Thus there is a situation of growing temperatures and high light regimes by day followed by resting temperatures at night the whole year round. Rainy seasons which may be wetter and cooler by day are, because of the more persistent cloud cover, warmer by night.

In contrast in temperate situations our plants go into a long period of winter gloom, with both low temperatures and poor light. Also, due to changing weather patterns the change to long hours of light can be very sudden and may cause

unsightly leaf burn on plants that, in the wild, would normally take much higher light levels but for shorter periods and continuously over the year. Often plants need shade in late spring and early summer to avoid this burning. Higher temperatures persist for much longer in the temperate summer as a result of which the plants become prone to soil pathogens and may collapse and die for no apparent reason. Cool temperate summers suit these plants much better than Mediterranean heat.

Unlike rhododendron hunting in the Himalayas, which are sufficiently far north to have temperate type growing and resting periods, collecting *Vireya* species from high altitudes is no guarantee of hardiness in temperate regions. In fact those that grow at the highest altitudes in the tropics have generally proved the most difficult to cultivate. The easiest are probably those from about 1,200-2,400m in the wild, those species coming from below this band requiring more heat while those from above becoming progressively more difficult to grow successfully. In practice most of the species listed here are remarkably tolerant and easy to grow. Hardiness ratings follow those given for temperate rhododendrons (see p. 81).

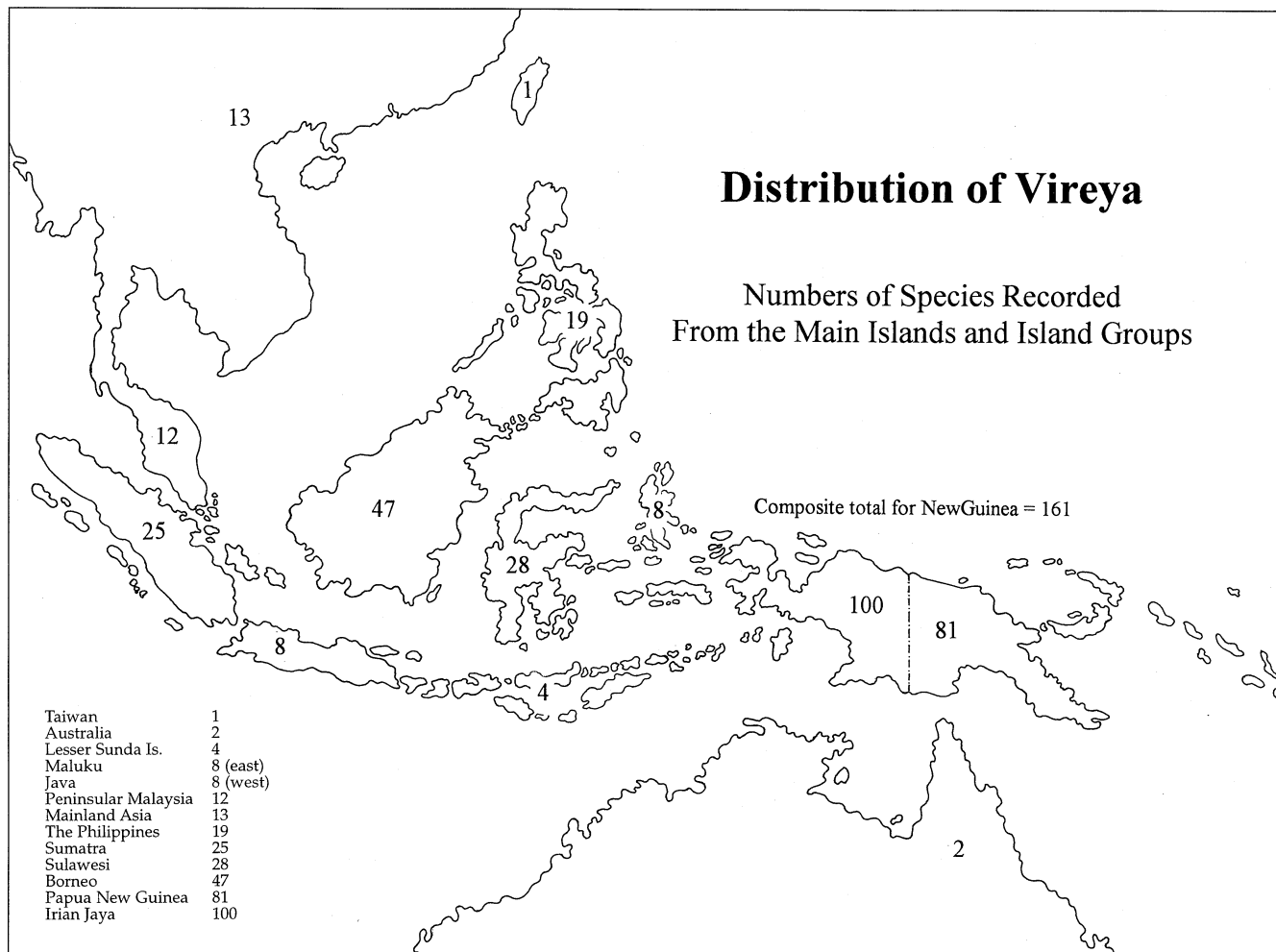
They will provide flowers throughout the year if a range of species are grown and the wide variety means there are plants to suit virtually any taste from the large blowy and flamboyant to the most delicate of alpiners. Many are exquisitely and powerfully perfumed and a single plant can fill a room with scent. There are now some superb modern hybrids which are even easier to grow well, more vigorous and often much more floriferous than the species.

Given that most of the species like cool but frost-free conditions, they make ideal greenhouse or conservatory plants and require little heating to keep them happy. Most species like high humidity but not airless conditions and a free flow of air round the plants is important. Watering correctly is most crucial and an

open, well draining, acid compost, comprising 2 parts coarse peat, 1 part fine peat, 1 part bark plus magnesian limestone to balance the pH to around 5.5 will be a good start. These plants, like all rhododendrons, have very fine roots which do not like to dry out completely but equally will not stand waterlogging. Never soak a plant which has dried out as such wild fluctuations in watering often cause fungal infections of the roots. If a plant becomes overdry, and shows dulling of the leaves (often a prelude to death), the best course of action is to spray it overhead, keep it in a very humid atmosphere and slowly moisten the compost. The plants can be liquid fed in the growing season and will respond to most proprietary feeds.

These rhododendrons are sometimes criticized for being ungainly and rather 'leggy'. The small delicate, alpine species like *R. anagalliflorum*, *R. gracilentum*, and *R. saxifragoides* are never subject to this drawback and produce compact hybrids. For many of the other species a little understanding of the way the plants grow might save some disappointment. It is usual for the plants to grow one or a few stems to perhaps over half the height of the mature plants. If these are left with plenty of space round them they eventually fill out from the base and almost all species will, with time, grow into conventional 'rhododendron-shaped' bushes. An exception may be *R. lowii* which even in the wild is a lanky shrub of sometimes very long unbranched canes. Pruning to encourage bushiness does not always work and cutting the plants back hard can be enough to kill them, so prune with caution and if reducing the amount of foliage drastically keep the plants very much on the dry side until new growth is evident.

Another criticism is that the vegetative buds break from below a flower bud before the flowers have opened and the flowers may be obscured by the new leafy stems. This is usually true only of young vigorous plants which are growing strongly but once established the flowers



are thrown well clear of the leaves.

There are few very special pests and diseases but a number of common problems will often afflict the plants if they become neglected. Mildew is common particularly when temperatures are high. Spraying with conventional fungicides will control this problem. Small orange-brown pustules on the leaves indicate rust. Infected leaves should be picked off and burnt and a proprietary spray used. Aphids, mealy bug and scale, will build up if left and will distort and disfigure the plants. Vine weevil larvae can cause the collapse of small plants by eating away at the roots. They can usually be discovered as white grubs if the pots are knocked out and the soil examined. The adults will also eat the parts above ground and are not easy to deal with but a night time search with a torch will reveal them. Cockroaches can be a problem and will often wait to chew off pristine unfolding flowers although they will also eat young leaves and stems. Surprisingly bees can be a pest when they discover that they can reach the nectar of long flowered species by chewing through the base of the flower but this does not often happen. It is as well to realize, as with many plants, that the life of the flower is greatly reduced if it is pollinated and removal of the stamens within a day or two of the flower opening is a means of avoiding this.

The descriptions below are of necessity short, they are all plants in cultivation at the present time although some will not be easy to find. The full list of species in cultivation is given under The Classification of Rhododendron (p.9), which contains some species currently found only at the RBG, Edinburgh and not in general cultivation. These species are not described below.

Vireya growers, like most plant enthusiasts, have established a network and the best way of linking in to this is to subscribe to the *Vireya Vine* which is edited and distributed by E White Smith from PO Box 3798, Federal Way, Washington, 98063, USA. Another useful source of

information is *The Rhododendron* - Journal of the Australian Rhododendron Society, which has published over the years a large number of articles, many illustrated with colour plates. A selected bibliography is appended (p. 351) but literature on Vireyas is mostly not freely available. These descriptions are new in the sense that as far as possible they have been drawn up from living plants in cultivation at the RBG, Edinburgh, supplemented by measurements from herbarium specimens and reports from the literature. They are not verbatim repetition of older accounts most of which repeat Professor Sleumer's descriptions which, though meticulously accurate for scientific work, were largely from dried material and rarely represented living flower sizes. A very useful computer database of Vireya Names has been compiled by Robert Murray. It has a wealth of information, particularly on hybrids, which is not readily available elsewhere and is currently available from Clover Springs Computer Services, 21 Squire Terrace, Colts Neck, New Jersey 07722, USA.

For those that wish to see Vireyas in the wild the easiest place to do so is Mt Kinabalu in Sabah, East Malaysia. Sabah is a delightful part of Malaysia offering a range of accommodation. There is a good tarmac road to the Kinabalu Park Headquarters at 1,500m and the trail up the mountain is no more than a steep walk to the huts at just over 3,000m where one can have a heated room and hot meals. The mountain boasts 25 species of Vireya and although it would be almost impossible to see them all on one visit, there are several species that flower throughout the year and at the right time one might see as many as 15 species in flower. It is a nature reserve however and collecting is forbidden except by permit. The only other place where relatively large numbers of species can be seen at one place is New Guinea but this is not an easy place to visit at the present time. While on most mountains in SE Asia there are only one or two species and it can be hard work finding them.



Fig. 27: *R. javanicum*



Fig. 28: *R. longiflorum*



Fig. 29: *R. rarilepidotum*



Fig. 30: *R. himantodes*



Fig. 31: *R. phaeochitum*



Fig. 32: *R. christi*



Fig. 33: *R. herzogii*



Fig. 34: *R. aurigeranum*



Fig. 35: *R. citrinum*



Fig. 36: *R. album*



Fig. 37: *R. leucogigas*



Fig. 38: *R. goodenoughii*



Fig. 39: *R. burttii*



Fig. 40: *R. rarum*



Fig. 41: *R. anagalliflorum*



Fig. 42: *R. herzogii* × *R. aurigeranum*



Fig. 43: *R. fallacinum*



Fig. 44: *R. konori*



Fig. 45: *R. brookeanum*



Fig. 46: *R. polyanthemum*



Fig. 47: *R. culminicolum*



Fig. 48: *R. macgregoriae*



Fig. 49: *R. zoelleri*

Fig. 50: *R. orbiculatum*

Description of Species in Cultivation: *Vireya*

R. ACUMINATUM HOOK.F. - SUBSECT MALAYOVIREYA

Shrub to 3m, mostly terrestrial; young stems rough, completely covered in brown scales. Leaves 7-9 × 2.5-5cm, ovate-acuminate to broadly elliptic-acuminate, the apex bluntly pointed, the margin entire, flat or slightly recurved, the base rounded or broadly tapering; upper surface at first densely scaly, becoming glabrous with very deeply impressed veins; lower surface with strongly raised veins, completely and persistently brown-scaly with variably sized scales, the largest of which have dark swollen centres. Flowers 12-20 hanging, half hanging or horizontal in a loose umbel; calyx a low scaly ring; corolla bright orange or red, narrowly funnel shaped, 2.5-3.1 × 1.5-2cm, outer surface usually with sparse scales sometimes almost glabrous; stamens 10, scattered all round the mouth of the flower; ovary densely scaly, style scaly in the basal half. H1b. Malaysia (Sabah, Mt Kinabalu), 2,800-3,400m.

Commonly confused with *R. rugosum* which has totally different leaf scales and differently coloured flowers. This species has so far proved difficult to cultivate and most records of it in cultivation are attributable to *R. rugosum*.

R. AEQUABILE J.J.SM. - SUBSECT. ALBOVIREYA

Tree or large shrub to 4m, mostly terrestrial; young stems densely dark scaly. Leaves 4.5-10 × 2.5-5cm, elliptic, the apex shortly acuminate or apiculate to obtuse, the edge somewhat revolute, the base long attenuate; upper surface at first brown-scaly, later white-scaly and finally, glabrous at maturity, with impressed

midrib and distinct (5-6 pairs) of laterals, underneath the midrib only strongly raised; densely dark brown and persistently scaly underneath although sometimes shedding scales irregularly, scales well developed variable in size with small centres, often overlapping. Flowers 2-12 per umbel, rigidly disposed half hanging to semi-erect; calyx a low scaly ring; corolla mostly orange but also reported red, campanulate, 1.7-2.5 × 3-4cm, laxly scaly on the tube and lower part of the lobes outside but these scales often obscure; stamens 10, distributed round the mouth of the flower; ovary densely silvery scaly, style glabrous. H1b. Indonesia (Sumatra, Mts Singgalang, Kerintji and Pesagi), 1,200-2,870m.

Easily grown although rather slow, the foliage is very handsome when young and covered in bronze scales. The flowers are attractive although in young specimens may be poorly displayed on the plants.

R. ALBUM BLUME - SUBSECT. ALBOVIREYA

Epiphytic shrub to 1.5m, young stems at first densely brown-scaly, later becoming pale green as the scales become translucent, sometimes smelling lightly of lemon. Leaves 7-10 × 2-3.5cm, elliptic, the apex acute, the edge slightly revolute, the base tapering; upper surface green, at first slightly scaly with silvery scales, later glabrous the midrib very slightly impressed, the lateral veins slightly raised rather indistinct, underside with strongly raised midrib and indistinct secondary veins; at first brown-scaly with many of the scales touching, later more spaced with few scales touching, the scales almost circular, with pale margin and a small

point-like brown centre. Flowers 7-16 in an umbel, semi-erect to hanging; calyx with broadly obtuse lobes 1-1.5mm appressed to the corolla; corolla cream or pale yellow in cultivation rarely described as yellowish pinkish, campanulate, 1.7-2.5 × 1.5-2.0cm, laxly scaly outside; stamens 10, arranged round the mouth of the flower; ovary densely scaly, style scaly in the lower half. H1b. Indonesia (Java, Mts Salak and Gedeh), 1,200-1,700m.

Flowered in cultivation in England in 1856 and figured in *Curtis's Botanical Magazine* the following year, it was lost to cultivation soon after. It has recently been reintroduced to cultivation and although delicate is not particularly showy.

R. ALTICOLUM SLEUMER - SUBSECT. VIREYA

Small tree to 5m, terrestrial; young stems smooth, green, at first covered with flat pale brown, star-shaped scales. Leaves 6-10 × 2.5-4.5cm, obovate to elliptic, apex obtuse to rounded, the edge flat, the base broadly to narrowly tapering; upper surface smooth, the midrib, very slightly depressed, about 5-7 pairs of lateral veins distinct but not depressed, at first obscurely covered with a fine silvery covering of scales, quickly becoming glabrous; lower surface with raised midrib almost throughout its length, the laterals distinct but not raised, the indumentum of fine well spaced silvery, star-shaped scales which are small and rather inconspicuous. Flowers 1-5 in an umbel, half hanging to hanging; calyx an irregular 5-dented slightly scaly ring; corolla dark red, tubular-cylindrical, a little curved and slightly dilated distally, 5-6 × 2-3cm, laxly scaly outside; stamens 10, grouped together on the upper side of the flower; ovary densely scaly, style scaly only at the base glabrous above. H1b. Papua New Guinea (Morobe and Central Districts), 2,200-3,600m.

Close to *R. culmicolum* but said to differ in having larger flowers and ovaries without simple hairs. One of the handsome bird pollinated species from the

high mountains of New Guinea.

R. ANAGALLIFLORUM WERNHAM - SUBSECT. VIREYA

Dwarf shrub to 0.2m, epiphytic; young stems distinctly scaly the scales standing on small projections which remain after the scales are shed. Leaves 0.3-0.7 × 0.2-0.3cm, elliptic, the apex acute to rounded, margin plain, base cuneate; upper surface with a few silvery scales which quickly disappear, venation totally obscure; lower surface with scattered brown scales only the midrib barely visible in the lower half, scales disc-shaped or with incised margins and small centres. Flowers solitary, half hanging to hanging, calyx a low slightly lobed scaly ring; corolla white variably flushed pink or purple, cylindrical to narrowly funnel-shaped, 1.2-1.8 × 1.3-1.8cm, laxly and obscurely scaly on the tube outside; stamens 10, scattered round the mouth of the flower; ovary covered in semi-erect, white hairs and silvery scales, style with simple hairs in the basal half, glabrous above. H1b. New Guinea (main range from Irian Jaya to Papua New Guinea), also in New Britain (Mt Lululua), 1,100-3,000m.

A very delicate and pretty species which has been used for hybridizing, several of the resultant progeny have been registered and make attractive hanging basket plants. Confused in the past with *R. rubineiflorum* Craven, see *Notes RBG Edinb.* 38(1) pp 141-144, 1980, but easily distinguished by its paler, narrower, flowers.

R. ARFAKIANUM BECC. - SUBSECT. VIREYA

Shrub to 2.5m, epiphytic or terrestrial, young stems sparsely scaly and papillose pubescent. Leaves 5-10 × 2-3.5cm, oblong to obovate-elliptic, the apex obtuse to almost rounded, the margin slightly revolute, the base tapering; upper surface sparsely silvery scaly at first but soon becoming glabrous with minute papillose spreading hairs on the midrib which is weakly depressed in the basal part, lateral veins 6-8 pairs moderately conspicuous,

very slightly raised; lower surface with the veins slightly raised beneath, laxly scaly, the scales small, irregularly lobed and with small dark brown centres. Flowers in 4-10 flowered umbels, hanging diagonally to vertically downwards, calyx a low wavy ring; corolla deep pink, tubular straight or slightly curved expanded towards the mouth 2.5-3.5 × 2-3cm, glabrous outside; stamens 10, clustered on the upper side of the flower; ovary densely short pubescent and inconspicuously scaly, style glabrous except for a few hairs at the base. H1b. New Guinea (Irian Jaya [Arfak and Nettoti Mts]), 1,200-2,100m.

R. ARMITII F.M.BAILEY - SUBSECT. SOLENOVIREYA

Shrub to 2m, terrestrial, young twigs slightly scaly at first with stellate scales. Leaves 7-10 × 4-6cm, broadly elliptic to sub-obovate, the apex obtuse or very shortly attenuate in a deflexed glandular mucro, the margin flat or slightly revolute, the base broadly attenuate, rounded or slightly cordate; the upper surface at first scaly, quickly glabrescent, the midrib impressed, lateral veins 8-10 pairs, slightly impressed; lower surface with the midrib strongly raised, the laterals slightly prominent; scales moderately dense, rusty brown, and deeply incised. Flowers 3-7 per umbel, horizontal to half-hanging; calyx with 5 distinct but low lobes, both hairy and scaly; corolla white flushed with pink, beautifully scented, trumpet-shaped but with the tube slightly curved, 6-8 × 3-4cm, slightly scaly outside; stamens 10, clustered in the mouth of the flower; ovary densely covered in yellowish to whitish, subappressed hairs which tend to obscure the presence of the scales, style hairy and scaly in the lower half, glabrous above. H1b. Papua New Guinea (Owen Stanley Mountains [Mt Simpson and Mt Dayman]), 2,400-2,700m.

A lovely and free flowering plant introduced by P. Woods close to *R. tuba* but with larger leaves. See also remarks under that species.

R. ATROPURPUREUM SLEUMER - SUBSECT. VIREYA

Shrub to 3m, terrestrial, young stems densely covered with substellate, short-stalked rusty coloured scales and short papillose hairs. Leaves 1.7-3 × 1.5-2.2cm, broadly elliptic to ovate-elliptic, apex obtuse to rounded sometimes with a protruding apical gland, margin slightly cartilaginous, and crenulate, flat, base rounded to slightly cordate; upper surface silvery scaly when young, quickly becoming glabrescent, midrib impressed often reddish brown and more persistently scaly than the lamina, lateral veins 3-4 pairs slightly impressed; lower surface with the midrib strongly raised beneath for the whole of the length of the leaf, lateral veins slightly raised, scales small with an irregular membranous marginal zone which quickly disappears leaving the thick, blackish red, impressed central portions. Flowers 2-3 per umbel half-hanging to hanging, calyx a low scaly, 5-lobed ring; corolla dark red, tubular-funnel-shaped, curved, 3.5-5 × 3-4cm, densely covered with substellate scales outside; stamens 10, grouped on the upper side of the flower; ovary densely substellate scaly, the style scaly in the lower third, glabrous above. H1b. Papua New Guinea (Eastern and Western Highlands Provinces), 3,500-3,800m.

A characteristic species on the upper slopes of Mt Wilhelm and frequently collected there. It is doubtful if it persists long in cultivation although it quite commonly appears on lists of species.

R. AURIGERANUM SLEUMER - SUBSECT. VIREYA

Shrub or small tree to 4m, mostly terrestrial; young stems green at first rather densely covered in flat brown scales; Leaves 8-16 × 4-7cm, elliptic to oblong, the apex short acuminate to acute, sometimes deflexed, the margin smooth and flat, the base broadly or narrowly tapering; upper surface very lightly puckered, the small silvery scales disappearing early, the midrib grooved near the base, very slight-

ly impressed, later veins 6-8 pairs, very slightly impressed; lower surface finely covered with small deeply lobed brown scales with small centres, midrib strongly raised almost the total length of the leaf, lateral veins only slightly raised in the basal half. Flowers with 8-14 flowers per umbel, semi-erect to horizontal; calyx a low inconspicuous ring; corolla bright yellow or orange or yellow with orange flushing, funnel-shaped, 5-7 × 5.5-7.5cm, with scattered small brown scales outside; stamens 10, loosely arranged on the lower side of the corolla sometimes in two groups, sometimes all round the mouth; ovary covered in silvery hairs and scales, the style hairy and scaly in the lower $\frac{3}{4}$ the scales rising beyond the hairs but totally glabrous in the upper 1cm. H1b. New Guinea (Morobe Province mainly in the Bulolo-Wau area), 900-1,800m.

The very showy flowers and the accessible locality from which it comes, mean this has long been a popular species in cultivation and has been used extensively as a parent in hybridizing. It is also one of the easiest although it needs space to reach its full potential.

R. BAENITZIANUM LAUTERB. - SUBJECT. VIREYA

Shrub to 2m, terrestrial, young stems at first with a red-brown substellate tomentum. Leaves 15-25 × 3.5-9cm, oblong, broadly elliptic to ovate-elliptic, the apex long drawn out, acute, caudate-acuminate, the margin flat, the base broadly tapering, occasionally rounded; upper surface at first finely scaly, quickly becoming completely glabrous, midrib narrow and impressed above, the lateral veins 8-12 pairs slightly raised or impressed; the lower surface laxly scaly, the scales small, flat, irregularly but not deeply lobed or dented, the centres small, midrib broadly prominent, lateral veins distinctly prominent. Flowers 4-12 per umbel, erect to horizontal; calyx a low scaly ring; corolla with a yellow tube and orange lobes, funnel-shaped, 8-10 × 8-10cm, finely scaly on the tube outside; stamens 10, scattered irregu-

larly but mostly on the lower side of the flower; ovary covered with semi-appressed, forward pointed, white hairs and silvery scales, style both hairy and scaly to near the top. H1a-b. Papua New Guinea (the western part, Torricelli Mts and Ok Tedi area), 200-1,200m.

A plant of this species was rescued from the collection made by Paul Kores at Wau by the Rev. Canon Norman Cruttwell who grew it and distributed it for general cultivation. It is a very handsome species with a large truss of golden flowers. It may be distinguished from *R. zoelleri* by its much more sharply attenuate leaves and finer pattern of lateral veins.

R. BAGOBNUM COPEL.F. - SUBJECT VIREYA

Small shrub to 0.6m, usually epiphytic occasionally terrestrial on landslides; young stems, green, smooth but minutely covered in brown scales. Leaves 1.2-2 × 0.4-0.7cm, narrowly obovate, the apex broadly acute, the margin flat and minutely crenulate, the base narrowly cuneate, the upper surface at first sparsely scaly, smooth, midrib slightly impressed above, disappearing before the apex, lateral veins not visible; lower surface with the midrib flat and distinct to the leaf tip, the scales, small, well spaced, brown, disc-shaped or deeply lobed. Flowers solitary or occasionally in pairs, held horizontally or diagonally angled downwards; calyx a low angled disc; corolla orange on opening becoming a rich glossy red with age, cylindrical, 1.4-2 × 0.6-1cm, with a few pale scales on the tube; stamens 10, in a regular pattern of alternating long and short, curved towards the centre of the flower so that it self pollinates; ovary both scaly and hairy in the lower half, hairy only in the upper part, style glabrous. H1b. Philippines, Indonesia (Kalimantan, Seram), Malaysia (Sabah, Sarawak), 1,200-1,900m.

Often confused with *R. quadrasianum* and its allies but apart from the different scale types *R. bagobonum* has the ovary longer than the style whereas in *R.*

quadrasianum it is always much shorter. Surprisingly for its rather small flowers it is the parent of some spectacular hybrids.

R. BEYERINCKIANUM KOORD. - SUBSECT. PHAEOVIREYA

Tree or shrub mostly 1-2m, but recorded up to 4m, terrestrial or epiphytic, young branches at first densely covered with a rusty coloured, stellate-dendroid tomentum. Leaves 3-6 × 1-3.5cm, variable in shape from broadly elliptic to ovate, obovate to sub-orbicular, apex narrowly to broadly obtuse or rounded, the margin usually strongly revolute, the base broadly tapering to rounded; upper surface at first densely red-brown, stellate-scaly, becoming silvery scaly and rather tardily glabrescent, midrib slightly impressed above, lateral veins 4-7 pairs, slightly impressed; below, the midrib strongly prominent, the laterals slightly to strongly prominent, scales dendroid, deeply stellate incised, dense and overlapping, growing from pronounced, persistent, epidermal tubercles, the scales themselves disappearing easily with any abrasion and often then only found in protected corners. Flowers 2-6 per umbel, half-hanging to hanging; calyx a low stellate-scaly ring; corolla, white, yellow, greenish, pink, purplish pink but most commonly dark red, tubular funnel-shaped, curved, zygomorphic, 3-4.5 × 2-2.5cm, densely stellate-scaly outside; stamens 10, clustered in the upper mouth of the flower; ovary densely brown-stellate-scaly, style stellate-scaly throughout its length. H1b. New Guinea (east to west, mostly on the main range), 1,500-4,000m.

A very common and wide ranging species in the wild in both area and altitude. It is very closely related to *R. phaeochitum* but differs in its glabrous disc and glabrous or only sparsely hairy filaments. The lower altitude forms tend to be the easiest to cultivate.

R. BLACKII SLEUMER - SUBSECT. VIREYA
Large shrub to 5m, mostly terrestrial occasionally epiphytic; young stems smooth

with a moderate covering of flat brown scales. Leaves 6-8 × 5-7cm, ovate to orbicular, apex obtuse to rounded, edge smooth or very slightly recurved, base rounded to auriculate, the leaves being virtually sessile; upper surface at first scurfy-scaly, quickly becoming glabrous, the midrib prominently raised above for the basal 1cm, lateral veins about 4 pairs, moderately conspicuous smooth; underneath the midrib raised for about ¾ of its length, the laterals distinct but only slightly raised, scales, brown well spaced, very variable in size, disc-shaped, sometimes lobed and with small centres. Flowers 4-7 per umbel, horizontal to half hanging; calyx a slightly swollen lobed ring, more or less glabrous; corolla red, slightly curved and narrowly tubular-funnel-shaped, 5.5-6 × 3-4cm, finely white-scaly on the tube and lobes; stamens 10, grouped on the upper side of the mouth of the flower; ovary silvery scaly and hairy, style with a few simple hairs at the base otherwise glabrous. H1b. Papua New Guinea (Western and Southern Highlands), 2,500-3,400m.

Similar in floral characters to *R. culminiculum* but differing in its cordate to auriculate leaves. Named after Michael Black of Grasmere in whose garden Sleumer reported this species growing in 1973. It includes *R. sleumeri* A.Gilli.

R. BROOKEANUM LOW EX LINDL. - SUBSECT. VIREYA

Epiphytic or terrestrial shrub or small tree, up to 2m, rarely 5m, young stems green with fine stellate scales but quickly becoming glabrescent or (var. *cladotrichum* Sleumer) with fine simple hairs. Leaves 10-30 × 3-9cm, narrowly elliptic or elliptic, the apex acute to obtuse, often shortly acuminate, the margin entire and flat, the base broadly to narrowly tapering; the upper surface at first with a fine silvery appressed covering of scales but quickly becoming glabrous, or minutely hairy (var. *cladotrichum*), often characteristically puckered with hollows between the lateral veins, midrib slightly raised in the lower half, lateral veins 8-12 pairs distinct

but not raised; lower surface with the midrib raised for about $\frac{2}{3}$ of its length, the laterals hardly raised, scales, lobed discs with small centres, small and widely spaced and with small white hairs, especially on the veins in var. *cladotrichum*. Flowers 3-12 per umbel, erect to horizontal; calyx a low scaly ring; corolla pale yellow through orange to red, sometimes strikingly bicoloured with a yellow throat and orange lobes, funnel-shaped, 4-6 × 4-5cm, glabrous outside, reported as having a delicate lemon-like fragrance but usually scentless; stamens 10, irregular or somewhat placed into two lateral groups; ovary with simple hairs and scales (glabrous in subsp. *moultonii* [Ridl.] Argent), style glabrous. H1a-b. Borneo (widespread), Sumatra (west and north), s.l. to 1,800m.

FCC 1869 (J. Veitch, Chelsea, London); flowers clear yellow.

FCC 1970 (Mr & Mrs E.F. Allen, Felcourt, Copdock, Suffolk) to a clone 'Mandarin'; flowers Red Group 40C, fading to 40D, throat bright yellow (between Yellow-Orange Group 18A and 17D).

This species is common in Borneo and has occasionally been found in Sumatra, it is very variable and still poorly understood as a species despite having been cultivated in various forms for a long time. The bicoloured forms from Mt Kinabalu produce exceptional flowers and it was one of these that was registered as 'Mandarin'. This species is of easy cultivation and it has the advantage that the flowers are most commonly produced in the depths of winter.

Subsp. *gracile* (Lindl.) Argent (syn. *R. brookeanum* var. *gracile* [Low ex Lindl.] G. Henslow), with narrower leaves rarely more than 3cm wide.

FCC 1972 (Mr and Mrs E.F. Allen, Felcourt, Copdock, Suffolk) to a clone 'Raja'; flowers Yellow Group 13A.

R. BRYOPHILUM SLEUMER - SUBJECT. PHAEOVIREYA

Shrub to 2m epiphytic often high in trees, young stems brown with the stellate-dendroid tomentum when very young.

Leaves 3.5-5.5 × 1.2-2cm, elliptic or broadly elliptic, the apex obtuse to rounded, the margin flat or slightly revolute, the base broadly to narrowly tapering, upper surface brown-scaly when young, flat, the midrib very slightly impressed, lateral veins obscure about 3-5 pairs; lower surface with midrib a little raised throughout its length, lateral veins obscure, at first with a rather sparse covering of dendroid scales which are easily removed leaving the pale tubercles from which the scales arise. Flowers in 2-3 flowered umbels half hanging to hanging; calyx a low scaly disc; corolla pink, cylindrical, very slightly curved 2-2.7 × 1.7-2.5cm, glabrous outside; stamens 10, loosely clustered in the upper half of the mouth of the flower; ovary densely stellate-scaly, style covered with sub-patent simple hairs nearly to the top. H1b. New Guinea, (Irian Jaya, Cycloop Mts), 1,000-1,800m.

A delicate species that has been in cultivation for some time, similar to *R. dielsianum* and differing in the hairy style, *R. dielsianum* having a scaly or glabrous style.

R. BURTTII P.WOODS - SUBJECT. VIREYA

Shrub to 0.8m, epiphytic, young stems green or reddish, both finely hairy and scaly. Leaves 1.8-2.8 × 0.9-1.2cm, obovate, the apex broadly pointed to rounded, the margin entire and slightly recurved, the base tapering; upper side minutely scaly at first but quickly becoming glabrescent with the midrib impressed above, the lateral veins not visible; underside with the midrib raised below, the lateral veins faint, 2-3 pairs, scales lobed, substellate with small centres. Flowers 1-2, rarely 4 per umbel, hanging vertically down; calyx a low ring with a ciliate margin, corolla red, cylindrical with a straight tube, 2-2.5 × 2.4-2.8cm, finely hairy outside; stamens 10, spreading round the mouth of the tube; ovary densely hairy with white semi-appressed hairs which tend to obscure the presence of brown scales which are also present, style glabrous except for a few hairs near the base. H1b. Borneo, Sabah and Northern Sarawak,

1,500-1,600m.

A very pretty and easily grown species which tends to flower in bursts which may be as often as six times a year.

R. BUXIFOLIUM LOW EX HOOK.F. -
SUBSECT. PSEUDOVIREYA

Shrub or tree to 10m, terrestrial, young stems covered in brown scales and very finely hairy. Leaves 1.3-3.7 × 0.6-2.8cm, almost circular to broadly elliptic, the apex obtuse, rounded or retuse, the margin slightly recurved, crenulate, the base cordate, rounded or broadly tapering; upper side sparsely scaly with the small scales sunk into pits, the midrib slightly impressed, lateral veins 3-5 pairs, inconspicuous; lower surface with the midrib raised, lateral veins very slightly or not raised, the scales small and rather sparse, circular to irregular, with relatively large cushion-like centres and a narrow flange. Flowers 5-10 per umbel, more or less horizontally held; calyx a low scaly ring; corolla red, strongly honey-scented, funnel shaped to almost campanulate, 2-2.6 × 3-4cm, finely golden scaly outside; stamens 10, arranged evenly around the mouth of the flower; ovary densely scaly, style scaly at the base, glabrous above. H1b. Borneo, Sabah, Mt Kinabalu endemic, 3,100-3,900m.

One of the most magnificent sights of Kinabalu when in flower but it tends to be slow and feeble in cultivation with the flowers smaller and less rich in colour. It is anomalous as to subsection combining characters from *Pseudovireya* with those of *Vireya*.

R. CALIGINIS KORES - SUBJECT.
PHAEOVIREYA

Straggling shrub to 1m, terrestrial or epiphytic, young stems densely covered with brown, scurfy scales. Leaves 1-5 × 0.1-1cm, linear to elliptic, the apex narrowly to broadly acute, the margin slightly revolute, base narrowly to broadly tapering; upper surface at first densely covered in the brown dendroid scales but quickly becoming glabrous, midrib impressed

above lateral veins obscure; lower surface densely brown scaly the dendroid scales forming a complete and rather persistent felt, midrib raised throughout the length of the leaf, other veins obscure. Flowers mostly solitary occasionally 2-3 in a small umbel, hanging more or less vertically downwards; calyx a low scaly ring; corolla, white to pink, cylindrical, 3-3.5 × 2-2.5cm, densely pale brown-scaly on the tube and lobes outside; stamens 10, clustered on the upper side of the mouth of the flower; ovary densely dendroid-scaly, style scaly in the basal half, glabrous in the upper part. H1b. North-western Papua New Guinea (West Sepik and Enga Provinces), 2,400-2,500m.

Described in 1984 by Paul Kores, various forms of this species have come into cultivation some with much broader leaves than the plant which was originally described. Said to be close to *R. hooglandii* and differing in the less revolute, more patent leaves and darker scales. It might also be confused with *R. rarum* but is more scaly and lacks the simple hairs on stamens and style of that species.

R. CARRII SLEUMER - SUBJECT.
SOLENOVIREYA

Shrub to 2m, mostly epiphytic, twigs green, only finely silvery scaly. Leaves 4.5-7 × 4-6cm, broadly ovate to rounded, the apex obtuse to almost rounded, sometimes shortly apiculate, the margin, entire and flat, the base cordate to auriculate; upper surface minutely silvery scaly at first, quickly glabrescent, broad and raised in the basal part, fine and impressed distally, the lateral veins very slightly raised, conspicuous, 6-8 pairs; lower surface with the midrib slightly raised, lateral veins smooth, the scales well spaced, inconspicuous with lobed to substellate pale margin and small centres. Flowers 3-6 per umbel, horizontal to half-hanging; calyx a low 5-lobed ring with a short fringe; corolla white, 6-8 × 3-4cm, trumpet-shaped, the tube slightly curved and dilated gradually upwards, substellate scaly outside; stamens 10, a little exserted and clustered at

the centre of the flower mouth; ovary densely covered in appressed yellowish hairs and silvery scales, the style hairy and scaly at the base for c.5mm and then glabrous. H1b. Papua New Guinea (Mt Victoria), 2,440m.

The distinctive sessile leaves look reminiscent of *R. blackii* but the flowers of that species are red, and the veins are fewer and bolder.

R. CARRINGTONIAE F.MUELL. - SUBSECT. SOLENOVIREYA

Shrub or small tree up to 5m, terrestrial, young stems rather densely covered in thin scales. Leaves 3.5-9 × 2.5-5.5cm, obovate to broadly elliptic, the apex obtuse to rounded, the margin entire, revolute, the base broadly tapering, rounded or truncate; upper surface finely covered in small scales, quickly glabrescent, midrib impressed above, lateral veins 6-8 pairs somewhat raised; lower surface with the midrib strongly prominent beneath, the lateral veins obscure almost smooth, subdensely but minutely scaly the scales shallowly and irregularly lobed, impressed and with small centres. Flowers 3-9 per umbel, held erect or semi-erect; calyx a low fringed ring; corolla white, fragrant, trumpet-shaped with the tube slightly curved, 5-7 × 1.8-2.5cm, subdensely scaly outside; stamens 10, slightly exerted from the mouth of the flower; ovary covered with semi-appressed hairs which tend to obscure an additional covering of scales. H1b. New Guinea (the eastern part, Mts Obree, Victoria, Suckling and Dayman), 1,830-2,950m.

Superficially somewhat like *R. herzogii* but the scales have small centres unlike that species and the foliage is not aromatic.

R. CHRISTIANAEE SLEUMER - SUBSECT. VIREYA

Shrub to 3m, terrestrial, twigs with a very fine covering of scales. Leaves 4-7.5 × 3-4.5cm, elliptic, broadly elliptic or sub-obovate, apex obtuse to rounded, sometimes shortly acuminate, margin entire and flat,

base broadly wedge-shaped; upper surface at first minutely scaly, quickly becoming glabrous, midrib slightly impressed otherwise the surface smooth, the laterals 5-7 pairs but obscure; lower surface with the midrib slightly raised, the lateral not raised almost as obscure as on the upper side, scales well spaced, brown, rounded to lobed and with small, darker brown centres. Flowers 2-7 per umbel, semi-erect, horizontal or half-hanging; calyx a lobed scaly ring; corolla yellow or greenish yellow with orange lobes, cylindrical with a straight but deeply fluted tube, 2.5-3.5 × 2.5-3.5cm, minutely scaly on the tube outside; stamens 10, spreading irregularly from the mouth of the flower sometimes somewhat upturned; ovary white-hairy and obscurely scaly, the style, hairy and scaly for about ¾ of its length. H1b. SE Papua New Guinea (Milne Bay District), 600-1,500m.

Quite variable and very free flowering in cultivation and the parent of some delightful hybrids.

R. CHRISTI FOERSTER - SUBSECT. VIREYA

Shrub to 1.2m, usually epiphytic, twigs at first with a covering of brown scales which quickly fall off. Leaves 4-9 × 2-6cm, ovate, the apex acute and sometimes shortly attenuate, the margin flat or slightly revolute, the base rounded to cordate; upper surface very quickly glabrous, clearly reticulate, the midrib impressed, lateral veins 4-6 pairs only minutely impressed; underneath the midrib strongly raised and often coloured red, the laterals distinct but hardly raised, scales well spaced, disc-shaped or irregularly lobed with small centres. Flowers 1-4 per umbel, hanging diagonally to vertically downwards; calyx a low lobed ring; corolla bicoloured with a yellow tube and orange lobes, cylindrical, the tube slightly curved, 3-3.5 × 3.5-4cm, with distinct white hairs outside; stamens 10, spread round the upper half of the mouth of the flower, ovary hairy, the style hairy nearly to the top. H1b. New Guinea (widespread from Irian Jaya to Papua New Guinea), 1,200-

3,000m.

This delightful and easily grown species occurs in two forms in cultivation, one with large leaves and the other more delicate and smaller, the flowers of both however are very similar, forms with pink flowers are usually considered hybrids particularly with *R. beyerinckianum*.

R. christii Foerster Orthographic variant = **R. christi** Foerster.

R. COMMONAE FOERSTER - SUBSECT. VIREYA

Shrub to 6m (in cultivation rarely more than 0.8m), terrestrial, the young stems with stellate scales and rough below the leaves from the raised leaf scars. Leaves 1.2-4.5 × 0.8-2cm, elliptic to obovate-elliptic, apex obtuse to rounded, with a small thick protruding apical gland, margin cartilaginous, flat or slightly revolute and distinctly serrulate-crenulate in the upper half, base broadly tapering; the upper surface sparsely scaly at first, quickly glabrescent the scales leaving minute pits, midrib impressed above, the laterals 4-6 pairs, slightly impressed; lower surface with the midrib broadly raised in the lower half, laterals smooth or only very slightly raised, scales rather distant, silvery, rather deeply substellately lobed and impressed in small pits. Flowers 3-8 per umbel, semi-erect to half-hanging; calyx scaly, deeply 5-lobed; corolla deep red, orange-red or pale yellow, 2-4 × 1.3-2.8cm, finely, laxly to subdensely scaly outside; stamens 10, in a rather irregular group in the mouth of the flower; ovary densely hairy and scaly, style with a few hairs near the base, otherwise glabrous. H1b. Papua New Guinea (Western, Eastern and Southern Highlands and Morobe Provinces), 2,600-4,000m.

Generally growing in open ground in the wild, this is one of the hardiest of the New Guinea Vireyas in cultivation. Described by Sleumer (*Flora Malesiana* I [6] 587, 1966) as 'stiff', in cultivation it is often 'floppy' but cheerful with brightly coloured flowers in 3 distinct colour forms.

R. CRASSIFOLIUM STAFF - SUBSECT. VIREYA

Shrub to 2.5m, young stems smooth, inconspicuously covered in brown scales. Leaves 8-14 × 4-8cm, ovate, obovate or oblong with a broad blunt to rounded apex, the margin smooth somewhat irregular, flat or slightly revolute, the base cordate, rounded or more rarely wedge-shaped. Upper surface when young silvery scaly, the scales turning brown before quickly falling off, the mature surface characteristically puckered, the midrib very large and conspicuous, very strongly raised, lateral veins 8-12 pairs hardly raised, spreading at a wide angle; underneath the midrib only slightly raised, lateral veins smooth, the scales small, well spaced, disc-shaped and irregularly lobed with small centres. Flowers 6-30 in each umbel, semi-erect to half-hanging; calyx a low ring; corolla mostly pink to red but rarely recorded as orange and white, funnel-shaped, sometimes with the lobe sides attractively reflexed, 2.3-3.5 × 4-5.2cm, glabrous outside; stamens 10, conspicuously alternating long and short and regularly distributed around the mouth of the flower; ovary glabrous, style glabrous. H1b. Borneo, widespread (Sabah, Brunei, Sarawak and Kalimantan), 1,200-2,200m.

Distinctive with its broad blunt leaves and clearly dimorphic stamens. It is an easily grown species but rarely looks happy confined to a pot.

R. CRUTTWELLII SLEUMER - SUBSECT. SOLENOVIREYA

Shrub or small tree up to 6m, young stems laxly scaly, Leaves 6-12.5 × 3-6cm, obovate to elliptic or broadly elliptic, the apex mostly obtuse, sometimes rounded or acute, the margin plain and flat, the base tapering to broadly tapering; upper surface at first finely and minutely silvery scaly with the midrib impressed, lateral veins 6-8 pairs, narrowly but distinctly impressed above to give conspicuous reticulation; under surface with the midrib strongly raised, the laterals not

raised but distinctively darker than the pale lamina surface and so showing up as a very distinctive reticulation, scales small brown, rather irregular, circular to lobed, well spaced and with small centres. Flowers 4-9 per umbel, erect or semi-erect; calyx a lobed, almost glabrous but laxly ciliate ring; corolla white, trumpet-shaped, the tube slightly curved, 5-7 × 2.5-3cm, finely scaly outside; stamens 10, exerted from the mouth of the flower and distributed evenly; ovary covered with semi-erect, whitish hairs but no scales, style hairy at the very base otherwise glabrous. H1b. South-east Papua New Guinea, 1,800-2,600m.

A beautiful and easily cultivated species named after the Rev. Canon Norman Cruttwell who after taking First Class honours in botany at Oxford went on to pursue a career as a missionary in New Guinea but sent a great many plants for description and cultivation from the remote areas in which he worked.

R. CULMINICOLUM F.MUELL. - SUBJECT. VIREYA

Shrub or small tree up to 8m high, terrestrial, young stems sparsely covered in substellate scales. Leaves 2-9 × 1-1.5cm, elliptic, broadly elliptic or occasionally obovate, the apex broadly acute to obtuse or rounded, the margin flat or slightly revolute, the base broadly tapering to rounded; upper surface sparsely scaly at first, quickly glabrescent, the midrib impressed above, lateral veins 4-8 pairs slightly impressed; below the midrib prominently raised, the laterals slightly raised, the scales well spaced, rather small, irregularly lobed to stellate, with small dark centres. Flowers 3-12 per umbel, horizontal to hanging vertically; calyx a lobed, scaly disc; corolla bright red or purplish, more rarely pink, 2.5-6 × 1.6-4cm, laxly to subdensely scaly outside; stamens 10, clustered on the upper side of the flower; ovary covered with yellowish hairs and obscurely scaly, style hairy and scaly in the lower third, glabrous above. H1b. New Guinea (from east to west), one

record from the island of New Ireland (Papua New Guinea), 900-4,000m.

One of the most widespread of the New Guinea rhododendrons and very variable as a consequence.

R. DIANTHOSMUM SLEUMER - SUBJECT. PHAEOVIREYA

Shrub up to 2m, epiphytic, young stems densely stellate-dendroid scaly at first but quickly rather glaucous, glabrescent. Leaves 9-14 × 3-6cm, elliptic or broadly elliptic, the apex obtuse or shortly sub-acuminate-attenuate, margin slightly recurved, the base broadly tapering to rounded; upper surface at first brown-scaly, later rough with persistent epidermal tubercles, midrib slightly raised; lower surface with the midrib and lateral veins somewhat raised, scales deeply divided, dendroid, from pronounced and persistent epidermal tubercles. Flowers 4-6 per umbel, more or less horizontal; calyx a scaly ring; corolla white with 6-7 lobes, strongly smelling of carnations, tubular to tubular-funnel-shaped, conspicuously pouched at the base, 5-7 × 2.5-4cm, glabrous outside; stamens 12-14, irregularly exerted from the mouth; ovary covered with forward pointing hairs and (obscurely) with scales, style hairy in the lower $\frac{3}{4}$, glabrous towards the top. H1b. New Guinea, (Irian Jaya, Cycloop Mts), 500-1,400m.

Close to *R. hyacinthosmum* but that species has larger flowers with 6-7-lobed corollas.

R. DIELSIANUM SCHLTR. - SUBJECT. PHAEOVIREYA

Erect shrub to 2m, epiphytic or terrestrial; young stems densely covered at first with brown stellate-dendroid scales, soon glabrescent. Leaves 4-7 × 1.5-3cm, elliptic or narrowly elliptic, the apex acute to obtuse, the margin flat or very slightly recurved; base broadly to narrowly wedge-shaped; upper surface at first brown-scaly but quickly glabrescent, the surface left somewhat rough by the persistent raised scale bases, midrib impressed,

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lateral veins 4-6 pairs, obscure or feint; lower surface with the midrib strongly raised, particularly in the basal half, lateral veins only slightly raised and only slightly more distinct than when viewed from above, scales fairly well spaced, brown, dendroid and from prominent epidermal tubercles, easily rubbed off. Flowers 2-4 per umbel, horizontal to hanging, calyx a low scaly ring; corolla pink, tubular, curved 2.5-3.5 × 2-3cm, slightly scaly outside; stamens 10, loosely to tightly grouped on the upper side of the corolla mouth; ovary silvery or silvery and brown-scaly, the style scaly up to half way, glabrous above (the var. *stylotrichum* Sleumer with short spreading hairs in the lower part). H1b. New Guinea (widespread in the eastern half of the island), 1,200-2,000m.

A pretty and freely growing species in cultivation.

R. ERICOIDES LOW EX HOOK.F. -
SUBSECT. PSEUDOVIREYA

Shrub erect or prostrate, to 1.5m, rarely to 3m, terrestrial; young stems scaly and sometimes minutely hairy, distinctly rough with raised leaf scars for some distance below the leaves. Leaves 0.4-0.8 × 0.08-0.16cm, linear or very narrowly elliptic, the apex acute, with the extreme point rounded, margin not revolute, entire or somewhat indented with irregular crenulations, the base tapering; upper surface smooth with a few minute scales which quickly disappear, midrib faint, minutely impressed near the base, no lateral veins visible; lower surface paler than the upper, with a trace of the midrib only, with well spaced small disc-shaped scales with indistinct centres. Flowers 1-4 per umbel, hanging diagonally to vertically downwards; calyx of 5 well developed lobes each 2-3mm long; corolla red, cylindrical 13-15 × 10-12mm, finely scaly on the tube and lobes; stamens 10, on the lower side of the mouth of the flower; ovary densely scaly, style glabrous. H1b. Malaysia (Sabah - Mt Kinabalu only), 2,700-4,000m.

This, the most alpine species on Kinabalu is a real plantsman's challenge, various introductions have grown and flowered in cultivation but it seems prone to soil borne diseases and does not persist well. It is well named with its narrow foliage looking very ericoid. The consistently long calyx lobes will distinguish it from other species which may approach it in general appearance.

R. FALLACINUM SLEUMER - SUBSECT.
MALAYOVIREYA

Shrub to 5m, epiphytic or terrestrial, the young stems with a dense and persistent covering of dark brown scales. Leaves 9-16 × 3-5.5cm, ovate, lanceolate or elliptic, the apex acute and often acuminate, the margin irregularly wavy but flat, the base rounded to auriculate; the upper surface at first densely silvery scaly with overlapping scales, only gradually becoming glabrescent, midrib slightly impressed in the basal half, smooth above, the laterals 8-12 pairs, smooth; the lower surface with the midrib strongly raised for most of its length, the laterals very slightly so, scales: brown, dense and overlapping, variable in size and very persistent. Flowers 15-35 per umbel, erect to horizontal; calyx a low densely scaly ring; corolla bright orange, shortly cylindrical to narrowly funnel-shaped, 1.8-2.5 × 3-3.7cm, densely and conspicuously brown-scaly outside on the tube and up onto the lobes; stamens 10, arranged fairly regularly around the mouth of the flower; ovary densely brown-scaly; style densely scaly for 2-3mm at the base, glabrous in the remaining part. H1b. Malaysia, (Sabah, Mt Kinabalu and Crocker Range to Mt Mulu and Mt Murud in Northern Sarawak), 1,200-2,500m.

A variable species distinguished from the closely related *R. durionifolium* Becc. by its shorter, much more scaly flowers. One of the more challenging species in cultivation, tending to be rather slow.

R. GARDENIA SCHLTR. - SUBSECT.
PHAEOVIREYA

An imperfectly understood species similar to *R. konori* and differing in the nearly completely glabrous style. Most if not all plants of this species are now referable to cultivar 'Gardenia Odyssey' a plant introduced into Australia from The Netherlands and now widely distributed. See: Craven L. *The Rhododendron*, Spring 1993, Vol. 33 pp 11-12, Bringing a conclusion to confusion: *Rhododendron* 'Gardenia Odyssey'.

R. GIULIANETTI LAUTERB. - SUBJECT.
ALBOVIREYA

Shrub to 3m, terrestrial, young stems moderately densely covered with shortly stalked scales. Leaves 0.7-2.8 × 0.5-1.8cm, broadly elliptic, obovate-elliptic to subcircular, the apex obtuse to rounded, rarely retuse, the margin slightly revolute, the base broadly tapering to rounded but often decurrent in a wing on the petiole; upper surface densely scaly with flat scales, soon becoming glabrous, the scales leaving shallow pits, midrib slightly impressed, lateral veins 4-5 pairs, slightly depressed; lower surface with the midrib only slightly raised, the laterals obscure, the scales dense, overlapping, broadly lobed and some darker in colour giving a spotted appearance to the surface. Flowers 3-4 per umbel, horizontally spreading; calyx a densely scaly and wavy disc; corolla bright red, cylindrical to narrowly funnel-shaped, 2.8-3.5 × 1.8-2.4cm, completely glabrous outside; stamens 10, rather irregularly centrally disposed; ovary hairy and scaly, style scaly at the base, glabrous above. H1b. Papua New Guinea (Mt Scratchley, Mt Victoria), 3,000-3,900m.

R. GOODENOUGHII SLEUMER - SUBJECT.
SOLENOVIREYA

Shrub to 2m, terrestrial or epiphytic; young stems at first finely brown-scaly, quickly becoming glabrescent. Leaves 5.5-10 × 3-6cm, mostly obovate but some elliptic or broadly elliptic, the apex broadly obtuse to rounded, the margin almost flat, the base broadly tapering; upper surface

finely scaly at first but very quickly becoming glabrous, the midrib broad and grooved in the lower part, hardly raised at the base, slightly impressed in the upper part, lateral veins 5-8 pairs hardly raised; the lower surface with the midrib raised almost throughout its length, the laterals distant but almost smooth, finely scaly with small disc-shaped scales impressed in shallow pits. Flowers 7-16 per umbel, mostly semi-erect; calyx a low scaly ring; corolla white, scented, trumpet-shaped but curved and saccate at the base, 6-8 × 2-4cm, slightly scaly on the tube outside; stamens 10, irregularly arranged around and somewhat protruding from the mouth of the flower; ovary covered with scales and appressed hairs, style similarly covered in scales and hairs for the basal 2/3, glabrous near the top. H1b. Papua New Guinea (endemic to Goodenough Island, Mt Goodenough), 800-1,500m.

A beautiful species, the flowers at first held in a 'collar' of bud scales but this does not persist long.

R. GRACILENTUM F.MUELL. - SUBJECT.
VIREYA

Small usually spreading much branched shrub to 0.5m, mostly considerably less, terrestrial or epiphytic; young stems finely scaly with dark brown scales. Leaves 0.8-1.5 × 0.2-0.7 narrowly to broadly elliptic, apex acute rarely sub-obtuse, margin flat, base narrowly to broadly tapering; upper surface glossy green with only very inconspicuous scale remnants, the midrib faint, lateral veins obscure; lower surface with small dark brown disc-shaped to stellate, well spaced scales which clearly show up as darker dots, midrib distinct but lateral veins obscure. Flowers mostly solitary, rarely in pairs, hanging vertically down; calyx a low scaly lobed disc; corolla red or deep pink cylindrical to narrowly funnel-shaped, 2-3 × 1.5-2cm, with a few inconspicuous scales on the tube; stamens 10, rather irregularly on the upper side of the mouth of the flower; ovary densely scaly, style with simple hairs at least in the basal half. H1b. Papua New Guinea (east-

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ern end), 2,000-2,800m.

A delightful, small, bushy plant in cultivation, that covers itself in flowers in the spring. It is unlikely to be confused with other species. The nearest relation in cultivation is possibly *R. womersleyi* which has a very different habit with few branches and simple white hairs on the ovary.

R. HELLWIGII WARB. - SUBSECT. PHAEOVIREYA

Shrub to 3m, mostly epiphytic, young stems at first densely brown-scaly, quickly glabrescent and then characteristically pale whitish or yellowish cream. Leaves 8-12.5 × 4.5-8cm, broadly elliptic, ovate or obovate, the apex obtuse to rounded, the margin flat or very slightly recurved and narrowly cartilaginous, the base rounded or cordate; upper surface at first densely dark-brown scaly, later glabrescent green but slightly rough with scale bases, midrib strongly raised at the base but becoming slightly impressed in the upper part, lateral veins 5-7 pairs, very slightly impressed; lower surface with the midrib raised throughout its length, laterals smooth, at first densely brown-scaly with very unequally sized dendroid scales which quickly fall or become eroded and ultimately leave a rough green surface of scale bases. Flowers 2-5 per umbel, horizontal to half-hanging, calyx of 6-7 short (2mm), brown-scaly lobes; corolla deep pink to dark blood red, with 6 or 7 lobes, tubular funnel-shaped, slightly curved. 7-8 × 8-9cm, glabrous outside but flecked with indistinct paler marks; stamens 12-14, grouped on the lower side of the mouth of the flower; ovary densely scaly, the style glabrous, at first curving upwards away from the stamens, later moving to the centre of the flower. H1b. Papua New Guinea (Finisterre and Saruwaged Mts) 1,100-2,500m.

Well described in the wild as 'a glorious species with petals a very dark blood red and so thick and fleshy that one can easily squeeze them so that the red sap runs out through the fingers'. In cultiva-

tion it is rather slow but certainly very handsome when in flower.

R. HERZOGII WARB. - SUBSECT. SIPHONOVIREYA

Erect shrub to 2m, mostly epiphytic, young stems finely brown-scaly. Leaves 5-8 × 2.5-4.5cm, broadly elliptic to obovate, the apex broadly obtuse to rounded, margin revolute, base broadly tapering to rounded; upper surface at first covered with rounded silvery scales, quickly glabrous, midrib broad and raised at the very base, quickly tapering so that it is narrow and slightly impressed, for most of its length, lateral veins 4-6 pairs, very slightly impressed; undersurface with the midrib broadly raised throughout, lateral veins smooth, scales moderately spaced, disc-shaped with variable sized centres and impressed into the leaf surface. Flowers 5-14 per umbel, held stiffly suberect; calyx a low scaly ring; corolla white to pale pink, most commonly white with the tube suffused pink from the base, strongly and sweetly scented, slender trumpet-shaped with a curved tube, 6-11 × 1.5-2.5cm, densely mealy-scaly on the tube outside; stamens 10, rather irregularly grouped in the mouth of the flower but falling to the lower side as the stigma matures; ovary densely scaly, the style densely scaly for most of its length. H1b. New Guinea, a common and widespread species on the main range, 1,500-2,500m.

A very attractive and easily grown species with aromatic foliage as well as the beautifully scented flowers.

R. HIMANTODES SLEUMER - SUBSECT. MALAYOVIREYA

Shrub up to 2m, usually epiphytic but also terrestrial on deep peat of some summit ridges; young stems densely brown-scaly. Leaves 2-9 × 0.3-0.6cm, linear, acute or sometimes rounded at the apex, margin entire, somewhat irregular and slightly reflexed, the base wedge-shaped; upper surface silvery scaly becoming glabrous, with an impressed midrib but no visible lateral veins; lower surface with the

midrib raised throughout its length, completely covered in variably sized brown scales, the largest with dark brown swollen centres. Flowers 8-15 per umbel, horizontal or semi-erect; calyx a low rounded, scaly disc; corolla white but with a prominent and attractive pattern of brown scales outside on the tube and lobes, saucer-shaped 1.1-1.4 × 2.0-2.7cm; ovary densely brown-scaly, style glabrous or scaly near the base. H1b. Borneo (Sabah, Brunei, Sarawak and Kalimantan [Mt Kemul]), 1,300-2,000m.

One of the most attractive species in this section. When in flower it rarely escapes comment even from non rhododendron lovers. Its densely scaly, strap-shaped leaves and dainty, short, white flowers will not allow confusion with any other species.

R. HOOGLANDII SLEUMER - SUBJECT. PHAEOVIREYA

Shrub to 2.5m, terrestrial or epiphytic; young stems densely set with golden brown, stalked scales, warty and rough to the touch. Leaves 3-5.5 × 0.2-0.6cm, linear, the apex sub-acute to obtuse, the margin very strongly revolute, the base narrowly tapering; the upper surface densely covered with golden brown scales initially, becoming glabrescent but remaining scabrous with the persistent scale bases, midrib impressed, lateral veins obscure; lower surface with the midrib prominently raised, lateral veins obscure, the surface covered in the rather persistent stellate scales. Flowers 1-2 per umbel, horizontal or semi-erect; calyx a densely scaly, 5-lobed disc; corolla pinkish red or cream, cylindrical, 2.8-3.5 × 1.2-1.6cm, densely golden brown-scaly outside; stamens 10, held on the upper side of the mouth of the flower; ovary densely scaly, the style mostly glabrous but with just a few scales at the base. H1b. Widespread on the main range of New Guinea (Irian Jaya to Papua New Guinea), 3,000-3,400m.

An odd looking but attractive plant now doubtfully still in cultivation.

R. HYACINTHOSMUM SLEUMER - SUBJECT. PHAEOVIREYA

Shrub to 3m, epiphytic or terrestrial; young stems at first stellate-scaly, the scales from epidermal tubercles which make the stems rough to the touch. Leaves 6-9 × 3.5-5cm, broadly elliptic to ovate, the apex broadly obtuse to rounded, the margin flat or slightly recurved, narrowly cartilaginous, the base rounded to cordate; the upper surface at first finely brown-scaly, becoming glabrescent but remaining rather rough, midrib raised at the very base, impressed above, lateral veins 3-7 pairs slightly raised; lower surface with the midrib prominent and raised, the laterals mostly obscure, hardly raised, scales brown-stellate to dendroid from pronounced epidermal tubercles, moderately densely set. Flowers 2-5 per umbel, horizontal to half hanging; calyx a 5-lobed, hairy and scaly disc, corolla white with a pink flush in bud and pink patches at the base of the lobes in the mouth, powerfully scented like hyacinths, glabrous outside; stamens 10, irregularly disposed on the lower side of the mouth; ovary white-hairy, style hairy only for about 1/3 of its length, glabrous at the top. H1b. Papua New Guinea (Milne Bay Province), 1,800-2,300m.

An attractive species discovered by the Rev. Canon N.E.G. Cruttwell in the Daga country where he worked as a missionary and distributed via the Australian Rhododendron Society.

R. INCONSPICUUM J.J. SM. - SUBJECT. VIREYA

Shrubs to 3m or more rarely trees to 10m, mostly terrestrial; young stems densely covered with scurfy brown scales some of these from epidermal tubercles. Leaves 1.5-2.5 × 0.8-1.7cm, ovate to elliptic or broadly elliptic, the apex obtuse to rounded, the margin entire and flat, the base broadly tapering to rounded; the upper surface at first silvery-scaly, quickly glabrescent, midrib slightly impressed, lateral veins 3-6 pairs very slightly impressed; lower surface with the midrib

slightly raised, lateral veins not raised but quite distinct in being darker in colour than the surrounding tissue, scales pale silvery brown rounded to deeply lobed and with small centres and each impressed in a low pit. Flowers in 1-7 flowered umbels, horizontal to half-hanging; calyx a densely scaly lobed disc; corolla pink to red, campanulate or shortly cylindrical, 1.3-1.8 × 0.8-1.7cm, quite densely pale brown-scaly outside; stamens 10, spreading all round the mouth of the flower; ovary densely silvery scaly, the scales stopping rather abruptly at the junction with the glabrous style. H1b. Widespread throughout the highlands of New Guinea, 1,800-3,400m.

Often confused with *R. yelliottii* Warburg a species which is generally much more difficult to cultivate but the flowers of that species are usually darker in colour, the scales on the undersides of the leaves denser (usually touching each other) and the flower buds are scaly and minutely hairy (in this species they are glabrous or scaly only).

R. INTRANERVATUM SLEUMER - SUBSECT. VIREYA

Shrub to 1m, usually epiphytic, also on cliffs; minutely scaly at first quickly becoming smooth and glabrescent. Leaves 9-15 × 6-11cm, broadly elliptic, sub-ovate occasionally subcircular or sub-ovate, the apex broadly obtuse, rounded or retuse, often with a small hard recurved apiculus, margin recurved, the base cordate to auriculate; upper surface minutely and obscurely pale brown stellate-scaly, the midrib strongly raised for $\frac{1}{2}$ - $\frac{2}{3}$ of the length, lateral veins 10-16 pairs, strongly raised and with the lamina deeply sulcate between so that the leaves are more distinctively 'ribbed' than any other species; lower surface with the midrib strongly raised and the laterals deeply impressed, scales rather dense, brown-lobed to stellate with small centres. Flowers 1-5 per umbel, semi erect to horizontal; calyx a low scaly disc, corolla pale yellow, broadly funnel-shaped, glabrous outside; sta-

mens 10, spreading all round the mouth of the flower; ovary softly white-hairy, the style glabrous. H1a-b. Borneo (S Sarawak and W Kalimantan), 60-1,100m.

This species is grown as much for its bizarre looking leaves as for the flowers. If grown in full sun the leaves become very pale yellowish in colour often with a bronze tinge which makes it either wonderfully exciting or sick-looking depending on the viewpoint of the observer. If grown in shade the plants are quite acceptably green and growth better.

R. JASMINIFLORUM HOOK. - SUBSECT. SOLENOVIREYA

Shrub to 2.5m, epiphytic or terrestrial; young stems finely brown-scaly and slightly rough to the touch. Leaves 2.5-6 × 1-3.6cm, mostly elliptic, occasionally sub-ovate or sub-circular, the apex mostly obtuse to rounded, occasionally sub-acute, the margin strongly and broadly recurved, the base rounded or truncate; upper surface initially and laxly stellate-scaly, quickly glabrescent, midrib impressed, the lateral veins rather obscure; lower surface with the midrib strongly raised in the lower half, almost smooth above, lateral veins obscure, scales well spaced, small, dark brown and irregularly stellate, each raised on a minute epidermal tubercle. Flowers 3-20 per umbel, semi-erect to half-hanging; calyx a low scaly and hairy disc; corolla often at first pink, becoming white, usually lightly scented, trumpet-shaped, 4-5.5 × 2-2.5cm, distinctly but minutely brown-scaly outside and obscurely white-hairy; stamens 10, scattered irregularly in the mouth of the flower; ovary scaly and hairy, style scaly in the lower $\frac{1}{2}$, hairy to near the top. H1b. West Malaysia (Sarawak, Sumatra) and Philippines (Mindanao), recorded from s.l. to 3,100m, most commonly at about 1,000m.

In cultivation since Victorian times and still one of the best Vireyas to grow, most plants in cultivation are the West Malaysian form.

R. JAVANICUM (BLUME) BENN. - SUBSECT. VIREYA

Shrub or small tree to 5m, terrestrial or epiphytic; young stems finely brown-scaly, becoming smooth and glabrous. Leaves 10-20 × 3-6cm, elliptic or elliptic-lanceolate, the apex acute, the margin flat, sometimes slightly irregular, the base broadly to narrowly tapering; upper surface, finely and indistinctly scaly at first, quickly glabrescent, midrib raised in the lower half, somewhat impressed in the upper half of the leaf, lateral veins 7-10 pairs, minutely impressed; lower surface with the midrib raised throughout its length, laterals more or less smooth but distinct, scales brown, scattered and well spaced, lobed to substellate with small centres. Flowers 4-12 per umbel, erect to horizontal; calyx a low glabrous ring; corolla usually orange often with a pinkish violet throat, occasionally reported as yellow or red, funnel-shaped, 3-5 × 5-7.5cm, glabrous or almost so outside; stamens 10, irregularly scattered mostly on the lower side of the mouth; ovary glabrous or very sparsely scaly, (hairy in var. *teysmannii* [Miq.] King & Gamble), style glabrous. H1a-b. Indonesia (Sumatra, Java, to Bali), Malaysia (West) (as var. *teysmannii*), Philippines and Celebes as subsp. *schadenbergii* (Warb.) Argent, 300-2,600m.

AM 1933 (L. de Rothschild, Exbury); flowers deep orange, with pink throat.

The Javan form with bright orange flowers has long been grown and admired but some Philippine forms with bright scarlet and bicoloured flowers show considerable potential.

R. KAWAKAMII HAYATA - SUBSECT. PSEUDOVIREYA

Shrub to 1.5m, epiphytic or terrestrial; young stems laxly covered with brown scales at first. Leaves 2.5-5 × 1-1.8cm, elliptic or obovate-elliptic, the apex acute to obtuse with the midrib protruding as a short glandular point, margin entire, narrowly cartilaginous, the base broadly to narrowly tapering; upper surface at first

with minute brown scales, quickly becoming glabrescent, midrib impressed, lateral veins 3-5 pairs, smooth, often somewhat obscure; lower surface with the midrib raised for most of its length, the laterals rather obscure, scales well spaced, rounded, brown, impressed in shallow pits. Flowers 4-7 per umbel, semi-erect to half-hanging; calyx of 5 unequal lobes both hairy and scaly; corolla yellow or pink or red, campanulate, 1-1.5 × 1.3-1.8cm, covered in translucent scales, stamens 10, dimorphic and arranged all round the corolla; ovary silvery scaly, style glabrous. H2-3. Taiwan (Central Mts), 1,800-2,200m.

Only the yellow form of this species, sometimes designated var. *flaviflorum* Lin & Chuang, appears to be in cultivation and there is still some mystery surrounding the pink form. The original description does not mention flower colour although it was reputed to be pink or red. *R. taiwanianum* Ying is considered synonymous with this species at present.

This is reported to be the hardiest of the Vireyas withstanding several degrees of frost and having a winter resting period in America.

R. KONORI BECC. - SUBSECT. PHAEOVIREYA

Shrub up to 4m, epiphytic or terrestrial; young stems at first densely brown-scaly with easily detached scales. Leaves 8-14 × 5-7.5, broadly elliptic or occasionally obovate, the apex obtusely pointed to rounded, the margin flat and entire, the base broadly tapering; upper surface at first densely brown-scaly, the scales becoming silvery as the leaf expands and quickly becoming glabrescent, with the midrib raised above near the base, becoming slightly impressed in the distal part, lateral veins 7-10 pairs, smooth, rather fine; lower surface with the midrib strongly raised throughout its length, the laterals smooth, densely brown-scaly with dendroid, unevenly sized scales, each from a small epidermal tubercle. Flowers 3-12 per umbel, more or less horizontally disposed; calyx stellate-scaly, a lobed oblique disc;

corolla white to pink, often marked with darker pink spots at the base of the lobes, powerfully and sweetly scented, funnel-shaped, 8-19 × 9-15cm, sparsely scaly or glabrous outside, mostly with 7 lobes; stamens 14, more or less clustered on the lower side of the mouth, ovary silvery scaly and densely hairy, style hairy and scaly in the lower half, becoming less hairy in the upper half and finally glabrous near the top. H1b. Widespread in New Guinea from west to east, 750-2,500m.

AM 1969 (M. Black, Grasmere, Westmorland) to a clone 'Eleanor Black'; flowers white flushed red.

A very attractive species in cultivation with handsome foliage and its beautiful and powerfully scented flowers. *R. phaeocephalum* Sleumer now reduced to a variety of *R. konori* is generally smaller in all its parts and more suited to pot culture. The spelling 'konorii' is sometimes used but because Beccari named this plant after a Papuan deity not a person there is no requirement under the existing Code of Botanical Nomenclature to adopt this.

R. LAETUM J.J.SM. - SUBJECT. VIREYA

Shrub to 3m, terrestrial; young stems laxly scaly. Leaves 7-10 × 3-6cm, broadly elliptic to obovate, the apex mostly shortly acuminate to an acute point, sometimes obtuse and mucronate, the margin flat and entire, the base broadly tapering; upper surface at first brown-scaly, the scales quickly becoming silvery and obscure or the surface becoming glabrescent, midrib slightly raised in the basal half and grooved, then smooth, lateral veins 5-8 pairs, slightly raised; lower surface with the midrib raised for most of its length, the laterals smooth, often obscure, the scales pale brown, lobed to substellate, well scattered and slightly impressed. Flowers 5-9 per umbel, semi-erect to horizontal, calyx a scaly and shortly hairy 5-lobed disc; corolla yellow or yellow suffused with red or orange, often fragrant, funnel-shaped, sometimes with a few hairs at the base outside and laxly stellate-scaly, 6-7 × 4.5-

6cm; stamens 10, rather irregularly arranged in the mouth of the flower; ovary densely white-hairy and inconspicuously scaly, style hairy to just over half way, glabrous in the upper part. H1b. New Guinea (Irian Jaya, Arfak Mts), 1,800-2,300m.

A lovely and well established species closely related to *R. zoelleri*. It differs in the shortly petiolate leaves, the petioles rarely more than 7mm, the flowers generally opening yellow, even when they change with age and the anthers being short, up to 5mm long, while in *R. zoelleri* the petioles are usually more than 7mm, the flowers orange at the lobes from the beginning, and anthers usually more than 5mm long.

R. LANCEOLATUM RIDL. - SUBJECT VIREYA

Shrub up to 1.2m, mostly epiphytic, sometimes terrestrial; young stems green, smooth with a fine covering of minute scales. Leaves 7-12 × 2.5-4.5cm, lanceolate to elliptic, the apex acute, the margin entire, flat or weakly revolute, the base tapering to rounded and characteristically wrinkled; upper surface green, smooth but often with puckers alongside the midrib, the scales hardly visible, the midrib broad and raised for most of its length often coloured red towards the base, lateral veins 7-12 pairs rather obscure; lower surface with minute, widely spaced, lobed scales which are difficult to see, the midrib smooth or slightly raised, the laterals fine and obscure. Flowers 4-10 per umbel, horizontal or slightly nodding, calyx a low ring; corolla white, very widely funnel-shaped, 2.2-2.5 × 2-2.4cm, with very small brown scales outside; ovary covered with white hairs but no scales, style hairy in the lower half, glabrous above. H1a-b. Borneo (Sabah, Sarawak and Kalimantan), 1,000-1,500m.

Unlike most rhododendrons this is a plant of shaded habitats within the montane forest, it requires high humidity and a little more heat than most others of section *Vireya* but the clear white flowers are very pretty.

R. LEPTANTHUM F.MUELL. - SUBJECT
PHAEOVIREYA

A small bush or straggling shrub reported up to 3m but rarely more than 1m high; young stems at first rough with dark brown dendroid scales which easily detach. Leaves, 3-6.5 × 2-3.5cm ovate or oblong-ovate, the apex broadly and bluntly pointed, the margin flat or slightly revolute, the base rounded to cordate; the upper surface smooth, at first silvery scaly but quickly becoming glabrous, midrib impressed, three to four pairs of laterals somewhat impressed and the reticulation distinct; lower surface moderately densely covered in the rusty brown dendroid scales of different sizes and each mounted on a small white tubercle which remains after the scales have gone, midrib raised and distinct throughout its length the laterals slightly raised but less prominent than on the upper side. Flowers 2-5 per umbel, hanging; calyx a low scaly ring; corolla pink, shortly cylindrical with a curved tube and rather large lobes, 2.5-3.5 × 3.5-4cm, with rather inconspicuous brown scales on the tube and lobes outside; ovary densely stellate-scaly, style stellate-scaly almost to the top. H1b. Eastern Papua New Guinea (from Morobe Province to Milne Bay Province), 1,300-2,300m.

This lovely and easily grown species now includes *R. warianum* Schltr. Various forms are in cultivation, some of them very compact which makes them excellent pot plants.

R. LEUCOGIGAS SLEUMER - SUBJECT.
VIREYA

Shrub 1-3m, epiphytic; young twigs finely scaly, quickly glabrescent. Leaves 12-30 × 3.5-10.5cm, elliptic or sub-obovate-elliptic, the apex broadly acute to obtuse, sub-acuminate or mucronate, the margin entire, flat or weakly revolute, the base rounded to cordate; the upper surface at first silvery scaly, quickly glabrescent, midrib raised in the lower half and often grooved, impressed in the upper part, lateral veins 7-12 pairs, finely impressed;

lower surface with the midrib strongly raised for most of its length, lateral veins smooth and sometimes obscure, scales variable from flat silvery stellate incised to tall brown and dendroid but these not mounted on prominent epidermal tubercles. Flowers 5-8 per umbel, stiffly semi-erect to horizontal; calyx a low slightly scaly lobed ring; corolla deep pink to white, often with darker pink marks at the corners of the lobes, powerfully carnation-scented, tubular-funnel-shaped, with a straight tube, 13.5-16 × 12-15cm, finely scaly outside on the tube; stamens 14, clustered on the lower side of the tube; ovary densely hairy and obscurely scaly, style hairy to about half way, scaly to within about 1cm of the stigma. H1b. New Guinea (Irian Jaya [Cycloop Mts] and Papua New Guinea [Huntstein Mts]), 1,200-1,400m.

Introduced into cultivation by Professor Sleumer from the Cycloop Mts. and subsequently from Mt Huntstein from which was named 'Hunsteins Secret'. It is a superb plant although of rather slow growth.

R. LINDAUEANUM KOORD. - SUBJECT.
PSEUDOVIREYA

Shrub up to 2m, terrestrial or epiphytic; young twigs densely covered with stalked scales which leave a rough verruculose surface from the persistent stalks. Leaves 0.8-2.5 × 0.5-1.8cm, obovate to spatulate, the apex rounded or slightly retuse, the margin strongly revolute, the base tapering; the upper surface at first laxly scaly, quickly glabrescent, often convex, midrib impressed above, lateral veins 3-5 pairs slightly impressed; lower surface with the midrib and laterals raised beneath, the scales well spaced, red-brown, disc-shaped with a narrow marginal flange, slightly impressed. Flowers solitary, hanging; calyx a low scaly and sometimes ciliate, obtusely 5-toothed disc; corolla deep red to pink, tubular, straight but slightly zygomorphic by the lateral flattening, 1.7-2.5 × 1.2-1.6cm, laxly scaly outside on the tube; stamens 10, exerted on the upper

Description of Species in Cultivation: Vireya

side of the flower; ovary densely scaly, style glabrous. H1b. New Guinea: (Arfak Mts to Saruwaged Mts), commonly collected from the wild, 1,200-3,200m.

The var. *bantaengense* J.J.Smith from Selebes differs by the 1mm long calyx lobes and probably represents a different species. This is not as yet in cultivation.

R. lochae orthographic error = **R. lochiae**

R. LOCHIAE F. MUELL. NAME CONSERVED
- SUBSECT. VIREYA

Shrub or tree to 3m, epiphytic or terrestrial; young twigs usually dark red and finely scaly. Leaves 4-9 × 2.5-4.5cm, elliptic to broadly elliptic or obovate, the apex acute, acuminate, sometimes mucronate, the margin entire, flat or weakly revolute, the base broadly tapering to rounded; the upper surface at first minutely brown-scaly, quickly glabrescent, midrib impressed throughout its length, lateral veins 4-10 pairs, fine, minutely impressed; lower surface with the midrib strongly raised at the base, less so above, lateral veins smooth, distinct to obscure, scales well spaced, lobed to rounded and very slightly impressed. Flowers 2-7 per umbel, half-hanging to hanging; calyx an undulate, scaly, disc; corolla mostly deep red, sometimes pink, campanulate to funnel-shaped with a straight tube, 4-5.5 × 4-6cm, minutely scaly outside; stamens 10, disposed all round the mouth of the flower; ovary both hairy and scaly, style hairy and scaly in the basal 1/3, glabrous above. H1b. Australia (N Queensland, Mt Finnigan, Thornton Peak, Mt Windsor Tableland and main Coast Range), 900-1,330m.

AM 1957 (Crown Estate Commissioners, Windsor); flowers Geranium Lake (HCC 20).

This attractive and floriferous species has been in cultivation at least since 1939 and is the parent of many hybrids. It was for these reasons that the name has recently been conserved and the original plant described under this name is now *R. notiale* (see L.A. Craven & R.M. Withers: *A second species of Rhododendron (Ericaceae)*

from Australia, Edinb. J. Bot. **53(1)**: 27-37, 1996).

R. LONGIFLORUM LINDL. - SUBSECT. VIREYA

Shrub or tree to 3m, epiphytic or terrestrial; young twigs initially covered in brown scales. Leaves 5-12 × 2-5.5cm, narrowly to broadly elliptic, sometimes obovate, the apex obtuse or acute and often acuminate, the margin entire and flat, the base rounded to broadly or narrowly tapering; the upper surface at first brown-scaly, quickly glabrescent, the midrib smooth or slightly depressed, lateral veins 5-8 pairs, slender, hardly raised; the lower surface with the midrib slightly raised, the lateral veins more or less smooth, the surface moderately covered with lobed to substellate scales. Flowers 3-13 per umbel, erect or semi-erect; calyx a low scaly ring; corolla orange, pink or red, often with a yellow throat, cylindrical, straight or curved, 4-5.5 × 3-6cm, laxly scaly outside; stamens 10, spreading around the mouth of the flower; ovary densely hairy and scaly, style hairy in the lower half, glabrous towards the top. H1a. West Malaysia; Sumatra; Borneo (widespread) and Karimata Archipelago, s.l.-1,000m.

This is very much a lowland species although it still usually occurs on hills, and it requires more heat than most Vireyas to do well. It was confused with *R. praetervisum* but the leaves of this species are much more revolute, the flowers purplish pink and hanging rather than semi-erect.

R. LORANTHIFLORUM SLEUMER - SUBSECT. SOLENOVIREYA

Shrub to 2m, epiphytic; young twigs initially finely brown-scaly, quickly glabrescent. Leaves 5-7 × 2.3-4.5cm, elliptic to slightly obovate, the apex obtuse, rounded or occasionally retuse, the margin entire, slightly revolute, the base broadly tapering; the upper surface at first minutely brown-scaly, quickly becoming glabrescent, glossy green, the midrib grooved near the base and slightly impressed, the

laterals 3-5 pairs, smooth; the lower surface with the midrib slightly raised in the basal half, the laterals smooth and rather obscure, the surface with well spaced circular to deeply lobed scales rather impressed into the surface. Flowers 2-7 per umbel, erect to hanging; calyx a low scaly ring; corolla white, delicately perfumed, trumpet-shaped, 2.5-3.2 × 4-5 cm, laxly scaly on the tube outside; stamens 10, irregularly exerted from the mouth of the flower; ovary densely silvery scaly and laxly and shortly hairy, the style with hairs and stalked scales at the base, hairy in the central part and finally glabrous in the upper third. H1b. Papua New Guinea (New Britain, Manus and Bougainville Islands only, not on the mainland), Solomon Islands (Malaita; New Georgia Group [Kolumbangara Islands]), 180-1,000m.

A delicate and very floriferous species which is easily grown.

R. LOWII HOOK.F. - SUBSECT. VIREYA

Shrub up to 10m, terrestrial; young stems, green covered in brown lobed scales. Leaves 10-20 × 4.5-10cm, broadly elliptic to ovate or slightly obovate, the apex obtuse to rounded or sometimes shortly acuminate, the margin entire, flat, sometimes somewhat wavy, the base broadly rounded to cordate; upper surface at first brown-scaly, quickly glabrescent, with the midrib strongly raised in the lower half, lateral veins 9-15 pairs not raised; lower surface with the veins not or hardly raised at all, scales rather widely spaced, lobed to stellate, with small centres. Flowers 8-15 per umbel, erect to horizontal; calyx a low scaly ring; corolla yellow to orange, often delicately scented, broadly funnel-shaped, 6-11 × 7-8cm, glabrous outside; stamens 10, usually all on the lower side of the mouth; ovary hairy and inconspicuously scaly, style glabrous. H1b. Sabah (Mt Kinabalu, Trus Madi and possibly Monkobo), 2,700-3,650m.

One of Kinabalu's most remarkable plants which never fails to impress people with its enormous trusses of flowers pro-

duced throughout the year often on long vigorous unbranched canes which may be 6m in length. In cultivation it is very different being slow and often rather contorted and rather shy to flower.

R. LURALUENSE SLEUMER - SUBSECT. VIREYA

Shrub or small tree up to 9m, epiphytic or terrestrial; young stems at first with fine brown scales, quickly glabrescent. Leaves 4-6.5 × 1.8-2.8cm, elliptic to elliptic-spathulate, the apex obtuse or broadly acute sometimes submucronate, the margin flat and smooth, the base tapering; the upper surface smooth with only very fine scales at first, the midrib very slightly impressed, the lateral veins 3-5 pairs, smooth or minutely raised; the lower surface with the midrib raised below in the lower half, the laterals faint and often obscure, the scales well spaced, rounded to somewhat lobed and impressed in small pits. Flowers 3-6 per umbel, semi-erect; calyx a low slightly scaly disc; corolla white, funnel-shaped, 3-4.5 × 2.5-3cm, slightly scaly on the tube outside; stamens 10, scattered round the mouth of the flower; ovary hairy and obscurely scaly, style hairy and scaly in the lower $\frac{3}{4}$, glabrous above. H1b. Papua New Guinea (Bougainville Islands only), Solomon Islands (Guadalcanal [Mt Gallego]), 900-1,500m.

A species which tends to cover itself in flowers once a year, rather similar to *R. loranthiflorum* but with a much broader funnel-shaped tube and without scent.

R. MACGREGORIAE F. MUELL. - SUBSECT. VIREYA

Mostly a shrub rarely a small tree and recorded possibly erroneously up to 15m, terrestrial; young stems, smooth, green with small inconspicuous scales. Leaves 5-8 × 2-5cm, elliptic, broadly elliptic to ovate, the apex shortly acuminate to rounded, the margin usually distinctly recurved, the base broadly tapering or rounded; the upper surface smooth with only very indistinct scales, the midrib very slightly

impressed; the lower surface with distinctly raised midrib for almost its whole length, lateral veins 6-10 pairs distinct but not raised, scales small, brown, stellate to disc-shaped well spaced. Flowers 7-15 in an umbel, erect to horizontal; calyx a low ring; corolla varying from yellow to orange and pink to red, shortly tubular with relatively large and well expanded lobes, 1.5-2.5 × 2-3cm minutely scaly on the tube and base of the lobes; stamens 10, prominent and scattered round the mouth of the flower; ovary covered with subpressed hairs and silvery scales, style both hairy and scaly in the lower half, glabrous above. H1b. Widespread over the whole of New Guinea, 500-3,300m.

AM 1977 (G. Gorer, Sunte House, Haywards Heath) to a clone 'Elsie Louisa'; flowers Orange Group 29A, shading through 29B to Yellow-Orange Group 23B in throat.

Probably the easiest species to cultivate and certainly most attractive with very brightly coloured and freely produced flowers. It is often considered a weed in its native country since it grows at low enough altitudes to occur in pastures and is well known as being poisonous to stock. The red and pink forms seem to be more common in Irian Jaya at the western end of the island and rare in Papua New Guinea.

R. MAIUS (J.J. SMITH) SLEUMER -
SUBSECT. SOLENOVIREYA

Shrub up to 3m, terrestrial or epiphytic, young stems laxly scaly. Leaves 4.7-8.7 × 2.5-4cm, elliptic, broadly elliptic to elliptic-ovate, the apex broadly attenuate to obtuse, the margin slightly revolute, the base broadly tapering to rounded; the upper surface at first finely silvery scaly, quickly glabrescent, midrib slightly impressed above, laterals 9-10 pairs, also slightly impressed; underneath the midrib very prominent but tapering markedly from the base, lateral veins and even the finer veins slightly prominent. Flowers 5-15 in an umbel, horizontal to half hanging; calyx laxly scaly, an almost entire disc or

irregularly 5-toothed; corolla white or a little pink on the tube, trumpet-shaped but slightly curved and broadest in the middle, beautifully scented, 7-9 × 2.2-2.8cm, laxly scaly outside; stamens 10, irregular in the mouth; ovary densely hairy and scaly, the style densely hairy and scaly near the base, the indumentum thinning until the top third is entirely glabrous. H1b. New Guinea (Hubrecht Mts near Lake Habbema and in Papua New Guinea, widespread but rather infrequent from Mt Capella to the Bulldog Road), 2,700-3,200m.

A lovely and easily grown species.

R. MALAYANUM JACK - SUBSECT.
MALAYOVIREYA

Epiphytic or terrestrial shrub to 2m, young stems densely dark brown, scaly. Leaves 8.5-15 × 3.5-5.5cm, elliptic or broadly elliptic, the apex acute, often acuminate, sometimes shortly and broadly pointed, the edge entire and flat except near the base it may be somewhat revolute, the base broadly or narrowly tapering; the upper surface densely scaly but becoming glabrescent, the midrib slightly impressed, lateral veins up to 8 pairs, slightly impressed; underneath the midrib strongly raised, the laterals raised near the midrib, completely and persistently scaly with variable scales, the largest of which have swollen dark centres. Flowers terminal or lateral in 1-5 flowered umbels, the flowers hanging vertically downwards; calyx a low densely scaly ring; corolla reddish purple, purplish pink or greenish white, cylindrical, the tube often compressed laterally 2.5-3 × 1.4-2.4cm, laxly scaly on the tube outside; stamens 10, irregularly grouped on the lower side of the mouth; ovary densely covered in brown scales, style scaly at the base otherwise glabrous. H1a-b. Thailand, Malaysia (Peninsula, Sarawak, and Sabah), Indonesia (Sumatra, Java, Kalimantan, Sulawesi & Seram), 200-3,000m.

A widespread and variable species that has been in cultivation since Victorian times, the best forms are the higher alti-

tude ones with smaller leaves and darker coloured flowers, lowland forms are difficult to cultivate and much less attractive.

R. MICROMALAYANUM SLEUMER - SUBSECT. MALAYOVIREYA

Shrub to 1.2m, epiphytic, the young stems at first completely covered with dark brown overlapping scales. Leaves 2.5-4 × 0.7-1.2cm, narrowly elliptic, the apex shortly obtuse to rounded, the margin entire but slightly wavy, the base tapering; upper surface at first silvery brown-scaly but becoming glabrescent, the midrib impressed above, the lateral veins 3-4 pairs, slightly impressed; the lower surface with the midrib very prominent, the lateral veins almost smooth, densely scaly, the scales variable in size, often overlapping, the largest dark sooty brown with prominent large centres. Flowers 1-4 per umbel, hanging vertically downwards; calyx a low brown-scaly disc, corolla purplish pink or greenish white 2.5-3 × 1.5-2cm, cylindrical with a fluted and slightly swollen base and scattered orange-brown scales outside; stamens 10, irregularly disposed, mostly on the lower side of the mouth; ovary densely brown-scaly, style scaly in the basal ¼, then glabrous. H1b. Borneo (N Sarawak and Sabah), 800-2,000m.

A neat free flowering species which is probably the easiest to grow of the very scaly malayovireyas.

R. MULTICOLOR MIQ. - SUBSECT. VIREYA

Shrub to 1.5m, terrestrial or epiphytic, young twigs very smooth with a few small scales. Leaves 3-7 × 0.7-2cm, narrowly elliptic to narrowly oblanceolate, the apex acute or acuminate, sometimes with the extreme tip rounded, margin flat, the base narrowly tapering; upper surface with fine scattered brown scales at first, soon glabrescent, the midrib raised in the lower half, smooth above, the laterals obscure; the lower surface with the midrib almost completely smooth, the laterals obscure, the scales rather sparse and small, brown, lobed to substellate with small centres.

Flowers 3-6 per umbel, horizontal to half-hanging; calyx a low disc; corolla whitish cream, yellow or red, sometimes sweetly scented, broadly funnel-shaped, glabrous outside; stamens 10, arranged all round the mouth of the flower; ovary and style glabrous. H1b. Indonesia (Sumatra), 900-2,100m.

One of the parents of some of the old Veitch hybrids but not one of the more flamboyant species.

R. MULTINERVIUM SLEUMER - SUBSECT. SOLENOVIREYA

Shrub or small tree to 3m, terrestrial or epiphytic, the young stems at first with scattered brown scales. Leaves 5-8 × 3.5-6cm, narrowly obovate, obovate or elliptic, the apex obtuse or obtusely acuminate, the margin flat or minutely turned down, very narrowly cartilaginous, the base broadly to narrowly tapering; the upper surface minutely scaly but quickly glabrous, the midrib slightly impressed, the laterals finely raised 10-14 pairs, rather regularly parallel with each other; underside with the midrib strongly raised to just over half way, the laterals obscure, not raised, scales well spaced, circular to lobed, small and impressed in shallow pits in the surface. Flowers 3-7 per umbel, semi-erect to horizontal; calyx a low scaly ring; corolla white, powerfully scented of clove pinks, trumpet-shaped but rather compressed laterally, with the tube strongly angled, 5-6.5 × 3-3.5cm, finely substellate-scaly on the outside; stamens 10, protruding from the mouth of the flower and bending downwards as a group as the flower ages; ovary densely scaly, the style glabrous, becoming well exerted from the mouth of the flower. H1b. Papua New Guinea (Western Highlands Province, Eastern Highland Province and Sepik River area), 1,300-2,000m.

An attractive and easily grown species with beautifully scented flowers.

R. NERVULOSUM SLEUMER - SUBSECT. VIREYA

Shrub to 1.5m, mostly terrestrial; young

twigs only very finely scaly, quickly glabrescent. Leaves 5.5-8 × 0.7-1.5, narrowly elliptic to almost linear, the apex acute, the margin entire, slightly revolute in the basal half, the base narrowly tapering; the upper surface at first finely pale brown-scaly, quickly glabrescent, midrib slightly impressed in the basal half, smooth in the upper part, lateral veins 4-6 pairs, smooth; lower surface with the midrib very slightly raised throughout its length, the laterals smooth, the scales small, lobed and sparse. Flowers 1-6 per umbel, horizontal to half hanging; calyx a low minutely scaly ring; corolla opening orange and darkening to reddish with age, funnel-shaped, 2.5-4 × 2-3cm, glabrous outside; stamens 10, slightly dimorphic, arranged regularly around the mouth of the flower; ovary densely white-hairy and with small brown scales, style glabrous. H1b. Borneo (Sabah, Kinabalu to Mt Lotung), 2,500-3,000m.

This is closely allied to *R. stenophyllum* but may be distinguished by its broader leaves.

R. NOTIALE CRAVEN - SUBSECT. VIREYA
Similar in most respects to *R. lochiaie* but the leaf apex sometimes retuse in this species, the corolla curved and the stamens clustered on the upper side of the flower. Described in 1996, material of this species is already in the trade and it should quickly be widely available. H1b. Australia (N Queensland, Bellenden Ker Range and Bell Peak in the Malbon Thompson Range), 1,200-1,500m.

R. ORBICULATUM RIDL. - SUBSECT. SOLENOVIREYA
Shrub or small tree up to 4m, usually epiphytic; young twigs thinly covered in small scales. Leaves 3-6.5 × 3.5-6cm, broadly ovate to sub-circular, the apex obtusely pointed or rounded, the margin entire, flat with a narrow cartilaginous edge, the base rounded to cordate; upper surface minutely and obscurely scaly at first, then glabrescent, midrib slightly impressed above, lateral veins 5-7 pairs also very

slightly impressed; lower surface with the midrib slightly raised, the laterals rather indistinct, scales very small, widely spaced, rounded to lobed and with a relatively large central area. Flowers 2-6 per umbel, horizontal to half-hanging; calyx a low circular or 5-angled disc; corolla pale pink or white, sometimes slightly scented, trumpet-shaped but with enormous lobes compared with most species of this flower type, 7-8 × 7-8cm, finely and indistinctly scaly outside; stamens 10, in a group on the lower side of the mouth of the corolla; ovary with silvery scales and very short, white hairs, style shortly hairy and with a few scales in the lower half, glabrous in the upper part. H1b. Borneo (Sabah, Brunei and Northern Sarawak), 800-1,800m.

This species was confused with *R. suaveolens* but it is clearly distinct with its shorter leaves and much broader flowers (see D.R. Hunt, *The Botanical Magazine* 1970, 178 tab. 575).

R. PAUCIFLORUM KING & GAMBLE - SUBSECT. VIREYA

Shrub to 1m, epiphytic; young stems finely scaly and hairy. Leaves 1.5-3 × 1-2.5cm, obovate to sub-circular, the apex obtuse, rounded or retuse, the margin slightly revolute, narrowly cartilaginous, minutely crenulate, the base broadly tapering; upper surface finely and sparsely scaly and hairy, soon glabrescent, midrib slightly impressed, laterals 1-3 pairs rather obscure; lower surface with the midrib raised at the base, soon becoming smooth or even impressed near the apex, lateral veins obscure, scales widely scattered, brown, rounded or irregularly lobed, from shallow pits in the epidermis. Flowers solitary or in pairs, horizontal to half-hanging; calyx somewhat five-lobed, hairy and scaly; corolla deep pink, shortly cylindrical or campanulate, 1.7-2.4 × 1.5-2cm, sparsely scaly and hairy outside; stamens 10, slightly dimorphic, arranged regularly around the mouth; ovary with long silvery hairs and scales, style glabrous except with a few hairs and

scales at the very base. H1b. West Malaysia, 1,400-1,800m.

A very pretty species, not especially flamboyant but flowering over a long period.

R. PERAKENSE KING & GAMBLE -
SUBSECT. PSEUDOVIREYA

Shrub to 2m, epiphytic, young stems fairly densely covered in golden brown scales on long epidermal tubercles. Leaves 1.3-1.7 × 0.7-1cm, elliptic, broadly elliptic or obovate, the apex rounded or often slightly retuse the margin strongly revolute, the whole leaf being convex, the base tapering; upper surface finely but rather conspicuously brown-scaly at first becoming glabrescent with age, the midrib impressed throughout its length as are the 1-3 pairs of lateral veins; lower surface with the midrib strongly raised throughout its length as are the laterals, the scales well spaced, disc- or funnel-shaped, pale brown and slightly sunken in small pits. Flowers 2-5 per umbel, horizontal to hanging; calyx a densely scaly, 5-lobed ring; corolla yellow or white, tubular or tubular-campanulate, 10-15 × 0.6-0.8cm, with scattered scales outside; stamens 10, regularly arranged inside the mouth of the flower; ovary densely scaly, the style glabrous. H1b. West Malaysia, 1,700-1,900m.

A pretty species only known with yellow flowers in cultivation, it appears to habitually self pollinate and to be an inbreeding species. It grows weakly on its own roots but more strongly when grafted onto *R. fragrantissimum*. It is reported to be incompatible when grafted with Subsection Vireya stock.

R. PHAEOCHITUM F. MUELL. - SUBSECT.
PHAEOVIREYA

Shrub to 2.5m, epiphytic, young stems densely covered in dark brown stellate-dendroid scales. Leaves 4-9 × 2.5-4.5cm, elliptic to sub-obovate, the apex obtusely pointed to rounded occasionally mucronate, the margin slightly reflexed, the base broadly tapering to rounded;

upper surface light brown- to silvery scaly but very quickly glabrescent, the midrib slender and slightly impressed, lateral veins 3-7 pairs very slightly impressed; lower surface with the midrib very strongly raised, the laterals slightly raised, the scales dense to rather sparse, dendroid, and very unevenly sized each from a small epidermal tubercle. Flowers 2-5(-11) per umbel, more or less half hanging; calyx a low densely scaly ring; corolla usually pink, sometimes red or cream, somewhat curved-cylindrical, 4.5-5.5 × 3-4cm, densely brown-scaly outside; stamens 10, grouped on the upper side of the corolla mouth; ovary densely covered in brown, stellate-dendroid scales, the style scaly to nearly the top. H1b. New Guinea (widespread on the main ranges), 2,100-2,600m.

This variable species grows well in cultivation, the form with cream flowers looks most exciting, owing to the strong contrast with the dense rusty brown scales.

R. phaeocephalum Sleumer - is a synonym of **R. konori** Becc. var. **phaeocephalum** (Sleumer) Argent

R. × PLANECOSTATUM (SLEUMER) ARGENT
A.L.LAMB & PHILLIPPS - SUBSECT.
VIREYA

Shrub to 1m, epiphytic or terrestrial, young stems smooth with fine scales at first. Leaves 4-5 × 1.5-1.8cm, elliptic to obovate, the apex acute, often acuminate, the margin entire, flat, the base tapering, upper surface at first minutely scaly, quickly glabrescent and shiny, main vein slightly raised, laterals 5-7 pairs, smooth, rather obscure; lower surface with the midrib more or less flat and the laterals obscure, scales rather sparse, lobed with small centres. Flowers 3-6 per umbel, horizontal to half hanging; calyx a low scaly ring; corolla red, cylindrical to narrowly funnel-shaped, 2-2.5 × 1.3-1.8cm, glabrous; stamens 10 arranged around the mouth of the flower, ovary glabrous, style glabrous. H1b. Sabah (E Malaysia), Kinabalu and

Crocker Range, 1,300-1,700m.

A hybrid originally described as a species and often sold as such. It is cheerful, vigorous and free flowering.

R. PLEIANTHUM SLEUMER - SUBSECT. SOLENOVIREYA

Shrub or tree to 6m, terrestrial; young stems laxly stellate-lepidote. Leaves 6.5-14 × 4-9cm, elliptic to obovate-elliptic, the apex rounded or broadly obtuse, the margin entire and flat, the base cordate, to rounded; upper surface at first finely stellate-scaly, later glabrescent, midrib impressed to the apex, lateral veins about 8 pairs finely impressed; lower surface with the midrib broad and strongly raised, the laterals also well raised, the scales well spaced broadly lobed to stellate, rather fine. Flowers 6-20 per umbel, half hanging; calyx with short, or sometimes long, lobes, scaly; corolla white suffused with pink or entirely pink, trumpet-shaped with a curved tube, 7-9 × 3-4cm, slightly scaly outside; stamens 10, rather irregularly exerted from the mouth of the flower; ovary densely hairy and obscurely scaly, the style hairy and scaly in the basal 1cm, above this glabrous. H1b. New Guinea (widespread in the eastern half of the island), 2,600-3,300m.

R. POLYANTHEMUM SLEUMER - SUBSECT. VIREYA

Shrub or small tree to 7m, epiphytic or terrestrial; young stems at first with a covering of rusty brown dendroid scales, later smooth. Leaves 8-13 × 5-8cm, broadly elliptic, the apex obtuse, rounded or apiculate, the margin entire and flat, the base broadly tapering to rounded; upper surface at first white-scaly, then brown but quickly becoming glabrous, the midrib flat, 6-8 pairs of lateral veins not raised or impressed; the lower surface with the midrib slightly raised, lateral veins not raised, the scales brown, dendroid, easily removed but not standing on raised epidermal tubercles. Flowers 25-30 per umbel, held semi-erect to horizontal; calyx a low scaly ring; corolla bright orange or

pinkish orange with a yellow eye, very powerfully and sweetly scented, narrowly funnel-shaped, 3-3.5 × 4-5cm, laxly covered in scales outside; stamens 10, roughly arranged in two groups on either side of the flower; ovary hairy, the style hairy near the base, glabrous in the upper part. H1b. Malaysia (Sabah and Northern Sarawak), 1,300-2,300m.

A delightful species which can make a magnificent visual display but is so powerfully scented that in forests in the wild it is often the nose which discovers it before the eye.

R. PRAETERVISUM SLEUMER - SUBSECT. VIREYA

Shrub to 2m, usually epiphytic; young twigs covered in small brown or transparent scales but soon smooth. Leaves 5-7 × 2-3cm, elliptic or ovate, the apex rounded or retuse, the margin entire, broadly recurved, the base broadly to narrowly tapering; upper surface at first with small silvery scales, quickly glabrescent, the midrib impressed, lateral veins 3-4 pairs rather obscure, lower surface with the midrib raised throughout its length, the laterals smooth, scales rather sparse and small, deeply lobed and with small centres. Flowers 3-7 per umbel, hanging vertically or nearly vertically down; calyx a low angular slightly scaly disc; corolla pink or pinkish violet, long cylindrical, only slightly curved 5-7.5 × 2.7-3.5cm, minutely scaly outside; stamens 10, spreading in the mouth of the flower on the lower side; ovary hairy and with rather obscure scales, style glabrous. H1b. Borneo (Sabah, Kinabalu and the Crocker Range), 1,100-1,800m.

A beautiful and easily grown species with the longest pendent flowers of any *Vireya*. Previously confused with *R. longiflorum* (see notes under that species for distinctions).

R. PURPUREIFLORUM J.J.SM. - SUBSECT. VIREYA

Shrub to 0.5m, epiphytic; young stems moderately covered with brown stellate

scales at first. Leaves 2.7-7 × 0.4-1cm, linear-lanceolate, the apex obtuse to subacute, the margin flat, the base narrowly tapering; upper surface at first scaly but quickly glabrescent, the midrib impressed above, lateral veins obscure; lower surface with the midrib strongly raised beneath, lateral veins obscure, scales moderately to deeply lobed, moderately dense and slightly impressed. Flowers 2-4 per umbel, hanging; calyx a low scaly, slightly lobed disc; corolla reddish purple to pale pink, tubular, somewhat zygomorphic, 2.7-3.2 × 2-2.4cm, glabrous or slightly scaly outside; stamens 10, rather unequal and grouped on the upper side of the flower; ovary densely scaly, style glabrous. H1b. West New Guinea (Perameles and Schrader Mts), 1,100-2,200m.

Introduced by Professor Sleumer and one of his narrow leafed species in series *Stenophylla* but doubtfully still in cultivation.

R. QUADRASIANUM VIDAL - SUBSECT. PSEUDOVIREYA

Shrub or small tree to 6m, terrestrial, sometimes epiphytic; young stems finely scaly and minutely white-hairy. Leaves 1.5-3.5 × 0.5-1.3cm, narrowly elliptic, elliptic, obovate or spatulate, the apex obtuse, rounded, often retuse, the margin strongly reflexed sometimes almost revolute, the base narrowly to broadly tapering; upper surface finely silvery or brown-scaly, the midrib impressed, the laterals 1-3 pairs mostly obscure; lower surface with the midrib strongly, weakly or hardly raised, the laterals smooth, the scales well spaced, circular or slightly lobed with small to large centres. Flowers 1-4 per umbel, half hanging to vertically hanging; calyx a low scaly and/or hairy disc; corolla red, cylindrical, 1.3-2.5 × 0.8-1.4cm, usually scaly and laxly hairy outside, sometimes scaly only; stamens 10, mostly irregularly arranged in the mouth of the flower sometimes roughly grouped on the lower side; ovary scaly only, the style glabrous. H1b. Philippines (widespread) possibly also in Seleb, 1,000-2,500m.

Bornean specimens are now all attributable to other species (see *Rhododendrons of Sabah* 1988, G. Argent, A. Lamb, A. Phillipps & S. Collenette, Sabah Parks Publication No. 8). A variable species with different forms coming from the different mountain groups in the Philippines, the most commonly cultivated form is var. *rosmarinifolium* (Vidal) Copel.f. with elongate-obovate leaves, with pedicels pubescent and scaly and corolla up to 1.5cm long.

R. RARILEPIDOTUM J.J.SM. - SUBSECT. VIREYA

Tree or shrub to 4m, terrestrial; young stems at first covered in brown scales later glabrous. Leaves 5-9 × 1.8-3.5cm, elliptic, the apex narrowly to broadly acute, the margin flat, the base narrowly tapering; upper surface, sparsely scaly initially, soon glabrous, midrib slightly raised above, lateral veins 6-12 pairs raised, rather obscure; lower surface with the midrib slightly raised, the laterals very obscure, scales fairly dense, brown, circular to lobed and with small centres. Flowers 10-18 per umbel, more or less horizontal; calyx a low scaly ring; corolla bright orange to red often with a darker red centre, sweetly scented, shortly funnel-shaped, 2.5-3.5 × 4-5cm, glabrous or very sparsely scaly outside; stamens 10, rather irregular, generally distributed around the lower 2/3 of the mouth of the flower; ovary glabrous or with a very few scales, style glabrous. H1b. Indonesia (Northern Sumatra), 1000-2500m.

A lovely and vigorous species in cultivation.

R. RARUM SCHLTR. - SUBSECT. PHAEOVIREYA

Delicate shrub up to 1m, epiphytic, young stems densely brown-scaly at first, quickly glabrescent. Leaves 2-5.5 × 0.5-1.2cm, narrowly elliptic to sublinear, the apex acute although with the very tip rounded, margin narrowly cartilaginous, slightly irregular, flat to slightly recurved, the base broadly tapering to rounded; upper sur-

face minutely brown-scaly at first, quickly glabrous, midrib impressed, lateral veins obscure; lower surface with the midrib raised, lateral veins obscure, scales brown, well spaced at maturity, dendroid and easily removed but leaving the protruding epidermal bases. Flowers 1-4 per umbel, half hanging to hanging; calyx a low brown-scaly ring; corolla red, curved-cylindrical, 2.5-3.5 × 2-2.7cm, finely but densely scaly outside; stamens 10, grouped in the upper side of the mouth of the flower; ovary densely stellate-scaly, style scaly in the lower third or half, above this with simple hairs and finally near the top glabrous. H1b. Papua New Guinea (Western and Eastern Highlands Provinces), 1,500-3,400m.

Its prostrate to hanging habit make it an ideal species for hanging baskets and it is the parent of a number of lovely hybrids which can similarly be displayed.

R. RETIVENIUM SLEUMER - SUBSECT. VIREYA

Shrub to 3m, usually terrestrial; young stems green or reddish, covered in flat substellate scales. Leaves 11-16 × 3-5cm, narrowly elliptic, the apex acute, the margin more or less flat, the base narrowly tapering; upper surface at first silvery scaly, quickly glabrescent, the midrib raised near the base and impressed in the upper part, lateral veins 12-18 pairs, slightly raised; lower surface with the midrib raised below, lateral veins somewhat raised, with small, widely distributed, lobed, scales with small centres. Flowers 4-7 per umbel, more or less horizontally held; calyx a low scaly ring; corolla yellow or yellow flushed orange, usually sweetly scented, funnel-shaped, 3-6.5 × 3.5-7.5cm, with a few scattered scales outside; stamens 10, loosely and irregularly arranged on the lower side of the mouth; ovary very finely hairy (when viewed with a strong lens) and with a very few scales, style glabrous or hairy at the very base. H1b. Sabah (Mt Kinabalu and Mt Alab), 2,000-2,700m.

R. RETUSUM (BLUME) BENN. - SUBSECT. PSEUDOVIREYA

Shrub or small tree, generally to 2m, exceptionally to 7m, usually terrestrial, young stems at first covered in raised discoid scales, later rough with the persistent tubercular scale bases. Leaves 2-4 × 1-2cm, elliptic, broadly elliptic or obovate, the apex broadly pointed, rounded or retuse, the margin slightly recurved to strongly and broadly turned down to give the leaf a reverse channelled appearance, the base broadly tapering; upper surface at first finely set with golden discoid scales, later glabrous, midrib narrowly impressed, lateral veins 2-4 pairs hardly impressed, often obscure; lower surface with the midrib slightly raised, lateral veins very slightly raised, rather obscure, scales well spaced, discoid with broad centres. Flowers 2-10 per umbel, from terminal and lateral buds, erect to half hanging; calyx a low scaly and hairy ring; corolla red, cylindrical to narrowly funnel-shaped, 1.6-2.5 × 1-1.5cm, sparsely scaly and hairy outside; stamens 10, more or less evenly distributed around the mouth; ovary densely scaly but without simple hairs, style with a few scales at the very base but otherwise glabrous. H1b. Indonesia (Sumatra and Java), 1,300-3,400m.

This species has rather small but attractive bright red flowers produced in profusion over quite a long season as the apical buds tend to open first, followed by laterals.

R. RHODOLEUCUM SLEUMER - SUBSECT. SOLENOVIREYA

Erect shrub to 4m usually terrestrial, young stems with scattered scales at first. Leaves 3-7 × 2-6cm, elliptic, broadly elliptic or slightly obovate-elliptic, the apex shortly and broadly attenuate to a mostly obtuse point, occasionally rounded, the margin entire and flat, the base strongly to weakly cordate; the upper surface at first with rather smooth silvery scales, quickly glabrescent, the midrib slightly impressed above, widening abruptly to the petiole

near the base, the laterals 6-8 irregular pairs with other smaller but distinct ones between, all slightly raised; the lower surface with the midrib only very slightly raised but the laterals finely but distinctly so, scales rather widely spaced, small, flat and irregularly lobed. Flowers 4-6 per umbel, half hanging; calyx indistinctly five-lobed, slightly scaly; corolla mostly red at the base, fading to pink upwards and with white lobes but quite variable in the intensity of the pigmentation, beautifully scented, long-tubular, with a straight or more usually slightly curved tube, 6-8 × 2.5-3.5cm, slightly scaly outside; stamens 10, rather irregularly exerted from the mouth; ovary densely covered with appressed hairs and scales, the style also hairy and scaly in the lower $\frac{2}{3}$. H1b. Papua New Guinea (Maneau Range in the Milne Bay Province), 2,200-2,800m.

See remarks under *R. tuba* for differences between this species and the most closely related ones.

R. ROBINSONII RIDL. - SUBJECT.
VIREYA

Shrub to 2.5m, usually epiphytic, young stems at first finely scaly, quickly glabrescent. Leaves 8-16 × 4-6.5cm, elliptic or broadly elliptic occasionally lanceolate, the apex acute, often acuminate, the margin entire, slightly revolute, the base broadly to narrowly tapering, sometimes slightly asymmetric; the upper surface with a strongly raised midrib in the basal half, the laterals 5-10 pairs only slightly raised or smooth, very finely scaly at first, quickly glabrescent; the lower surface with the midrib raised throughout its length, the laterals rather obscure, scales very small, brown, rounded to lobed. Umbels 4-12 flowered, erect to half-hanging; calyx disc-shaped sometimes with low lobes, almost glabrous; corolla yellow variably and sometimes heavily flushed orange, funnel-shaped, 3-3.5 × 3-3.5cm, glabrous outside; stamens 10, somewhat irregularly arranged in the mouth of the flower; ovary glabrous, or with a few scales, the style completely glabrous. H1b.

West Malaysia (from Perak to Selangor and in the Taiping Hills), 1,000-1,800m.

Distinguished from most forms of the very similar *R. brookeanum* by its almost glabrous ovary and glabrous filaments.

R. RUBINEIFLORUM CRAVEN - SUBJECT.
VIREYA

Shrub to 0.2m, epiphytic or creeping on peaty banks, young stems densely rough scaly the scales fairly persistent. Leaves 0.5-1 × 0.2-0.5cm, ovate to elliptic, broadly elliptic, to occasionally subcircular the apex acute to obtuse, rarely rounded, often sub-acuminate, the margin recurved, rather cartilaginous, often erose, subserrate in the upper part, the base tapering to rounded; upper surface with a slightly impressed midrib near the base, or quite smooth, the laterals obscure, with a few small scales on the upper surfaces at first but quickly glabrescent; below the midrib slightly raised near the base, the laterals obscure, scales well spaced, brown, irregularly lobed to sub-entire. Flowers solitary, hanging; calyx a low scaly ring; corolla red, campanulate, 2-2.5 × 2.5-3cm, conspicuously scaly on the tube outside; stamens 10, evenly arranged around the mouth of the flower; ovary densely hairy and scaly, style at the base hairy and scaly, glabrous in the upper half. H1b. Widespread in Papua New Guinea, not yet recorded from Irian Jaya, 2,600-3,400m.

A pretty species which since its recognition and introduction into cultivation has been used a great deal as a parent for hybridizing. Previously included within *R. anagalliflorum* q.v. but *R. rubineiflorum* may be distinguished by its much broader more open flowers which are solidly coloured red or pink.

R. RUGOSUM LOW EX HOOK.F. - SUBJECT.
VIREYA

Shrub or small tree to 8m, mostly terrestrial but also found epiphytically; young stems rather scabrid at first with brown scales that quickly fall. Leaves 6-10 × 3-5.5cm, ovate or broadly to narrowly ellip-

tic often strongly concave, the apex broadly pointed or shortly acuminate, the margin entire and slightly reflexed, the base broadly cuneate to rounded; upper surface with strongly impressed midrib throughout its length and about 8 pairs of strongly impressed laterals, at first brown-scaly above but very quickly glabrescent; below all veins distinct and strongly raised, with a moderately dense covering of dendroid brown scales which fall off at a touch and in old leaves may only be found in protected corners. Umbels 8-14 flowered, the flowers hanging or half hanging; calyx a low scaly and hairy ring; corolla pink to purplish pink (rarely reported as red), tubular campanulate, 2.5-3.5 × 2.5-3cm, with fine white hairs on the tube and hairs and scales on the lobes, the scales sometimes grouped at the base of the lobes; stamens 10, irregularly arranged but predominantly on the lower side of the mouth; ovary densely white-hairy and with some silvery scales, style glabrous. H1b. Malaysia (Sabah and N Sarawak?), 2,000-3,500m.

Often confused with *R. acuminatum* q.v. It is a most attractive plant with glowing pink flowers.

R. SANTAPAU SASTRY ET AL. - SUBSECT. PSEUDOVIREYA

Shrub to 1.5m, epiphytic; young stems moderately densely brown-scaly, becoming glabrescent. Leaves 2.5-4.5 × 1-1.8cm, narrowly obovate to elliptic, the apex acute to obtuse, somewhat downturned and minutely mucronate by a small protruding gland, margin flat or slightly revolute, the base narrowly tapering, upper surface with the midrib impressed to the apex, laterals 2-4 pairs, slightly impressed, the scales sparse, brown, the older surfaces glabrescent; lower surface with the midrib shallowly raised, the laterals obscure, scales moderately spaced, circular to slightly lobed, with a fairly broad flange and rather small centres. Flowers 1-4 per umbel, horizontal to half-hanging; calyx a low somewhat lobed, scaly disc; corolla white, short campanulate, 1-1.5 ×

1.5-2cm, sparsely scaly outside; stamens 10, protruding in a more or less regular group from the mouth; ovary densely silvery scaly, style glabrous. H2-3? India (NEFA, Subansiri District), 1,500-2,300m.

A pretty species now well established and widespread in cultivation.

R. SAXIFRAGOIDES J.J.SM. - SUBSECT. VIREYA

Dense cushion forming shrub to 0.25m, terrestrial; young stems with a few scales. Leaves 1.6-5.5 × 0.5-1cm, linear-lanceolate or oblanceolate, the apex acute to obtuse, often shortly acuminate or apiculate, the margin flat or revolute, the base narrowly tapering; upper surface with the midrib impressed above, laterals 2-3 pairs, slightly impressed, often obscure, with a few sparse scales at first, quickly glabrescent; lower surface with the midrib slightly raised, laterals mostly obscure, scales small, well spaced, deeply or shallowly lobed and slightly impressed. Flowers mostly solitary, occasionally in pairs, semi-erect to half-hanging (the ovaries becoming erect after the corollas wither); calyx a low wavy disc often fringed with hairs; corolla red to pink, tubular-cylindrical, somewhat curved and expanded near the mouth, 2.5-3 × 1.5-2.5cm, scaly on the tube outside; stamens 10, clustered on the upper side of the mouth; ovary hairy and obscurely scaly, style hairy at the base, glabrous above. H1b. New Guinea (widespread along the Main Range), 3,200-4,000m.

The dense cushion-forming habit of this species will distinguish it from all others but it is slow and difficult to cultivate although it can be found in collections in various parts of the world. Os Blumhardt working in New Zealand has produced some wonderful hybrids using this species to compact plants with a rather straggly habit and these are also now very widespread.

R. SAYERI SLEUMER - SUBSECT. VIREYA

Shrub to 2m, terrestrial or epiphytic, young stems at first densely brown-scaly,

becoming smooth. Leaves 4-7 × 2-4cm, elliptic, broadly elliptic or obovate-elliptic, the apex obtuse or rounded, the margin entire and revolute, the base broadly to narrowly tapering; the upper surface at first scaly, quickly glabrescent, the midrib narrowly impressed the lateral veins 6-8 pairs smooth, often rather obscure; underside densely to sparsely red-brown scaly, the scales deeply to finely lobed with small dark centres. Flowers 1-4 per umbel, horizontal to hanging; calyx an irregularly 5-lobed scaly disc; corolla pink to red, tubular-funnel-shaped, curved, 4-6 × 1.5-2.5cm, finely stellate-scaly outside; stamens 10, on the upper side of the mouth, ovary densely stellate-scaly, the style scaly in the lower 1/3, glabrous above. H1b. Papua New Guinea (Central and Enga Provinces), 1,700-2,200m.

R. SCABRIDIBRACTEUM SLEUMER - SUBSECT. VIREYA

Shrub or tree reported up to 12m, young stems at first quite densely brown-scaly but quickly becoming glabrescent. Leaves 6.5-12 × 2-5cm, elliptic to sub-obovate, the apex obtuse, rounded or emarginate, sometimes acute by a short somewhat deflexed mucro, the margin flat to slightly revolute, the base broadly tapering to almost rounded; the upper surface at first finely brown-scaly, the scales becoming silver before disappearing, the midrib impressed throughout its length and grooved in the basal part, lateral veins 9-12 pairs, very slightly impressed; underside with the midrib strongly raised throughout its length, the laterals only slightly raised; scales fairly dense, mostly silvery or pale brown, with a few dark brown ones, scattered rather evenly among them, lobed to substellate and slightly impressed. Flowers 6-12 per umbel at first semi-erect, later horizontal or hanging; calyx brown-scaly, a 5-lobed disc; corolla red or dark pink, tubular-funnel-shaped but distinctly curved, 6-7.5 × 4-5cm, finely but distinctly brown-scaly on the tube outside; stamens 10, clustered on the upper side of the mouth of the flower;

ovary covered with white or yellowish hairs which tend to obscure scales on the surface, style both hairy and scaly almost to the stigma. H1b. Papua New Guinea, 1,900-2,400m.

A striking species named from the covering of scabrid yellowish subappressed hairs on the floral bracts which tend to persist around the pedicels when the flowers first open.

R. SCHODDEI SLEUMER - SUBSECT. PHAEOVIREYA

Shrub to 2m, terrestrial, young stems at first densely covered with bright brown stellate scales. Leaves 3-6 × 1.5-2.3cm, ovate to ovate-elliptic, the apex acute, the margin entire, narrowly but distinctly revolute, the base broadly tapering to rounded; upper surface densely scaly at first but quickly glabrescent, midrib impressed, lateral veins 6-8 pairs slightly impressed or obscure; underside with the midrib strongly raised throughout its length, the laterals obscure, scales brown, stellate-dendroid, moderately dense, from small epidermal tubercles. Flowers 1-3 per umbel, half-hanging to hanging; calyx a low lobed, densely scaly disc; corolla deep pink, broadly tubular, slightly curved, 2.6-3 × 1.5-2.5cm, densely scaly outside; stamens 10, clustered on the upper side of the mouth; ovary densely scaly and hairy, the style hairy in the basal 1/3, glabrous above. H1b. Papua New Guinea (Western Highlands Province), 2,600m.

R. SEARLEANUM SLEUMER - SUBSECT. SOLENOVIREYA

Shrub to 4m, terrestrial, young stems densely scaly at first. Leaves 8-11 × 5-8cm, broadly elliptic, the apex obtusely pointed to rounded, the margin entire, flat or slightly revolute, the base broadly tapering to rounded; upper surface finely scaly at first, quickly glabrescent, the midrib raised for about half its length and grooved, laterals 5-6 pairs very slightly raised or smooth, the largest of them grooved; underside with the midrib raised for most of its length. the laterals slightly

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raised, the scales well spaced almost circular, quite variable in size with small centres and impressed. Flowers 11-16 per umbel, more or less horizontally disposed; calyx a low slightly scaly ring; corolla pale pink, slightly darker at the mouth, beautifully and powerfully scented, trumpet-shaped with a straight tube, 10-12.5 × 4.5-6cm, laxly scaly outside; stamens 10, rather loosely clustered on the lower side of the mouth; ovary densely scaly and with yellowish hairs, style densely hairy and scaly at the base, gradually becoming less so until the ultimate 1.5cm is glabrous. H1b. Papua New Guinea (Eastern Highlands Province near Gumine, also reported from Mt Digini in the Kubor Range), 2,100-2,200m.

A magnificent species which is very poorly known in the wild but well known in cultivation since its original and only introduction by Mr L.K. Searle in 1973.

R. SESSILIFOLIUM J.J.SM. - SUBSECT. VIREYA

Shrub to 3m, usually terrestrial, young stems finely and smoothly, stellate-brown-scaly, becoming glabrescent. Leaves 8-16 × 2.5-5cm, lanceolate to elliptic, the apex broadly to narrowly acute, sometimes abruptly acuminate, the margin mostly flat but rather wavy, the base truncate to subauriculate strongly rugose from the very short petiole; upper surface very finely scaly at first, soon glabrous, the midrib strongly raised for just over half its length, laterals 10-13 pairs, smooth or with the lamina sulcate between the veins near the middle of the leaf; underside with the midrib flat or only slightly raised, the laterals rather obscure, not raised at all; scales rather pale brown to translucent, lobed and impressed. Flowers 4-10 per umbel, erect to half hanging; calyx a low slightly angled disc; corolla bright yellow, broadly funnel-shaped, 2.5-3 × 3.5-5.5cm, glabrous outside; stamens 10, rather irregular but mostly disposed in the lower 2/3 of the mouth of the flower; ovary with a few obscure scales, minutely papillose, style glabrous. H1a-b. Indonesia, (Sumatra),

1,100-2,000m.

Delightful bright yellow flowers, very freely produced, the forms in cultivation appreciate a little more heat than most of the Vireyas.

R. × SHEILAE (SLEUMER) ARGENT (*R. ABIETIFOLIUM* SLEUMER × *R. BUXIFOLIUM* LOW EX HOOKER F.) - SUBSECT. VIREYA

Shrub to 2m, terrestrial; stems finely scaly at first. Leaves 1.5-4 × 0.4-1.3cm, narrowly elliptic, the apex rounded or slightly retuse, the margin reflexed and minutely crenulate, the base narrowly tapering; upper surface finely scaly at first but quickly glabrescent, midrib impressed, lateral veins 4-5 pairs, inconspicuous; lower surface with the midrib raised, lateral veins inconspicuous. Flowers 3-6 per umbel, horizontal to half-hanging; calyx a low scaly ring; corolla reddish purple, 2.5-3.2 × 1.7-2.4cm, sparsely scaly and finely white-hairy outside; stamens 10 distributed around the mouth of the flower; ovary densely white-hairy and obscurely scaly, style glabrous. H1b. Sabah (E Malaysia) Kinabalu, east ridge, 3,200-3,700m.

Sometimes seen in lists as a species this natural hybrid is quite variable. It is a very attractive plant with the young leaves flushing red and is far more vigorous and easy to cultivate than either of its parents.

R. sleumeri A. Gilli is a synonym of **R. blackii** Sleumer Subsect. Vireya.

R. SOLITARIUM SLEUMER - SUBSECT. PHAEOVIREYA

Shrub to 2m, mostly terrestrial, young stems at first densely brown-scaly and minutely hairy. Leaves 8-11 × 3-5.5cm, elliptic or slightly obovate-elliptic, the apex rounded to broadly obtuse, sometimes with a very slightly protruding apical gland, margin slightly revolute and narrowly cartilaginous, the base broadly tapering to rounded; upper surface at first densely brown-scaly but quickly becoming glabrescent, midrib slightly raised in

the basal half, impressed above, lateral veins 7-10 pairs markedly impressed as also the finer veins to give a bullate surface with clear reticulation; under surface with the midrib and laterals very strongly raised, densely brown-scaly at first with very varied dendroid scales from epidermal tubercles but the scales all easily removed at a touch. Flowers 4-6 per umbel, horizontal to half-hanging; calyx a low angled somewhat scaly disc but sometimes with elongate lobes; corolla pure white, scented, trumpet-shaped with a slightly curved tube, 5-7 × 2-3cm, slightly scaly outside; stamens 10, exerted from the mouth in a central group but falling to the lower side of the mouth as the corolla ages; ovary densely covered with hairs and scales, style hairy and scaly in the basal $\frac{3}{4}$, glabrous above. H1b. Papua New Guinea (Morobe Province, Mt Kaindi), 1,700-2,000m.

This species with its bullate, strongly reticulate leaves and dark brown dendroid scales is very distinct and most attractive. It is unlikely to be confused with any other although the flowers might suggest affinities in Subsect. *Solenovireya*.

R. SORORIUM SLEUMER - SUBSECT. PSEUDOVIREYA

Shrub to 2m, terrestrial, young stems covered in small stalkless scales, quickly glabrescent, sometimes rough from raised leaf scars but not from scale bases. Leaves 2.5-4.5 × 1-2cm, obovate with an emarginate apex in which lies a distinct apical gland, margin slightly recurved, somewhat cartilaginous, the base narrowly tapering; upper surface finely scaly at first, quickly glabrescent, the midrib impressed, laterals 1-3 pairs, slightly impressed; underside with the midrib slightly raised, the laterals slightly raised or obscure, the scales widely spaced, variable, slightly depressed, the smaller circular and pale brown, the larger darker brown and clearly lobed. Flowers solitary or occasionally paired, horizontal to half-hanging; calyx a low ring; corolla yellow, campanulate 1-1.5 × 0.8-1.4cm, densely

scaly outside; stamens 10, dimorphic, arranged all round the mouth of the corolla; ovary densely scaly, style glabrous. H1b. Tonkin, Lao Kay, 1,400-1,700m.

Widely distributed and in many collections from recent wild seed exchanges but not yet well known as most plants have yet to reach flowering size.

R. STAFFIANUM HEMSL. EX PRAIN - SUBSECT. SOLENOVIREYA

Shrub to 1m, usually epiphytic; young twigs rounded with white spreading hairs and brown scales. Leaves 4.5-5.8 × 1.2-2cm, elliptic or narrowly elliptic, the apex obtuse to rounded, the margin entire and strongly revolute, the base rounded or broadly tapering; the upper surface hairy or scaly becoming glabrescent, the midrib raised above at the base of the leaf but then impressed for the remainder of its length, lateral veins hardly visible; the lower surface with the midrib slightly raised, the laterals obscure, with a distinct indumentum of erect, simple, white hairs and brown stellate to subdendroid scales from a smooth surface. Flowers 7-18 per umbel, erect to horizontal; calyx a low hairy ring; corolla white, sometimes sweetly scented, trumpet-shaped, 4.5-5.5 × 2-2.5cm, rather densely hairy outside; stamens 10, irregularly spreading round the mouth of the flower; ovary densely hairy and with silvery scales, the style hairy and with silvery scales to near the top. H1b. Borneo (Sabah, N Sarawak and Kalimantan), 900-1,550m.

First described as *R. lacteum* Stapf but this name was already in use for the Chinese species of this name.

R. STENOPHYLLUM HOOK.F. EX STAFF - SUBSECT. VIREYA

Shrub to 3m, usually terrestrial; young stems smooth and very finely scaly. Leaves 4-7 × 0.14-0.5cm, linear, the apex acute, the margin entire and flat, the base narrowly tapering; upper surface with small fine scales at first quickly becoming glabrescent, midrib a little impressed above, the lateral veins up to 7 pairs but

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obscure; lower surface with the midrib smooth and laterals obscure, the scales sparsely distributed, substellate with small centres. Flowers 1-5 per umbel, held horizontally or half hanging; calyx a low scaly ring; corolla opening orange but turning red with age, campanulate, 2.5-3.5 × 3-4.5cm, glabrous outside; stamens 10, slightly dimorphic, arranged all round the mouth of the flower; ovary densely white hairy, style glabrous. H1b. Sabah, Brunei and Northern Sarawak, 1,500-2,400m.

This species with its bizarre leaves is relatively easy to cultivate, it occurs in two distinct subspecific forms: subsp. *stenophyllum* is endemic to Mt Kinabalu and has leaves less than 25× as long as wide (2.5-6mm wide); subsp. *angustifolium* is of much wider distribution in the wild and has leaves more than 30× as long as wide (1.4-2.2mm wide).

R. STEVENSIANUM SLEUMER - SUBSECT. VIREYA

Shrub to 0.75m, epiphytic; young stems at first rather densely covered in pale brown scales, some distinctly stalked and also with a fine indumentum of short hairs. Leaves 3-4.5 × 2-3.5cm, ovate or broadly-ovate, the apex obtuse, somewhat decurved, the margin slightly recurved, the base cordate; upper surface at first silvery scaly, quickly glabrescent, the midrib finely impressed for most of its length, laterals 4-6 pairs smooth or very slightly raised or impressed; the lower surface with the midrib strongly raised in the lower half, the laterals smooth, scales moderately dense, brown, irregularly lobed and in shallow depressions. Flowers 2-3 per umbel, semi-erect to half-hanging; calyx a hairy and scaly irregularly lobed disc; corolla pink sometimes with a bluish purple tinge, cylindrical, straight or slightly curved, 2-2.5 × 2.5-3cm, rather sparsely scaly and hairy outside; stamens 10, slightly dimorphic at first clustered in the centre of the flower, later spreading back against the lobes; ovary silvery hairy and scaly, style hairy in the lower half, glabrous above. H1b. Papua New Guinea

(Eastern Highlands Province, Mt Michael, and near Obura, Simbu [Chimbu] Province, Porul Range), 2,000-2,100m.

R. SUAVEOLENS SLEUMER - SUBSECT. SOLENOVIREYA

Shrub to 3m, terrestrial or epiphytic; young stems smooth with only very inconspicuous scales. Leaves 6-10 × 3.5-7cm, elliptic, the apex rounded or sometimes broadly pointed, margin flat with a translucent edge, base cordate to rounded; upper surface green with inconspicuous scales, the midrib weakly channelled for most of its length otherwise smooth, with a red pigmented triangular area at the base, the 5-7 pairs of lateral veins rather indistinct; the lower surface with the midrib weakly raised in the lower third, all other veins obscure, scales minute, widely spaced, brown and deeply lobed. Flowers 14-20 per umbel, erect to horizontal in disposition; calyx circular with a red edge; corolla white or pink (forma *roseum*) often but not always sweetly scented, trumpet-shaped, 4.5-5.5 × 1.5-2.5cm glabrous outside; stamens 10, clustered in the mouth; ovary densely covered in silvery scales and erect white hairs, style with scattered scales at the base and white hairs in approximately the basal half. H1b. Malaysia (Sabah, Kinabalu and the Crocker Range south to Mt Lotung), 1,200-1,700m.

This very attractive species although described by Professor Sleumer was later reduced by him to synonymy with *R. orbiculatum*. David Hunt at Kew clearly established their distinctness, this species having leaves about twice as long as wide and much narrower flowers.

R. SUMATRANUM MERR. - SUBSECT. VIREYA

Shrub to 3m, terrestrial or occasionally epiphytic; young stems covered with substellate scales but quickly glabrescent. Leaves 2.5-8.5 × 1.5-4cm, mostly elliptic or obovate-elliptic, the apex obtuse to rounded, margin flat or slightly recurved, the base broadly tapering; upper surface at

first finely brown-scaly, quickly glabrescent, midrib impressed, laterals 4-7 pairs more or less smooth; lower surface with the midrib raised for most of its length, the laterals flat, moderately densely covered in small brown mostly circular scales which are slightly impressed in shallow pits. Flowers 1-6 per umbel, horizontal to half-hanging; calyx a densely scaly and sparsely hairy disc; corolla red or reddish orange, narrowly funnel-shaped, 2.3 × 1.5-2cm, sparsely scaly and hairy outside; stamens 10, evenly distributed around the mouth; ovary densely scaly, style glabrous. H1b. Northern Sumatra, 1,800-2,700m.

This species hybridizes in the wild with *R. rarilepidotum* and *R. retusum* to give larger and smaller flowered forms respectively.

R. SUPERBUM SLEUMER - SUBJECT. PHAEOVIREYA

Shrub or small tree to 6m, mostly epiphytic but terrestrial in open situations; young stems densely brown-stellate-scaly but quickly glabrescent. Leaves 8-12 × 4.5-8cm, broadly elliptic to sub-ovate or sub-obovate, the apex broadly acute to obtuse, occasionally shortly acuminate, the margin slightly recurved, the base broadly tapering, rounded to rarely subcordate; the upper surface at first with brown dendroid scales, quickly glabrescent leaving an almost smooth surface, midrib raised in the lower half to one third and grooved, slightly impressed in the upper part, lateral veins 5-8 pairs, smooth and rather obscure; lower surface with the midrib raised for most of its length, the laterals smooth and often obscure, at first fairly densely covered in brown dendroid scales from rather low epidermal tubercles. Flowers 3-5 per umbel, horizontal to half-hanging; calyx a low, lobed, densely scaly disc; corolla white, cream, or various shades of pink, often with darker pink marks at the base of the lobes, deliciously and powerfully carnation scented, funnel-shaped or very broadly trumpet-shaped, the lobes usually 6-7, occasionally 5, 5-14 ×

9-12cm, sparsely scaly outside; stamens twice the number of corolla lobes, mostly scattered round the basal 2/3 of the mouth of the flower; ovary densely covered with reddish brown deeply lobed scales, the style scaly in the basal 1/4 or completely glabrous. H1b. Papua New Guinea (widespread on the main ranges), 1,500-3,000m.

One of the most attractive species in the section, it is very close to *R. hellwigii* with which it probably hybridizes in the wild and the darker pink forms may be this hybrid. This species generally has a straight corolla tube and the stamens are less densely clustered than in *R. hellwigii*, the nearly glabrous style separates this species from *R. konori*.

R. taiwanianum Ying - is considered a synonym of **R. kawakamii** Hayata (Subject. Pseudovireya).

R. TUBA SLEUMER - SUBJECT. SOLENOVIREYA

Shrub to 5m, usually terrestrial, young stems sparsely scaly. Leaves 4-9 × 2.5-5cm, elliptic to broadly elliptic, the apex broadly acute often somewhat acuminate, the margin flat, narrowly cartilaginous in the upper part, the base truncate or rounded occasionally weakly cordate; the upper surface at first scaly but quickly becoming glabrescent, the midrib depressed above, grooved near the base, lateral veins 6-8 pairs slightly depressed; lower surface with the midrib broadly raised beneath, the laterals smooth or very slightly raised, scales moderately dense and persistent, substellately lobed, brown, the centres somewhat impressed. Flowers 4-7 per umbel, horizontal to half-hanging; calyx variable from a low almost glabrous disc to occasionally having long lacinate lobes; corolla white with a pink tube, trumpet-shaped but somewhat curved, 6.5-9 × 2-3cm, obscurely scaly outside; stamens 10, rather unequal and grouped in the mouth of the flower; ovary both hairy and scaly, style hairy and scaly in the lower half. H1b. Papua New Guinea, SE, (Mt Dayman), 2,500-2,700m.

Very similar to *R. rhodoleucum* from which it is distinguished by its non or hardly cordate leaves, a longer petiole and smaller anthers (petioles 2-4mm instead of 0-1mm in *R. rhodoleucum* and anthers up to 2.5 v. more than 3.5mm in *R. rhodoleucum*). It is also very similar to *R. armitii* which is distinguished by its larger leaves and much longer petioles, more than 6mm long.

R. VACCINIOIDES HOOK.F. - SUBSECT. PSEUDOVIREYA

Shrub to 1m, terrestrial or epiphytic, young stems densely covered with brown scales on prominent stalks, later scabrid by the persistent stalks alone. Leaves 1.2-2.2 × 0.4-1cm, spatulate to elliptic, the apex obtuse, rounded or emarginate with a prominent yellowish apical gland, the margin flat or very slightly reflexed the base narrowly to broadly wedge-shaped; the upper surface with well spaced pale brown scales, midrib strongly impressed above, lateral veins obscure or traces of 1-3 pairs; lower surface with the midrib slightly raised, the laterals obscure, scales disk-shaped to lobed, dark brown, distinct and well spaced. Flowers solitary, rarely up to 4 together, more or less horizontal; calyx of 5 rather long scaly lobes; corolla white with a tinge of pink, sub-urceolate or shortly cylindrical with the long lobes reflexing back against the tube, 0.7-8 × 0.9-1.1cm, scaly outside; stamens 10, protruding in a rather irregular mass from the mouth; ovary densely silvery scaly, style glabrous, pink. H1b-2. Nepal, India (Sikkim and Assam Sirhoi), China (Yunnan, Tibet [Eastern]), Bhutan, Burma (upper), 1,700-4,200m.

A delicate species disliking the high temperatures of summer which makes it a temperamental plant to keep on a long term basis. *R. vaccinoides* includes *R. sino-vaccinoides* Balf.f. which only differs in having larger leaves and a range of intermediates occur.

R. vandeursenii Sleumer - is a synonym of **R. vitis-idaea** Sleumer (Subsect. Vireya).

R. VERSTEEGII J.J.SM. - SUBSECT. ALBOVIREYA

Shrub to 1m, terrestrial; young stems densely scaly but quickly becoming glabrescent and smooth. Leaves 1-4 × 0.6-2cm, obovate to elliptic, the apex obtuse to rounded, the margin flat, often minutely crenulate especially towards the apex, base tapering; upper surface densely silvery scaly, only slowly glabrescent, midrib slightly impressed above, lateral veins 3-4 pairs also slightly impressed or obscure; lower surface with the midrib broad and strongly raised at the base, disappearing upwards before the apex, lateral veins rather obscure, densely scaly with overlapping silvery scales. Flowers 2-5 per umbel, mostly half-hanging; calyx a densely scaly, lobed disc; corolla red and yellow in an irregular pattern, funnel-shaped, 2.5-4 × 3-4cm, rather densely scaly outside; stamens 10, scattered around the mouth of the flower; ovary densely scaly and hairy, the style densely scaly and hairy in the lower ½ to ¾, glabrous near the top. H1b. New Guinea (Irian Jaya Mt Trikora [Wilhelmina] and Lake Habbema region), 3,200-4,000m.

Recorded as being in cultivation but undoubtedly difficult and probably misidentified. The extraordinary bicoloured flowers would make it unmistakable when in flower.

R. VITIS-IDAEA SLEUMER - SUBSECT. VIREYA

Erect shrub up to 2m, mostly terrestrial; young stems at first covered with stalked stellate scales which soon disappear to leave a rough warty surface. Leaves 0.8-5 × 0.5-2.5cm, obovate to elliptic, the apex obtuse, rounded to retuse, the margin strongly recurved, the base tapering; upper surface at first with small silvery scales, quickly glabrescent, the midrib impressed, the laterals 3-5 pairs smooth or very slightly impressed; lower surface with the midrib raised throughout its length, laterals slightly raised or obscure, scales well spaced, brown, circular to sub-stellate, conspicuous against the pale sur-

face of the leaf. Flowers mostly solitary occasionally in pairs, pendent; calyx a low scaly and slightly hairy ring; corolla red, cylindrical, sometimes slightly curved, 2.5 × 1.8-2.5cm, finely silvery scaly and inconspicuously white-hairy outside; stamens 10, clustered on the lower side of the mouth; ovary densely white-hairy and scaly, style hairy in the basal half, glabrous above. H1b. Papua New Guinea (main range around Mt Wilhelm, Saruwakets, Rawlinson Range, vicinity of Bulolo and Owen Stanley Mts), 2,100-3,500m.

Now including *R. vandeursenii* Sleumer originally distinguished by its larger flowers but all intermediates have been shown to occur; these large-flowered forms are the best in cultivation.

R. warianum Schltr. is a synonym of **R. leptanthum** F. Muell.

R. WILLIAMSII MERR. EX COPEL.F. - SUBSECT. VIREYA

Small tree to 7m, terrestrial; young stems at first sparsely scaly but quickly glabrescent, pale and slightly glaucous or flushed with red. Leaves 8-11 × 3-6cm, elliptic, broadly elliptic or sub-ovate, the apex acute and shortly and sharply acuminate, the margin entire, flat or very slightly revolute, the base tapering, cuneate; the upper surface at first silvery-scaly, quickly glabrescent, the midrib raised in the lower third, impressed above, lateral veins 6-12 pairs distinct, either impressed or raised; the lower surface with the midrib strongly prominent, the lateral veins distinct but smooth, the scales rather sparse, small, flat and variously lobed with dark centres and tending to leave shallow dark pits after they have fallen. Flowers 5-8 per umbel, erect or semi-erect; calyx disc shaped or irregularly 5-lobed, tinged red; corolla white, funnel-shaped, 2.5-4 × 3-5.5cm, sparsely scaly or glabrous outside; stamens 10 distributed around the mouth of the flower; ovary densely silvery scaly, style with a few scales near the base, otherwise glabrous. H1b. Philippines (Mountain and Zambales Provinces),

1,500-2,200m.

R. WOMERSLEYI SLEUMER - SUBSECT. VIREYA

Erect shrub to 2m, mostly terrestrial; young stems at first covered with dark brown scales raised on stalks and minutely hairy, later scabrid. Leaves 0.6-1 × 0.4-0.5cm, elliptic or broadly elliptic to subspherical, the apex acute, obtuse and sometimes mucronate, the margin flat, slightly cartilaginous and sometimes minutely crenulate, the base broadly tapering to rounded; the upper surface with a few scales initially but quickly glabrous, midrib impressed, laterals obsolete; the lower surface with the midrib almost flat, the laterals obsolete, the scales widely spaced, dark brown and irregularly but not deeply lobed, not impressed or raised. Flowers 1-3 per umbel, hanging vertically down; calyx a low scaly and hairy ring; corolla red, cylindrical, mostly with 5 but sometimes up to 7 lobes, 2-2.5 × 2-2.5cm, finely and obscurely scaly and hairy outside; stamens mostly 10, sometimes up to 14, distributed irregularly all round the mouth of the flower; ovary densely white-hairy, style covered in white hairs for the basal $\frac{3}{4}$, glabrous above. H1b. Widespread on the main range in Papua New Guinea, 3,200-4,000m.

A pretty species of stiffly erect growth in the wild but inclined to be straggly in cultivation.

R. WRIGHTIANUM KOORD. - SUBSECT. VIREYA

Shrub to 2m, epiphytic or terrestrial; young stems finely brown-scaly from low epidermal tubercles which make the twigs slightly rough to the touch. Leaves 2-4 × 1-2cm, obovate, the apex broadly obtuse to rounded, more rarely retuse and mucronate, the margin revolute, entire, the base broadly tapering; the upper side at first sparsely scaly with silvery scales, quickly glabrescent, midrib impressed for most of its length, lateral veins up to 5 pairs obscure or not at all visible; the

lower side with the midrib raised for most of its length, the laterals flat and obscure, the scales small, well spaced, brown, discoid or lobed and in shallow depressions. Flowers mostly in 2-3 flowered umbels, hanging or half-hanging; calyx a low scaly ring; corolla most commonly red or very dark blackish red, rarely white with pink lobes or red with white lobes, cylindrical to narrowly funnel-shaped, 3-3.5 × 1.5-2.5cm, finely scaly on the tube outside; stamens 10, clustered on the lower side of the mouth of the flower; ovary densely silvery scaly, the style glabrous apart from a few scales at the very base. H1b. New Guinea (widespread from east to west), 1,400-3,200m

R. YELLIOTII WARB. - SUBSECT. VIREYA
ALBOVIREYA

Shrub to 8m in the wild, terrestrial, young stems densely covered with shortly stalked scales. Leaves 0.7-4 × 0.5-2cm, ovate, elliptic, broadly elliptic to subcircular, the apex broadly acute, abruptly acuminate or more rarely obtuse, the margin slightly revolute and minutely crenulate with impressed scales, the base rounded; the upper surface at first densely scaly but weathering and only leaving impressed scale bases, midrib slightly impressed above, the laterals 2-4 pairs, very slightly impressed; underside with the midrib strongly raised, the laterals slightly so, densely and persistently scaly with touching or overlapping stellate to almost rounded silvery brown scales. Flowers 3-5 per umbel, horizontal to hanging; calyx disk-shaped, densely scaly; corolla dark red, rarely white, cylindrical, slightly curved, 0.8-1.5 × 0.5-0.7cm, densely scaly outside; stamens 10, rather unequal and irregularly grouped in the mouth; ovary densely brown-scaly, the style glabrous. H1b. Papua New Guinea (widespread on the main ranges), 1,300-3,700m.

Commonly mistaken for *R. inconspicuum* which is an easier species to grow and much more common in collections. *R. yelliottii* is more densely scaly with the

scales touching or overlapping on the undersides of the leaves; the flower buds are hairy and scaly with ciliated edges to the bracts and the flowers are generally darker in colour than in *R. inconspicuum*.

R. YONGII ARGENT - SUBSECT. VIREYA
Shrub to 3m, predominantly terrestrial but occasionally epiphytic, young stems sparsely covered with pale brown scales. Leaves 6-11 × 2-5.5cm, elliptic to broadly elliptic, the apex rounded to slightly retuse, the margin entire and broadly recurved, the base broadly tapering; the upper surface at first minutely scaly, quickly glabrescent and shiny, the midrib impressed above, the laterals 5-8 pairs, very slightly impressed; underside with the midrib very strongly raised, the laterals only slightly so, rather sparsely covered in pale brown, deeply lobed scales. Flowers 5-12 per umbel, semi-erect to half-hanging; calyx a shallowly 5-lobed scaly disc; corolla dark red, strongly curved, cylindrical or narrowly funnel-shaped, 2-3.2 × 1-2cm, with a few scattered brown scales but numerous and more conspicuous white hairs outside; stamens 10, clustered on the upper side of the mouth; ovary densely white-hairy and scaly, the style glabrous. H1b. Malaysia (Sabah and Northern Sarawak from Mt Kinabalu to Mt Mulu), 1,500-2,100m.

A lovely species with intense, blood red flowers which shine brilliantly when the sun is behind them. There are two distinct forms in cultivation at present: one tall and straggly with good foliage from Mt Mulu; the other from Mt Alab is much more compact but subject to leaf burn.

R. ZOELLERI WARB. - SUBSECT. VIREYA
Shrub or tree up to 10m, terrestrial; young stems finely scaly at first. Leaves 7-17 × 3-9cm, elliptic, broadly elliptic to sub-ovate, the apex shortly acuminate, broadly acute or obtuse, the margin flat and entire, the base broadly tapering, sometimes rather unequal; the upper surface at first with pale brown scales, these becoming

silvery and soon disappearing, the midrib slightly raised in the basal half, distinctly grooved to over half way, the lateral veins 9-14 pairs very slightly raised; lower surface with the midrib strongly raised for most of its length, the laterals very slightly raised, scales rather sparse, pale brown, lobed and with small darker centres. Flowers 4-8 per umbel, semi-erect to half hanging; calyx a low scaly and hairy disc; corolla orange to pink with a yellow throat, sometimes scented, funnel-shaped, 4-10 × 5-6cm, sometimes with a few hairs at the base and generally laxly scaly outside; stamens 10, rather irregularly scattered usually on the lower side of the mouth; ovary hairy and obscurely scaly,

the style hairy and often scaly as well for about $\frac{3}{4}$ of its length, glabrous at the top. H1a-b. Throughout New Guinea and west to the Moluccas (W Seram), almost from s.l.-2,000m.

AM 1973 (Royal Botanic Gardens, Kew) to a clone 'Decimus'; flowers Orange-Red Group 31B at tip, Yellow-Orange Group 21A at base.

This widespread species is one of the boldest of the Vireyas with its flamboyant orange and yellow flowers. It is the parent of many hybrids both cultivated and in the wild. It is most likely to be confused with *R. laetum* or *R. baenitzianum* and may be distinguished as noted under those species.

Collectors' Numbers

Introduction

Since 1980 travel within China has become possible and there have been a number of Chinese expeditions since then. Lists from these expeditions comprise a significant proportion of those included here for the first time. It should be noted that there are restrictions on the export of live material from both Bhutan and China (including seed) and that publication of these lists does not imply that live material is or ever has been available from expeditions to these countries.

Some corrections have been made to the determinations published in previous editions of the Handbook to bring this account up to date.

Lists for the Malesian rhododendrons of Sect. *Vireya* are not included though a number of those for plants raised at Edinburgh have been published in Chamberlain et al. (1996).

These lists are arranged in alphabetical order by collectors' names. The nomenclature used follows that to be found in the text; no attempt has been made to include the names originally used. Where the name is not known for an individual number, the number is cited as 'sp.' Where a number can only be identified to a subsection then that subsection is cited against the appropriate number. When an identification is tentative, the number is followed by the abbreviation 'aff.' (affinity). Where more than one entity has been raised under a single number, or the resultant plant is different from the parent then that number is supplied with a lower case alphabetic suffix. An '=' sign is used in the text to denote alternative numbers for a single collection. Some of Rock's collections have been introduced into cultivation under US Department of Agriculture numbers; these are cited with the corresponding field numbers.

Alpine Garden Society

SIKKIM EXP. (1983)

- | | |
|-----|------------|
| 418 | anthopogon |
| 547 | hodgsonii |
| 561 | anthopogon |
| 637 | lepidotum |

JAPAN EXP. (1988)

- | | |
|-----|-------------------------------------|
| 43 | brachycarpum |
| 64 | degronianum subsp.
degronianum |
| 69 | brachycarpum subsp.
brachycarpum |
| 139 | aureum |
| 163 | albrechtii |
| 177 | kaempferi |
| 282 | camtschaticum |
| 366 | aureum |
| 441 | dauricum |

CHINA EXPS. (1994)

- | | |
|------|---------------------------------------|
| 1183 | phaeochrysum aff. |
| 1275 | nivale aff. |
| 1423 | primuliflorum aff. |
| 1481 | campylogynum aff. |
| 1485 | nivale aff. |
| 1506 | rupicola var. chryseum |
| 1513 | nivale subsp. boreale aff. |
| 1515 | primuliflorum aff. |
| 1549 | Subsect. Lapponica |
| 1572 | primuliflorum |
| 1619 | hippophaeoides var.
hippophaeoides |
| 1637 | racemosum |
| 1664 | rubiginosum aff. |
| 1670 | sp. |
| 1706 | primuliflorum |
| 1756 | sp. |
| 1775 | sp. |
| 1776 | saluenense subsp.
chameunum |
| 1777 | phaeochrysum aff. |

- 1779 Sect. Pogonanthum
 1787 Subsect. Lapponica
 1824 Subsect. Taliensia
 1864 russatum aff.
 1879 beesianum
 1928 rubiginosum aff.
 2011 yunnanense aff.
 2069 sp.
 2071 sp.
 2083 sp.
 2086 sp.
 2087 Subsect. Taliensia
 2088 Subsect. Taliensia
 2089 Subsect. Taliensia
 2090 beesianum aff.
 2091 rex subsp. ficolaceum
 2096 decorum subsp. decorum
 2097 yunnanense
 2100 sp.
 2102 russatum
 2103 Subsect. Taliensia
 2115 sp.
 2116 Subsect. Taliensia
 2118 roxieanum
 2130 Subsect. Lapponica
 2143 saluenense subsp.
 chameunum
 2152 sp.
 2154b sp.
 2155 Subsect. Lapponica
 2161 roxieanum
 2192 decorum subsp. decorum
 2255 phaeochrysum aff.
 2256 sp.
 2257 wardii aff.
 2258 rupicola var. chryseum
 2259 Subsect. Lapponica
 2384 sp.
 2441 Subsect. Lapponica
 2496 fastigiatum
 2499 campylogynum
 2518 sp.

Apold, Cox and Hutchison**(ACH)****NE TURKEY EXP. (1962)**

- 102 × sochadzeae White (hybrid)
 103 × sochadzeae Pink (hybrid)

- 114 caucasicum
 118 smirnowii
 119 ungeronii
 120 ungeronii × smirnowii (hybrid)
 121 ungeronii × smirnowii (hybrid)
 121b ungeronii
 129 smirnowii
 130 × sochadzeae (hybrid)
 131 × sochadzeae (hybrid)
 147 caucasicum
 204 luteum
 205 ponticum
 206 caucasicum

Bartholomew, B.**BHUTAN EXP. (1974)**

- 141 keysii
 147 barbatum
 150 barbatum
 151 barbatum
 185a succothii
 185b lanatum
 207 hodgsonii
 259 barbatum

Beer, L.**NEPAL EXP. (1975)**

- 620 lepidotum
 633 setosum
 643 campanulatum subsp.
 campanulatum
 652 cinnabarinum subsp.
 cinnabarinum
 653 hodgsonii
 655 barbatum × campanulatum
 (hybrid)
 662 camelliiflorum
 670 grande
 703 arboreum var.
 cinnamomeum

Beer, L., Lancaster, R. & Morris (BLM)**E NEPAL EXP. (1971)**

- 26 ciliatum

- 92 wightii
 153 camelliiflorum
 217 setosum
 220 cinnabarinum subsp.
 cinnabarinum
 228 thomsonii subsp.
 thomsonii
 231 anthopogon
 233 cinnabarinum subsp.
 cinnabarinum
 234 cinnabarinum subsp.
 cinnabarinum
 239 triflorum subsp.
 triflorum
 279 lepidotum
 280 cinnabarinum subsp.
 cinnabarinum
 283 campanulatum subsp.
 campanulatum
 314 ciliatum
 315 glaucophyllum subsp.
 glaucophyllum
 323 hodgsonii
 324 ciliatum
 325 barbatum
 330 fulgens
 332 anthopogon subsp.
 anthopogon
 344 campanulatum subsp.
 campanulatum
 10094 thomsonii subsp. thomsonii
 10637 camelliiflorum
 12288 dalhousiae var. dalhousiae

**Beyer, R., Erskine, C. &
 Cowley, J.**

KOREA EXP. (1982)

- 28 weyrichii
 45 mucronulatum var.
 mucronulatum
 139 schlippenbachii
 271 yedoense var. poukhanense

Binns, Mason & Wright

NEPAL EXP. (1978)

- 66 falconeri subsp. falconeri
 107 campanulatum forma

- 151 hodgsonii
 152 barbatum
 153 thomsonii subsp. thomsonii
 172 arboreum var. cinnamomeum

Bowes-Lyon, S.
NEPAL EXP. (1962)

- 48 arboreum subsp. cinnamomeum
 84 campanulatum subsp.
 campanulatum
 88 barbatum
 142 lepidotum

NEPAL EXP. (1964)

- 2031 cinnabarinum subsp.
 cinnabarinum
 2072 lepidotum
 2098 nivale subsp. nivale

BHUTAN-SIKKIM EXP. (1966)

- 3011 lindleyi
 3012 barbatum
 3013 barbatum
 3024 pendulum
 3040 virgatum subsp. virgatum
 3047 triflorum
 3068 virgatum subsp. virgatum
 3069 cinnabarinum subsp.
 xanthocodon
 3071 cinnabarinum subsp.
 xanthocodon
 3098 pendulum
 3124 nivale subsp. nivale
 3149 anthopogon subsp. anthopogon
 3152 lanatum
 3155 campanulatum subsp.
 aeruginosum
 3173 cinnabarinum subsp.
 xanthocodon
 3189 keysii
 3193 edgeworthii
 3194 ciliatum
 3197 griffithianum
 3214 dalhousiae var. rhabdotum
 3225 campanulatum
 3226 wallichii
 3231 anthopogon subsp. anthopogon

- 3232 lanatum
 3241 wightii
 3255 thomsonii subsp. thomsonii
 3260 fulgens
 3268 campylocarpum × thomsonii
 (hybrid)
 3286 × candelabrum (hybrid)
 3355 baileyi
 3462 lepidotum
 3491 maddenii subsp. maddenii
 3493 maddenii ssp. maddenii

BHUTAN EXP. (1967)

- 5089 wightii
 5089a campanulatum subsp.
 aeruginosum
 5194 maddenii subsp. maddenii
 5194a grande
 5795 grande

BHUTAN EXP. (1969)

- 15005 maddenii subsp. maddenii
 15006 maddenii subsp. maddenii
 15018 camelliiflorum
 15020 dalhousiae var. rhabdotum
 15027 campanulatum
 15040 campanulatum
 15040a lanatum
 15041 wightii
 15042 succothii
 15043 cinnabarinum subsp.
 xanthocodon
 15051 campanulatum
 15073 argipeplum
 15150 maddenii subsp. maddenii

BHUTAN EXP. (1970)

- 6003 niveum
 6004 × candelabrum (hybrid)
 6005 glaucophyllum
 6006 argipeplum
 6007 pendulum
 6008 niveum
 6016 argipeplum
 6020 glaucophyllum
 6025 lindleyi
 6026 dalhousiae var. dalhousiae
 6035 succothii

- 6037 maddenii subsp. maddenii
 6038 maddenii subsp. maddenii
 6074 argipeplum
 6075 argipeplum
 6076 ciliatum
 6077 cinnabarinum subsp.
 xanthocodon
 6078 succothii
 6086 kendrickii
 6092 maddenii subsp. maddenii

BHUTAN EXP. (1987-89)

- 1 dalhousiae var. rhabdotum
 2 maddenii subsp. maddenii
 4 wightii
 6 camelliiflorum
 7 glaucophyllum
 12 barbatum
 13 cinnabarinum
 16 lindleyi
 18 campylocarpum subsp.
 campylocarpum
 19 cinnabarinum
 22 grande
 23 thomsonii subsp.
 thomsonii
 25 sp.
 31 griffithianum
 32 maddenii subsp. maddenii
 33 vaccinioides (Sect. Vireya)
 425 kesangiae var. kesangiae

BHUTAN EXP. (1994)

- 10133 edgworthii
 10134 maddenii subsp.
 maddenii
 10138 falconeri subsp. falconeri
 10139 kesangiae var. kesangiae
 10140 succothii
 10141 flinckii
 10142 sp.
 10143 sp.
 10144 sp.
 10145 sp.
 10146 sp.
 10147 sp.
 10148 sp.
 10149 sp.
 10150 sp.

Cave, G.

**SIKKIM, W BENGAL, N INDIA
(C. 1914)**

- 6712 falconeri subsp. falconeri
6714 argipeplum
6715 arboreum var. cinnamomeum

**Chamberlain, D., Cox, P.A. &
Hutchison, P.C. (CCH)**

SICHUAN, CHINA EXP. (1989)

- 3902 pachytrichum var. monosematum
3903 pachytrichum var. pachytrichum
3904 faberi
3905 pingianum
3906 wiltonii
3907 pachytrichum var. pachytrichum
3908 calophytum var. calophytum
3909 strigillosum
3910 pachytrichum var. pachytrichum
3911 calophytum var. calophytum
3912 pingianum
3914 strigillosum
3915 dendrocharis
3917 davidii
3919 pachytrichum var. pachytrichum
3920 longesquamatum
3921 augustinii var. augustinii
3922 lutescens
3923 calophytum var. calophytum
3924 prattii
3925 concinnum
3926 wasonii
3927 vernicosum
3928 nivale subsp. boreale
3929 przewalskii
3930 aganniphum?
3932 aganniphum var. aganniphum
3933 rufum
3938 aganniphum var. aganniphum
3939 watsonii
3944 przewalskii
3946 aganniphum var. aganniphum
3951 oreodoxa var. oreodoxa
3952 rufum
4012 dendrocharis
4016 orbiculare subsp. orbiculare
4020 augustinii var. augustinii

- 4021 balangense
4023 galactinum
4026 watsonii
4029 concinnum
4030 nivale subsp. boreale
4034 primuliflorum
4054 phaeochrysum var.
 phaeochrysum
4064 aganniphum var. aganniphum
4065 phaeochrysum var.
 phaeochrysum
4066 rufum
4089 rufum
4103 primuliflorum
4104 rufum
4105 capitatum
4107 aganniphum var. aganniphum

**Chengdu Edinburgh Exp.
(CEE)**

SICHUAN, CHINA (1991)

- 102 concinnum
133 strigillosum
140 moupinense
141 wiltonii
142 argyrophyllum subsp.
 argyrophyllum
160 argyrophyllum subsp.
 argyrophyllum
171 pachytrichum var. pachytrichum
172 sutchuenense?
174 trichanthum
191 strigillosum
200 stigillosum
209 calophytum var. calophytum
217 prattii
227 wiltonii
228 wiltonii aff.
229 pachytrichum var. pachytrichum
230 orbiculare subsp. orbiculare
231 sikangense
232 faberi
233 prattii aff.
242 trichanthum
245 faberi
246 sikangense
257 sp.
284 rubiginosum

285	ririei ?
299	prattii
311	argyrophyllum subsp. argyrophyllum
313	rubiginosum
318	floribundum
334	tatsienense
335	decorum subsp. decorum
336	nitidulum aff.
344	bureavioides
345	sp.
348	oreodoxa var. fargesii
355	decorum subsp. decorum
364	intricatum
365	nitidulum ?
369	phaeochrysum var. agglutinatum
370	phaeochrysum var. agglutinatum
371	souliei
391	nitidulum ?
392	nivale subsp. boreale
393	intricatum
394	websterianum
407	websterianum
429	websterianum
430	nivale subsp. boreale
432	phaeochrysum var. agglutinatum
450	galactinum
455	Subsect. Triflora
459	balangense
468	trichostomum ?
477	nivale
479	augustinii aff.
480	sp.
483	sp.
485	heliolepis aff.
500	argyrophyllum subsp. argyrophyllum
501	lutescens
502	strigillosum
511	calophytum var. calophytum
518	concinnum aff.
524	trichanthum
525	sp.
526	prattii
531	concinnum
532	pachytrichum var. pachytrichum
554	sp.
556	sp.
557	hippophaeoides
559	websterianum
565	phaeochrysum var. agglutinatum

**Chungdien-Lijiang-Dali
(CLD)**

CHINA EXP. (OCT. 1990)

129	rubiginosum
130	decorum subsp. decorum
144	racemosum
211	decorum aff.
214	oreotrepes
245	sp.
302	hippophaeoides var. hippophaeoides
412	rubiginosum aff.
511	hippophaeoides var. hippophaeoides
512	rubiginosum
513	primuliflorum aff.
514	decorum aff.
515	hippophaeoides var. hippophaeoides
516	rubiginosum
539	sp.
558	racemosum
652	yunnanense
715	telmateium
719	rubiginosum
787	cuneatum
795	adenogynum
807	cuneatum
857	primuliflorum
868	cuneatum aff.
928	yunnanense
935	lepidotum
1016	trichostomum
1019	hippophaeoides var. hippophaeoides
1057	lepidotum
1095	adenogynum
1096	sp.
1097	rupicola var. rupicola
1275	cyanocarpum
1281	sp.
1282	lacteam
1283	haematodes subsp. haematodes
1285	fastigiatum
1287	taliense
1295	rex subsp. fictolacteam
1297	cyanocarpum aff.
1300	selense subsp. jucundum
1334	fastigiatum
1347	trichocladum var. trichocladum

1357	sp.	1584	thomsonii subsp. thomsonii
1427	haematodes subsp. haematodes	1590	wightii
1430	edgeworthii	1591	cinnabarinum subsp. xanthocodon
1444	× agastum ? (hybrid)	1592	hodgsonii aff.
1455	rex subsp. fictolacteam aff.	1594	flinckii
1464	arboreum var. delavayi	1595	succothii
1471	rubiginosum aff.	1596	hodgsonii
1473	decorum subsp. decorum	1597	cinnabarinum var. cinnabarinum
1490	sp.	1599	succothii
1497	sp.	1602	camelliiflorum
1507	cyanocarpum	1608	kesangiae
1511	sp.	1609	falconeri subsp. falconeri
1512	yunnanense	1614	virgatum subsp. virgatum
1514	trichocladum var. trichocladum	1615	maddenii subsp. maddenii
1522	haematodes subsp. haematodes	1618	kesangiae var. kesangiae
1526	sp.	1623	kendrickii
1529	sp.	1624	grande
1533	haematodes subsp. haematodes	1632	kesangiae var. kesangiae
1538	fastigiatum	1633	glaucophyllum var. tubiforme
1539	sp.	1634	wallichii
1541	racemosum	1635	thomsonii subsp. thomsonii
1544	dichroanthum subsp. dichroanthum	1637	wallichii
1547	sp.	1638	thomsonii subsp. thomsonii
1553	sp.	1639	flinckii
1564	sp.	1640	wightii
1575	sp.	1642	nivale subsp. nivale

Clark, A. & Sinclair, I.**BHUTAN EXP. (1994)**

1514	kesangiae var. kesangiae	1643	bhutanense
1515	arboreum var. delavayi	1644	sp.
1516	kesangiae var. kesangiae	1645	bhutanense
1517	kesangiae var. kesangiae	1646	sp.
1523	arboreum	1647	flinckii
1528	virgatum subsp. virgatum	1648	bhutanense
1531	triflorum	1652	campylocarpum subsp. campylocarpum
1532	arboreum	1655	keysii
1561	arboreum	1656	glaucophyllum
1562	kesangiae var. kesangiae	1658	cinnabarinum
1563	kesangiae var. kesangiae	1659	neriiflorum subsp. phaedropum
1568	barbatum	1662	kesangiae var. kesangiae
1572	argipeplum	1664	lepidotum
1573	kesangiae var. kesangiae	1666	flinckii aff.
1576	hodgsonii	1667	succothii
1581	camelliiflorum	1682	falconeri subsp. falconeri
1582	argipeplum	1683	kendrickii
1583	thomsonii subsp. thomsonii	1692	campylocarpum subsp. campylocarpum
		1693	cinnabarinum
		1694	hodgsonii
		1695	arboreum

- 1696 keysii
 1697 falconeri subsp. falconeri
 1698 hodgsonii
 1699 argipeplum
 1703 griffithianum
 1708 lindleyi
 1715 campylocarpum subsp.
 campylocarpum
 1759 fulgens

Cooper, R.E.

BHUTAN EXP. (1914)

- 1 cinnabarinum subsp.
 cinnabarinum
 15 campylocarpum subsp.
 campylocarpum
 46 setosum
 47 lepidotum
 91 lepidotum
 155 campanulatum subsp.
 aeruginosum
 237 lepidotum
 295 lepidotum
 743 lepidotum
 744 lepidotum
 745 cinnabarinum subsp.
 cinnabarinum
 747 cinnabarinum subsp.
 cinnabarinum
 749 campylocarpum subsp.
 campylocarpum
 1282 maddenii subsp. maddenii
 1291 arboreum subsp. arboreum
 1292 maddenii subsp. maddenii
 1454 maddenii subsp. maddenii
 1456 keysii
 1545 arboreum subsp. arboreum
 1575 arboreum subsp. arboreum
 1741 lepidotum
 1805 lepidotum
 1937 cinnabarinum subsp.
 cinnabarinum
 2040 grande
 2088 hodgsonii
 2088a hodgsonii × falconeri (hybrid)
 2089 arboreum
 2146 cinnabarinum subsp.
 xanthocodon

- 2147 wallichii
 2148 lanatum
 2149 wallichii
 2154 cinnabarinum subsp.
 xanthocodon
 2217 campanulatum subsp.
 aeruginosum
 2217a wightii
 2223 lepidotum
 2224 baileyi
 2233 hodgsonii
 2315 griffithianum
 2475 arboreum var. roseum
 2487 succothii
 2489 succothii
 2490 setosum
 2503 setosum
 2504 campylocarpum subsp.
 campylocarpum
 2505 hodgsonii
 2523 lepidotum
 2552 lepidotum
 2581 cinnabarinum subsp.
 cinnabarinum
 2590 wightii
 2592 campanulatum
 2648 cinnabarinum
 2756 edgeworthii
 2760 arboreum subsp. arboreum
 2819 virgatum subsp. virgatum
 2843 arboreum subsp. arboreum
 2903 arboreum subsp. arboreum
 2922 cinnabarinum subsp.
 cinnabarinum
 2922a camelliiflorum
 2924 arboreum var. roseum
 2928 thomsonii subsp. thomsonii
 3064 virgatum subsp. virgatum
 3151 virgatum subsp. virgatum
 3233 campanulatum subsp.
 aeruginosum
 3234 wightii
 3235 anthopogon subsp. anthopogon
 3236 lepidotum
 3238 wallichii
 3256 cinnabarinum
 3257 argipeplum
 3383 keysii
 3287 barbatum
 3423 maddenii subsp. maddenii
 3479 lepidotum

- 3480 campanulatum
 3482 setosum
 3483 nivale subsp. nivale
 3484 lanatum
 3485 anthopogon subsp. anthopogon
 3487 sp.
 3490 lanatum
 3491 campylocarpum subsp.
 campylocarpum
 3492 wallichii
 3493 cinnabarinum subsp.
 cinnabarinum
 3498 wightii
 3503 arboreum subsp. arboreum
 3507 barbatum
 3527 wightii
 3528 campanulatum subsp.
 aeruginosum
 3540 arboreum var. roseum
 3541 triflorum subsp. triflorum
 3469 lepidotum
 3588 virgatum subsp. virgatum
 3593 arboreum var. roseum
 3601 maddenii subsp. maddenii
 3615 griffithianum
 3698 wightii

BHUTAN EXP. (1915)

- 3786 arboreum subsp. arboreum
 3806 dalhousiae var. dalhousiae
 3815 virgatum subsp. virgatum
 3819 cinnabarinum subsp.
 cinnabarinum
 3831 triflorum var. triflorum
 3838 nivale subsp. nivale
 3873 cinnabarinum
 3876 pendulum
 3879 edgeworthii
 3903 anthopogon subsp. anthopogon
 3913 keysii
 3935 dalhousiae var. dalhousiae
 3939 griffithianum
 3940 grande
 3957 maddenii subsp. maddenii
 3959 camelliiflorum
 3990 lanatum
 3991 thomsonii subsp. thomsonii
 3998 cinnabarinum subsp.
 xanthocodon
 4003 setosum

- 4009 baileyi
 4083 camelliiflorum
 4084 hodgsonii
 4086 kendrickii
 4101 succothii
 4115 argipeplum
 4128 lepidotum
 4160 kendrickii
 4285 baileyi
 4804 cinnabarinum subsp.
 cinnabarinum
 4830 barbatum
 4978 kendrickii
 4979 cinnabarinum
 4980 maddenii subsp. maddenii
 4981 arboreum var. roseum
 4982 cinnabarinum subsp.
 cinnabarinum

PUNJAB, N INDIA EXP. 1916

- 5738 anthopogon subsp. hypenanthum
 5768 campanulatum subsp.
 campanulatum
 5926 campanulatum subsp.
 campanulatum
 5928 lepidotum

NE BURMA EXP.

- 5975 burmanicum

**Cox, K.N.E. & Vergera, S.
(CV)****SE TIBET, CHINA EXP. (1995)**

- 9501 primuliflorum
 9503 bulu
 9504 cerasinum
 9506 wardii var. wardii
 9508 faucium
 9513 cephalanthum subsp.
 cephalanthum
 9514 aganniphum var. aganniphum
 9515 charitopes subsp. tsangpoense
 9516 forrestii subsp. forrestii
 9517 forrestii subsp. forrestii
 9519 fragariiflorum
 9522 viridescens

- 9523 cinnabarinum subsp.
xanthocodon 'Concatenans'
9524 glischrum subsp. rude aff.
9526 lanigerum (red)
9527 arizelum aff.
9530 lanigerum (red)
9532 sinogrande
9533 arizelum aff.
9535 glischrum subsp. rude aff.
9540 kongboense
9541 aganniphum var. aganniphum
9544 chamaethomsonii var.
chamaethomsonii
9546 hirtipes
9547 principis
9548 wardii var. wardii
9552 phaeochrysum var. agglutinatum
9557 oreotrepes aff.
9558 wardii var. wardii
9561 phaeochrysum var.
phaeochrysum
9564 fragariiflorum
9565 laudandum var. temoense
9567 wardii var. wardii
9569 dignabile
9574 phaeochrysum var. agglutinatum
9575 triflorum subsp. triflorum

Cox, P.A.**SICHUAN, CHINA EXP. (1990)**

- 5000 wiltonii
5001 pachytrichum var. pachytricum
5003 decorum subsp. decorum
5005 racemosum
5008 lutescens
5009 davidsonianum
5011 concinnum
5012 sikangense var. sikangense
5013 watsonii
5014 faberi
5015 orbiculare subsp. orbiculare
5016 dendrocharis
5020 floribundum
5021 calophytum var. calophytum
5022 lutescens
5025 polylepis
5028b prattii
5029 longesquamatum

- 5030 prattii
5031 nitidulum var. nitidulum
5035 davidsonianum
5039 bureavioides
5040 davidsonianum
5043 nitidulum var. nitidulum
5044 thymifolium
5045 intricatum
5046 wasonii aff.
5056 souliei
5057 phaeochrysum var. levistratum
5058 phaeochrysum var.
agglutinatum
5059 Subsect. Lapponica
5060 intricatum
5061 prattii
5062 concinnum
5063 oreodoxa var. fargesii
5064 Subsect. Lapponica
5066 bureavii × prattii
5069 nivale subsp. boreale
5070 concinnum
5071 primuliflorum
5072 bureavioides
5073 przewalskii
5075 watsonii
5076 bureavioides
5080 websterianum
5081 phaeochrysum var. agglutinatum
5085 concinnum
5089 trichanthum
5090 floribundum aff.
5091 davidsonianum
5092 lutescens
5099 racemosum
5100 lutescens
5101 galactinum
5105 sikangense var. sikangense
5110 wiltonii
5118 phaeochrysum var.
phaeochrysum
5121 intricatum
5123 websterianum
5132 phaeochrysum var. levistratum
5133 prattii

NW YUNNAN & SICHUAN (1992)

- 6000 Subsect. Lapponica
6001 Subsect. Lapponica
6012 rupicola var. chryseum

- 6016 aganniphum var. flavorufum
 6021 edgeworthii
 6024 selense subsp. selense
 6025 praestans
 6026 fulvum
 6035 saluenense
 6036 eudoxum var. eudoxum
 6037a temenium
 6038 temenium aff.
 6047 selense subsp. selense
 6048 arizelum hybrids
 6051 brachyanthum subsp.
 hypolepidotum
 6053 cephalanthum subsp.
 cephalanthum
 6054 eclecteum
 6055 mekongense var. mekongense
 6056 sanguineum
 6067 selense subsp. selense
 6070 aganniphum var. flavorufum
 6094 tapetiforme aff.
 6095 campylogynum aff.
 6096 campylogynum aff.
 6099 forrestii × aganniphum
 6100 forrestii subsp. forrestii
 6101 sanguineum
 6108 wardii
 6111 sanguineum aff.
 6112 saluenense subsp. chameunum
 6117 uvariifolium var. uvariifolium
 6119 wardii
 6124 augustinii subsp. chasmanthum
 6130 Subsect. Lapponica
 6132 intricatum
 6136 primuliflorum
 6143 flavidum
 6144 souliei
 6145a radendum?
 6146 phaeochrysum var. agglutinatum
 6148 bureavii
 6149 trichanthum
 6150 wiltonii
 6157 calostrotum subsp. riparium

NW YUNNAN, CHINA (1994)

- 6502 adenogynum
 6507 edgeworthii
 6511 praestans
 6512 arizelum
 6513 eclecteum

- 6514 rubiginosum
 6515 rupicola var. chryseum
 6516 aganniphum var. flavorufum
 6517 saluenense subsp. saluenense
 6519 uvariifolium var. uvariifolium
 6521 sanguineum var. sanguineum
 6529 saluenense var. saluenense
 6530 heliolepis
 6531 coriaceum
 6532 fulvum subsp. fulvoides
 6534 eclecteum
 6539 citriniflorum var.
 citriniflorum aff.
 6540 sanguineum var. didymoides
 aff.
 6541 × bathyphyllum (hybrid)
 6542a proteoides
 6542b × bathyphyllum (hybrid)
 6543 citriniflorum var. citriniflorum
 6544 mekongense var. mekongense
 6548 decorum subsp. decorum

Cox, P.A. & Cox, K.N.E. (CC)

SE TIBET EXP. (SPRING 1996)

- 7500 nivale subsp. nivale
 7501 bulu
 7502 triflorum var. triflorum
 7503 viridescens
 7504 cephalanthum subsp.
 cephalanthum
 7506 uvariifolium var. griseum
 7508 hirtipes
 7509 dignabile
 7510 cerasinum
 7514 wardii var. wardii
 7516 forrestii subsp. forrestii
 7517 cinnabarinum subsp.
 xanthocodon 'Concatenans'
 7518 parmulum
 7519 mekongense var. mekongense
 7520 viridescens
 7521 cephalanthum subsp.
 cephalanthum
 7522 arizelum aff.
 7523 exasperatum
 7524 glischrum subsp. rude aff.
 7525 glischrum subsp. rude aff.
 × campylocarpum (hybrid)

7526	lanigerum (red)
7527	megeratum
7530	uniflorum var. imperator
7531	viridescens
7536	fulvum subsp. fulvoides
7537	cerasinum
7538	parmulatum
7541	campylocarpum subsp. campylocarpum
7542	calostrotum subsp. riparium
7545	laudandum var. laudandum
7546	laudandum var. temoense
7547	lepidotum
7549	hirtipes
7550	oreotrephe aff.
7553	lepidotum
7554	scopulorum
7556	uvariifolium var. griseum
7557	viridescens
7558	lepidotum
7559	primuliflorum
7561	pemakoense
7562	sanguineum var. sanguineum
7563	calostrotum subsp. riparium
7565	charitopes subsp. tsangpoense
7566	faucium
7567	ramsdenianum
7570	nuttallii
7571	scopulorum
7574	lanatoides
7575	kongboense
7577	lanatoides
7578	hirtipes
7580	fragariiflorum
7581	laudandum var. temoense
7584	wardii var. wardii
7585	lepidotum
7591	nivale subsp. nivale

**Cox, P.A. & Hutchison, P.C.
(C&H)**

**KHASIA, ARUNACHAL
PRADESH & BENGAL N INDIA
EXP. (1965)**

301	formosum var. inaequale
302	formosum var. formosum
305	arboresum var. delavayi

320	formosum var. formosum
373	walongense aff.
389	griffithianum
396	coxianum
399	lindleyi
416	kendrickii
418	subansiriense
420	leptocarpum
421	edgeworthii
422	neriiflorum subsp. phaedropum
427	falconeri subsp. eximium
431	grande
438	maddenii subsp. maddenii
459	santapauui (Sect. Vireya)
579	cinnabarinum subsp. cinnabarinum
580	barbatum
581	hodgsonii
584	falconeri subsp. falconeri

**SICHUAN & YUNNAN, EXP.
(1995)**

(see also Millais, E.G. *et al* Sichuan and Yunnan Exp. 1995)

7003	rex subsp. rex
7008	augustinii subsp. augustinii
7009	vernicosum
7010	racemosum
7012	denudatum
7022	Subsect. Lapponica
7025	ambiguum
7027	vernicosum
7032	argyrophyllum subsp. argyrophyllum
7033	argyrophyllum subsp. argyrophyllum
7034	rex subsp. rex
7035	strigillosum
7037	racemosum
7040	augustinii subsp. augustinii
7041	rubiginosum
7045	argyrophyllum subsp. argyrophyllum
7047	strigillosum
7049	huianum
7050	sp.
7051	asterochnom
7052	ochraceum
7053	tatsienense aff.
7055	calophytum var. openshawianum

- 7072 longipes var. longipes
 7073 huianum
 7085 denudatum
 7100 irroratum 'Ningyuenense'
 7108 strigillosum
 7111 calophytum var. calophytum
 7124 lutescens
 7131 glanduliferum
 7132 vernicosum
 7145 yunnanense
 7150 vernicosum aff.
 7157 sphaeroblastum var.
 wumengense
 7158 bureavii
 7159 Subsect. Lapponica
 7164 lacteum
 7166 sikangense var.
 exquisetum
 7179 arboreum var. delavayi
 7183 sinofalconeri
 7185 Subsect. Irrorata
 7186 valentinianum var.
 oblongilobatum ?
 7189 hemlseyanum aff.

**Cox, P.A., Hutchison, P.C. &
 Maxwell McDonald, D.**

(CHM)

**SICHUAN & YUNNAN, CHINA
 EXP. (1986)**

- 2500 polylepis
 2517 phaeochrysum var.
 levistratum
 2523 capitatum
 2531 rufum
 2545 przewalskii
 2568 Subsect. Triflora
 2578 watsonii
 2591 rufum
 2604 yunnanense
 2619 decorum subsp. decorum
 2620 vernicosum
 2630 primuliflorum
 2636 cuneatum
 2638 adenogynum
 2639 traillianum var. traillianum
 2646 uvariifolium var.
 uvariiflorum

- 2652 tatsienense var. tatsienense

BHUTAN EXP. (1988)

- 3006 kesangiae
 3007 barbatum
 3008 camelliiflorum
 3009 keysii
 3017 falconeri subsp. falconeri
 3020 grande
 3024 campylocarpum subsp.
 campylocarpum
 3025 succothii
 3026 argipeplum
 3030 thomsonii subsp.
 thomsonii
 3036 triflorum var. triflorum
 3050 camelliiflorum
 3056 hodgsonii
 3058 kesangiae
 3060 griffithianum
 3062 falconeri subsp. falconeri
 3070 argipeplum
 3076 camelliiflorum
 3077 hodgsonii
 3079 succothii
 3080 flinckii
 3082 setosum
 3088 thomsonii subsp.
 thomsonii
 3089 wallichii
 3090 campanulatum subsp.
 aeruginosum
 3091 bhutanense
 3093 hodgsonii aff.
 3094 pendulum
 3099 kesangiae aff.
 3105 succothii
 3106 campylocarpum subsp.
 campylocarpum
 3108 cinnabarinum subsp.
 cinnabarinum
 3109 succothii
 3113 argipeplum
 3114 glaucophyllum subsp.
 glaucophyllum
 3115 kesangiae
 3116 camelliiflorum
 3130 wightii
 3132 fulgens
 3136 flinckii

Dingle, H.R.
NEPAL EXP. (1984)

- 1 arboreum
- 5 arboreum
- 8 lepidotum
- 9 lepidotum
- 13 hodgsonii
- 18 thomsonii subsp. thomsonii
- 21 ciliatum
- 22 glaucophyllum
- 23 ciliatum

Doleshy, F.
HONSHU, JAPAN EXP. (1965)

- 1 makinoi
- 2 makinoi
- 3 makinoi
- 4 makinoi
- 5 degronianum var. heptamerum
- 6 keiskei
- 7 degronianum var. hondoense
- 12 degronianum subsp.
degronianum
- 13 brachycarpum subsp.
brachycarpum
- 14 japonicum
- 15 brachycarpum subsp.
brachycarpum

**KYUSHU (INCLUDING
YAKUSHIMA), JAPAN EXP.
(1965)**

- 8 kiusianum
- 9 degronianum var. yakushmanum
- 10 degronianum var. yakushmanum

HONSHU, JAPAN EXP. (1967)

- 21 degronianum subsp.
heptamerum
- 22 degronianum subsp.
heptamerum
- 26 japonicum
- 27 japonicum
- 28 brachycarpum subsp.
brachycarpum

KYUSHU, JAPAN EXP. (1967)

- 32 weyrichii aff.
- 35 degronianum var. heptamerum
- 37 kiusianum
- 38 degronianum var. heptamerum
- 39 keiskei
- 40 degronianum var. heptamerum
- 41 degronianum var. heptamerum
- 42 degronianum var. heptamerum
- 43 kiusianum

SHIKOKU, JAPAN EXP. (1967)

- 40 pentaphyllum
- 44 pentaphyllum
- 45 degronianum var. heptamerum
- 50 degronianum var. heptamerum
- 52 tschonoskyi
- 53 brachycarpum subsp.
brachycarpum

HONSHU, JAPAN EXP. (1967)

- 70 degronianum var. hondoense
- 81 degronianum var. degronianum
- 89 brachycarpum subsp.
brachycarpum
- 123 degronianum var.
kyomaruense

OKI ISLAND, JAPAN (1967)

- 75 degronianum var. hondoense

**KYUSHU (INCLUDING
YAKUSHIMA), JAPAN EXP.
(1970)**

- 41 (re-collected) degronianum var.
heptamerum
- 202 keiskei
- 205 kiusianum var. sataense
- 212 degronianum var. yakushmanum
- 219 nudipes aff.
- 221 nudipes aff.
- 228 tashiroi

HONSHU, JAPAN EXP. (1971)

- 503 aureum

- 509 × nikomontanum (hybrid)
 510 tschonoskyi var. trinerve
 518 aureum
 521 brachycarpum subsp.
 brachycarpum
 523 degronianum var. degronianum
 527 brachycarpum subsp.
 brachycarpum
 529 degronianum var. degronianum
 531 degronianum subsp. heptamerum
 536 kaempferi aff.
 537 kaempferi aff.
 541 degronianum var. heptamerum
 543 keiskei
 544 degronianum var. heptamerum

**HOKKAIDO & HONSHU EXP.,
 JAPAN (1983)**

- 821 brachycarpum subsp.
 brachycarpum
 823 brachycarpum subsp.
 brachycarpum
 824 brachycarpum subsp.
 brachycarpum
 825 kaempferi
 827 brachycarpum subsp.
 brachycarpum
 829 brachycarpum subsp.
 brachycarpum

**Edinburgh Makalu, Nepal
 Exp. (EMAK - 1991)**

- 234 vaccinioides (Sect. Vireya)
 304 pumilum
 557 nivale subsp. nivale
 569 wightii
 641 wightii
 685 pumilum
 730 camelliiflorum
 916 wightii
 1055 grande

**Edinburgh Sikkim Exp. (ESIK
 - 1992)**

- 151 leptocarpum
 163 pendulum
 220 lanatum

**Edinburgh Taiwan Exp. (ETE -
 1993)**

- 42 morii
 67 morii
 99 lasiostylum
 180 oldhamii aff.
 248 nakaharae
 250 sp.
 264 rubropilosum
 395 rubropilosum aff.
 412 pseudochrysanthum
 439 pseudochrysanthum
 442 pseudochrysanthum
 443 pseudochrysanthum
 444 pseudochrysanthum
 452 pseudochrysanthum
 475 oldhamii
 485 oldhamii
 613 kawakamii
 623 kanehirae

**Erskine, C., Fliegner, H.,
 Howick, C. & McNamara, A.**

TIBET & SICHUAN EXP. (1995)

- S1610 lutescens
 S1630 calophytum
 S1643 ambiguum
 S1648 oreodoxa
 S1656 calophytum
 T 001 sp.
 T 023 sp.
 T 041 sp.
 T 044 sp.

Farrer, R.

**GANSU (KANSU), CHINA EXP.
 (1914)**

- 63 oreodoxa var. oreodoxa
 79 invictum
 88 primuliflorum aff.
 104 przewalskii
 119 capitatum
 510 thymifolium
 510c przewalskii
 511 capitatum
 512 capitatum

584 anthopogonoides

UPPER BURMA EXP. (1919)

801 moulmainense
 811 araiophyllum
 812 tanastylum var. tanastylum
 813 sulfureum
 814 anthosphaerum
 815 mallotum
 842 edgeworthii
 848 pseudociliipes
 863 arizelum
 872 sidereum
 873 basilicum
 874 fulvum subsp. fulvum
 875 rubiginosum
 876 trichocladum var. trichocladum
 877 neriiflorum subsp. neriiflorum
 878 heliolepis var. heliolepis
 887 habrotrichum
 887a glischrum subsp. glischrum
 888 sperabile var. sperabile
 918 megacalyx
 926 stewartianum
 937 campylocarpum subsp.
 caloxanthum
 938 megeratum
 959 sinogrande
 979 decorum
 980 zaleucum
 1022 facetum
 1024 dichroanthum subsp.
 scyphocalyx
 1044 maddenii subsp. crassum
 1045 calostrotum subsp. calostrotum
 1046 campylogynum
 1047 rupicola var. rupicola
 1065 heliolepis var. heliolepis
 1196 lepidotum
 1196a campylogynum
 1444 kyawii

**Forestry Commission & RBG
Edinburgh Exp.****YUNNAN, CHINA (1995)**

61 racemosum
 62 rubiginosum

63 vernicosum
 143 vernicosum
 146 phaeochrysum
 147 oreotrepes
 205 yunnanense
 206 beesianum
 209 phaeochrysum
 210 phaeochrysum var. levistratum
 227 uvariifolium var. uvariiflorum
 253 selense subsp. selense
 254 uvariifolium var. uvariiflorum
 302 aganniphum aff.
 305 wardii aff.
 308 beesianum
 311 rupicola var. chryseum
 328 rex subsp. fictolacteum
 365 heliolepis
 367 wardii var. wardii
 439 decorum subsp. decorum
 440 vernicosum

Forrest, G.**BURMA/YUNNAN EXP. (1910)**

4152 campylogynum
 5843 rex subsp. fictolacteum
 5847 fastigiatum
 5848 anthosphaerum
 5851 irroratum subsp. irroratum
 5862 saluenense subsp. chameunum
 5863 fastigiatum
 5864 lepidotum
 5865 rupicola var. rupicola
 5866 primuliflorum
 5868 adenogynum
 5869 decorum subsp. decorum
 5870 traillianum var. traillianum
 5871 adenogynum
 5872 traillianum var. traillianum
 5873 oreotrepes
 5874 yunnanense
 5876 impeditum
 5877 rubiginosum
 5879 telmateium
 5880 vernicosum
 5881 vernicosum
 5882 racemosum
 6755 trichocladum var. trichocladum
 6756 cephalanthum subsp.
 cephalanthum

6757	fastigiatum	10075	vernicosum
6761	dichroanthum subsp. dichroanthum	10086	racemosum
6762	helirolepis var. helirolepis	10113	adenogynum
6767	xanthostephanum	10114a	vernicosum
6769	arboreum var. delavayi	10156	traillianum var. traillianum
6770	virgatum subsp. oleifolium	10195	beesianum
6771	rigidum	10204	traillianum var. traillianum
6772	taliense	10210	oreotrepes
6773	haematodes subsp. haematodes	10213	oreotrepes
6774	balfourianum	10278	trichostomum
6775	cyanocarpum	10284	fastigiatum
6776	decorum subsp. decorum	10285	saluenense subsp. chameunum
6777	sulfureum	10292	uvariifolium var. uvariiflorum
6778	lacteam	10297	oreotrepes
6779	cyanocarpum	10311	complexum & impeditum
6780	neriiflorum subsp. neriiflorum	10312	primuliflorum
6781	dichroanthum subsp. dichroanthum	10314	rupicola var. rupicola
		10333	hippophaeoides var. hippophaeoides

**BURMA/YUNNAN, SW CHINA
EXP. (1912-14)**

7463	arboreum var. delavayi	10347	mollicomum
7504	microphyton	10367	rupicola var. rupicola
7505	microphyton	10423	cuneatum
7516	pachypodium	10428	wardii var. wardii
7673	moulmainense	10429	adenogynum
7832	simsii var. mesembrinum	10434	telmateium
8172	edgeworthii	10435	cuneatum
8905	trichocladum var. trichocladum	10438	helirolepis var. brevistylum
8923	zaleucum	10460	beesianum
8938	helirolepis var. helirolepis	10477	beesianum
8939	neriiflorum subsp. neriiflorum	10481	orthocladum var. orthocladum
8987	dichroanthum subsp. apodectum	10540	roxieanum var. roxieanum
8989	fulvum subsp. fulvum	10546	beesianum
8990	basilicum × arizelum (hybrid)	10547	phaeochrysum var. phaeochrysum
9021	sinogrande	10616	wardii var. puralbum
9048	habrotrichum	10639	uvariifolium var. uvariiflorum
9054	dichroanthum subsp. apodectum	10651	anthosphaerum
9055	aff. callimorphum	10680	wardii var. wardii
9342	virgatum subsp. oleifolium	10857	clementinae
9431	maddenii subsp. crassum	10974	rex subsp. fictolacteam
9919	roseatum	10991	roxieanum var. roxieanum
10014	polycladum	11031	scabrifolium var. scabrifolium
10035	yungningense & impeditum	11073	arboreum var. delavayi
10056	impeditum	11074	irroratum subsp. irroratum
10057	rubiginosum	11246	trichostomum
10071	cuneatum	11299	tatsienense
10073	rubiginosum	11312	selense subsp. dasycladum
10074	rubiginosum	11313	beesianum
		11317	wardii var. wardii
		11321	phaeochrysum var. phaeochrysum

- 11421 uvariifolium var. uvariiflorum
 11450 orthocladum var. orthocladum
 11466 wardii var. wardii
 11486 clementinae
 11487 hippophaeoides var.
 hippophaeoides
 11503 anthosphaerum
 11547 pachypodium
 11575 lacteum
 11579 taliense
 11583 taliense
 11597 dichroanthum subsp.
 dichroanthum
 11601 aff. callimorphum
 11626 fastigiatum
 11629 cyanocarpum
 11630 trichocladum var. trichocladum
 11736 cuneatum
 11875 sinogrande
 11896 dichroanthum subsp. apodectum
 11910 sulfureum
 11958 decorum subsp. diaprepes
 12054 habrotrichum
 12078 basilicum
 12094 dichroanthum subsp. apodectum
 12095 habrotrichum
 12096 neriiflorum subsp. neriiflorum
 12100 virgatum subsp. oleifolium
 12109 basilicum
 12113 arboreum var. delavayi
 12461 hippophaeoides var.
 hippophaeoides
 12505 trichostomum
 12568 telmateium
 12607 clementinae
 12623 telmateium
 12889 anthosphaerum
 12893 floccigerum
 12899 lukiangense
 12901 glischrum subsp. glischrum
 12934 saluenense subsp. saluenense
 12942 megeratum
 12944 crinigerum var. crinigerum
 12947 roxieanum var. oreonastes
 12948 rex subsp. fictolacteam
 12950 selense subsp. dasycladum
 12968 saluenense subsp.
 chameunum
 12969 wardii var. wardii
 12982 selense subsp. dasycladum
 13005 roxieanum var. oreonastes
 13023 praestans
 13032 beesianum
 13143 beesianum
 13244 crinigerum var. crinigerum
 13258 saluenense subsp. chameunum
 13259 forrestii subsp. forrestii
 13299 floccigerum
 13301 martinianum
 13302 brachyanthum var.
 hypolepidotum
 13303 campylogynum
 13304 sanguineum var. sanguineum
 13315 wardii var. wardii
 13348 proteoides
 13380 lukiangense
 13383 saluenense subsp. chameunum
 13387 anthosphaerum
 13438 anthosphaerum
 13439 martinianum
 13440 floccigerum
 13508 facetum
 13512? sulfureum
 13518 campylogynum
 13526 cephalanthum subsp.
 platyphyllum
 13550 brachyanthum subsp.
 hypolepidotum
 13568 beesianum
- NE BURMA, YUNNAN,
 SICHUAN & TIBET
 FRONTIERS EXP. (1917-19)**
- 13768 telmateium
 13789 × detonsum (hybrid)
 13791 hippophaeoides var.
 hippophaeoides
 13792 hippophaeoides var.
 hippophaeoides
 13793 hippophaeoides var.
 hippophaeoides
 13794 hippophaeoides var.
 hippophaeoides
 13798 racemosum - pure white
 13799 hippophaeoides var.
 hippophaeoides
 13800 hippophaeoides var.
 hippophaeoides
 13803 racemosum
 13804 racemosum
 13841 primuliflorum

- 13842 hippophaeoides var.
 hippophaeoides
 13847 telmateium
 13852 anthophaerum
 13853 irroratum subsp. irroratum
 13864 irroratum subsp. irroratum
 13881 leptothrium
 13896 lukiangense
 13897 selense subsp. dasycladum
 13899 polycladum
 13900 mekongense var. mekongense
 13904 saluense subsp. chameunum
 13905 dasypetalum
 13905a polycladum
 13915 russatum
 13931 oreotrepes
 13933 selense subsp. selense
 13935 floccigerum
 13936 × erythrocalyx (hybrid)
 13938 × erythrocalyx (hybrid)
 13947 rupicola var. chryseum
 13949 martinianum
 13990 uvariifolium var. uvariiflorum
 13996 glischrum subsp. glischrum
 14000 rupicola var. chryseum
 14004 campylogynum
 14005 rupicola var. chryseum
 14008 crinigerum var. crinigerum
 14009 selense subsp. selense
 14011 forrestii subsp. forrestii
 14012 sanguineum var. sanguineum
 14021 aganniphum var. aganniphum
 14024 phaeochrysum var. levistratum
 14038 vernicosum
 14041 phaeochrysum var. levistratum
 14043 saluense subsp. chameunum
 14050 aganniphum var. aganniphum
 14052 brachyanthum subsp.
 hypolepidotum
 14054 saluense subsp. saluense
 14055 cephalanthum subsp.
 cephalanthum
 14057 selense subsp. selense
 14059 megeratum
 14060 nakotiltum
 14061 roxieanum var. roxieanum
 14062 crinigerum var. crinigerum
 14063 rex subsp. ficolacteum
 14066 selense subsp. setiferum
 14094 aganniphum var. aganniphum
 14095 wardii var. wardii
 14102 aganniphum var. flavorufum
 14114 phaeochrysum var. levistratum
 14115 phaeochrysum var. levistratum
 14116 beesianum
 14119 aganniphum var. aganniphum
 14128 wardii var. wardii
 14134 aganniphum var. aganniphum
 14135 heliolepis var. brevistylum
 14138 forrestii var. forrestii
 14142 roxieanum var. roxieanum
 14145 phaeochrysum var. levistratum
 14160 mekongense var. mekongense
 14166 sanguineum var. haemaleum
 14181 lukiangense
 14190 wardii var. wardii
 14195 albertsenianum
 14208 alutaceum var. russotinctum
 14209 praestans
 14210 heliolepis var. brevistylum
 14226 beesianum
 14231 rex subsp. ficolacteum
 14233 praestans
 14242 microgynum
 14243 alutaceum var. iodes
 14245 eudoxum var. eudoxum
 14268 sanguineum var. didymoides
 14269 sanguineum var. cloiophorum
 14270 sanguineum var. cloiophorum
 14271 citriniflorum var. citriniflorum
 14272 citriniflorum var. citriniflorum
 14274 citriniflorum var. citriniflorum
 14286 crinigerum var. crinigerum
 14291 heliolepis var. brevistylum
 14331 calvescens var. calvescens
 14334 primuliflorum
 14344 cephalanthum subsp.
 cephalanthum
 14345 aganniphum var. flavorufum
 14352 beesianum
 14356 citriniflorum var. citriniflorum
 14364 temenium var. temenium
 14365 temenium var. temenium
 14368 aganniphum var. flavorufum
 14372 rubiginosum
 14416 citriniflorum var. citriniflorum
 14421 microgynum
 14432 roxieanum var. roxieanum
 14450 beesianum
 14452 rubiginosum
 14458 selense subsp. selense
 14461 beesianum

14464	calvescens var. duseimatum	15126	primuliflorum
14485	eclecteum var. eclecteum	15127	primuliflorum
14488	beesianum	15128	adenogynum
14492	alutaceum var. russotinctum	15129	sp.
14499	fulvum subsp. fulvoides	15130	vernicosum
14508	comisteum	15132	telmateium
14509	proteoides	15137	trichostomum
14519	phaeochrysum var. levistratum	15154	telmateium
14605	beesianum	15155	primuliflorum
14685	proteoides	15159	complexum
14686	beesianum	15164	adenogynum aff.
14718	× bathyphyllum (hybrid)	15165	vernicosum
14732	aganniphum var. flavorufum	15166	primuliflorum
14774	eudoxum var. eudoxum	15168	rex subsp. fictolacteum
14790	beesianum	15169	primuliflorum
14809	traillianum var. dictyotum	15171	adenogynum
14810	aganniphum var. flavorufum	15203	mollicomum
14811	beesianum	15204	tatsienense
14911	crinigerum var. crinigerum	15210	telmateium
14987	haematodes subsp. chaetomallum	15216	uvariifolium var. uvariiflorum
14988	fulvum subsp. fulvoides	15218	cuneatum
15002	pleistanthum	15219	rubiginosum
15004	augustinii subsp. chasmanthum	15222	oreotrepes
15018	selense	15243	adenogynum
15023	floccigerum	15245	primuliflorum
15035	mekongense var. mekongense	15249	fastigiatum
15038	aganniphum var. aganniphum	15251	hippophaeoides var. hippophaeoides
15039	alutaceum var. iodes	15259	trichostomum
15043	alutaceum var. russotinctum	15263	tatsienense
15070	adenogynum	15264	hippophaeoides var. hippophaeoides
15071	heliolepis var. brevistylum	15265	hippophaeoides var. hippophaeoides
15072	adenogynum	15266	racemosum
15076	impeditum	15267	complexum
15077	primuliflorum	15268	telmateium
15079	primuliflorum	15269	complexum
15080	primuliflorum	15270	rupicola var. rupicola
15085	telmateium	15271	primuliflorum
15086	primuliflorum	15278	fulvum subsp. fulvoides
15087	trichostomum	15293	eclecteum var. eclecteum
15088	primuliflorum	15305	traillianum var. traillianum
15091	impeditum & fastigiatum	15354	phaeochrysum var. agglutinatum
15092	primuliflorum	15356	tapetiforme
15093	primuliflorum	15367	rupicola var. rupicola
15095	anthosphaerum	15370	telmateium
15096	trichostomum	15391	rupicola var. rupicola
15097	irroratum subsp. irroratum	15392	complexum
15102	arboreum var. delavayi	15399	primuliflorum
15103	scabrifolium var. scabrifolium	15400	complexum
15120	telmateium		
15123	traillianum var. traillianum		
15124	beesianum		

15412	wardii var. wardii	15706	araiophyllum
15414	selense subsp. dasycladum	15719	arboreum var. delavayi
15415	phaeochrysum var. agglutinatum	15734	annae
15417	wardii var. puralbum	15736	leptothrium
15418	oreotrepes	15745	tanastylum var. pennivenium
15427	cuneatum	15756	moulmainense
15444	uvariifolium var. uvariiflorum	15761	rubiginosum
15446	tatsienense	15764	basilicum
15448	cuneatum	15766	tanastylum var. tanastylum
15449	trichostomum	15767	meddianum var. meddianum
15450	hippophaeoides var. hippophaeoides	15770	sulfureum
15452	trichostomum	15774	megacalyx
15459	hippophaeoides var. hippophaeoides	15776	trichocladum var. trichocladum
15462	racemosum	15777	fulvum subsp. fulvum
15464	cuneatum	15778	habrotrichum
15465	oreotrepes	15779	neriiflorum subsp. neriiflorum
15466	primuliflorum	15782	sulfureum
15467	telmateium	15791	decorum subsp. diaprepes
15468	telmateium	15808	callimorphum var. callimorphum
15487	brachyanthum subsp. brachyanthum	15815	griersonianum
15497	balfourianum	15816	decorum subsp. diaprepes
15504	scabrifolium var. scabrifolium	15887	maddenii subsp. crassum
15520	cyanocarpum	15898	arizelum
15521	haematodes subsp. haematodes	15899	valentinianum
15570	cyanocarpum	15908	campylogynum
15575	dimitrium	15917	facetum
15578	rigidum	15932	dichroanthum subsp. apodectum
15579	selense subsp. jucundum	15933	heliolepis var. heliolepis
15581	rigidum	15954	annae
15588	cyanocarpum	15967	praestans
15589	rigidum & sulfureum	15968	aganniphum var. aganniphum
15594	sulfureum	15969	balfourianum
15606	vernicosum	15976	arboreum var. peramoenum
15609	bureavii	15977	rex subsp. fictolacteum
15612	fastigiatum	15998	moulmainense
15613	fastigiatum	16000	araiophyllum
15614	fastigiatum	16002	basilicum
15615	fastigiatum	16006	habrotrichum
15645	telmateium	16032	pachypodium
15651	schistocalyx	16084	moulmainense
15658	trichocladum var. trichocladum	16128	hippophaeoides var. hippophaeoides
15659	sinogrande	16249	tatsienense
15660	fulvum subsp. fulvum	16250	hemitrichotum
15663	neriiflorum subsp. neriiflorum	16252	rupicola var. muliense
15665	diphrocalyx	16257	telmateium
15667	roseatum	16277	impeditum
15673	leptothrium	16282	yungningense
15688	zaleucum	16284	impeditum
		16291	oreotrepes
		16292	impeditum

- 16295 primuliflorum
 16296 telmateium
 16300 telmateium
 16301 eudoxum var. eudoxum
 16302 phaeochrysum var.
 phaeochrysum
 16305 nivale subsp. boreale
 16306 primuliflorum
 16307 nivale subsp. boreale
 16308 primuliflorum
 16311 trichostomum
 16312 primuliflorum
 16313 telmateium
 16314 roxieanum var. cucullatum
 16315 adenogynum
 16316 balfourianum
 16318 selense subsp. dasycladum
 16319 phaeochrysum var. agglutinatum
 16320 mimetes aff.
 16321 wardii var. wardii
 16351 protistum var. protistum
 16352 leptopeplum
 16353 lukiangense
 16354 anthosphaerum
 16356 primuliflorum
 16360 augustinii var. chasmanthum
 16361 coriaceum
 16362 pleistanthum
 16363 cephalanthum subsp.
 cephalanthum
 16364 coriaceum
 16367 lukiangense
 16375 beesianum
 16377 sphaeroblastum
 16378 lukiangense
 16379 roxieanum var. cucullatum
 16380 phaeochrysum var. levistratum
 16428 alutaceum var. alutaceum
 16436 primuliflorum
 16439 phaeochrysum var. agglutinatum
 16449 saluenense subsp. chameunum
 16450 tapetiforme
 16451 aganniphum var. aganniphum
 16455 adenogynum
 16459 phaeochrysum var. agglutinatum
 16464 phaeochrysum var. agglutinatum
 16467 phaeochrysum var. levistratum
 16469 roxieanum var. cucullatum
 16472 aganniphum var. aganniphum
 16473 adeonogynum
 16474 beesianum
 16477 roxieanum var. cucullatum
 16488 aganniphum var. aganniphum
 16489 phaeochrysum var. agglutinatum
 16493 wardii var. wardii
 16508 roxieanum var. oreonastes
 16509 proteoides
 16511 wardii var. wardii
 16531 uvariifolium var. uvariiflorum
 16533 floccigerum
 16543 oreotrepes
 16555 glischrum subsp. glischrum
 16576 heliolepis var. brevistylum
 16577 tapetiforme
 16579 rupicola var. chryseum
 16580 rupicola var. chryseum
 16581 esetulosum
 16584 oreotrepes
 16591 anthosphaerum
 16595 primuliflorum
 16597 rubiginosum
 16604 proteoides
 16606 roxieanum var. roxieanum
 16609 proteoides
 16616 roxieanum var. cucullatum
 16631 irroratum subsp. irroratum
 16632 arboreum var. delavayi
 16637 roxieanum var. oreonastes
 16643 adenogynum
 16652 clementinae
 16655 rex subsp. rex
 16656 phaeochrysum var. levistratum
 16667 alutaceum aff.
 16668 × bathyphyllum (hybrid)
 16673 phaeochrysum var. levistratum
 16677 aganniphum var. aganniphum
 16679 selense subsp. selense
 16680 aganniphum
 16683 beesianum
 16684 selense subsp. selense
 16687 microgynum
 16688 anthosphaerum
 16691 haematodes subsp. chaetomallum
 16692 augustinii var. chasmanthum
 16693 beesianum
 16695 erastum
 16699 beesianum
 16702 temenium var. temenium
 16711 eudoxum var. eudoxum
 16713 anthosphaerum
 16721 fulvum subsp. fulvodes
 16724 beesianum

16726	aganniphum var. aganniphum	17495	anthosphaerum
16727	sanguineum var. himertum	17501	trichocladum var. trichocladum
16728	sanguineum var. himertum	17539	roseatum
16729	alutaceum var. iodes	17551	decorum subsp. diaprepes
16734	traillianum var. dictyotum	17559	roseatum
16735	beesianum	17560	dichroanthum subsp. apodectum
16736	sanguineum var. haemaleum	17572	maddenii subsp. crassum
16739	saluenense subsp. saluenense	17586	decorum subsp. diaprepes
16742	alutaceum var. iodes	17588	virgatum var. oleifolium
16743	beesianum	17596	valentinianum
16745	alutaceum var. iodes	17610	facetum
16746	beesianum	17616	facetum
16749	wardii var. wardii	17622	heliolepis var. heliolepis
16750	selense subsp. selense	17626	neriiflorum subsp. neriiflorum
16751	eudoxum var. mesopolium	17636	fulvum subsp. fulvum
16752	× bathyphyllum (hybrid)	17637	schistocalyx
16753	aganniphum var. flavorufum	17650	basilicum
16754	phaeochrysum var. agglutinatum	17651	callimorphum var. callimorphum
16755	traillianum var. dictyotum	17665	pseudociliipes
16760	aganniphum var. flavorufum	17678	basilicum
16764	aganniphum var. flavorufum	17681	fulvum subsp. fulvum
16765	proteoides	17696	griersonianum
16771	aganniphum var. flavorufum	17703	meddianum var. meddianum
16778	aganniphum var. flavorufum	17708	arboreum var. peramoenum
16779	alutaceum var. iodes	17735	rubiginosum
16780	phaeochrysum var. levistratum	17750	trichocladum var. trichocladum
16790	yunnanense	17819	moulmainense
16806	balfourianum	17824	genestierianum
16811	balfourianum	17827	anthosphaerum
16816	yunnanense	17829	tanastylum var. tanastylum
16836	phaeochrysum var. levistratum	17832	moulmainense
17100	phaeochrysum	17835	tanastylum var. tanastylum
17110	spaeroblastum	17836	araiophyllum
17165	trichostomum	17851	neriiflorum subsp. agetum
17205	rex subsp. fictolacteam	17852	facetum
17220	sp.	17853	mallotum
17227	dendricola	17854	fulvum subsp. fulvum
17330	haematodes subsp. chaetomallum	17900	pseudociliipes
17333	alutaceum aff.	17918	microphyton
17357	alutaceum var. russotinctum	17920	rubiginosum
17406	sinogrande	17927	basilicum
17407	beesianum	17928	kyawii
17447	alutaceum var. iodes	17930	arboreum var. peramoenum
17456	augustinii var. chasmanthum	17937	zaleucum
17461	lukiangense	17943	anthosphaerum
17463	lukiangense	17950	neriiflorum subsp. neriiflorum
17464	rubiginosum	17963	valentinianum
17466	aganniphum	17996	neriiflorum subsp. neriiflorum
17473	phaeochrysum var. levistratum	18000	yunnanense
17476	augustinii var. chasmanthum	18022	trichocladum var. trichocladum
17483	rubiginosum	18028	arizelum

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|-------|-------------------------------------|------------------------------|--------------------------------------|
| 18030 | campylogynum | 19007 | vernicosum |
| 18036 | meddianum var. meddianum | 19008 | sanguineum |
| 18041 | cephalanthum subsp.
platyphyllum | 19009 | sanguineum |
| 18042 | zaleucum | 19010 | beesianum |
| 18044 | callimorphum var. callimorphum | 19011 | beesianum |
| 18045 | arizelum | 19015 | rubiginosum |
| 18049 | griersonianum | 10919 | selense subsp. selense |
| 18052 | basilicum | 19154 | proteoides |
| 18054 | sidereum | 19165 | proteoides |
| 18069 | habrotrichum | 19169 | sanguineum subsp. cloiophorum |
| 18108 | basilicum | 19193 | vernicosum |
| 18153 | dichroanthum subsp. apodectum | CHINA, NW YUNNAN EXP. | |
| 18167 | dichroanthum subsp. apodectum | (1921-22) | |
| 18168 | anthosphaerum | | |
| 18171 | facetum | 19355 | protistum var. giganteum |
| 18173 | maddenii subsp. crassum | 19404 | racemosum |
| 18210 | maddenii subsp. crassum | 19437 | saluenense subsp. chameunum |
| 18273 | facetum | 19440 | russatum |
| 18310 | fulvum subsp. fulvum | 19450 | polycladum |
| 18329 | genestierianum | 19458 | russatum |
| 18349 | trichocladum var. trichocladum | 19467 | wardii var. wardii |
| 18355 | pseudociliipes | 19468 | anthosphaerum |
| 18393 | protistum var. protistum | 19479 | saluenense subsp. saluenense |
| 18394 | protistum var. protistum | 19492 | cephalanthum subsp.
cephalanthum |
| 18395 | kyawii | 19512 | wardii var. wardii |
| 18458 | protistum var. giganteum | 19515 | forrestii subsp. forrestii |
| 18475 | moulmainense | 19540 | martinianum |
| 18548 | protistum var. protistum | 19541 | brachyanthum subsp.
hypolepidotum |
| 18686 | sanguineum var. cloiophorum aff. | 19544 | oreotrepes |
| 18900 | virgatum subsp. oleifolium | 19552 | beesianum |
| 18901 | eclecteum var. eclecteum | 19554 | lukiangense |
| 18902 | decorum subsp. decorum | 19555 | rex subsp. fictolacteum |
| 18903 | augustinii var. chasmanthum | 19562 | alutaceum var. russotinctum |
| 18904 | yunnanense | 19567 | alutaceum var. iodes |
| 18905 | saluenense subsp. saluenense | 19569 | sanguineum var. didymoides |
| 18906 | augustinii var. chasmanthum | 19570 | megeratum |
| 18907 | heliolepis var. brevistylum | 19574 | alutaceum var. iodes |
| 18908 | moulmainense | 19597 | nivale subsp. boreale |
| 18909 | mekongense var. mekongense | 19607 | rupicola var. chryseum |
| 18912 | alutaceum var. iodes | 19674 | tapetiforme |
| 18914 | praestans | 19701 | pleistanthum |
| 18917 | haematodes subsp. chaetomallum | 19704 | alutaceum var. russotinctum |
| 18918 | calostrotum subsp. keleticum | 19713 | aganniphum var. aganniphum |
| 18920 | aganniphum var. flavorufum | 19714 | phaeochrysum var. agglutinatum |
| 18933 | rubiginosum | 19716 | aganniphum var. aganniphum |
| 18934 | sanguineum var. haemaleum | 19733 | phaeochrysum var. agglutinatum |
| 18937 | eudoxum var. mesopolium | 19743 | wardii var. wardii |
| 18938 | citriniflorum var. citriniflorum | 19744 | aganniphum var. aganniphum |
| 18943 | eclecteum var. eclecteum | | |
| 19006 | proteoides | | |

19758	aganniphum var. aganniphum	20028	pocophorum var. hemidartum
19769	floccigerum	20062	cephalanthum subsp. cephalanthum
19772	lukiangense	20063	augustinii subsp. chasmanthum
19773	aganniphum var. aganniphum	20064	augustinii subsp. chasmanthum
19781	lukiangense	20067	virgatum subsp. oleifolium
19783	phaeochrysum	20071	temenium var. temenium
19793	phaeochrysum var. levistratum	20075	fulvum subsp. fulvoides
19798	phaeochrysum var. levistratum	20078	catacosmum
19814	augustinii subsp. chasmanthum	20085	anthosphaerum
19819	lukiangense	20090	citriniflorum var. citriniflorum
19822	phaeochrysum var. agglutinatum	20094	megacalyx
19825	augustinii subsp. chasmanthum	20095	rubiginosum
19827	alutaceum var. alutaceum	20106	protistum var. protistum
19828	aganniphum var. aganniphum	20118	maddenii subsp. crassum
19844	monanthum	20120	rex subsp. ficolacteam
19866	rupicola var. chryseum	20176	pleistanthum
19872	brachyanthum subsp. hypolepidotum	20185	pleistanthum
19911	haematodes subsp. chaetomallum	20196	primuliflorum
19911a	× hemigymnum (hybrid)	20208	tepetiforme
19912	mekongense var. mekongense	20213	phaeochrysum var. agglutinatum
19913	saluenense subsp. saluenese	20215	haematodes subsp. chaetomallum
19915	calostrotum subsp. keleticum	20218	citriniflorum var. horaeum
19917	genestierianum	20220	sanguineum subsp. didymum
19919	calostrotum subsp. keleticum	20230	tephropeplum
19930	mekongense var. mekongense	20235	calostrotum subsp. keleticum
19952	eclecteum var. eclecteum	20239	sanguineum subsp. didymum
19954	selense subsp. setiferum	20246	martinianum
19955	haematodes subsp. chaetomallum	20253	sanguineum var. haemaleum
19956	monanthum	20255	calostrotum subsp. keleticum
19958	sanguineum var. haemaleum	20262	habrotrichum
19959	haematodes subsp. chaetomallum	20286	aganniphum
19960	temenium var. dealbatum	20291	vernicosum
19977	pocophorum var. pocophorum	20297	bainbridgeanum
19978	haematodes subsp. chaetomallum	20299	haematodes subsp. chaetomallum
19982	sanguineum var. didymoides	20302	stewartianum aff.
19983	pocophorum var. pocophorum	20305	floccigerum aff.
19993	rupicola var. chryseum	20306	arizelum
19994	saluenense subsp. chameunum	20318	phaeochrysum var. levistratum
20003	sperabiloides	20321	floccigerum
20005	helirolepis var. helirolepis	20322	coryanum
20008	lukiangense	20323	bainbridgeanum
20015	haematodes subsp. chaetomallum	20330	phaeochrysum var. levistratum
20019	pocophorum var. pocophorum	20332	megeratum
20020	fulvum subsp. fulvoides	20333	haematodes subsp. chaetomallum
20021	xanthostephanum	20338	selense subsp. setiferum
20023	campylocarpum subsp. caloxanthum	20347	phaeochrysum var. agglutinatum
20025	haematodes var. chaetomallum	20381	rex
20026	haematodes var. chaetomallum	20387	sinogrande
20027	forrestii subsp. forrestii	20388	nuttallii
		20415	adenogynum

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|-------|---|-------|--------------------------------------|
| 20416 | sphaeroblastum | 20793 | pleistanthum |
| 20418 | phaeochrysum var. levistratum | 20795 | pleistanthum |
| 20419 | mimetes | 20814 | anthosphaerum |
| 20425 | roxieanum | 20816 | fulvum |
| 20426 | alutaceum var. iodes aff. | 20817 | rex subsp. fictolacteum |
| 20428 | mimetes var. simulans | 20819 | sinogrande |
| 20429 | primuliflorum | 20821 | rex |
| 20430 | yunnanense | 20824 | trichocladum var. longipilosum |
| 20432 | rupicola subsp. muliense | 20825 | sperabiloides |
| 20434 | yunnanense | 20826 | martinianum |
| 20440 | sphaeroblastum | 20832 | coryanum |
| 20442 | phaeochrysum var. levistratum | 20834 | wardii var. wardii |
| 20444 | adenogynum | 20835 | brachyanthum subsp.
hypolepidotum |
| 20445 | sphaeroblastum | 20840 | oreotrepes |
| 20446 | sphaeroblastum | 20845 | genesstierianum |
| 20447 | sphaeroblastum | 20861 | calostrotum subsp. keleticum |
| 20450 | intricatum | 20863 | protistum var. protistum |
| 20451 | beesianum | 20864 | calostrotum subsp. keleticum |
| 20452 | primuliflorum | 20865 | anthosphaerum |
| 20454 | impeditum | 20877 | floccigerum aff. |
| 20455 | balfourianum | 20879 | monanthum |
| 20456 | balfourianum | 20880 | xanthostephanum |
| 20457 | telmateium | 20881 | bainbridgeanum |
| 20460 | yungingense | 20884 | tephropeplum |
| 20461 | telmateium | 20885 | floccigerum aff. |
| 20462 | nivale subsp. boreale | 20886 | stewartianum hybrid |
| 20463 | yungingense | 20888 | sanguineum subsp. didymum |
| 20464 | rupicola var. rupicola | 20889 | temenium var. temenium |
| 20465 | primuliflorum | 20891 | sanguineum |
| 20470 | wardii var. wardii | 20893 | sanguineum |
| 20476 | trichostomum | 20895 | catacosmum |
| 20477 | telmateium | 20896 | calostrotum subsp. riparium |
| 20480 | trichostomum | 20897 | megacalyx |
| 20481 | oreotrepes | 20899 | nuttallii |
| 20482 | tatsienense | 20905 | sanguineum |
| 20484 | racemosum | 20906 | megeratum |
| 20485 | yunnanense | 20910 | sanguineum |
| 20486 | tatsienense | 20911 | sanguineum |
| 20488 | orthocladum var. orthocladum | 20912 | saluense subsp. saluense |
| 20489 | oreotrepes | 20917 | maddenii subsp. crassum |
| 20492 | impeditum | 20923 | pleistanthum |
| 20498 | rex subsp. rex | 20926 | pleistanthum |
| 20525 | mollicomum | 20934 | lukiangense |
| 20625 | rubiginosum | 20950 | russatum |
| 20629 | oreotrepes | 20956 | rupicola var. chryseum |
| 20648 | tatsienense × siderophyllum
(hybrid) | 20961 | hylaenum |
| 20678 | irroratum subsp. irroratum | 20973 | augustini subsp. chasmanthum |
| 20693 | lepidotum | 20978 | lukiangense |
| 20708 | rupicola var. rupicola | 20987 | mekongense var. mekongense |
| 20783 | oreotrepes | 21000 | selense subsp. selense |

- 21006 oreotrepes
 21009 sphaeroblastum
 21010 sphaeroblastum
 21011 phaeochrysum var. levistratum
 21012 phaeochrysum var. levistratum
 21013 eclecteum var. eclecteum
 21017 wardii var. wardii
 21018 phaeochrysum var. levistratum
 21019 phaeochrysum var. levistratum
 21020 phaeochrysum var. agglutinatum
 21021 phaeochrysum
 21027 rubiginosum
 21030 cuneatum
 21031 intricatum
 21039 sphaeroblastum
 21040 sphaeroblastum
 21045 phaeochrysum var. agglutinatum
 21047 phaeochrysum var. levistratum
 21048 phaeochrysum var. levistratum
 21049 roxieanum var. cucullatum
 21051 sphaeroblastum
 21052 phaeochrysum var. levistratum
 21055 balfourianum
 21056 balfourianum
 21239 telmateium
 21241 orthocladum var. orthocladum
 21248 intricatum
 21250 telmateium
 21252 racemosum & tatsienense
 21253 trichostomum
 21265 saluenense subsp. chameunum
 21270 tatsienense
 21274 orthocladum var. orthocladum
 × impeditum (hybrid)
 21282 yungningense
 21287 phaeochrysum var. levistratum
 21288 orthocladum var. orthocladum
 21292 elegantulum
 21299 trichostomum
 21306 racemosum
 21321 racemosum
 21323 irroratum subsp. irroratum
 21344 intricatum
 21348 heliolepis var. brevistylum
 21351 racemosum
 21358 yunnanense
 21377 telmateium
 21390 phaeochrysum var.
 phaeochrysum
 21400 phaeochrysum var.
 phaeochrysum
 21405 sphaeroblastum
 21408 roxieanum var. cucullatum
 21409 adenogynum
 21410 adenogynum
 21442 tatsienense
 21462 hippophaeoides var. occidentale
 21463 xanthostephanum
 21470 yunnanense
 21475 irroratum subsp. irroratum
 21476 hippophaeoides var. occidentale
 21478 lukiangense
 21487 polycladum
 21488 racemosum
 21490 russatum & rupicola var. rupicola
 21492 nivale subsp. australe
 21507 fastigiatum
 21528 polycladum
 21529 russatum & rupicola var. rupicola
 21531 neriiflorum subsp. phaedropum
 21533 fastigiatum & rigidum
 21539 rex subsp. ficolacteum
 21546 roxieanum
 21547 nivale subsp. australe
 21549 racemosum
 21551 wardii var. wardii
 21559 polycladum
 21560 racemosum
 21563 selense subsp. dasycladum
 21564 edgeworthii
 21577 telmateium
 21582 maddenii subsp. crassum
 21586 beesianum
 21680 (= 22751) nuttallii
 21681 (= 22803) floccigerum
 21682 lukiangense
 21683 lukiangense
 21685 (= 22733) lukiangense
 21686 (= 22884) anthosphasrum
 21687 (= 22702) stewartianum aff.
 21688 (= 22846) bainbridgianum
 21689 (= 22899) selense subsp. selense
 21690 sp.
 21692 genestierianum
 21693 coryanum
 21694 (= 22938) eurysiphon
 21695 (= 22939) megacalyx
 21697 (= 22901) bainbridgianum
 21699 mekongense var. mekongense
 21700 (= 22885) anthosphaerum
 21701 megeratum
 21702 (= 22804) floccigerum

- 21703 (= 22806) floccigerum
 21704 (= 22805) floccigerum
 21705 (= 22761) sinogrande
 21706 tephropeplum
 21707 (= 22652) xanthostephanum
 21708 (= 22610) stewartianum
 21709 (= 22886) pocophorum var.
 hemidartum
 21710 haematodes subsp.
 chaetomallum
 21711 (= 22912) pocophorum var.
 pocophorum
 21712 (= 22913) pocophorum var.
 pocophorum
 21713 (= 22909) pocophorum var.
 pocophorum
 21714 (= 22831) edgeworthii
 21716 (= 22833) virgatum subsp.
 oleifolium
 21718 chamaethomsonii/forrestii
 21720 (= 22916) pocophorum var.
 pocophorum
 21721 pocophorum var. pocophorum
 21723 (= 22674) chamaethomsonii var.
 chamaethomsonii
 21724 (= 22923) forrestii aff.
 21725 (= 22863) × xanthanthum (hybrid)
 21727 (= 22910 = 22015) catacosmum
 21728 × hemigymnum (hybrid)
 21729 (= 22847) × xanthanthum (hybrid)
 21730 (= 22649) × xanthanthum aff.
 (hybrid)
 21731 (= 22656) × xanthanthum (hybrid)
 21732 (= 22705) sanguineum var.
 haemaleum
 21733 (= 22697) temenium var. gilvum
 21734 temenium var. temenium
 21735 (= 22677) sanguineum var.
 haemaleum
 21736 (= 22633) × hillieri (hybrid)
 21737 × hillieri (hybrid)
 21738 eudoxum var. eudoxum
 21739 (= 22676) sanguineum var.
 cloiophorum
 21740 (= 22687) sanguineum var.
 haemaleum
 21741 × erythrocalyx (hybrid)
 21743 (= 2273) selense subsp. selense
 21744 temenium var. dealbatum
 21745 (= 22860) haematodes subsp.
 chaetomallum aff.
- 21746 (= 22667) sanguineum var.
 didymoides
 21747 sanguineum var. didymoides
 21748 sanguineum var. didymoides
 21750 (= 22852) sanguineum subsp.
 didymum
 21751 citriniflorum var. citriniflorum
 21752 (= 22679) citriniflorum
 21753 (= 22670) haematodes subsp.
 haematodes
 21754 (= 22694) sanguineum var.
 didymoides
 21755 (= 22767) campylocarpum subsp.
 caloxanthum
 21756 calostrotum subsp. keleticum
 21757 (= 22659) calostrotum subsp.
 keleticum
 21758 (= 22688) haematodes subsp.
 chaetomallum
 21759 (= 22862) haematodes subsp.
 haematodes
 21760 (= 22666) saluenense subsp.
 saluenense
 21761 (= 22721) bainbridgeanum
 21763 (= 22621) stewartianum
 21764 eudoxum var. mesopolium
 21765 (= 22685) sanguineum subsp.
 didymoides
 21766 (= 22718) bainbridgeanum
 21767 eudoxum var. eudoxum
 21768 (= 22706) chamaethomsonii var.
 chamaedoron
 21769 (= 22710) eclecticum var.
 eclecteum
 21770 (= 22850) eclecticum var.
 bellatulum
 21771 rex subsp. fictolacteum
 21772 saluenense subsp. saluenense
 21773 anthosphaerum
 21774 (= 22735) lukiangense
 21775 (= 22940) martinianum
 21776 mekongense var. mekongense
 21777 (= 22807) floccigerum
 21778 (= 22653) xanthostephanum
 21779 (= 22809) floccigerum
 21780 (= 22810) floccigerum
 21781 (= 22619) stewartianum
 21782 sanguineum/temenium
 21783 sanguineum var. didymoides
 21784 (= 22709) temenium var.
 gilvum aff.

- 21785 (= 22858) *haematodes* subsp.
 chaetomallum aff.
 21786 (= 22924) *forrestii* subsp. *forrestii*
 21787 (= 22611) *stewartianum*
 21809 *temenium* var. *temenium*
 21810 (= 22918) *fulvum* subsp. *fulvum*
 21811 (= 22856) *leptocarpum*
 21812 *glischrum* subsp. *glischrum*
 21813 *glischrum* subsp. *glischrum*
 21814 (= 22902) *fulvum* subsp.
 fulvoides
 21815 *fulvum*
 21816 (= 22762) *uvariifolium* var.
 uvariiflorum
 21817 *uvariifolium* var. *uvariiflorum*
 21818 *coriaceum*
 21819 (= 22724) *sanguineum* var.
 haemaleum
 21821 (= 22713) *bainbridgeanum*
 21822 *oreotrepes*
 21823 *sanguineum* var. *haemaleum*
 21824 (= 22808) *sperabiloides*
 21825 (= 22654) *monanthum*
 21826 (= 22657) *haematodes* subsp.
 chaetomallum
 21827 *eudoxum* var. *eudoxum*
 21828 (= 22894) *pocophorum* var.
 pocophorum
 21829 (= 22720) *bainbridgeanum*
 21830 (= 22911) *pocophorum* var.
 pocophorum
 21831 (= 22883) *haematodes* subsp.
 chaetomallum
 21832 (= 22719) *bainbridgeanum*
 21833 (= 22715) *bainbridgeanum*
 21834 (= 22717) *bainbridgeanum*
 21835 (= 22622) *oreotrepes*
 21836 *campylocarpum* subsp.
 caloxanthum
 21837 × *hemigymnum* (hybrid)
 21828 (= 22893) *eclecteum* var.
 bellatulum
 21839 (= 22708) *eclecteum* var.
 bellatulum
 21840 *eclecteum* var. *eclecteum*
 21841 (= 22618) *stewartianum*
 21842 (= 22892) *eclecteum* var.
 eclecteum
 21843 *coriaceum*
 21844 (= 22730) *temenium* var. *gilvum*
 21845 *eudoxum* var. *mesopolium*
 21846 (= 22707) *stewartianum* hybrid
 21848 (= 22665) *haematodes* subsp.
 chaetomallum aff.
 21849 (= 22859) *haematodes* subsp.
 chaetomallum aff.
 21850 (= 22690) *temenium* hybrid
 21851 (= 22668) *citriniflorum* var.
 horaenum
 21852 (= 22680) *citriniflorum* var.
 horaenum
 21853 *haematodes* subsp. *haematodes*
 21854 (= 22675) *citriniflorum* var.
 horaenum
 21855 *citriniflorum* var. *horaenum*
 21856 *sanguineum* var. *didymoides*
 21857 (= 22693) *haematodes* subsp.
 chaetomallum
 21858 (= 22683) × *hillieri* (hybrid)
 21860 *citriniflorum* var. *horaenum*
 21861 (= 22770) *rex*
 21862 (= 22784) *arizelum*
 21863 (= 22771) *rex* subsp. *fictolacteum*
 21864 (= 22703) *arizelum*
 21865 (= 22786) *arizelum*
 21866 (= 22772) *rex*
 21867 (= 22785) *rex* subsp. *fictolacteum*
 21868 (= 22787) *rex* subsp. *fictolacteum*
 21869 (= 22788) *rex*
 21870 (= 22738) *semnoides*
 21871 (= 22890) *rex* subsp. *fictolacteum*
 21872 (= 22658) *haematodes* subsp.
 chaetomallum
 21873 (= 22857) *haematodes* subsp.
 chaetomallum
 21874 (= 22898) *selense* subsp. *selense*
 21875 *campylocarpum* subsp.
 caloxanthum
 21876 (= 22800) *selense* subsp. *selense*
 21877 (= 22895) *selense* subsp. *setiferum*
 21878 (= 22906) *selense* subsp. *selense*
 21879 (= 22905) *selense* subsp. *selense*
 21880 *crinigerum* var. *crinigerum*
 21881 (= 22891) *eclecteum* var.
 eclecteum
 21882 (= 22647) *eclecteum* var.
 eclecteum
 21884 (= 22728) × *hemigymnum*
 (hybrid)
 21885 (= 22612) *stewartianum*
 21886 (= 22648) *eclecteum* var.
 bellatulum

- 21887 (= 22711) *eclecteum* var. *bellatulum*
 21888 (= 22620) *stewartianum*
 21889 (= 22613) *stewartianum*
 21891 (= 22615) *stewartianum*
 21892 (= 22758) *selense* subsp. *selense*
 21893 (= 22729) *bainbridgeanum*
 21894 (= 22716) *bainbridgeanum*
 21895 (= 22722) *bainbridgeanum*
 21896 (= 22903) *fulvum* subsp. *fulvoides*
 21897 (= 22768) *fulvum* subsp. *fulvoides*
 21898 (= 22917) *fulvum* subsp. *fulvoides*
 21899 *coriaceum*
 21900 (= 22802) *chamaethomsonii* var. *chamaethomsonii*
 21901 *temenium* var. *dealbatum*
 21902 (= 22698) *temenium* var. *dealbatum*
 21903 (= 22695) *temenium* var. *dealbatum*
 21904 (= 22699) *temenium* var. *dealbatum*
 21905 (= 22904) *temenium* var. *gilvum* aff.
 21906 (= 22900?) \times *hillieri* (hybrid)
 21907 (= 22726) *sanguineum* var. *haemaleum*
 21908 (= 22671) \times *hillieri* (hybrid)
 21909 (= 2270) *eudoxum*
 21910 *stewartianum* hybrid
 21911 (= 22731) \times *hillieri* (hybrid)
 21912 (= 22692) \times *hillieri* (hybrid)
 21914 (= 22701) *temenium* var. *gilvum*
 21916 *chamaethomsonii* var. *chamaedoron*
 21917 (= 22897) *selense* subsp. *selense*
 21918 (= 22617) *stewartianum*
 21919 (= 22614) *stewartianum*
 21923 *cephalanthum* subsp. *cephalanthum*
 21932 *telmateium*
 21934 *traillianum* var. *traillianum*
 21936 *maddenii* subsp. *crassum*
 21944 *roxieanum* var. *cucullatum*
 21948 *cuneatum*
 21954 *wardii* var. *wardii*
 21955 *racemosum*
 21965 *racemosum*
 21969 *arborescens* var. *delavayi*
 21972 *nivale* subsp. *australe*
 21974 *nivale* subsp. *australe*
 21975 *rupicola* var. *rupicola*
 21977 *lukiangense*
 21981 *anthosphaerum*
 21988 *orthocladum* var. *longistylum*
 22014 *roxieanum* var. *cucullatum*
 22019 *selense* subsp. *dasycladum*
 22020 *rex* subsp. *fiactolacteum*
 22187 *roxieanum* var. *cucullatum*
 22197 *cuneatum*
 22202 *clementinae*
 22295 *russatum* & *rupicola* var. *rupicola*
 22299 *polycladum*
 22300 *campylogynum*
 22320 *primuliflorum*
 22610 (= 21708) *stewartianum*
 22611 (= 21787) *stewartianum*
 22612 (= 21885) *stewartianum*
 22613 (= 21889) *stewartianum*
 22614 (= 21919) *stewartianum*
 22615 (= 21891) *stewartianum*
 22617 (= 21918) *stewartianum*
 22618 (= 21841) *stewartianum*
 22619 (= 21781) *stewartianum*
 22620 (= 21888) *stewartianum*
 22621 (= 21763) *stewartianum*
 22647 (= 21882) *eclecteum* var. *eclecteum*
 22648 (= 21886) *eclecteum* var. *eclecteum*
 22649 (= 21730) *haematodes* subsp. *chaetomallum* aff.
 22652 (= 21707) *xanthostephanum*
 22653 (= 21778) *xanthostephanum*
 22654 (= 21825) *monanthum*
 22656 (= 21731) \times *xanthanthum* (hybrid)
 22657 (= 21826) *haematodes* subsp. *chaetomallum*
 22658 (= 21872) *haematodes* subsp. *chaetomallum*
 22659 (= 21757) *calostrotum* subsp. *keleticum*
 22665 (= 21848) \times *xanthanthum* (hybrid)
 22666 (= 21760) *saluenense* subsp. *saluenense*
 22667 (= 21746) *sanguineum* var. *didymoides*
 22668 (= 21851) *citriniflorum* var. *horaicum*
 22670 (= 21753) *haematodes* subsp. *haematodes*

- 22671 (= 21908) *haematodes* subsp.
 haematodes
 22674 (= 21723) *chamaethomsonii* var.
 chamaethomsonii
 22675 (= 21854) *citriniflorum* var.
 horaenum
 22676 (= 21739) *sanguineum* var.
 cloiophorum
 22677 (= 21735) *sanguineum* var.
 haemaleum
 22679 (= 21752) *citriniflorum* var.
 citriniflorum
 22680 (= 21852) *citriniflorum* var.
 citriniflorum aff.
 22682 (= 22725 = 21915) *sanguineum*
 var. *haemaleum*
 22683? (= 21858) *citriniflorum* var.
 citriniflorum
 22685 (= 21765) *sanguineum* var.
 didymoides
 22687 (= 21740) *sanguineum* var.
 haemaleum
 22688 (= 21758) *haematodes* subsp.
 chaetomallum
 22690 (= 21850) *citriniflorum* var.
 horaenum
 22694 (= 21754) *citriniflorum* var.
 horaenum
 22695 (= 21903) *temenium* var.
 dealbatum
 22697 (= 21733) *temenium* var. *gilvum*
 22698 (= 21902) *temenium* var.
 dealbatum
 22699 (= 21904) *temenium* var. *gilvum*
 22700 (= 21909) *eudoxum*
 22702 (= 21687) *stewartianum*
 22703 (= 21864) *rex* subsp. *fictolacteum*
 22705 (= 21732) *sanguineum*
 22706 (= 21768) *chamaethomsonii* var.
 chamaedoron
 22708 (= 21839) *eclecteum* var.
 bellatulum
 22709 (= 21781) *temenium* var. *gilvum*
 aff.
 22710 (= 21769) *eclecteum* var.
 eclecteum
 22711 (= 21887) *selense* subsp. *selense*
 22713 (= 21821) *bainbridgeanum*
 22714 (= 21762) *bainbridgeanum*
 22715 (= 21833) *bainbridgeanum*
 22716 (= 21894) *bainbridgeanum*
 22717 (= 21834) *bainbridgeanum*
 22718 (= 21766) *bainbridgeanum*
 22719 (= 21832) *bainbridgeanum*
 22720 (= 21829) *bainbridgeanum*
 22721 (= 21761) *bainbridgeanum*
 22722 (= 21895) *bainbridgeanum*
 22723 *brachyanthum* subsp.
 hypolepidotum
 22724 (= 21819) *sanguineum* var.
 haemaleum
 22725 (= 22682 = 21915) *sanguineum*
 22726 (= 21907) *sanguineum* var.
 haemaleum
 22728 (= 21884) *eclecteum* var.
 eclecteum
 22729 (= 21893) *bainbridgeanum*
 22730 (= 21844) *temenium* var. *gilvum*
 22733 (= 21685) *lukiangense*
 22735 (= 21774) *lukiangense*
 22739 (= 21743) *selense* subsp. *selense*
 22751 (= 21680) *nuttallii*
 22758 (= 21892) *selense* subsp. *selense*
 22761 (= 21705) *sinogrande*
 22767 (= 21755) *selense* subsp. *setiferum*
 22768 (= 21898) *fulvum* subsp.
 fulvoides
 22770 (= 21861) *rex*
 22771 (= 21863) *arizelum*
 22772 (= 21866) *rex*
 22784 (= 21862) *rex*
 22785 (= 21867) *rex* subsp. *fictolacteum*
 22786 (= 21865) *arizelum*
 22787 (= 21868) *arizelum*
 22788 (= 21869) *rex*
 22800 (= 21876) *selense* subsp. *selense*
 22802 (= 21900) *chamaethomsonii* var.
 chamaethomsonii
 22803 (= 21681) *floccigerum*
 22804 (= 21702) *floccigerum*
 22805 (= 21705) *floccigerum*
 22806 (= 21703) *floccigerum*
 22807 (= 21777) *floccigerum*
 22808 (= 21824) *floccigerum* aff.
 22809 (= 21779) *floccigerum*
 22810 (= 21780) *floccigerum*
 22822 (= 21696) *megacalyx*
 22831 (= 21714) *edgeworthii*
 22833 (= 21716) *virgatum* subsp.
 oleifolium
 22846 (= 21688) *bainbridgeanum*
 22847 (= 21729) × *xanthanthum* (hybrid)

- 22850 (= 21770) *eclecteum* var. *eclecteum*
 22842 (= 21750) *sanguineum* subsp. *didymum*
 22853 *eclecteum* var. *eclecteum*
 22856 (= 21811) *leptocarpum*
 22857 (= 21873) *haematodes* subsp. *chaetomallum*
 22858 (= 21785) *haematodes* subsp. *chaetomallum* aff.
 22859 (= 21785) *haematodes* subsp. *chaetomallum* aff.
 22860 (= 21745) *haematodes* subsp. *chaetomallum* aff.
 22862 (= 21759) *citriniflorum* var. *horaemum*
 22863 (= 21725) *haematodes* subsp. *chaetomallum* aff.
 22883 (= 21831) *haematodes* subsp. *chaetomallum*
 22884 (= 21686) *anthosphaerum*
 22885 (= 21700) *anthosphaerum*
 22886 (= 21709) *pocophorum* var. *hemidartum*
 22890 (= 21871) *rex* subsp. *fictolacteam*
 22891 (= 21881) *eclecteum* var. *eclecteum*
 22892 (= 21842) *eclecteum* var. *eclecteum*
 22893 (= 21838) *eclecteum* var. *eclecteum*
 22894 (= 21828) *pocophorum* var. *pocophorum*
 22895 (= 21877) *selense* subsp. *setiferum*
 22897 (= 21917) *campylocarpum* subsp. *caloxanthum*
 22898 (= 21874) *selense* subsp. *selense*
 22899 (= 21689) *selense* subsp. *selense*
 22900? (= 21906) *sperabiloides*
 22901 (= 21697) *bainbridgeanum*
 22902 (= 21814) *fulvum* subsp. *fulvoides*
 22903 (= 21896) *fulvum* subsp. *fulvoides*
 22905 (= 21879) *selense* subsp. *selense*
 22906 (= 21878) *selense* subsp. *selense*
 22909 (= 21713) *pocophorum* var. *pocophorum*
 22910 (= 22915 = 21727) *catacosmum*
 22911 (= 21830) *pocophorum* var. *pocophorum*
 22912 (= 21711) *pocophorum* var. *pocophorum*
 22913 (= 21712) *pocophorum* var. *pocophorum*
 22915 (= 21727 = 22910) *catacosmum*
 22916 (= 21720) *pocophorum* var. *pocophorum*
 22918 (= 21810) *fulvum* subsp. *fulvoides*
 22922 *forrestii* subsp. *forrestii*
 22923 (= 21724) *forrestii* hybrid
 22924 (= 21786) *forrestii* subsp. *forrestii*
 22938 (= 21694) *eurysiphon*
 22939 (= 21695) *martinianum*
 22940 (= 21775) *martinianum*
 22941 *pocophorum* var. *hemidartum*
- YUNNAN & SE TIBET, CHINA & NE BURMA EXP. (1924-25)**
- 24009 *arboreum* var. *delavayi*
 24060 *tanastylum* var. *tanastylum*
 24070 *tanastylum* var. *tanastylum*
 24091 *neriiflorum* subsp. *neriiflorum*
 24101 *zaleucum*
 24104 *meddianum* var. *meddianum*
 24107 *diphrocalyx*
 24110 *fulvum* subsp. *fulvum*
 24113 *dichroanthum* subsp. *apodectum*
 24116 *griersonianum*
 24117 *annae*
 24131 *sulfureum*
 24138 *valentinianum*
 24139 *basilicum*
 24140 *sinogrande*
 24149 *tanastylum* var. *pennivenium*
 24154 *shweliense*
 24160 *trichocladum* var. *trichocladum*
 24193 *arizelum*
 24201 *facetum*
 24219 *meddianum* var. *meddianum*
 24220 *neriiflorum* subsp. *neriiflorum*
 24225 *basilicum*
 24228 *virgatum* subsp. *oleifolium*
 24229 *sulfureum*
 24235 *sulfureum*
 24283 *pseudociliipes*
 24305 *dichroanthum* subsp. *apodectum*
 24308 *pseudociliipes*
 24312 *tanastylum* var. *tanastylum*
 24314 *fulvum* subsp. *fulvoides*
 24315 *habrotrichum*
 24331 *dichroanthum* subsp. *apodectum*
 24350 *callimorphum* var. *callimorphum*

24496	maddenii subsp. crassum	25065	dichroanthum subsp. scyphocalyx
24528	stewartianum	25067	mallotum
24530	stewartianum	25076	fulvum subsp. fulvum
24532	dichroanthum subsp. scyphocalyx	25090	sidereum
24535	rubiginosum	25100	(= 26081) basilicum
24542	kyawii	25340	sulfureum
24544	dichroanthum subsp. scyphocalyx	25446	yungchangense
24546	dichroanthum subsp. scyphocalyx	25447	(= 25923) sperabile var. weihsiense
24562	zaleucum	25449	(= 25938) rubiginosum
24563	sidereum	25474	(= 25920) sperabile var. sperabile
24570	campylogynum	25481	(= 25919) sperabile var. weihsiense
24571	cephalanthum subsp. cephalanthum	25494	(= 25978) wardii var. wardii
24572	calostrotum subsp. calostrotum	25496	(= 25930 ?) fastigiatum
24574	rupicola var. rupicola	25498	(= 25912) polycladum
24575	trichocladum var. trichocladum	25500	(= 25908) russatum
24577	helirolepis var. helirolepis	25503	(= 25921) calostrotum subsp. riparioides
24592	facetum	25505	(= 25891) roxieanum var. cucullatum
24598	stewartianum	25506	calostrotum subsp. riparioides
24600	anthosphaerum	25507	(= 25957) sanguineum var. didymoides
24603	dichroanthum subsp. scyphocalyx	25508	(= 25895= ?25923) saluenense subsp. chameunum
24616	dichroanthum subsp. scyphocalyx	25509	(= 25988) mekongense var. mekongense
24618	yunnanense	25512	(= 25896) rex subsp. fictolacteum
24620	dichroanthum subsp. scyphocalyx	25513	(= 25893) beesianum
24633	(= 26115) lepidostylum	25514	(= 25883) roxieanum
24660	hylaenum	25515	(= 25926) roxieanum var. oreonastes
24680	kyawii	25516	(= 25983) beesianum
24683	dichroanthum subsp. scyphocalyx	25518	(= 25906) sanguineum var. sanguineum
24688	megacalyx	25520	(= 25966) aganniphum var. aganniphum
24712	dichroanthum subsp. apodectum	25521	(= 25943) sanguineum var. sanguineum
24728	dichroanthum subsp. apodectum	25524	(= 25961) chamaethomsonii/ forrestii
24729	(= 25999) megacalyx	25526	(= 25982) yungningense
24730	maddenii subsp. crassum	25529	(= 25941) rupicola var. rupicola
24739	facetum	25532	(= 25931) rupicola var. rupicola
24740	arizelum	25534	(= 25979) wardii var. wardii
24742	sidereum	25535	(= 25880) selense subsp. dasycladum
24747	maddenii subsp. crassum	25542	(= 25922) calostrotum subsp. riparioides
24748	facetum		
24774	dendricola		
24775	protistum var. protistum		
24831	genestierianum		
25011	calostrotum		
25020	fulvum		
25064	preptum		

- 25543 (= 25913) sanguineum var.
sanguineum
- 25553 russatum
- 25555 polycladum
- 25560 (= 25835) saluenense subsp.
chamaeunum
- 25563 (= 25878) aperantum hybrid
- 25564 (= 25942) chionanthum
- 25565 haematodes subsp. chaetomallum
aff.
- 25569 (= 25935) sperabile var.
weihsiense
- 25570 (= 25808) charitopes subsp.
charitopes
- 25572 (= 25775) tephropeplum
- 25574 (= 25857) maddenii subsp.
crassum
- 25575 (= 25843) brachyanthum subsp.
hypolepidotum
- 25576 (= 25796) zaleucum
- 25577 (= 25787) dichroanthum subsp.
septentrionale
- 25578 (= 25861) dumicola
- 25579 (= 25855) dichroanthum subsp.
scyphocalyx
- 25580 (= ?25993) dumicola
- 25581 (= 25789) charitopes subsp.
charitopes
- 25584 kyawii
- 25585 (= 25850) crinigerum var.
crinigerum
- 25586 (= 25854) maddenii subsp.
crassum
- 25588 (= 25612) leptocarpum
- 25593 (= 25806) × erythrocalyx (hybrid)
- 25597 (= 25877) haematodes subsp.
chaetomallum
- 25601 (= 25862) haematodes subsp.
chaetomallum
- 25602 (= 25856) haematodes subsp.
chaetomallum
- 25603 eclecticum
- 25604 (= ? 25873) eclecticum var.
eclecticum
- 25605 (= 25845) × hemigymnum
(hybrid)
- 25606 (= 25765) zaleucum
- 25607 (= 25786) haematodes subsp.
chaetomallum
- 25608 (= 25782) arizelum
- 25609 (= 25790) zaleucum
- 25610 (= 25785) glischrum subsp.
glischrum
- 25611 (= 25799) zaleucum
- 25612 (= 25588) leptocarpum
- 25614 (= 25811) martinianum
- 25615 (= 25864) stewartianum
- 25616 glischrum subsp. glischrum
- 25617 (= 25858) monanthum
- 25618 (= 25859) stewartianum
- 25619 (= 25794) crinigerum var.
euadenium
- 25620 (= 25814) stewartianum
- 25622 (= 25822) coriaceum
- 25624 (= 25853) nuttallii
- 25625 (= 25870) coelicum
- 25627 (= 25841) arizelum
- 25629 (= 25767) maddenii subsp.
crassum
- 25630 (= 25784) coriaceum
- 25631 (= 25852) sulfureum
- 25633 crinigerum var. euadenium
- 25634 crinigerum var. euadenium
- 25636 (= 25821) calvescens var.
calvescens
- 25639 (= 25830) semnoides
- 25640 (= 25800) floccigerum aff.
- 25641 (= 25803) crinigerum var.
crinigerum
- 25642 (= 25869) stewartianum
- 25644 (= 25766) tephropeplum
- 25645 (= 25777) glischrum subsp.
rude
- 25646 stewartianum
- 25647 (= 25834) coelicum
- 25683 (= 25817) calostrotum subsp.
riparioides
- 25684 (= 25825) protistum var.
giganteum
- 25697 (= 25902) aganniphum var.
aganniphum
- 25701 (= 25940) proteoides
- 25705 (= 25917) clementinae
- 25707 nivale subsp. australe
- 25714 (= 25820) tephropeplum
- 25716 (= 25992) praestans
- 25717 (= 25949) rothschildii
- 25718 (= 25929) roxieanum var.
oreonastes
- 25719 rex subsp. fictolacteam
- 25725 (= 25927) glischrum subsp.
glischrum

- 25737 (= 25899) selense subsp.
dasycladum
- 25738 (= 25938) roxieanum var.
cucullatum aff.
- 25740 (= 25918) traillianum var.
traillianum
- 25742 (= 25916) clementinae
- 25744 fulvum subsp. fulvoides
- 25765 (= 25606) zaleucum
- 25766 (= 25644) tephropeplum
- 25767 (= 25629) maddenii subsp.
crassum
- 25775 (= 25572) tephropeplum
- 25777 (= 25645) glischrum subsp. rude
- 25782 (= 25608) arizelum
- 25784 (= 25630) coriaceum
- 25785 (= 25610) glischrum subsp.
glischrum
- 25786 (= 25607) pocophorum aff.
- 25787 (= 25577) dichroanthum subsp.
septentrionale
- 25789 (= 25581) charitopes subsp.
charitopes
- 25794 (= 25619) crinigerum var.
euadenium
- 25796 (= 25576) zaleucum
- 25799 (= 25611) zaleucum
- 25800 (= 25640) floccigerum aff.
- 25803 (= 25641) crinigerum var.
crinigerum
- 25806 (= 25593) calvescens var.
calvescens
- 25808 (= 25570) charitopes subsp.
charitopes
- 25811 (= 25614) martinianum
- 25814 (= 25620) stewartianum
- 25817 (= 25683) calostrotum subsp.
riparium
- 25818 crinigerum var. euadenium
- 25820 (= 25714) tephropeplum
- 25821 (= 25636) eclectum
hybrid
- 25822 (= 25622) coriaceum
- 25825 (= 25684) protistum var.
giganteum
- 25830 (= 25639) semnoides
- 25831 floccigerum aff.
- 25834 (= 25647) coelicum
- 25835 (= 25560) saluenense subsp.
chameunum
- 25841 (= 25627) arizelum
- 25843 (= 25575) brachyanthum subsp.
hypolepidotum
- 25845 (= 25605) × hemigymnum
(hybrid)
- 25850 (= 25585) crinigerum var.
euadenium
- 25852 (= 25631) sulfureum
- 25853 (= 25624) nuttallii
- 25854 (= 25586) maddenii subsp.
crassum
- 25855 (= 25579) dichroanthum subsp.
scyphocalyx
- 25856 (= 25602) coelicum
- 25857 (= 25574) maddenii subsp.
crassum
- 25858 (= 25617) monanthum
- 25859 (= 25618) stewartianum
- 25862 (= 25601) haematodes subsp.
chaetomallum
- 25864 (= 25616) stewartianum
- 25865 taggianum
- 25869 (= 25642) stewartianum
- 25870 (= 25625) coelicum
- 25872 coriaceum
- 25873 (= 25604) stewartianum
- 25875 (= 25679) sinogrande
- 25877 (= 25597) haematodes
- 25878 (= 25563) aperantum hybrid
- 25880 (= 25535) selense subsp.
dasycladum
- 25883 (= 25514) roxieanum var.
cucullatum
- 25891 (= 25505) roxieanum var.
cucullatum
- 25896 (= 22512) rex subsp.
fictolacteum
- 25899 (= 25737) selense subsp.
dasycladum
- 25901 citriniflorum var. horeaum aff.
- 25902 (= 25697) aganniphum var.
flavorufum
- 25904 (= 25555) polycladum
- 25906 (= 25518) sanguineum var.
sanguineum
- 25907 rupicola var. rupicola
- 25913 (= 25543) citriniflorum var.
horeaum aff.
- 25914 augustinii subsp. rubrum
- 25915 alutaceum var. russoinctum
- 25916 (= 25742) clementinae
- 25917 (= 25705) clementinae

- 25918 (= 25740) *traillianum* var. *traillianum*
 25919 (= 25481) *sperabile* var. *weihsiense*
 25920 (= 25474) *sperabile* var. *sperabile*
 25921 (= 25503) *calostrotum* subsp. *riparioides*
 25922 (= 25542) *calostrotum* subsp. *riparioides*
 25923? (= 25985=25508) *saluenense* subsp. *chameunum*
 25926 (= 25515) *roxieanum* var. *oreonastes*
 25927 (= 25725) *glischrum* subsp. *glischrum*
 25928 (= 25738) *alutaceum* var. *russotinctum*
 25929 (= 25718) *roxieanum* var. *oreonastes*
 25923 (= 25447) *sperabile* var. *weihsiense*
 25935 (= 25569) *sperabile* var. *weihsiense*
 25936 (= 25483) *fulvum* subsp. *fulvoides*
 25938 (= 25449) *rubiginosum*
 25941 (= 25529) *rupicola* var. *rupicola*
 25942 (= 25564) *sanguineum*
 25943 (= 25521) *sanguineum* var. *didymoides*
 25944 *fulvum* subsp. *fulvoides*
 25945 (= 25739) *roxieanum*
 25947 (= 25717) *rothschildii*
 25957 (= 25507) *sanguineum* var. *didymoides*
 25958 *fulvum* subsp. *fulvoides*
 25959 *rex*
 25960 (= 25520) *aganniphum* var. *aganniphum*
 25961 (= 25524) *chamaethomsonii*/ *forrestii*
 25978 (= 25494) *wardii* var. *wardii*
 25979 (= 25534) *wardii* var. *wardii*
 25981 *fastigiatum*
 25982 (= 25526) *fastigiatum*
 25983 (= 25516) *beesianum*
 25984 *irroratum* var. *irroratum*
 25984a *anthosphaerum*
 25988 (= 25509) *mekongense* var. *mekongense*
 25992 (= 25716) *praestans*
- 25993 (= 25580) *selense* subsp. *dasycladum*
 25999 (= 24729) *megacalyx*
 26023 *tanastylum* var. *tanastylum*
 26040 *tanastylum* var. *tanastylum*
 26043 *basilicum*
 26045 *facetum*
 26046 *neriiflorum* subsp. *neriiflorum*
 26048 *griersonianum*
 26066 *arboreum* var. *peramoenum*
 26068 *maddenii* subsp. *crassum*
 26071 *facetum*
 26078 *tanastylum* var. *pennivenium*
 26081 (= 25100) *basilicum*
 26091 *megacalyx*
 26092 *sinogrande*
 26093 sp.
 26109 *maddenii* subsp. *crassum*
 26112 (= 24347) *valentinianum*
 26113 *sulfureum*
 26120 *maddenii* subsp. *crassum*
 26122 sp.
 26157 *arboreum* var. *delavayi*
 26316 *protistum* var. *protistum*
 26419 (= 27378) *genestierianum*
 26421 (= 27620) *araiophyllum*
 26422 (= 27622) *sulfureum*
 26423 (= 26618) *edgeworthii*
 26424 (= 27627) *tanastylum* var. *tanastylum*
 26425 (= 27600) *glischroides*
 26426 (= 27470) *glischroides*
 26427 (= 27619) *tanastylum* var. *tanastylum*
 26428 (= 27609) *glischroides*
 26429 (= 27614) *protistum* var. *protistum*
 26430 (= 27478) *anthosphaerum*
 26431 (= 27611) *tephropeplum*
 26432 (= 27612) *anthosphaerum*
 26433 (= 27464) *anthosphaerum*
 26434 (= 27581) *sperabile* var. *sperabile*
 26435 (= 27635) *sperabile* var. *sperabile*
 26436 (= 27653) *anthosphaerum*
 26347 (= 27457) *tanastylum* var. *tanastylum*
 26438 (= 27460) *araiophyllum*
 26439 (= 27455) *tephropeplum*
 26440 (= 27638) *taggianum*
 26441 (= 27722) *dendricola*

- 26442 (= 27601) sperabile var. sperabile
 26443 (= 27607) anthosphaerum
 26444 (= 27669) pseudociliipes
 26445 (= 27427) araiophyllum
 26446 (= 27595) sperabile var. sperabile
 26447 (= 27458) sulfureum
 26448 (= 27625) glischroides
 26449 (= 27466) neriiflorum subsp.
 neriiflorum
 26452 (= 27671) anthosphaerum
 26453 (= 27639) sperabile var.
 weihsiense
 26454 (= 27608) anthosphaerum
 26455 (= 27463) glischroides
 26456 sinogrande
 26457 (= 27670) tephropeplum
 26458 (= 26634 etc., see 26633) sidereum
 26459 (= 27690) dendricola
 26461 (= 27655) pseudociliipes
 26462 (= 27689) dendricola
 26463 (= 27405) yunnanense
 26464 (= 27628) pseudociliipes
 26465 (= 27469) sperabile var. sperabile
 26466 (= 27498) arboreum var. delavayi
 26472 (= 27661) pseudociliipes
 26473 brachyanthum subsp.
 hypolepidotum
 26474 (= 27598) oreotrepes hybrid
 26475 (= 27370) arboreum var. delavayi
 26476 (= 27465) meddianum var.
 atrokermesinum
 26477 (= 27377) tanastylum var.
 pennivenium
 26478 (= 27605) sperabile var.
 weihsiense
 26480 (= 27456) anthosphaerum
 26481 (= 27376) araiophyllum
 26482 (= 27473) rubiginosum
 26483 (= 27610) araiophyllum
 26484 (= 27632) tanastylum var.
 tanastylum
 26486 (= 27402) yunnanense
 26487 (= 27637) neriiflorum subsp.
 neriiflorum
 26488 (= 27631) rubiginosum
 26489 (= 27372) tanastylum var.
 tanastylum
 26490 (= 27367) araiophyllum
 26491 (= 27368) araiophyllum
 26492 (= 27374) araiophyllum
 26494 (= 27426) araiophyllum
 26495 (= 27606) meddianum var.
 atrokermesinum
 26449 (= 27623) meddianum var.
 atrokermesinum
 26528 (= 27698) araiophyllum
 26615 (= 27688) pseudociliipes
 26618 (= 27617 =26423) edgeworthii
 26629 (= 27399) habrotrichum
 26632 (= 27400) habrotrichum
 26633 (= 27677 =26634 =26458 =27679
 =27673) sidereum
 26634 (= 26633) sidereum
 26636 (= 27687) leptocarpum
 26791 (= 27761) sidereum
 26792 (= 27702) araiophyllum
 26797 (= 27700) araiophyllum
 26798 (= 27739) caesium
 26921 (= 27484) stewartianum
 26922 (= 27459) basilicum
 26923 (= 27593) maddenii subsp.
 crassum
 26924 (= 27585) dichroanthum subsp.
 scyphocalyx
 26925 (= 27597) aperantum
 26926 (= 27587) aperantum
 26927 (= 27485) dichroanthum subsp.
 scyphocalyx
 26928 (= 27489) heliolepis var.
 brevistylum
 26929 (= 27492) stewartianum
 26930 (= 27651) aperantum
 26931 (= 27474) aperantum
 26932 (= 27629) stewartianum
 26933 (= 27590) aperantum
 26934 (= 27584) aperantum
 26935 (= 27616) arizelum
 26936 (= 27467) aperantum
 26937 (= 27480) aperantum
 26938 (= 27604) aperantum
 26961 (= 27642) heliolepis var.
 heliolepis
 26962 (= 27586) stewartianum
 26963 (= 27599) dichroanthum subsp.
 scyphocalyx
 26964 (= 27636) aperantum
 26965 (= 27471) dichroanthum subsp.
 scyphocalyx
 26966 (= 27494) dichroanthum subsp.
 scyphocalyx
 26974 (= 27641) dichroanthum subsp.
 scyphocalyx

- 26978 (= 27589) dichroanthum subsp.
scyphocalyx
- 26980 (= 27643) stewartianum
- 26981 (= 27592) stewartianum
- 26984 (= 27475) stewartianum
- 26985 (= 27574) campylocarpum subsp.
caloxanthum
- 26986 (= 27667) stewartianum
- 26987 (= 27591) rupicola var.
rupicola
- 26988 (= 27503) campylogynum
- 26991 (= 27656) campylogynum
- 26992 (= 27659) stewartianum
- 26993 (= 27482) stewartianum
- 27002 (= 27491) aperantum
- 27003 (= 27580) dichroanthum subsp.
scyphocalyx
- 27011 (= 27487) dichroanthum subsp.
scyphocalyx
- 27012 (= 27481) dichroanthum subsp.
scyphocalyx
- 27013 (= 27588) stewartianum
- 27018 (= 27477) dichroanthum subsp.
scyphocalyx
- 27019 (= 27573) dichroanthum subsp.
scyphocalyx
- 27020 (= 27645) aperantum
- 27022 (= 27666) aperantum
- 27025 (= 27483) aperantum
- 27050 (= 27626) dichroanthum subsp.
scyphocalyx
- 27051 (= 27662) dichroanthum subsp.
scyphocalyx
- 27052 (= 27650) dichroanthum subsp.
scyphocalyx
- 27054 (= 27583) dichroanthum subsp.
scyphocalyx
- 27057 (= 27461) dichroanthum subsp.
scyphocalyx
- 27059 (= 27633) dichroanthum subsp.
scyphocalyx
- 27061 (= 27644) dichroanthum subsp.
scyphocalyx
- 27063 (= 27663) dichroanthum subsp.
scyphocalyx
- 27065 (= 27497) calostrotum subsp.
calostrotum
- 27067 arizelum
- 27069 facetum
- 27071 (= 27568) dichroanthum subsp.
scyphocalyx
- 27073 (= 27648) aperantum
- 27075 (= 27579) aperantum
- 27077 (= 27640) aperantum
- 27079 (= 27493) aperantum
- 27081 (= 27486) aperantum
- 27083 (= 27576) aperantum
- 27085 (= 27462) glischrum subsp.
glischrum
- 27089 (= 27672) dichroanthum subsp.
scyphocalyx
- 27093 (= 27646) dichroanthum subsp.
scyphocalyx
- 27095 (= 27654) dichroanthum subsp.
scyphocalyx
- 27097 (= 27499) dichroanthum subsp.
scyphocalyx
- 27099 (= 27570) dichroanthum subsp.
scyphocalyx
- 27101 (= 27621) megacalyx
- 27103 (= 27603) zaleucum
- 27105 (= 27468) facetum
- 27108 (= 27624) arizelum
- 27109 (= 27476) pseudociliipes
- 27110 (= 27615) maddenii subsp.
crassum
- 27111 (= 27572) aperantum
- 27113 (= 27496) dichroanthum subsp.
scyphocalyx
- 27115 (= 27657) dichroanthum subsp.
scyphocalyx
- 27116 (= 27613) dichroanthum subsp.
scyphocalyx
- 27117 (= 27660) trichocladum var.
trichocladum
- 27118 (= 27569) campylogynum
- 27119 (= 27571) rupicola var. rupicola
- 27121 (= 27658) calostrotum subsp.
calostrotum
- 27122 (= 27501) cephalanthum subsp.
cephalanthum
- 27123 (= 27664) campylocarpum subsp.
caloxanthum
- 27125 (= 27495) campylocarpum subsp.
caloxanthum
- 27126 kyawii
- 27128 (= 27578) kyawii
- 27129 (= 27577) stewartianum
- 27131 (= 27479) stewartianum
- 27132 (= 27665) dichroanthum subsp.
scyphocalyx
- 27133 (= 27652) stewartianum

- 27134 (= 27594) *dichroanthum* subsp.
 scyphocalyx
 27135 (= 27500) *stewartianum*
 27136 (= 27582) *stewartianum*
 27137 (= 27490) *dichroanthum* subsp.
 scyphocalyx
 27138 (= 27647) *stewartianum*
 27140 (= 27575) *dichroanthum* subsp.
 scyphocalyx
 27142 (= 27488) *callimorphum* var.
 myiagram
 27143 (= 27596) *stewartianum*
 27144 (= 27649) *stewartianum*
 27250 (= 27678) *kyawii*
 27343 *habrotrichum*
 27355 (= 27730) *protistum* var.
 giganteum
 27357 *campylogynum*
 27358 *neriiflorum* subsp. *agetum*
 27359 *dichroanthum* subsp. *apodectum*
 27367 (= 26490) *araiophyllum*
 27368 (= 26491) *araiophyllum*
 27370 (= 26475) *arboresum* var. *delavayi*
 27372 (= 26489) *tanastylum* var.
 tanastylum
 27374 (= 26492) *araiophyllum*
 27376 (= 26481) *araiophyllum*
 27377 (= 26477) *tanastylum* var.
 pennivenium
 27378 (= 26419) *genestierianum*
 27389 *callimorphum* aff.
 27399 (= 26629) *habrotrichum*
 27400 (= 26632) *habrotrichum*
 27404 (= 26596) *yunnanense*
 27405 (= 26463) *yunnanense*
 27413 *basilicum*
 27415 *annae*
 27416 *annae*
 27426 (= 26494) *araiophyllum*
 27427 (= 26445) *araiophyllum*
 27455 (= 26439) *tephropeplum*
 27456 (= 26480) *anthosphaerum*
 27457 (= 26437) *tanastylum* var.
 tanastylum
 27458 (= 26447) *sulfureum*
 27459 (= 26922) *basilicum*
 27460 (= 26438) *araiophyllum*
 27461 (= 27057) *dichroanthum* subsp.
 scyphocalyx
 27462 (= 27085) *glischrum* subsp.
 glischrum
 27463 (= 26455) *glischrum* subsp.
 glischrum
 27464 (= 26433) *anthosphaerum*
 27465 (= 26476) *meddianum* var.
 atrokermesinum
 27466 (= 26449) *neriiflorum* subsp.
 neriiflorum
 27467 (= 26936) *aperantum*
 27468 (= 27105) *facetum*
 27469 (= 26465) *sperabile* var.
 sperabile
 27470 (= 26426) *glischroides*
 27471 (= 26965) *dichroanthum* subsp.
 scyphocalyx
 27473 (= 26482) *rubiginosum*
 27474 (= 26931) *aperantum*
 27475 (= 26984) *stewartianum*
 27477 (= 27018) *dichroanthum* subsp.
 scyphocalyx
 27478 (= 26430) *anthosphaerum*
 27479 (= 27131) *stewartianum*
 27480 (= 26937) *dichroanthum* subsp.
 scyphocalyx
 27482 (= 26993) *stewartianum*
 27483 (= 27025) *aperantum*
 27484 (= 26921) *stewartianum*
 27485 (= 26927) *dichroanthum* subsp.
 scyphocalyx
 27486 (= 27081) *aperantum*
 27487 (= 27011) *dichroanthum* subsp.
 scyphocalyx
 27488 (= 27142) *callimorphum* var.
 myiagram
 27489 (= 26928) *helirolepis* var.
 brevistylum
 27490 (= 27137) *dichroanthum* subsp.
 scyphocalyx
 27491 (= 27002) *aperantum*
 27492 (= 26929) *stewartianum*
 27493 (= 27079) *aperantum*
 27494 (= 26966) *dichroanthum* subsp.
 scyphocalyx
 27495 (= 27125) *campylocarpum* subsp.
 caloxanthum
 27496 (= 27113) *dichroanthum* subsp.
 scyphocalyx
 27497 (= 27065) *calostrotum* subsp.
 calostrotum
 27498 (= 26466) *arboresum* var. *delavayi*
 27499 (= 27097) *dichroanthum* subsp.
 scyphocalyx

- 27500 (= 27135) *stewartianum*
 27501 (= 27122) *cephalanthum* subsp.
 cephalanthum
 27502 (= 26977) *dichroanthum* subsp.
 scyphocalyx
 27503 (= 26988) *campylogynum*
 27568 (= 27071) *dichroanthum* subsp.
 scyphocalyx
 27569 (= 27118) *campylogynum*
 27570 (= 27099) *dichroanthum* subsp.
 scyphocalyx
 27571 (= 27119) *rupicola* var. *rupicola*
 27572 (= 27111) *aperantum*
 27573 (= 27019) *dichroanthum* subsp.
 scyphocalyx
 27574 (= 26985) *campylocarpum* subsp.
 caloxanthum
 27575 (= 27140) *dichroanthum* subsp.
 scyphocalyx
 27576 (= 27083) *aperantum*
 27577 (= 27129) *stewartianum*
 27578 (= 27128) *kyawii*
 27579 (= 27075) *aperantum*
 27580 (= 27003) *dichroanthum* subsp.
 scyphocalyx
 27581 (= 26434) *sperabile* var. *sperabile*
 27582 (= 27136) *stewartianum*
 27583 (= 27054) *dichroanthum* subsp.
 scyphocalyx
 27584 (= 26934) *aperantum*
 27585 (= 26924) *dichroanthum* subsp.
 scyphocalyx
 27586 (= 26962) *stewartianum*
 27587 (= 26926) *aperantum*
 27588 (= 27013) *stewartianum*
 27589 (= 26978) *dichroanthum* subsp.
 scyphocalyx
 27590 (= 26933) *aperantum*
 27591 (= 26987) *rupicola* var. *rupicola*
 27592 (= 26981) *stewartianum*
 27593 (= 26923) *maddenii* subsp.
 crassum
 27594 (= 27134) *dichroanthum* subsp.
 scyphocalyx
 27595 (= 26446) *sperabile* var. *sperabile*
 27596 (= 27143) *stewartianum*
 27597 (= 26925) *aperantum*
 27598 (= 26474) *oreotrephes*
 27599 (= 26963) *dichroanthum* subsp.
 scyphocalyx
 27600 (= 26425) *glischroides*
 27601 (= 26442) *sperabile* var. *sperabile*
 27603 (= 27103) *zaleucum*
 27604 (= 26938) *aperantum*
 27605 (= 26478) *sperabile* var.
 weihsiense
 27606 (= 26495) *meddianum* var.
 atrokermesinum
 27607 (= 26443) *anthosphaerum*
 27608 (= 26454) *anthosphaerum*
 27609 (= 26428) *glischroides*
 27610 (= 26483) *araiophyllum*
 27611 (= 26431) *tephropeplum*
 27612 (= 26432) *anthosphaerum*
 27613 (= 27116) *dichroanthum* subsp.
 scyphocalyx
 27614 (= 26429) *protistum* var.
 protistum
 27615 (= 27110) *maddenii* subsp.
 crassum
 27616 (= 26935) *rex* subsp. *arizelum*
 27617 (= 26618 = 26423) *edgeworthii*
 27620 (= 26421) *araiophyllum*
 28621 (= 27101) *megacalyx*
 27622 (= 26422) *sulfureum*
 27623 (= 26499) *meddianum* var.
 atrokermesinum
 27624 (= 27108) *arizelum*
 27625 (= 26448) *glischroides*
 27626 (= 27050) *dichroanthum* subsp.
 scyphocalyx
 27627 (= 26424) *tanastylum* var.
 tanastylum
 27628 (= 26464) *pseudociliipes*
 27629 (= 26932) *stewartianum*
 27630 (= 26964) *aperantum*
 27631 (= 26488) *rubiginosum*
 27632 (= 26484) *tanastylum* var.
 tanastylum
 27633 (= 27059) *dichroanthum* subsp.
 scyphocalyx
 27635 (= 26435) *sperabile* var. *sperabile*
 27636 (= 26964) *aperantum*
 27637 (= 26487) *neriiflorum* subsp.
 neriiflorum
 27638 (= 26440) *taggianum*
 27639 (= 26453) *sperabile* var. *sperabile*
 27640 (= 27077) *aperantum*
 27641 (= 26974) *dichroanthum* subsp.
 scyphocalyx
 27642 (= 26961) *helirolepis* var.
 brevistylum

- 27643 (= 26980) *stewartianum*
 27644 (= 27061) *dichroanthum* subsp.
 scyphocalyx
 27645 (= 27020) *aperantum*
 27646 (= 27093) *dichroanthum* subsp.
 scyphocalyx
 27647 (= 27138) *stewartianum*
 27648 (= 27073) *aperantum*
 27649 (= 27144) *stewartianum*
 27650 (= 27052) *dichroanthum* subsp.
 scyphocalyx
 27651 (= 26930) *aperantum*
 27652 (= 27133) *stewartianum*
 27653 (= 26436) *anthosphaerum*
 27654 (= 27095) *dichroanthum* subsp.
 scyphocalyx
 27655 (= 26461) *pseudociliipes*
 27656 (= 26991) *campylogynum*
 27657 (= 27115) *dichroanthum* subsp.
 scyphocalyx
 27658 (= 27121) *calostrotum* subsp.
 calostrotum
 27659 (= 26992) *stewartianum*
 27660 (= 27117) *trichocladum* var.
 trichocladum
 27661 (= 26472) *pseudociliipes*
 27662 (= 27051) *dichroanthum* subsp.
 scyphocalyx
 27663 (= 27063) *dichroanthum* subsp.
 scyphocalyx
 27664 (= 27123) *campylocarpum* subsp.
 caloxanthum
 27665 (= 27132) *dichroanthum* subsp.
 scyphocalyx
 27666 (= 27022) *aperantum*
 27667 (= 26986) *stewartianum*
 27669 (= 26444) *pseudociliipes*
 27670 (= 26457) *tephropeplum*
 27671 (= 26452) *anthosphaerum*
 27672 (= 27089) *dichroanthum* subsp.
 scyphocalyx
 27673 (= 27679 etc., see 26633) *sidereum*
 27677 (= 26633 etc., see 26633) *sidereum*
 27678 (= 27250) *kyawii*
 27679 (= 26634 etc., see 26633) *sidereum*
 27685 sp.
 27686 (= 26626) *leptocarpum*
 27687 *dendricola*
 27688 (= 26615) *pseudociliipes*
 27689 (= 26462) *dendricola*
 27690 (= 26459) *dendricola*
 27697 *arboreum* var. *delavayi*
 27698 (= 26528) *araiophyllum*
 27700 (= 26797) *araiophyllum*
 27701 *arboreum* var. *peramoenum*
 27702 (= 26792) *araiophyllum*
 27703 *annae*
 27705 *annae*
 27706 *annae*
 27713 *annae*
 27714 *tanastylum* var. *tanastylum*
 27715 *valentinianum*
 27717 *arboreum* var. *delavayi*
 27718 *arboreum* var. *delavayi*
 27722 (= 26441) *dendricola*
 27724 *maddenii* subsp. *crassum*
 27725 *pseudociliipes*
 27727 *decorum* subsp. *diaprepes*
 27730 (= 27355) *protistum* var.
 giganteum
 27737 (= 27738) *dendricola*
 27738 (= 27737) *dendricola*
 27739 (= 26798) *caesium*
 27744 *araiophyllum*
 27745 *yunnanense*
 27746 *araiophyllum*
 27757 *tanastylum* var. *tanastylum*
 27758 *genestierianum*
 27759 *pseudociliipes*
 27761 (= 26791) *sidereum*
 27768 *arboreum* var. *delavayi*
 27769 *edgeworthii*
 27771 *araiophyllum*
 27775 *araiophyllum*
 27776 *maddenii* subsp. *crassum*
 27792 *arizelum*
 27794 *arizelum*
- YUNNAN & SICHUAN EXP.
(1930-31)**
- 28236 *rubiginosum*
 28237 *taliense*
 28241 *cephalanthum* subsp.
 platyphyllum
 28248 *lacteum*
 28250 *trichocladum* var. *longipilosum*
 28253 *taliense*
 28254 *campylogynum*
 28254a *russatum*
 28266 *brachyanthum* subsp.
 brachyanthum

- 28283 dichroanthum subsp.
dichroanthum
- 28290 dichroanthum subsp.
dichroanthum
- 28295 racemosum
- 28297 rigidum
- 28301 neriiflorum subsp. neriiflorum
- 28302 cephalanthum subsp.
cephalanthum
- 28304 irroratum subsp. irroratum
- 28305 edgeworthii
- 28311 maddenii subsp. crassum
- 28312 maddenii subsp. crassum
- 28315 decorum subsp. decorum
- 28319 maddenii subsp. crassum
- 28323 adenogynum
- 28326 rigidum
- 28342 lepidotum
- 28343 rupicola var. rupicola
- 28344 telmateium
- 28347 sp.
- 28348 dichroanthum subsp.
dichroanthum
- 28351 haematodes subsp. haematodes
- 28353 taliense
- 28355 taliense
- 28357 taliense
- 29130 taliense aff.
- 29131 phaeochrysum var. levistratum
- 29132 taliense aff.
- 29242 wardii var. wardii
- 29243 phaeochrysum var. levistratum
- 29244 balfourianum
- 29245 sphaeroblastum
- 29246 sphaeroblastum
- 29247 beesianum
- 29248 beesianum
- 29248 hemitrichotum
- 29249 rupicola var. muliense
- 29250 trichostomum
- 29251 nivale subsp. boreale
- 29252 taliense aff.
- 29253 phaeochrysum var. levistratum
- 29254 phaeochrysum var. levistratum
- 29256 adenogynum
- 29257 roxieanum var. cucullatum
- 29258 taliense aff.
- 29259 yungningense
- 29260 yungningense
- 29262 sphaeroblastum
- 29263 balfourianum
- 29264 balfourianum
- 29266 intricatum
- 29267 primuliflorum
- 29268 impeditum
- 29269 telmateium
- 29271 trichostomum
- 29273 hemitrichotum
- 29278 balfourianum
- 29280 mimetes var. simulans aff.
- 29281 mimetes var. simulans
- 29282 balfourianum
- 29293 primuliflorum
- 29305 wardii var. wardii
- 29312 adenogynum
- 29313 adenogynum
- 29314 adenogynum
- 29317 roxieanum var. cucullatum
- 29320 sphaeroblastum
- 29321 sphaeroblastum
- 29322 wardii var. wardii
- 29323 yunnanense
- 29325 phaeochrysum var. levistratum
- 29326 taliense aff.
- 29327 phaeochrysum var. levistratum
- 29328 taliense aff.
- 29329 taliense aff.
- 29331 tatsienense
- 29333 sphaeroblastum
- 29341 × detonsum (hybrid)
- 29545 neriiflorum subsp. neriiflorum
- 29599 roseatum
- 29588 habrotrichum
- 29647 callimorphum var. myiagram
- 29655 tephropeplum
- 29663 stewartianum
- 29666 calostrotum subsp.
calostrotum
- 29685 stewartianum
- 29687 yunnanense
- 29762 griersonianum
- 29763 facetum
- 29785 arizelum
- 29809 megacalyx
- 29894 rupicola var. rupicola
- 29926 kyawii
- 29929 kyawii
- 29937 campylogynum
- 29938 aperantum
- 30375 kyawii
- 30392 griersonianum
- 30393 edgeworthii

- 30394 dichroanthum subsp.
scyphocalyx
30395 rupicola var. rupicola
30526 beesianum
30527 mekongense var. mekongense
30528 rothschildii
30531 traillianum var. traillianum
30532 beesianum
30533 stewartianum
30534 aperantum
30535 haematodes subsp. haematodes
30536 aperantum
30539 haematodes subsp. chaetomallum
30540 calostrotum subsp. riparioides
30543 saluenense subsp. chameunum
30880 pronom
30883 campylogynum
30887 decorum subsp. decorum
30888 adenogynum
30889 rupicola var. rupicola
30891 saluenense subsp. chameunum
30892 beesianum
30893 rex subsp. ficolacteum
30894 beesianum
30896 Subsect. Helirolepida
30910 oreotrepes
30911 saluenense subsp. ?
30912 sperabile var. weihsiense
30937 Subsect. Scabrifolia
30940 hemitrichotum
30941 impeditum
30942 rupicola var. muliense
30967 campylogynum
30977 helirolepis var. helirolepis

Fox, S.**BHUTAN EXP. (1990)**

- 9 kesangiae var. kesangiae
12 griffithianum
17 hodgsonii
28 triflorum var. triflorum
41 kesangiae var. kesangiae
43 argipeplum
45 camelliiflorum
47 thomsonii subsp. thomsonii
50 cinnabarinum
53 hodgsonii
55 flinckii
60 arboreum var. cinnamomeum

- 62 keysii
71 pendulum
93 bhutanense
96 thomsonii subsp. thomsonii
98 wightii

**GOSAINKUND EXP., NEPAL
(1995)**

- 7 anthopogon subsp. anthopogon
30 barbatum
37 anthopogon subsp. anthopogon
70 anthopogon subsp. anthopogon
103 barbatum
125 sp.

Gould, B.J.**SIKKIM EXP. (1937)**

- 2a campanulatum subsp.
aeruginosum
18 lepidotum
22 niveum
31 hodgsonii
37 barbatum

Halliwell, B. (BH)**NEPAL EXP. (1970)**

- 20 sp.
62 sp.
85 campanulatum
102 sp.
124 campanulatum

JAPAN EXP. (1979)

- 4013 aureum
4236 brachycarpum
4259 sp.
4283 sp.
4348 japonicum
4355 aureum

Heasman, M.**BHUTAN EXP. (1992)**

- 9 virgatum subsp. virgatum

- 17a thomsonii subsp. thomsonii
 18a kesangiae var. kesangiae
 20 ciliatum
 24 hodgsonii aff.
 36 hodgsonii
 44 campylocarpum subsp.
 campylocarpum
 46 cinnabarinum subsp.
 xanthocodon
 47 lepidotum
 48 succothii
 50 camelliiflorum
 54 argipeplum
 56 pendulum
 62 kendrickii
 65 dalhousiae var. dalhousiae
 68 maddenii subsp. maddenii

Hedegaard, J.**BHUTAN EXP. (1983)**

- B100 wightii
 B102 campanulatum subsp.
 aeruginosum
 B103 campanulatum subsp.
 aeruginosum
 B107 barbatum
 B108 ciliatum
 B110 fulgens
 B112 lanatum
 B113 lepidotum
 B114 anthopogon subsp. anthopogon
 B116 campylocarpum subsp.
 campylocarpum
 B117 wightii

Hedge, I.C. & Wendelbo, P.**AFGHANISTAN EXP. (1969)**

- 8975 collettianum
 9706 afghanicum

**Holmberg, M. &
Stringberg, U.****S KOREA EXP. - 1992**

- 92/044 mucronulatum var.

- mucronulatum
 92/148 schlippenbachii
 92/232 brachycarpum
 92/349 mucronulatum var.
 mucronulatum
 92/423 yedoense var. poukhanense
 92/449 weyrichii

**Howick, Lord C. &
McNamara****NE USA EXP. (1990)**

- 1287 viscosum
 1318 maximum
 1320 viscosum
 1339 periclymenoides
 1353 sp.
 1355 sp.

**SICHUAN & YUNNAN, CHINA
EXP. (1990)**

- 1381 dichroanthum subsp.
 dichroanthum
 1386 racemosum
 1414 sp.
 1414a sp.
 1417 sp.
 1420 sp.
 1423 sp.
 1425 sp.
 1440 sp.
 1448 sp.
 1449 sp.
 1450 sp.
 1452 traillianum var. traillianum
 1463 sp.
 1466 rex subsp. fictolacteum
 1467 sp.
 1468 sp.
 1469 williamsianum
 1490 sp.
 1497 sp.
 1509 racemosum
 1511 sp.
 1529 sp.
 1539 sp.
 1541 racemosum

- 1544 dicroanthum subsp.
dichroanthum
- 1547 sp.
- 1553 sp.
- 1564 sp.

**HIMACHAL PRADESH,
NW INDIA EXP. (1993)**

- 1784 anthopogon
- 1801 lepidotum
- 1805 campanulatum subsp.
campanulatum
- 1837 campanulatum subsp.
campanulatum
- 1844 lepidotum
- 1850 anthopogon
- 1854 campanulatum subsp.
campanulatum
- 1923 arboreum subsp. arboreum

**Hruby, T.
NEPAL EXP. (1975)**

- 3 campanulatum
- 4 lepidotum
- 10 setosum
- 14 campanulatum
- 16 wallichii

**Kew-Edinburgh
Kanchenjunga Exp. (KEKE)**

NE NEPAL (1989)

- 440 lepidotum
- 635 anthopogon subsp. anthopogon
- 694 anthopogon subsp. anthopogon
- 698 wightii
- 806 Subsect. Maddenia
- 1110 pendulum
- 1157 Subsect. Maddenia
- 1223 sp.

**Kew-Quarryhill
S JAPAN EXP. (1989)**

- 8 reticulatum

- 37 degronianum var. hondoense
- 99 kaempferi
- 117 weyrichii
- 148 weyrichii
- 294 kiusianum
- 309 tashiroi
- 310 degronianum var. yakushmanum
- 356 indicum
- 384 kaempferi
- 399 kaempferi
- 414 keiskei
- 434 kaempferi

**Kingdon-Ward, F.
N YUNNAN-TIBET FRONTIER,
CHINA EXP. (1913)**

- 260 davidsonianum
- 406 mekongense var. mekongense
- 529 wardii var. wardii
- 768 aganniphum var. aganniphum
- 793 campylogynum

NE UPPER BURMA EXP. (1919)

- 3038 edgeworthii
- 3039 zaleucum
- 3040 neriiflorum subsp. neriiflorum
- 3042 glischrum subsp. glischrum
- 3042a habrotrichum?
- 3061 sidereum
- 3095 megeratum
- 3096 stewartianum
- 3097 trichocladum var.
trichocladum
- 3101 arizelum
- 3155 hylaeum
- 3172 campylogynum
- 3248 maddenii subsp. crassum
- 3267 euchroum
- 3267a dicroanthum subsp.
scyphocalyx
- 3299 oreotrepes
- 3300 stewartianum
- 3301 aperantum
- 3302 brachyanthum subsp.
hypolepidotum
- 3303 campylogynum
- 3304 rupicola var. rupicola
- 3305 trichocladum var. trichocladum

- 3365 cephalanthum subsp.
cephalanthum
3390 calostrotum subsp. keleticum
3391 campylogynum
3392 dichroanthum subsp.
scyphocalyx
3408 campylocarpum subsp.
caloxanthum
3721 campylocarpum subsp.
caloxanthum
3721a campylocarpum subsp.
caloxanthum ?

**NE YUNNAN-SICHUAN
BORDER, SW CHINA EXP. (1921)**

- 3776 pachypodium
3784 arboreum var. delavayi
3805 decorum subsp. decorum
3948 arboreum var. delavayi
3952 racemosum
3952a pubescens
3952b pubescens
3953 pubescens
3998 trichostomum
4023 rupicola var. muliense
4050 hemitrichotum
4102 telmateium
4160 primuliflorum
4170 wardii var. wardii
4177 balfourianum
4184 intricatum
4185 sphaeroblastum
4207 roxieanum
4211 beesianum
4268 telmateium
4308 rubiginosum
4309 oreotrepes
4322 yunnanense
4410 wardii var. wardii
4456 lysolepis
4458 wardii aff.
4465 trichostomum
4486 cuneatum
4487 decorum subsp. decorum
4509 rex subsp. rex
4583 lepidotum
4583a racemosum?
4733 telmateium
4843 phaeochrysum
4860 traillianum var. traillianum

- 4974 yunnanense
4994 hemitrichotum
4995 uvariifolium var. uvariiflorum
5001 scabrifolium var. scabrifolium
5002 decorum subsp. decorum
5002a irroratum
5004 scabrifolium var. scabrifolium
5005 irroratum subsp. irroratum

**YUNNAN-SICHUAN-TIBET
(CHINA), NE BURMA EXP. (1922)**

- 5384 primuliflorum
5385 tapetiforme
5409 phaeochrysum var.
phaeochrysum
5405 vernicosum
5414 selense subsp. selense
5415 anthosphaerum
5416 sanguineum var. sanguineum
5417 forrestii subsp. forrestii
5418 sinogrande
5421 virgatum subsp. oleifolium
5425 moumainense
5427 crinigerum var. crinigerum
5428 rubiginosum
5430 calostrotum subsp. keleticum
5431 haematodes subsp. chaetomallum
5432 sanguineum
5432a sanguineum subsp. didymum
5433 sanguineum
5434 martinianum
5435 temenium var. temenium
5436 saluenense subsp. saluenense
5437 brachyanthum subsp.
hypolepidotum
5438 arizelum
5438a arizelum
5438b Subsect. Heliolepida
5439 edgeworthii
5440 seinghkuense
5445 facetum
5446 xanthostephanum
5447 dendricola
5448 maddenii subsp. crassum
5449 dendricola
5457 Subsect. Thomsonia
5458 anthosphaerum
5466 nuttallii
5469 kyawii
5480 neriiflorum subsp. neriiflorum

- 5481 brachyanthum subsp.
hypolepidotum
5482 calostrotum subsp. riparium
5483 neriiflorum subsp. phaedropum
5484 pocophorum var. pocophorum
5485 sidereum
5487 dichroanthum subsp.
septentrionale
5489 mekongense var. mekongense
5490 sp.
5505 Sect. Tsutusi
5533 kyawii
5602 oreotrepes
5607 Subsect. Triflora

TIBET & BHUTAN EXP. (1924-25)

- 5656 principis
5659 hirtipes
5660 uvariifolium var. griseum
5687 triflorum var. triflorum
5687a triflorum var. triflorum
5700 kongboense
5718 dignabile
5718a mekongense var. mekongense
5718b campylocarpum subsp.
caloxanthum
5729 nivale subsp. nivale
5732 faucium aff.
5733 laudandum var. laudandum
5734 fragariiflorum
5735 nivale subsp. nivale
5736 wardii var. wardii
5756 wardii hybrid
5756a wardii
5759 phaeochrysum var. agglutinatum
5777 nivale subsp. nivale
5778 nivale subsp. nivale
5790 oreotrepes
5792 nivale subsp. nivale
5828 calostrotum var. riparium
5829 mekongense var. mekongense
5830 cerasinum
5842 campylogynum
5843 charitopes subsp. tsangpoense
5844 charitopes subsp. tsangpoense
5845 forrestii subsp. papillatum
5846 chamaethomsonii/forrestii
5847 chamaethomsonii var.
chamaethauma
5848 laudandum var. temoense
5849 laudandum var. temoense
5850 kongboense
5851 mekongense var. rubrolineatum
5853 campylocarpum subsp.
campylocarpum
5856 pumilum
5861 Subsect. Neriiflora
5862 nivale subsp. nivale
5862a pumilum
5863 aganniphum var. aganniphum
5874 cinnabarinum subsp.
xanthocodon 'Concatenans'
5875 parmulatam
5876 uniflorum var. uniflorum
5877 arizelum
5878 temenium var. temenium
5879 chamaethomsonii aff. var.
chamaethauma
5880 stewartianum
5911 sp.
5917a calvescens aff.
5940 lepidotum
5953 sp.
5971 lanatoides
5994 lepidotum
6020 kongboense
6021 kongboense
6026 cinnabarinum subsp.
xanthocodon
6069 virgatum
6069a lepidotum
6079 sp.
6215 griffithianum
6223 hirtipes
6229 campylocarpum subsp.
campylocarpum
6250 megeratum
6250a baileyi
6251 leptocarpum
6256 glischrum subsp. rude
6257 keysii
6257a Subsect. Trichoclada
6258a lanigerum
6261 sinogrande
6261a montroseanum
6263 triflorum var. triflorum
6273 leucaspis
6275 Subsect. Triflora
6276 maddenii
6276a maddenii subsp. maddenii
6278 auritum

- 6279 virgatum subsp. oleifolium
6281 glischrum subsp. glischrum
6283 vaccinioides (Sect. Vireya)
6284 ramsdenianum
6285 venator
6286 megacalyx
6291 leucaspis
6301 pemakoense
6303 tephropeplum
6304 Subsect. Edgeworthia
6307 sp.
6310 taggianum
6311 uvariifolium var. uvariiflorum
6325 scopulorum
6330 Sect. Azaleastrum
6333 nuttallii var.
6335 ovatum
6354 scopulorum
6401 faucium
6403 arboreum var. delavayi
6409 triflorum var. triflorum
6411 Subsect. Lepidota
6413 maddenii subsp. maddenii
6414 Sect. Choniastrum
6415 dalhousiae var. rhabdotum
6457a keysii
- BURMA & ASSAM EXP. (1926)**
- 6676 dendricola
6711 dendricola
6716 sinogrande
6735 insculptum (Sect. Vireya)
6736 maddenii subsp. maddenii
6738 neriiflorum subsp. phaedropum
6751 xanthostephanum
6752 vesiculiferum
6753 sidereum
6769 horlickianum
6781 megacalyx
6782 sinogrande
6792 sidereum
6793 seinghkuense
6794 tephropeplum
6795 martinianum
6805 beanianum
6806 trichocladum var. trichocladum
6807 edgeworthii
6809 taggianum
6818 arizelum
6819 megeratum
- 6829 beanianum
6831 sanguineum var. didymoides
6832 forrestii subsp. forrestii
6833 hylaeum
6834 tephropeplum
6835 beanianum
6848 leptocarpum
6854 neriiflorum subsp.
 phaedropum
6855 exasperatum
6856 vesiculiferum
6868 campylocarpum subsp.
 caloxanthum
6869 eclecteum var. eclecteum
6884 uniflorum var. imperator
6896 eclecteum var. eclecteum
6900 eclecteum hybrid
6903 calostrotum subsp. riparium
6912 forrestii subsp. papillatum
6913 forrestii subsp. forrestii
6914 cephalanthum subsp.
 cephalanthum
6920 eclecteum var. eclecteum
6921 eclecteum var. eclecteum
6922 eclecteum var. eclecteum
6923 cerasinum
6924 pruniflorum
6930 campylocarpum
6934 saluenense subsp. saluenense
6935 forrestii subsp. forrestii
6936 eclecteum var. eclecteum
6945 sanguineum
6953 beesianum
6954 phaeochrysum var. levistratum
6955 haematodes aff.
6960 tapetiforme
6961 pumilum
6962 callimorphum var. myiagram
6965 campylocarpum subsp.
 caloxanthum
6967 cephalanthum subsp.
 cephalanthum
6984 calostrotum subsp. riparium
6986 callimorphum var. myiagram
6991 euchroum
7001 nivale subsp. nivale
7012 saluenense subsp. saluenense
7023 anthopogon subsp. anthopogon
7038 brachyanthum subsp.
 hypolepidotum
7045 pruniflorum

8545 maddenii subsp. crassum

UPPER BURMA AND TIBETAN FRONTIER EXP. (1931)

9130 Subsect. *Maddenia*
 9170 horlickianum
 9195 Subsect. *Irrorata*
 9200 magnificum
 9210 Sect. *Vireya*
 9220 taggianum
 9236 tanastylum var. tanastylum
 9250 xanthostephanum
 9252 Subsect. *Maddenia*
 9254 seingkuense
 9258 vesiculiferum
 9260 arizelum
 9261 megacalyx
 9263 neriiflorum subsp. phaedropum
 9273 maddenii subsp. crassum
 'Manipurense'
 9274 nuttallii
 9293 neriiflorum subsp. phaedropum
 9294 calostrotum
 9301 magnificum
 9321 neriiflorum subsp.
 phaedropum aff.
 9322 hylaeum
 9361 horlickianum
 9371 chrysodoron
 9382 neriiflorum
 9385 montroseanum
 9394 calostrotum subsp. riparium
 9397 arizelum
 9399 vaccinioides (Sect. *Vireya*)
 9400 xanthostephanum
 9402 taggianum
 9403 horlickianum
 9405 Sect. *Vireya*
 9413 eclecteum var. eclecteum
 9414 campylogynum
 9415 genestierianum
 9416 tephropeplum
 9440 vaccinioides (Sect. *Vireya*)
 9446 nuttallii
 9478 triflorum var. triflorum
 9479 uvariifolium var. uvariiflorum
 9483 neriiflorum subsp. phaedropum
 9485 vesiculiferum
 9490 genestierianum
 9500 selense subsp. selense

9503 crinigerum var. crinigerum
 9504 edgeworthii
 9505 oreotrephe
 9506 neriiflorum
 9509 oreotrephe
 9517 calostrotum subsp. riparium
 9519 trichocladum
 9529 virgatum subsp. oleifolium
 9543 seingkuense
 9544 arizelum
 9561 neriiflorum subsp. phaedropum
 9565 tephropeplum
 9567 xanthostephanum
 9569 megeratum
 9584 maddenii subsp. crassum
 9591 cephalanthum subsp.
 cephalanthum
 9601 beesianum
 9608 haematodes subsp. chaetomallum
 9609 rupicola var. chryseum & nivale
 subsp. nivale
 9621 selense subsp. selense
 9629 forrestii subsp. forrestii
 9633 saluenense subsp. saluenense
 9634 eclecteum var. eclecteum
 9635 chamaethomsonii var.
 chamaethauma
 9636 rupicola var. chryseum
 9637 haematodes subsp. chaetomallum
 9641 cephalanthum subsp.
 cephalanthum
 9665 sp.
 9704 brachyanthum subsp.
 hypolepidotum
 9710 rupicola var. rupicola
 9717 calostrotum subsp. riparium
 9726 vesiculiferum
 9735 pruniflorum
 9790 campylogynum
 9795 praestans
 9800 lepidotum
 9810 campylogynum
 9815 campylogynum
 9816 forrestii subsp. forrestii aff.
 9909 rupicola var. chryseum
 10005 tapetiforme × rupicola var.
 rupicola (hybrid)
 10012 traillianum var. traillianum
 10020 heliolepis var. heliolepis
 10121 campylogynum?
 10129 leptocarpum

- 10134 coelicum
 10136 Subsect. Maddenia
 10139 Subsect. Glauca
 10140 campylogynum
 10141 vaccinioides (Sect. Vireya)
 10142 boothii
 10159 eclecteum var. eclecteum
 10160 eclecteum var. eclecteum
 10161 Subsect. Campylocarpa
 10175 dendricola (taronense?)
 10180 dendricola
 10231 simsii

**ASSAM AND UPPER BURMA
 EXP. (1933)**

- 10351 virgatum
 10379 edgeworthii
 10401b tephropeplum?
 10490 trichocladum var. trichocladum
 10496 haematodes aff.
 10497 beesianum
 10498 fulvum
 10498a uvariifolium var. uvariifolium
 10500 pruniflorum
 10521 tapetiforme & nivale subsp.
 nivale
 10530 campylocarpum subsp.
 campylocarpum
 10531 rupicola var. rupicola & nivale
 subsp. nivale
 10532 calostrotum subsp. anthopogon
 10533 phaeochrysum var. levistratum
 10541 Sect. Pogonanthum
 10542 saluenense forma & calostrotum
 subsp. riparium
 10579 phaeochrysum var. levistratum
 10582 saluenense subsp. saluenense &
 calostrotum subsp. riparium
 10595 nivale subsp. nivale
 10700 principis
 10830 Subsect. Thomsonia
 10832 traillianum var. dictyotum
 10841 lepidotum
 10842 kongboense
 10870 campylogynum
 10928 maddenii subsp. crassum
 'Manipurensis'
 10929 edgeworthii
 10950 tanastylum
 10951 Subsect. Thomsonia

- 10952 glischrum subsp. rude
 10959 spilotum aff.
 10969 Sect. Pogonanthum
 10970 Subsect. Selensia
 10971 cinnabarinum?
 11002 neriflorum aff.
 11004 Subsect. Heliolepidia
 11011 cerasinum
 11012 Sect. Pogonanthum
 11016 nivale subsp. nivale
 11029 xanthostephanum
 11035 sperabile var. weihsiense
 11040 piercei
 11043 cerasinum
 11050 sanguineum
 11052 kasoense
 11055 Subsect. Maddenia
 11057 dendricola
 11060 Subsect. Grandia

**TIBET, ASSAM-HIMALAYA
 FRONTIER TRACT EXP. (1935)**

- 11175 macabeanum
 11378 kendrickii
 11464 megeratum
 11532 'Manipurensis'
 11565 glaucophyllum
 11568 cinnabarinum subsp.
 xanthocodon 'Concatenans'
 11569 anthopogon
 11586 phaeochrysum var.
 phaeochrysum
 11587 fulgens
 11588 wightii
 11605 argipeplum
 11612 wallichii
 11640 hodgsonii
 11915 mekongense var. longipilosum
 11964 circinnatum
 12404 tsariense var. tsariense
 12438 erosum?
 12585 formosum var. formosum
 12588 triflorum var. bauhiniiflorum
 12589 maddenii

**NE UPPER BURMA AND TIBET
 EXP. (1937)**

- 13017 martinianum
 13020 Subsect. Grandia

13130 Subsect. *Maddenia*
 13150 *coelicum* × *haematodes* subsp.
 chaetomallum (hybrid)
 13151 *oreotrepes*
 13165 Subsect. *Neriiflora*
 13180 Subsect. *Neriiflora*
 13190 Subsect. *Saluenensia*
 13194 Subsect. *Neriiflora*
 13195 *monanthum*
 13210 Subsect. *Campylogyna*
 13225 *forrestii* subsp. *forrestii*
 13230 *monanthum*
 13324 *pocophorum* aff.
 13327 Subsect. *Barbata*
 13355 Subsect. *Neriiflora*
 13361 *pruniflorum*
 13365 *rupicola* var. *rupicola*
 13367 *calostrotum*
 13369 *praestans*
 13370 *tapetiforme*
 13371 *saluenense* subsp. *saluenense*
 13399 *campylogynum* ?
 13405 Subsect. *Pogonanthum*
 13416 *sanguineum* var. *sanguineum*
 13419 *martinianum*
 13420 *selense* subsp. *dasycladum*
 13424 sp.
 13480 sp.
 13494 Subsect. *Maddenia*
 13500 sp.
 13550 *magnificum* hybrid
 13606 *kendrickii*
 13625 *keysii*
 13632 *edgeworthii*
 13645 *leptocarpum*
 13647 *falconeri* hybrid
 13648 *protistum* var. *protistum*
 13649 *grande* aff.
 13650 *hookeri* (crimson form)
 13652 *falconeri* subsp. *falconeri*
 13653 *hodgsonii*
 13654 *falconeri* subsp. *falconeri*
 13655 *wightii*
 13662 *thomsonii* subsp. *thomsonii*
 13663 *tsariense* var. *tsariense*
 13665 *fulgens*
 13666 *succothii*
 13670 *argipeplum*
 13681 *falconeri* hybrid
 13683 *grande*
 13699 *anthopogon* subsp. *anthopogon*

13705 *wallichii*
 13708 *phaeochrysum* var. *levistratum*
 13712 *thomsonii* subsp. *thomsonii*
 13750 *lanatum*
 13758 *cinnabarinum*
 13789 × *candelabrum* (hybrid)
 13965 *aganniphum*
 14314 *campanulatum*
 14342 *arizelum*

N BURMA EXP. - VERNAY AND CUTTING (1938-39)

5 *simsii*
 51 *kyawii*
 52 *dendricola*
 61 *oreotrepes*
 62 *microphyton*
 71 *simsii*
 87 *dendricola*
 100 *decorum* subsp. *decorum*
 135 *moulmainense*
 152 *dendricola*
 180 *dendricola*
 203 *protistum* var. *protistum*
 213 *magnificum*
 227 *megeratum*
 228 *eclecteum* var. *eclecteum*
 233 *oreotrepes*
 234 *neriiflorum*
 236 *arizelum*
 245 *campylogynum*
 250 *moulmainense*
 251 *chrysodoron*
 252 *callimorphum*?
 280 *dendricola*
 281 *dendricola*
 286 *neriiflorum*
 293 *edgeworthii*
 312 *neriiflorum* subsp. *neriiflorum*
 346 *edgeworthii*
 347 *kasoense*?
 354 *chrysodoron*
 372 *edgeworthii* aff.
 395 *chrysodoron*
 396 *arboresum* var. *delavayi*
 400 'Manipurensis'
 404 *habrotrichum*
 409 *habrotrichum*
 412 *vaccinioides* (Sect. *Vireya*)
 413 *leptothrium*?

- 416 tanastylum var. tanastylum
 424 genestierianum
 433 moulmainense
 438 tanastylum var. tanastylum
 440 dendricola
 445 neriiflorum subsp. neriiflorum
 448 neriiflorum subsp. neriiflorum
 460 leptothrium
 461 microphyton
 499 simsii

**KHASIA/JAINTIA HILLS EXP.
 INDIA (1946)**

- 16029 formosum var. inaequale
 16060 sp.

**E MANIPUR, (NE INDIA) EXP.
 (1948)**

- 17044 arboreum
 17200 sp.
 17215 johnstoneanum
 17216 arboreum
 17217 'Manipurense'
 17361 vaccinioides (Sect. Vireya)
 17405 triflorum
 17407 macabeanum
 17436 Subsect. Maddenia
 17700 'Manipurense'
 17818 'Manipurense'

ASSAM (NE INDIA) EXPS. (1949)

- 18540 moulmainense
 18541 Subsect. Maddenia
 18753 formosum
 18811 Subsect. Maddenia
 18829 vaccinioides (Sect. Vireya)
 18985 johnstoneanum
 19082 macabeanum
 19083 elliottii
 19101 triflorum var. bauhiniiflorum

**LOHIT VALLEY, ASSAM/TIBET
 FRONTIER (1950)**

- 19244 virgatum subsp. virgatum
 19245 arboreum var. peramoenum
 aff.
 19259 walongense

- 19325 virgatum subsp. virgatum
 19398 vaccinioides (Sect. Vireya)
 19404 maddenii subsp. crassum
 19405 neriiflorum hybrid
 19406 sidereum
 19431 hylaeum
 19432 megacalyx
 19433 edgeworthii
 19447 crinigerum var. crinigerum
 19448 triflorum var. triflorum
 19449 sinogrande
 19450 calostrotum subsp. riparium
 19451 uvariifolium
 19452 hylaeum
 19453 neriiflorum hybrid
 19573 mekongense var. rubrolineatum
 19588 sanguineum var. sanguineum
 19589 eudoxum var. eudoxum
 19590 anthopogon
 19591 pumilum
 19606 nivale subsp. nivale
 19620 pruniflorum
 19657 'Manipurense'
 20260 Subsect. Barbata
 20280 Subsect. Maddenia
 20285 cerasinum aff.
 20305a johnstoneanum

**THE TRIANGLE EXP., N BURMA
 (1953)**

- 20601 dendricola
 20629 moulmainense
 20651 dendricola
 20679 moulmainense
 20680 tanastylum var. tanastylum
 20681 sp.
 20682 genestierianum
 20693 vaccinioides (Sect. Vireya)
 20696 neriiflorum aff.
 20702 maddenii subsp. crassum
 20836 megacalyx
 20837 zaleucum
 20838 sidereum
 20839 edgeworthii
 20840 edgeworthii
 20843 neriiflorum subsp. neriiflorum
 20844 tephropeplum
 20845 luteiflorum
 20876 protistum var. protistum
 20877 sinogrande

- 20878 chrysodoron
 20910 vaccinioides (Sect. *Vireya*)
 20919 sp.
 20922 arizelum
 20923 dichroanthum subsp. apodectum
 20924 haematodes subsp. haematodes
 20925 chamaethomsonii var.
 chamaethauma
 20926 cinnabarinum subsp. tamaense
 20927 campylocarpum subsp.
 caloxanthum
 20928 campylogynum
 20929 cephalanthum subsp.
 cephalanthum
 20934 trichocladum var. trichocladum
 20981 ciliicalyx
 21000 dichroanthum subsp. apodectum
 21001 sulfureum
 21003 cinnabarinum subsp. tamaense
 21005 maddenii subsp. crassum
 21006 eclecteum var. eclecteum
 21007 leptocarpum
 21021 cinnabarinum subsp. tamaense
 21040 luteiflorum
 21072 trichocladum var. trichocladum
 21073 forrestii × coelicum (hybrid)
 21074 Subsect. *Neriiflora*
 21075 coelicum
 21077 coelicum
 21078 cephalanthum subsp.
 cephalanthum
 21079 mekongense var. mekongense
 21086 neriiflorum subsp. neriiflorum
 21111 sinogrande
 21130 campylogynum
 21481 campylogynum
 21494 vaccinioides (Sect. *Vireya*)
 21498 protistum var. protistum
 21512 dendricola
 21525 moulmainense
 21547 martinianum
 21556 luteiflorum
 21557 martinianum aff.
 21559 megeratum
 21601 Subsect. *Grandia*
 21602 protistum var. giganteum
 21679 tephropeplum

WC BURMA EXP. (1956)

- 21768 arboreum var. delavayi

- 21796 sp.
 21976 arboreum subsp. albomentosum
 21909 sp.
 21921 burmanicum
 22036 simsii
 22200 johnstoneanum
 22291 Subsect. *Arborea*

Kinmouth, F.
BHUTAN EXP. (1990)

- 78 anthopogon subsp. anthopogon
 79 anthopogon subsp. anthopogon
 80 barbatum
 81 bhutanense
 82 camelliiflorum
 83 campylocarpum subsp.
 campylocarpum
 84 falconeri subsp. falconeri
 85 flinckii
 86 glaucophyllum var.
 tubiforme
 87 grande aff.
 88 hodgsonii
 89 hodgsonii
 90 kendrickii
 91 kendrickii
 92 kesangiae
 93 maddenii subsp. maddenii
 94 neriiflorum subsp.
 phaedropum
 95 arboreum
 96 nivale subsp. nivale
 97 pendulum
 98 thomsonii subsp. thomsonii
 99 thomsonii subsp. thomsonii
 100 triflorum var. triflorum
 101 triflorum var. triflorum
 102 flinckii aff.
 103 wallichii
 104 wightii

VIETNAM EXP. (1991)

- (see also Rushforth, 1991)
 150 Sect. *Vireya*
 151 Sect. *Vireya*
 152 irroratum subsp.
 pogonostylum
 153 maddenii

- 154 tsoi
 155 maddenii subsp. crassum
 156 excellens
 157 maddenii
 158 maddenii
 159 Sect. Tsutsusi
 160 tsoi
 194 maddenii
 195 Subsect. Arborea
 196 Subsect. Arborea
 197 protistum var. giganteum
 198 maddenii
 199 Sect. Vireya
 201 Subsect. Boothia
 202 sp.
 203 Subsect. Irrorata
 204 irroratum subsp.
 pogonostylum
 205 excellens

Kirkham, T.S. & Flanagan, M.
TAIWAN EXP. (1992)

- 37 formosanum
 195 nakaharae

Kirkham, T.S., Flanagan, M.
& Boyce

S KOREA EXP. (1989)

- 54 dauricum
 57 brachycarpum subsp.
 brachycarpum
 101 schlippenbachii

Kunming Edinburgh
Gothenberg Exp. (KEG)

YUNNAN, CHINA (SPRING 1993)

- 313 nivale subsp. boreale
 317 aganniphum var.
 aganniphum
 319 primuliflorum
 332 primuliflorum
 347 rupicola
 799 rupicola var. chryseum
 1219 complexum

Kunming Gothenberg Exp.
(KGB)

YUNNAN, CHINA (AUTUMN
1993)

- 19 wardii
 20 beesianum
 21 phaeochrysum var. levistratum
 22 aganniphum var. aganniphum
 23 aganniphum var. aganniphum
 24 phaeochrysum var. agglutinatum
 25 phaeochrysum var. agglutinatum
 26 rupicola
 28 heliolepis var. brevistylum
 136 primuliflorum
 137 nivale subsp. boreale
 142 beesianum
 153 trichostomum
 154 vernicosum
 172 beesianum
 173 oreotrepes
 174 rubiginosum
 203 rupicola var. chryseum
 206 saluenense subsp. chameunum
 227 aganniphum var. aganniphum
 236 nivale subsp. boreale
 243 nivale subsp. boreale
 245 yunnanense
 262 hippophaeoides
 265 hippophaeoides
 291 rupicola var. chryseum
 292 tapetiforme
 293 saluenense subsp. chameunum
 294 nivale
 295 primuliflorum
 296 aganniphum var. aganniphum
 365 phaeochrysum var.
 phaeochrysum
 366 beesianum
 375 rupicola
 400 uvariifolium var. uvariifolium
 440 rupicola var. chryseum
 447 primuliflorum
 448 saluenense subsp. chameunum
 449 nivale subsp. boreale
 484 wardii
 486 phaeochrysum var. levistratum
 495 vernicosum
 496 heliolepis var. brevistylum
 558 uvariifolium var. uvariifolium

559	yunnanense	930	tsaii aff.
564	phaeochrysum var. agglutinatum	942	campylogynum
565	wardii	982	irroratum
566	oreotrepthes	1024	atrovirens
574	phaeochrysum var. phaeochrysum	1029	denudatum aff.
589	rupicola var. chryseum	1031	oreodoxa var. fargesii aff.
597	aganniphum var. aganniphum	1035	racemosum aff.
654	rupicola	1040	Subsect. Fortunea
680	anthosphaerum	1054	calophytum var. pauciflorum
684	roxieanum	1056	ochraceum
688	roxieanum	1058	lutescens
691	selense subsp. selense	1073	oreodoxa aff.
692	wardii	1087	denudatum
693	saluenense subsp. saluenense	1088	denudatum
695	proteoides	1089	yunnanense aff.
699	sanguineum var. sanguineum	1095	Subsect. Fortunea
700	proteoides	1098	Subsect. Helirolepida
742	rupicola × complexum (hybrid)	1100	Subsect. Fortunea
745	complexum	1103	denudatum
750	rupicola	1104	oreodoxa var. fargesii aff.
778	wardii	1106	yunnanense aff.
802	haematodes subsp. haematodes	1108	oreodoxa var. fargesii aff.
804	cyanocarpum	1109	yunnanense aff.
805	fastigiatum	1128	ochraceum aff.
806	lacteam	1131	moupinense aff.
808	balfourianum	1132	denudatum aff.
809	campylogynum	1133	ochraceum aff.
827	lacteam	1140	arborescens var. delavayi
		1142	irroratum 'Ningyuenense'
		1143	denudatum
		1145	strigillosum
		1146	huianum
		1148	huianum
		1150	strigillosum
		1152	Subsect. Irrorata
		1153	strigillosum
		1156	Subsect. Irrorata
		1157	moupinense
		1162	irroratum 'Ningyuenense'
		1163	strigillosum aff.
		1171	Subsect. Irrorata
		1172	Subsect. Irrorata
		1174	denudatum
		1175	Subsect. Irrorata
		1177	sp.
		1178	sp.
		1184	lutescens
		1194	Subsect. Helirolepida
		1199	irroratum 'Ningyuenense'
		1202	coeloneuron
		1205	coeloneuron

Kunming Yunnan Exp.(A.Clark *et al.*) (1995)

486	excellens
826	spinuliferum
828	spinuliferum
832	siderophyllum
833	siderophyllum
872	lacteam
873	sikangense
874	bureavii
875	pubicostatum
878	sphaeroblastum
879	sikangense
880	bureavii
897	pubicostatum aff.
901	Subsect. Falconera
903	Subsect. Helirolepida
911	arborescens var. delavayi
914	pubicostatum

- 1206 calophytum var. openshawianum
 1207 strigillosum
 1213 sinofalconeri
 1217 siderophyllum aff.
 1219 flumineum
 1225 mengtszense
 1229 microphyton aff.
 1230 valentinianum var.
 oblongilobatum
 1239 hemsleyanum
 1243 Subsect. Irrorata
 1258 valentinianum var.
 oblongilobatum
 1268 sp.

Kumar, V.

**HIMACHAL PRADESH, NW
 INDIA (1975)**

- 698 arboreum subsp. arboreum
 715 arboreum subsp. arboreum
 738 campanulatum subsp.
 campanulatum

Kurashige, Y.

JAPAN (1987)

- 16 brachycarpum
 100 tashiroi
 179 amagianum
 180 degronianum var. kyomaruense
 183 tschonoskyi var. tschonoskyi
 241 nipponicum
 269 semibarbatum
 276 makinoi
 385 tosaense
 392 dilatatum
 427 lapponicum
 441 hidakanum
 443 kaempferi
 458 camtschaticum var.
 camtschaticum
 461 aureum
 491 brachycarpum subsp. fauriei
 494 degronianum var. degonianum
 498 albrechtii
 501 tschonoskyi var. tschonoskyi
 510 pentaphyllum
 518 kiyosumense

- 544 kaempferi
 545 kaempferi
 557 reticulatum
 573 albrechtii
 594 reticulatum
 603 kaempferi
 604 kaempferi
 656 tschonoskyi var. tschonoskyi
 672 kaempferi
 711 weyrichii
 719 weyrichii
 730 weyrichii
 751 kaempferi
 752 kaempferi
 756 kaempferi
 759 kaempferi
 765 kaempferi
 768 kaempferi
 771 tsusiophyllum
 772 kaempferi
 802 semibarbatum
 829 semibarbatum
 830 degronianum subsp. heptamerum
 846 degronianum subsp. heptamerum
 876 mayebarae
 889 keiskei
 934 nudipes var. kirishimense
 971 kaempferi var. mikawanum
 975 stenopetalum
 984 indicum

Ludlow, F. & Sherriff, G.

BHUTAN & S TIBET EXP. (1934)

- 1081 sp.
 1082 campanulatum
 1083 tsariense var. tsariense
 1084 fulgens
 1085 campanulatum
 1091 anthopogon subsp. hypenanthum

**BHUTAN AND SOUTH TIBET
 EXP. (1936)**

- 1141 maddenii
 1142 maddenii
 1181 camelliiflorum
 1182 arboreum
 1183 camelliiflorum
 1193 papillatum

1204 dalhousiae var. rhabdotum
 1205 dalhousiae var. dalhousiae
 1208 grande aff.
 1209 camelliiflorum
 1306 wallichii
 1352 neriiflorum subsp. neriiflorum
 1353 triflorum var. triflorum
 1354 cinnabarinum subsp.
 xanthocodon 'Purpurellum'
 2505 megeratum
 2552 pumilum
 2627 principis
 2652 pumilum
 2653 forrestii subsp. forrestii
 2654 campylogynum
 2736 thomsonii subsp. lopsangianum
 2738 principis
 2739 ciliatum
 2743 sp.
 2744 lindleyi
 2745 edgeworthii
 2747 kendrickii
 2751 sherriffii
 2752 pudorosum
 2753 arizelum
 2754 fulvum
 2755 erosum
 2757 ciliatum
 2758 trichocladum var. trichocladum
 2759 megeratum
 2760 camelliiflorum
 2761 megeratum
 2762 pumilum
 2764 glaucophyllum var.
 glaucophyllum (in cult.)
 2765 camelliiflorum
 2766 tsariense var. tsariense
 2767 sp.
 2770 virgatum
 2797 principis
 2816 Subsect. Taliensia
 2817 Subsect. Taliensia
 2818 lepidotum
 2824 anthopogon?
 2825 arboreum
 2826 thomsonii subsp. thomsonii
 2827 sp.
 2828 anthopogon subsp. anthopogon
 2833 maddenii
 2835 griffithianum
 2836 edgeworthii

2837 dalhousiae var. rhabdotum
 2843 dalhousiae var. rhabdotum
 2845 camelliiflorum
 2846 fulgens
 2847 thomsonii subsp. thomsonii
 2848 Subsect. Thomsonia
 2849 camelliiflorum
 2850 camelliiflorum
 2851 sp.
 2852 camelliiflorum
 2853 camelliiflorum
 2855 camelliiflorum
 2856 glaucophyllum var. tubiforme
 2857 leptocarpum
 2858 tsariense var. tsariense
 2859 wightii
 2860 sp.
 2891 dalhousiae var. dalhousiae
 2892 maddenii
 2893 arboreum var. roseum
 2894 tsariense var. tsariense
 2895 wallichii
 2896 baileyi
 2898 pendulum
 2903 campanulatum aff.
 2906 campanulatum aff.
 2907 sp.
 2915 fulgens?
 2916 wightii
 2917 dalhousiae var. rhabdotum

BHUTAN EXP. (1937)

3026 griffithianum
 3039 keysii
 3048 campylocarpum subsp.
 campylocarpum
 3061 triflorum var. triflorum
 3095 glaucophyllum var.
 glaucophyllum
 3132 edgeworthii
 3216 pogonophyllum
 3324 camelliiflorum
 3578 wallichii

Ludlow, Sherriff & Taylor SE TIBET EXP. (1938)

3587 principis
 3589 sp.

- 3600 principis
 3601 primuliflorum
 3613 thomsonii subsp. thomsonii
 3618 clementinae
 3619 Subsect. Taliensia
 3620 lanatum
 3624 hirtipes
 3778 charitopes subsp. tsangpoense
 3785 calostrotum subsp. riparium
 4751b forrestii subsp. forrestii
 5198b pumilum
 5582 trilectorum
 5679 wardii var. wardii
 6302 principis
 6349a cinnabarinum subsp.
 xanthocodon 'Purpurellum'
 6411 arboreum var. roseum
 6424 wallichii
 6533 pumilum
 6538 trichocladum var. trichocladum
 6548 wardii var. wardii
 6549 lanatum
 6556 pumilum
 6560 cinnabarinum subsp.
 xanthocodon
 6561 thomsonii subsp. lopsangianum
 6563 neriiflorum subsp. phaetropum
 6567 viscidifolium
 6568 ciliatum
 6569 glischrum subsp. rude
 6573 'Manipurense'
 6576 brachyanthum subsp.
 hypolepidotum
 6579 hookeri
 6580 sulfureum
 6586 wardii var. wardii
 6587 cerasinum
 6588 calostrotum subsp. riparium
 6591 wardii var. wardii
 6598 forrestii subsp. forestii
 6599 wardii var. wardii
 6600 ludlowii
 6602 campylocarpum subsp.
 campylocarpum
 6608 clementinae
 6612 phaeochrysum var. agglutinatum
 6633 leptocarpum
 6638 miniatum aff.
 6645 principis
 6648 erosum
 6652 lanatum

- 6656 baileyi
 6657 tsariense var. tsariense
 6659 wallichii
 6660 pendulum
 6661 tsariense var. tsariense
 6676 maddenii subsp. crassum
 6694 dalhousiae var. dalhousiae
 6754 maddenii subsp. maddenii
 7012 maddenii subsp. crassum
 7190 principis
 7200 clementinae

Ludlow and Sherriff & Elliot

SE TIBET EXP. (1946-47)

- 12002 principis
 12014 triflorum var. triflorum
 12019 faucium
 12024 virgatum
 12045 faucium
 12117 nuttallii
 12208 faucium
 12231 scopulorum
 12239 sp.
 12248 maddenii subsp. maddenii
 12505 mekongense var. mekongense
 13251 principis
 13269 kongboense
 13276 campylogynum
 13278a forrestii subsp. forrestii
 13278b chamaethomsonii
 13283 sp.
 13521 uvariifolium var. griseum
 15763 phaeochrysum var. agglutinatum
 15764 wardii var. wardii
 15765 hirtipes
 15774 principis
 15817 uvariifolium var. griseum
 15819 oreotrepes
 15828 fragariiflorum hybrid (in cult.)
 15831 principis

Ludlow, Sherriff & Hicks

BHUTAN EXP. (1949)

- 15841 virgatum subsp. virgatum
 16007 arboreum subsp. arboreum
 16009 ramsdenianum
 16019 ciliatum
 16026 arboreum var. roseum

- 16027 cinnabarinum subsp.
cinnabarinum
- 16054 virgatum subsp. virgatum
- 16062 triflorum var. triflorum
- 16068 griffithianum
- 16090 wallichii
- 16095 arboreum × barbatum (hybrid)
- 16096 papillatum
- 16099 anthopogon subsp. hypenanthum
- 16100 wightii
- 16101 succothii
- 16103 papillatum
- 16116 thomsonii subsp. thomsonii
- 16117 pendulum
- 16120 hodgsonii
- 16121 wallichii
- 16123 kendrickii
- 16126 cinnabarinum subsp.
xanthocodon
- 16128 wallichii
- 16136 wallichii
- 16137 hodgsonii
- 16140 wallichii
- 16155 lanatum
- 16157 setosum
- 16160 campylocarpum subsp.
campylocarpum
- 16168 campylocarpum subsp.
campylocarpum
- 16184 lindleyi
- 16206 virgatum subsp. virgatum
- 16246 campylocarpum
- 16248 wallichii
- 16249 wightii
- 16294 nivale subsp. nivale
- 16324 lanatum
- 16346 hodgsonii
- 16351 succothii
- 16366 campylocarpum subsp.
campylocarpum
- 16371 falconeri subsp. falconeri
- 16392 keysii
- 16378 edgeworthii
- 16419 anthopogon subsp. anthopogon
- 16442 baileyi
- 16443 campanulatum
- 16448 thomsonii subsp. thomsonii
- 16492 cinnabarinum subsp.
xanthocodon
- 16493 cinnabarinum subsp.
xanthocodon
- 16494 hodgsonii
- 16495 cinnabarinum subsp.
xanthocodon
- 16510 lepidotum & dalhousie var.
rhabdotum
- 17359 baileyi
- 17447 baileyi
- 17448 wallichii
- 17449 campanulatum
- 17478 wallichii
- 17498 ciliatum
- 17501 trichocladum var. trichocladum
- 17509 lepidotum
- 17512 wallichii
- 17521 cinnabarinum subsp.
xanthocodon
- 17525 barbatum
- 17526 campanulatum subsp.
aeruginosum
- 17527 wallichii
- 17531 camelliiflorum
- 17531a maddenii subsp. maddenii
- 17543 setosum
- 17546 hirtipes
- 17550 anthopogon subsp. anthopogon
- 17552 lepidotum
- 18683 ciliatum
- 19847 tsariense aff.
- 19848 'Basfordii' (as in cult.)
- 19849 triflorum var. triflorum
- 19850 succothii
- 19869 sp.
- 21170 anthopogon subsp. hypenanthum
- 21184 pumilum
- 21257 dalhousiae var. rhabdotum
- 21274 sp.
- 21282 glaucophyllum var. tubiforme
- 21283 cinnabarinum var. cinnabarinum
- 21284 keysii
- 21285 thomsonii subsp. thomsonii
- 21286 × candelabrum (hybrid)
- 21287 papillatum
- 21289 leptocarpum
- 21290 neriiflorum subsp. phaedropum
- 21292 lepidotum
- 21293 cinnabarinum
- 21294 arboreum subsp. arboreum
- 21295 succothii
- 21296 hodgsonii
- 21297 baileyi
- 21298 campanulatum

21299 keysii
 21475 (or 21457) baileyi
 21483 griffithianum

McBeath, R.**NEPAL EXP. (1981)**

1083 vaccinioides (Sect. Vireya)
 1110 lepidotum
 1120 pumilum
 1171 nivale subsp. nivale
 1173 setosum
 1183 anthopogon subsp. hypenanthum
 1208 nivale subsp. nivale
 1234 wightii
 1235 wallichii
 1236 campanulatum
 1243 hodgsonii
 1254 campylocarpum subsp.
 campylocarpum
 1256 cinnabarinum subsp.
 cinnabarinum
 1262 cinnabarinum
 1279 thomsonii subsp. thomsonii

NEPAL EXP. (1983)

1506 lowndesii
 1507 anthopogon
 1518 lepidotum
 1548 anthopogon subsp. hypenanthum

NEPAL EXP. (1990)

2247 cowanianum
 2489 vaccinioides (Sect. Vireya)
 2491 pendulum
 2529 camelliiflorum
 2638 neoglandulosum

Mclaren, the Hon. J.**YUNNAN & SICHUAN, CHINA
 EXPS. (1932-39)**

A 29 'Dimitrium'
 A 29a Subsect. Fortunea
 A183 coriaceum
 A183a Subsect. Fortunea
 A226 arboreum subsp. delavayi
 C 01 haematodes subsp. haematodes

C 01a arboreum var. delavayi
 C 03 maddenii subsp. crassum aff.
 C 29 'Dimitrium'
 C 33 edgeworthii
 C 44 neriiflorum subsp. neriiflorum
 C 47 microphyton
 C 78 virgatum subsp. oleifolium
 C184 caesium
 C226 arboreum var. delavayi
 C226a Subsect. Irrorata
 D 07 sperabile var. weihsiense
 D 18 uvariifolium var. uvariiflorum
 D 19 Subsect. Irrorata
 D105 beesianum
 D106 Subsect. Falconera
 D148 heliolepis var. brevistylum
 D268 sinogrande
 D271 fulvum subsp. fulvodes
 D272 beesianum
 D273 lukiangense
 D274 coriaceum
 D333 maddenii subsp. crassum
 K 50 Subsect. Campylocarpa
 L112a trichocladum var. trichocladum
 P 69 oreotrepes
 P 70 cuneatum
 P 71 vernicosum
 S 33 spinuliferum
 S 38 spinuliferum
 S 39 scabrifolium var. scabrifolium
 S122 maddenii subsp. crassum
 S124 aganniphum var. flavorufum
 S124a haematodes subsp. haematodes
 S127 × erythocalyx (hybrid)
 S127a telmateium
 S131 haematodes
 S146 Subsect. Fortunea
 S158 edgeworthii
 T 41 aberconwayi
 T 71 venicosum
 T107 haematodes subsp. haematodes
 T126 lacteum
 T133 Subsect. Fortunea
 U 35a aberconwayi
 V 11 spinuliferum
 V 33 Irroratum 'Ningyuenense'
 V 69 decorum subsp. decorum
 V 71 irroratum subsp. pogonostylum
 V139 'Bodinieri'
 V169 pachypodium
 V172 decorum subsp. decorum

V187	decorum subsp. decorum	59	camelliiflorum
Z 05	concinnum	61	kesangiae
AA 01	spinuliferum	62	keysii
AA 12	scabrifolium var. spiciferum	64	keysii
AA 16	siderophyllum	65	kesangiae
AA 17	scabrifolium var. pauciflorum	66	argipeplum
AA 27	spinuliferum	68	campanulatum subsp. aeruginosum
AA 33	scabrifolium var. pauciflorum	69	campanulatum subsp. aeruginosum
AA 52	spinuliferum	70	wightii
AA121	microphyton	71	tsariense aff.
AD 75	prattii	72	fulgens
AD106	wasonii	75	bhutanense (grey indumentum)
AG 45	Subsect. Triflora	76	bhutanense (orange indumentum)
AG344	Subsect. Triflora	77	flinckii
AG395	davidsonianum	79	flinckii
AG396	polylepis	80	hodgsonii
AH217	Subsect. Triflora	81	hodgsonii aff.
AH270	Subsect. Triflora	82	campylocarpum subsp. campylocarpum
AH300	Subsect. Triflora	83	flinckii aff.
AH307	oreodoxa var. oreodoxa	84	thomsonii
AH314	Subsect. Triflora	85	cinnabarinum subsp. xanthocodon
AH407	Subsect. Triflora	86	succothii
AH440	Subsect. Triflora	87	anthopogon
AH444	Subsect. Triflora	88	cinnabarinum subsp. xanthocodon
38/010	ambiguum	89	pendulum
38/013	trichanthum	90	flinckii
38/016	argyrophyllum subsp. argyrophyllum	91	cinnabarinum subsp. cinnabarinum
38/020	wasonii	92	campylocarpum subsp. campylocarpum
38/023	bureavii	93	kendrickii
38/025	orbiculare	94	succothii
38/030	oreodoxa var. oreodoxa	95	campylocarpum subsp. campylocarpum
39/117	arboreum var. peramoenum	96	cinnabarinum subsp. xanthocodon
39/120	Subsect. Triflora	97	argipeplum
39/279	polylepis	98	arboreum
39/284	pachytrichum var. pachytrichum	100	cinnabarinum subsp. cinnabarinum
39/297	wasonii	101	griffithianum
39/329	Subsect. Triflora	102	hodgsonii
		103	falconeri subsp. falconeri
		104	succothii
		105	lindleyi

Millais, E.G.**BHUTAN EXP. (1988)**

51	cinnabarinum subsp. xanthocodon		
52	triflorum		
55	falconeri subsp. falconeri		
56	barbatum		
57	arboreum		
58	grande		

SICHUAN EXP. (1990)

106	wiltonii
107	concinnum
108	sikangense
109	watsonii
110	orbiculare
111	faberi
114	Subsect. Lapponica
115	pachytrichum var. pachytrichum
116	argyrophyllum subsp. hypoglucum
117	polylepis
118	floribundum
118a	calophytum var. calophytum
121	prattii
122	wasonii aff.
124	decorum subsp. decorum
125	intricatum
126	Subsect. Lapponica
127	phaeochrysum var. levistratum
129	phaeochrysum
130	intricatum ?
131	intricatum ?
134	phaeochrysum var. agglutinatum
135	phaeochrysum var. phaeochrysum
136	Subsect. Lapponica
137	oreodoxa subsp. fargesii
138	watsonii
139	souliei
142	phaeochrysum var. levistratum
144	phaeochrysum var. levistratum
146	websterianum
147	prattii
148	phaeochrysum 'Cuprescens' ?
149	davidsonianum
150	floribundum aff.
151	concinnum
152	racemosum
153	lutescens
158	galactinum
155	sikangense
156	nitidulum
157	faberi

Millais, E.G. *et al*SICHUAN & YUNNAN EXP.,
CHINA (1995)(See also Cox, P.A. *et al.* - Sichuan & Yunnan Exp.)

288	polylepis
293	augustinii
294	denudatum
295	rex
300	decorum subsp. decorum
302	fastigiatum
303	polylepis
304	pingianum
305	strigillosum
312	ochraceum
314	asterochnoum
315	sp. nov.
316	huianum
318	calophytum var. openshawianum
321	tatsienense
322	argyrophyllum aff.
323	denudatum
328	longipes
330	huianum
333	siderophyllum
334	denudatum
336	longipes
337	longipes
338	strigillosum/pachytrichum
339	irroratum 'Ningyuenense'
340	irroratum 'Ningyuenense'
341	calophytum
346	siderophyllum
347	glanduliferum
348	vernicosum
349	sikangense var. exquisitum
350	sphaeroblastum var. wumengense
354	lacteam
356	lacteam
357	lacteam
358	heliolipis 'Fumidum'
359	sphaeroblastum var. wumengense
360	arborescens subsp. delavayi

Paterson, D.S. & Clarke, S.

W USA EXP. (1991)

12	occidentale
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- 71 occidentale
72 macrophyllum
136 Subsect. Ledum
155 Subsect. Ledum

Paterson, D.S. & Main, J.
YUNNAN EXP. (1994)

- 26 decorum subsp. decorum
46 racemosum
47 neriiflorum subsp.
neriiflorum
62 cyanocarpum
68 racemosum
70 neriiflorum subsp.
neriiflorum
71 sp.
78 sulfureum
79 sulfureum
81 rubiginosum
83 cyanocarpum
88 racemosum
172 yunnanense
187 decorum subsp. decorum
192 sp.
195 yunnanense
198 yunnanense

Patrick, J.R.R. & Hsu, C.C.
(Rhododendron Venture,
Taiwan)

1968 EXP.

- 681106 pseudochrysanthum
681107 kawakamii 'White'
681108 moulmainsense
681109 morii
681110 morii
681111 morii
681112 rubropilosum
681113 rubropilosum
681114 nakaharae
681115 oldhamii

1969 EXP.

- 69/200 kawakamii, yellow
69/203 kawakamii, yellow

- 69/212 rubropilosum
69/215 formosanum
69/216 pseudochrysanthum
69/217 kanehirae
69/218 hyperythrum
69/219 moulmainsense

1970 EXP.

- RV8829 moulmainsense
RV9803 oldhamii
RV9804 oldhamii
RV9809 morii
RV9811 morii
RV9812 hyperythrum
RV9814 sikayotaisanense
RV9816 pseudochrysanthum
RV9819 oldhamii
RV9821 kawakamii
RV9829 morii
RV9831 rubropilosum
RV9832 morii
RV9834 morii
RV9835 hyperythrum
RV9837 pseudochrysanthum
RV9840 morii
RV9844 pseudochrysanthum
RV9863 morii
RV9866 taiwanalpinum
RV9880 ovatum
RV9881 hyperythrum
RV9882 lasiostylum
RV9889 morii
RV9890 morii
RV9891 pseudochrysanthum
RV9892 formosanum

1972 EXP.

- 72/001 pachysanthum
72/002 pseudochrysanthum
72/003 pseudochrysanthum

1973 EXP.

- 73/100 morii
73/101 sikayotaisanense
73/102 formosanum
73/103 kawakamii
73/104 moulmainsense
73/105 mariesii

73/106 oldhamii

73/107 ovatum

1974 EXP.

74/001 morii

74/002 noriakianum

74/003 taiwanalpinum

74/004 morii

74/005 rubropilosum

74/006 formosanum

74/007 formosanum

Pes, T.**NEPAL EXP. (1994)**

2585 cowanianum

2588 campanulatum

2590 campanulatum

Polunin, Sykes & Williams**W NEPAL EXP. (1952)**

3486 lowndesii

Pradhan, U.C. &**Lachungpa, S.T.****SIKKIM (1986)**

2 niveum

8 sp.

10 × sikkimense (hybrid)

12 wightii

13 ciliatum

17 cinnabarinum subsp.

cinnabarinum

19 grande

20 setosum

21 niveum

29 griffithianum

31 fulgens

32 sp.

33 sp.

34 grande

35 virgatum subsp.

virgatum

39 campanulatum

Rock, J.F.**SE TIBET & NW YUNNAN,
CHINA EXP. (1923-24)**

6002 yunnanense

6031 yunnanense

6073 rubiginosum

6232 sp.

6249 sinogrande

6253 taliense/roxieanum var.

cucullatum

6254 sp.

6259 irroratum subsp. irroratum

6269 haematodes subsp. haematodes

6270 heliolepis var. heliolepis

6273 cyanocarpum

6274 trichocladum var. trichocladum

6291 scabrifolium subsp. scabrifolium

6294 irroratum subsp. irroratum

6295 rex subsp. fictolacteum

6296 bureavii

6308 irroratum subsp. irroratum

6309 rex. subsp. fictolacteum

6323 cephalanthum subsp.

cephalanthum

6334 fastigiatum

6335 neriiflorum subsp. neriiflorum

6346 lacteum

6353 calostrotum subsp. riparioides

6354 campylogynum

6357 selense subsp. jucundum

6364 haematodes subsp. haematodes

6365 taliense/roxieanum var.

cucullatum

6369 edgeworthii

6370 maddenii subsp. crassum

6450 hemitrichotum

6451 hemitrichotum

6460 thymifolium

6524 Subsect. Triflora

6525 rigidum

6656 arboreum var. delavayi

6681 decorum subsp. decorum

6743 (= USDA 56355) - thymifolium &

arboreum var. delavayi

6744 (= USDA 56360) - neriiflorum

subsp. neriiflorum

6745 (= USDA 56361) - edgeworthii

6826 (= USDA 56362) - yunnanense

6827 (= USDA 56363) - racemosum

6828 (= USDA 56357) - rubiginosum

- 6829 (= USDA 56356) - vernicosum
6830 (= USDA 56364) - hippophaeoides
var. hippophaeoides
6831 (= USDA 56359?) - rex subsp.
fictolacteam
6832 (= USDA 56358) - traillianum var.
traillianum
6999 edgeworthii
7075 sp.
7077 sp.
7272 sp.
7376 sidereum
7377 edgeworthii
7381 sinogrande
7577 stamineum aff.
7640 rubiginosum
7646 leptothrium
7648 facetum
7649 zaleucum
7650 neriiflorum subsp. neriiflorum
7651 sulfureum
7658 habrotrichum
7662 fulvum subsp. fulvum
7663 dichroanthum subsp. apodectum
7664 anthosphaerum
7665 fulvum subsp. fulvum
7666 neriiflorum subsp. neriiflorum
7667 sp.
7794 adenogynum
7795 beesianum
7796 traillianum var. traillianum
7865 (= USDA 56827) - edgeworthii
7866 (= USDA 56828) - stamineum
7906 arboreum var. peramoenum
7907 arboreum var. peramoenum
7911 arboreum var. delavayi
7935 (= USDA 56857) - arboreum var.
delavayi
7954 pseudociliipes
10276 sanguineum var. haemaleum
10545 cephalanthum subsp.
cephalanthum
10550 oreotrepes
10551 vernicosum
10552 cuneatum × hippophaeoides var.
hippophaeoides (hybrid)
10553 telmateium
10572 tatsienense
10882 (= USDA 58598) - vernicosum
10883 (= USDA 58599) - phaeochrysum
var. levistratum
10884 (= USDA 58633) - heliolepis var.
brevistylum
10885 (= USDA 58634) - sp.
10893 sanguineum var. sanguineum
10894 (= USDA 59031) - sanguineum
var. sanguineum
10895 (= USDA 59030) - sanguineum
subsp. haemaleum
10896 (= USDA 59032) - beesianum
10897 (= USDA 59033) - sanguineum
var. sanguineum
10898 (= USDA 59437) - eudoxum var.
eudoxum
10899 (= USDA 59034) - sanguineum
var. cloiophorum
10900 (= USDA 59035) - sanguineum
10901 (= USDA 59036) - sanguineum
10902 (= USDA 59037) - sanguineum
10903 (= USDA 59038) - sanguineum
var. didymoides
10904 (= USDA 59039) - sanguineum
var. didymoides
10905 (= USDA 59040) - citriniflorum
var. citriniflorum
10906 (= USDA 59041) - sanguineum
var. himertum
10907 (= USDA 59042) - eudoxum var.
mesopolium
10908 (= USDA 59043) - beesianum
10909 (= USDA 59044) - temenium
10910 (= USDA 59045) - eclectum var.
bellatulum
10911 (= USDA 59046) - sanguineum
var. haemaleum
10912 (= USDA 59047) - martinianum
10913 (= USDA 59048) - praestans
10914 (= USDA 59049) - rupicola var.
chryseum
10915 (= USDA 59050) - selense subsp.
setiferum
10916 (= USDA 59051) - beesianum
10917 (= USDA 59052) - brachyanthum
subsp. hypolepidotum
10918 (= USDA 59438) - haematodes
subsp. chaetomallum
10919 (= USDA 59053) - brachyanthum
subsp. hypolepidotum
10920 (= USDA 59439) - roxieanum var.
roxieanum
10921 (= USDA 59440) - rex subsp.
fictolacteam

10922	(= USDA 59441) - sanguineum		gilvum
10923	(= USDA 59442) - alutaceum var. russotinctum	10952	(= USDA 59460) - temenium var. temenium
10924	(= USDA 59443) - cephalanthum subsp. cephalanthum	10953	(= USDA 59725) - sanguineum var. didymoides
10925	(= USDA 59054) - wardii var. wardii	10954	(= USDA 59726) - oreotrepes
10926	(= USDA 59055) - sanguineum var. sanguineum	10955	(= USDA 59727) - coriaceum
10927	(= USDA 59056) - sanguineum	10956	(= USDA 59728) - roxieanum var. roxieanum
10928	(= USDA 59444) - sanguineum var. sanguineum	10957	(= USDA 59729) - praestans
10929	(= USDA 59445) - selense subsp. selense	10958	(= USDA 59730) - martinianum
10930	(= USDA 59446) - selense subsp. selense	10959	(= USDA 59057) - floccigerum
10931	(= USDA 59447) - fulvum subsp. fulvoides	10960	(= USDA 59058) - crinigerum var. crinigerum
10932	(= USDA 59448) - eudoxum var. brunneifolium	10961	(= USDA 59059) - selense subsp. selense
10933	(= USDA 59449) - traillianum var. dictyotum	10963	(= USDA 59060) - selense subsp. selense
10934	(= USDA 59450) - sanguineum	10964	(= USDA 59061) - forrestii subsp. forrestii
10935	(= USDA 59719) - cephalanthum subsp. cephalanthum	10965	(= USDA 59461) - martinianum
10936	(= USDA 59451) - phaeochrysum var. levistratum	10966	(= USDA 59462) - praestans
10937	(= USDA 59452) - augustinii subsp. chasmanthum	10967	(= USDA 59463) - crinigerum
10938	(= USDA 59453) - sanguineum	10968	(= USDA 59464) - crinigerum var. crinigerum
10939	(= USDA 59454) - eclecteum var. eclecteum	10969	(= USDA 59465) - mekongense var. mekongense
10940	(= USDA 59455) - sanguineum var. didymoides	10970	(= USDA 59466) - crinigerum var. crinigerum
10941	(= USDA 59720) - temenium	10971	(= USDA 59467) - crinigerum var. crinigerum
10942	(= USDA 59721) - anthosphaerum	10972	(= USDA 59468) - crinigerum var. crinigerum
10943	(= USDA 59714) - rubiginosum	10973	(= USDA 59469) - crinigerum var. crinigerum
10944	(= USDA 59722) - eclecteum var. bellatulum	10974	(= USDA 59470) - crinigerum var. crinigerum
10945	(= USDA 59723) - sanguineum	10975	(= USDA 59471) - crinigerum var. crinigerum
10946	(= USDA 59724) - citriniflorum var. citriniflorum	10976	(= USDA 59472) - crinigerum var. crinigerum
10947	(= USDA 59456) - sanguineum var. haemaleum	10977	(= USDA 59062) - crinigerum var. crinigerum
10948	(= USDA 59457) - haematodes subsp. haematodes	10978	(= USDA 59063) - crinigerum var. crinigerum
10950	(= USDA 59458) - temenium var. mesopolium	10979	(= USDA 59064) - roxieanum var. roxieanum
10951	(= USDA 59459) - sanguineum var. himertum/temenium var.	10980	(= USDA 59065) - crinigerum var. crinigerum
		10981	(= USDA 59066) - crinigerum var. crinigerum

- 10982 (= USDA 59067) - *crinigerum* var.
crinigerum
- 10983 (= USDA 59068) - *crinigerum* var.
crinigerum
- 10984 (= USDA 59069) - *haematodes*
subsp. *chaetomallum*
- 10985 (= USDA 59070) - *haematodes*
subsp. *chaetomallum*
- 10986 (= USDA 59071) - *oreotrepes*
- 10987 (= USDA 59072) - *beesianum*
- 10988 (= USDA 59073) - *beesianum*
- 10989 (= USDA 59074) - *haematodes*
subsp. *chaetomallum*
- 10990 (= USDA 59075) - *beesianum*
- 10991 (= USDA 59076) - *brachyanthum*
subsp. *hypolepidotum*
- 10992 (= USDA 59077) - *crinigerum* var.
crinigerum
- 10993 (= USDA 59473) - *forrestii* subsp.
forrestii
- 10994 (= USDA 59078) - *forrestii* subsp.
forrestii
- 10995 (= USDA 59079) - *praestans*
- 10996 (= USDA 59474) - *floccigerum*
- 10997 (= USDA 59080) - *forrestii* subsp.
forrestii
- 10998 (= USDA 59475) - *proteoides*
- 10999 (= USDA 59081) - *floccigerum*
- 11000 (= USDA 59476) - *oreotrepes*
- 11001 (= USDA 59082) - *saluenense*
subsp. *saluenense*
- 11002 (= USDA 59083) - *sanguineum*
var. *sanguineum*
- 11003 (= USDA 59084) -
chamaethomsonii var.
chamaedoron
- 11004 (= USDA 59477) - *beesianum*
- 11005 (= USDA 59478) - *saluenense*
subsp. *saluenense*
- 11006 (= USDA 59479) - *megeratum*
- 11007 (= USDA 59480) - *praestans*
- 11008 (= USDA 59481) - *praestans*
- 11010 (= USDA 59482) - *saluenense*
subsp. *saluenense*
- 11011 (= USDA 59483) - *sanguineum*
- 11012 (= USDA 59484) - *saluenense*
subsp. *saluenense*
- 11013 (= USDA 59085) - *praestans*.
- 11014 (= USDA 59086) - *oreotrepes*
- 11015 (= USDA 59087) - *lukiangense*
- 11016 (= USDA 59088) - *fulvum* subsp.
fulvum
- 11017 (= USDA 59089) - *beesianum*
- 11018 (= USDA 59090) - *sanguineum*
var. *sanguineum*
- 11019 (= USDA 59485) - *cephalanthum*
subsp. *cephalanthum*
- 11020 (= USDA 59486) - *roxieanum* var.
roxieanum
- 11021 (= USDA 59731) - *beesianum*
- 11022 (= USDA 59487) - *sanguineum*
var. *haemaleum*
- 11023 (= USDA 59091) - *fulvum*
- 11024 (= USDA 59092) - *sanguineum*
var. *sanguineum*
- 11025 (= USDA 59488) - *eclecteum* var.
bellatulum
- 11026 (= USDA 59093) - *selense* subsp.
selense
- 11027 (= USDA 59094) - *eclecteum* var.
bellatulum
- 11028 (= USDA 59095) - *selense* subsp.
selense
- 11029 (= USDA 59096) - *sanguineum*
var. *sanguineum*
- 11030 (= USDA 59097) - *eclecteum* var.
bellatulum
- 11031 (= USDA 59098) - *eclecteum* var.
bellatulum
- 11032 (= USDA 59099) - *eclecteum* var.
eclecteum
- 11033 (= USDA 59489) - *forrestii* subsp.
forrestii
- 11034 (= USDA 59100) - *fulvum* subsp.
fulvum
- 11035 (= USDA 59490) - *eclecteum* var.
eclecteum
- 11036 (= USDA 59491) -
chamaethomsonii var.
chamaethomsonii
- 11037 (= USDA 59492) - *eclecteum* var.
bellatulum
- 11038 (= USDA 59101) - *eclecteum* var.
eclecteum
- 11039 (= USDA 59493) -
sanguineum
- 11040 (= USDA 59494) - *eclecteum* var.
bellatulum
- 11041 (= USDA 59102) - *eclecteum* var.
bellatulum
- 11042 (= USDA 59103) -
chamaethomsonii var.

	chamaethomsonii	11068	(= USDA 59118) - beesianum
11043	(= USDA 59104) - rex subsp. fictolacteum	11069	(= USDA 59119) - coriaceum
11044	(= USDA 59495) - fulvum subsp. fulvoides	11071	(= USDA 59506) - rubiginosum
11045	(= USDA 59105) - uvariifolium var. uvariiflorum	11072	(= USDA 59120) - heliolepis var. heliolepis
11046	(= USDA 59496) - sanguineum var. haemaleum	11073	(= USDA 59121) - floccigerum
11047	(= USDA 59106) - sanguineum var. haemaleum	11074	(= USDA 59122) - forrestii subsp. forrestii
11048	(= USDA 59497) - fulvum subsp. fulvoides	11075	(= USDA 59507) - uvariifolium var. uvariiflorum
11049	(= USDA 59498) - sanguineum var. haemaleum	11076	(= USDA 59123) - proteoides
11050	(= USDA 59107) - eclecteum var. bellatulum	11077	(= USDA 59124) - selense subsp. selense
11051	(= USDA 59499) - eclecteum var. eclecteum	11078	(= USDA 59125) - eudoxum
11052	(= USDA 59500) - sanguineum var. didymoides	11079	(= USDA 59508) - mekongense var. mekongense
11053	(= USDA 59501) - eclecteum var. bellatulum	11080	(= USDA 59126) - eclecteum var. eclecteum
11054	(= USDA 59108) - eclecteum var. bellatulum	11081	(= USDA 59127) - haematodes var. chaetomallum
11055	(= USDA 59109) - eclecteum var. bellatulum	11082	(= USDA 59128) - sanguineum var. haemaleum
11056	(= USDA 59110) - eclecteum var. bellatulum	11083	(= USDA 59129) - crinigerum var. crinigerum
11057	(= USDA 59111) - eclecteum var. bellatulum	11084	(= USDA 59130) - roxieanum var. roxieanum
11058	(= USDA 59502) - selense subsp. selense	11085	(= USDA 59132) - phaeochrysum var. agglutinatum
11059	(= USDA 59112) - eclecteum var. eclecteum	11086	(= USDA 59509) - tapetiforme
11060	(= USDA 59503) - eclecteum var. bellatulum	11087	(= USDA 59510) - phaeochrysum var. levistratum
11061	(= USDA 59113) - eclecteum var. eclecteum	11088	(= USDA 59732) - tapetiforme
11062	(= USDA 59504) - selense subsp. selense	11089	(= USDA 59133) - cephalanthum subsp. cephalanthum
11063	(= USDA 59114) - selense subsp. selense	11090	(= USDA 59511) - phaeochrysum var. levistratum
11064	(= USDA 59115) - selense subsp. selense	11091	(= USDA 59733) - tapetiforme
11065	(= USDA 59116) - selense subsp. selense	11092	(= USDA 59134) - tapetiforme
11066	(= USDA 59117) - selense subsp. selense	11093	(= USDA 59734) - tapetiforme
11067	(= USDA 59505) - × erythrocalyx (hybrid)	11094	(= USDA 59735) - esetulosum
		11095	(= USDA 59512) - selense subsp. selense
		11096	(= USDA 59736) - phaeochrysum var. levistratum
		11097	(= USDA 59737) - aganniphum var. aganniphum
		11098	(= USDA 59513) - tapetiforme
		11099	(= USDA 59738) - beesianum
		11100	(= USDA 59514) - alutaceum var. alutaceum

- 11101 (= USDA 59515) - alutaceum var. russotinctum
- 11102 (= USDA 59516) - phaeochrysum var. levistratum
- 11103 (= USDA 59517) - phaeochrysum var. levistratum
- 11104 (= USDA 59518) - phaeochrysum var. levistratum
- 11105 (= USDA 59519) - phaeochrysum var. levistratum
- 11106 (= USDA 59135) - phaeochrysum var. levistratum
- 11106a (= USDA 59135a) - alutaceum var. alutaceum
- 11107 (= USDA 59520) - phaeochrysum var. levistratum
- 11108 (= USDA 59521) - phaeochrysum var. agglutinatum
- 11109 (= USDA 59136) - tapetiforme
- 11110 (= USDA 59137) - beesianum
- 11111 (= USDA 59138) - selense subsp. selense
- 11112 (= USDA 59139) - beesianum
- 11113 (= USDA 59522) - alutaceum var. russotinctum
- 11114 (= USDA 59523) - wardii var. wardii
- 11115 (= USDA 59524) - roxieanum var. roxieanum
- 11116 (= USDA 59140) - alutaceum var. iodes
- 11117 (= USDA 59739) - alutaceum var. russotinctum
- 11118 (= USDA 59740) - aganniphum var. aganniphum
- 11119 (= USDA 59141) - phaeochrysum var. levistratum
- 11120 (= USDA 59142) - phaeochrysum var. levistratum
- 11121 (= USDA 59143) - phaeochrysum var. levistratum
- 11122 (= USDA 59144) - alutaceum var. russotinctum
- 11123 (= USDA 59145) - alutaceum var. russotinctum
- 11124 (= USDA 59146) - Subsect. Taliensia
- 11125 (= USDA 59147) - aganniphum var. aganniphum
- 11126 (= USDA 59148) - rupicola var. chryseum
- 11127 (= USDA 59149) - selense subsp. selense
- 11128 (= USDA 59150) - oreotrepes
- 11130 (= USDA 59152) - tapetiforme
- 11132 (= USDA 59153) - oreotrepes
- 11133 (= USDA 59154) - aganniphum var. aganniphum
- 11134 (= USDA 59155) - adenogynum
- 11135 (= USDA 59741) - aganniphum var. aganniphum
- 11137 (= USDA 59156) - wardii var. wardii
- 11138 (= USDA 59525) - lukiangense
- 11139 (= USDA 59157) - lukiangense
- 11140 (= USDA 59158) - lukiangense
- 11141 (= USDA 59159) - oreotrepes
- 11142 (= USDA 59160) - crinigerum var. crinigerum
- 11143 (= USDA 59161) - aganniphum var. aganniphum
- 11144 (= USDA 59162) - roxieanum
- 11145 (= USDA 59526) - wardii var. wardii
- 11146 (= USDA 59163) - alutaceum var. russotinctum
- 11147 (= USDA 59164) - wardii var. wardii
- 11148 (= USDA 59165) - rupicola var. chryseum
- 11149 (= USDA 59527) - phaeochrysum var. levistratum
- 11150 (= USDA 59528) - aganniphum var. aganniphum
- 11151 (= USDA 59529) - aganniphum var. aganniphum
- 11152 (= USDA 59530) - wardii var. wardii
- 11153 (= USDA 59531) - aganniphum var. aganniphum
- 11154 (= USDA 59166) - citriniflorum
- 11155 (= USDA 59532) - pocophorum var. pocophorum
- 11156 (= USDA 59533) - haematodes subsp. chaetomallum
- 11157 (= USDA 59167) - citriniflorum var. horaeum
- 11158 (= USDA 59168) - sanguineum
- 11159 (= USDA 59534) - rex subsp. fictolacteum
- 11160 (= USDA 59535) - campylogynum

- 11161 (= USDA 59169) - sanguineum
var. cloiophorum
- 11162 (= USDA 59536) - pocophorum
var. hemidartum
- 11163 (= USDA 59170) - pocophorum
var. pocophorum
- 11164 (= USDA 59171) - haematodes
subsp. chaetomallum hybrid
- 11165 (= USDA 59172) - arizelum
- 11166 (= USDA 59537) - maddenii
subsp. crassum
- 11167 (= USDA 59173) - leptocarpum
- 11168 (= USDA 59538) - fulvum
- 11169 (= USDA 59174) -
chamaethomsonii var.
chamaethomsonii
- 11170 (= USDA 59539) - haematodes
subsp. chaetomallum hybrid
- 11172 (= USDA 59540) - brachyanthum
- 11173 sinogrande
- 11174 (= USDA 59541) - coryanum
- 11175 (= USDA 59175) - haematodes
subsp. chaetomallum
- 11176 (= USDA 59176) - sanguineum
var. sanguineum
- 11177 (= USDA 59177) - sanguineum
var. haemaleum
- 11178 (= USDA 59742) - sanguineum
- 11179 (= USDA 59178) - pocophorum
var. hemidartum
- 11180 (= USDA 59179) - eclecticum var.
eclecticum
- 11181 (= USDA 59180) - sanguineum
- 11182 (= USDA 59181) - pocophorum
var. hemidartum
- 11183 (= USDA 59743) - sanguineum
- 11184 (= USDA 59542) - haematodes
subsp. chaetomallum
- 11185 (= USDA 59543) - catacosum
- 11186 (= USDA 59744) - citriniflorum
var. horaeum
- 11187 (= USDA 59544) - rex subsp.
fictolacteum
- 11188 (= USDA 59182) - calostrotum
subsp. keleticum
- 11189 (= USDA 59183) - crinigerum var.
crinigerum
- 11190 (= USDA 59184) -
bainbridgeanum
- 11191 (= USDA 59745) - haematodes
subsp. keleticum
- 11192 (= USDA 59185) - crinigerum var.
crinigerum
- 11193 (= USDA 59186) - crinigerum var.
crinigerum
- 11194 (= USDA 59545) - selense subsp.
setiferum
- 11195 (= USDA 59187) -
bainbridgeanum
- 11196 (= USDA 59188) - crinigerum var.
crinigerum
- 11198 (= USDA 59189) - rupicola var.
chryseum
- 11199 (= USDA 59546) - sanguineum
var. cloiophorum aff.
- 11200 (= USDA 59547) - moumainense
- 11201 (= USDA 59190) - pocophorum
var. pocophorum
- 11202 (= USDA 59191) -
genestierianum
- 11203 (= USDA 59746) - citriniflorum
var. horaeum aff.
- 11204 (= USDA 59548) - haematodes
subsp. chaetomallum
- 11205 (= USDA 59192) - martinianum
- 11206 (= USDA 59549) - citriniflorum
var. horaeum aff.
- 11207 (= USDA 59550) - arizelum
'Rubicosum'
- 11208 (= USDA 59747) - sanguineum
var. haemaleum
- 11209 (= USDA 59551) - selense subsp.
selense
- 11210 (= USDA 59552) - haematodes
subsp. haematodes
- 11211 (= USDA 59193) - sp.
- 11212 (= USDA 59533) - sanguineum
aff.
- 11213 (= USDA 59554) - selense subsp.
setiferum
- 11214 (= USDA 59748) - temenium var.
temenium
- 11216 (= USDA 59555) - sanguineum
subsp. didymum
- 11217 (= USDA 59556) - anthosphaerum
- 11219 (= USDA 59505) - virgatum
subsp. oleifolium
- 11222 (= USDA 59557) - megacalyx
- 11223 (= USDA 59558) - rex. subsp.
fictolacteum
- 11225 (= USDA 59559) - fulvum subsp.
fulvoides

- 11227 (= USDA 59560) - haematodes
subsp. chaetomallum
- 11228 (= USDA 59506) - tephropeplum
- 11229 (= USDA 58507) - vaccinioides
(Sect. *Vireya*)
- 11233 (= USDA 59561) - nuttallii
- 11238 (= USDA 59194) - saluenense
subsp. saluenense
- 11239 (= USDA 59508) - sinogrande
- 11240 (= USDA 59562) - beesianum
- 11241 (= USDA 59509) - selense subsp.
selense
- 11242 (= USDA 59563) - rex subsp.
fictolacteum
- 11243 (= USDA 59564) - rupicola var.
rupicola
- 11244 (= USDA 59565) - rex. subsp.
fictolactum
- 11246 (= USDA 59566) - traillianum var.
traillianum
- 11247 (= USDA 59567) - wardii var.
wardii
- 11248 (= USDA 59568) - Subsect. *Triflora*
- 11249 (= USDA 59569) - nivale subsp.
australe
- 11250 (= USDA 59570) - roxieanum var.
cucullatum
- 11251 (= USDA 59571) - roxieanum
- 11252 (= USDA 59195) - roxieanum var.
cucullatum
- 11253 (= USDA 59572) - roxieanum var.
cucullatum
- 11254 (= USDA 59749) - clementinae
- 11255 (= USDA 59573) - clementinae
- 11256 (= USDA 59750) - anthosphaerum
- 11257 (= USDA 59574) - anthosphaerum
- 11257a (= USDA 59574a) - × pallescens
(hybrid)
- 11258 oreotrepes
- 11259 selense subsp. dasycladum
- 11260 (= USDA 59196) - trichostomum
- 11261 (= USDA 59575) - roxieanum var.
roxieanum
- 11262 (= USDA 59576) - oreotrepes
- 11263 (= USDA 59715) - rubiginosum
- 11264 (= USDA 59577) - racemosum
- 11265 (= USDA 59578) - racemosum
- 11266 (= USDA 59579) - irroratum
subsp. irroratum
- 11267 (= USDA 59751) - rigidum
- 11268 (= USDA 59580) - rigidum
- 11269 (= USDA 59197) - selense subsp.
dasycladum
- 11270 (= USDA 59198) - selense subsp.
dasycladum
- 11271 (= USDA 59199) - cuneatum
- 11272 (= USDA 59200) - lukiangense
- 11273 (= USDA 59581) - irroratum
subsp. irroratum
- 11274 (= USDA 59582) - irroratum
subsp. irroratum
- 11275 (= USDA 59210) - lukiangense
- 11276 (= USDA 59752) - maddenii
subsp. crassum
- 11277 (= USDA 59583) - edgeworthii
- 11278 (= USDA 59202) - edgeworthii
- 11279 (= USDA 59584) - arboreum var.
delavayi
- 11280 (= USDA 59203) - yunnanense
- 11281 (= USDA 59585) - yunnanense
hybrid
- 11282 (= USDA 59586) - arboreum var.
delavayi
- 11282a (= USDA 59586a) - arboreum var.
delavayi
- 11283a (= USDA 59204a) - heliolepis
var. brevistylum
- 11284 (= USDA 59587) - russatum ×
rupicola var. rupicola (hybrid)
- 11285 (= USDA 59205) - roxieanum var.
oreonastes
- 11286 (= USDA 59588) - rex subsp.
fictolacteum
- 11287 (= USDA 59206) - cuneatum
- 11288 (= USDA 59207) - rigidum
- 11289 (= USDA 59208) - selense subsp.
dasycladum
- 11290 (= USDA 59753) - rex subsp.
fictolacteum
- 11291 roxieanum var. roxieanum
- 11292 (= USDA 59589) - roxieanum
- 11293 (= USDA 59590) - roxieanum
- 11294 (= USDA 59209) - russatum
- 11295 (= USDA 59210) - russatum
- 11296 (= USDA 59211) - russatum
- 11297 (= USDA 59212) - irroratum
subsp. irroratum
- 11298 (= USDA 59591) - oreotrepes
- 11299 (= USDA 59592) -
xanthostephanum
- 11300 (= USDA 59593) - oreotrepes
- 11301 (= USDA 59213) - roxieanum

- 11302 (= USDA 59594) - roxieanum var. oreonastes
 11303 (= USDA 59214) - fastigiatum
 11304 (= USDA 59215) - nivale subsp. australe
 11305 (= USDA 59216) - campylogyllum
 11306 (= USDA 59217) - pronom
 11307 (= USDA 59218) - roxieanum var. cucullatum
 11308 (= USDA 59219) - xanthostephanum
 11309 (= USDA 59595) - roxieanum var. cucullatum
 11310 (= USDA 59220) - irroratum subsp. irroratum
 11311 (= USDA 59221) - roxieanum
 11312 (= USDA 59222) - roxieanum
 11313 (= USDA 59223) - traillianum var. traillianum
 11314 (= USDA 59224) - traillianum var. traillianum
 11315 (= USDA 59225) - hippophaeoides var. occidentale
 11316 (= USDA 59226) - molle subsp. molle
 11317 (= USDA 59596) - leptothrium
 11318 (= USDA 59597) - russatum
 11319 (= USDA 59598) - polycladum
 11321 (= USDA 59227) - wardii var. wardii
 11322 (= USDA 59228) - cephalanthum subsp. cephalanthum
 11323 (= USDA 59029) - phaeochrysum var. levistratum
 11324 (= USDA 59206) - phaeochrysum var. phaeochrysum
 11325 (= USDA 59229) - vernicosum
 11326 (= USDA 59207) - vernicosum
 11328 (= USDA 59599) - phaeochrysum var. levistratum
 11329 (= USDA 59600) - vernicosum
 11331 (= USDA 59601) - vernicosum
 11333 (= USDA 59602) - phaeochrysum var. levistratum
 11334 (= USDA 59603) - beesianum
 11335 (= USDA 59230) - phaeochrysum var. agglutinatum
 11336 (= USDA 59604) - aganniphum var. aganniphum
 11337 (= USDA 59605) - beesianum
 11338 (= USDA 59606) - phaeochrysum var. levistratum
 11339 (= USDA 59607) - aganniphum var. aganniphum
 11339a (= USDA 59607a) - aganniphum var. aganniphum
 11340 (= USDA 59608) - phaeochrysum var. agglutinatum
 11341 (= USDA 59231) - phaeochrysum var. agglutinatum
 11341a (= USDA 59231a) - aganniphum
 11342 (= USDA 59232) - phaeochrysum var. levistratum
 11342a (= USDA 59232a) - aganniphum
 11343 (= USDA 59609) - phaeochrysum var. agglutinatum
 11343a (= USDA 59609a) - aganniphum
 11344 (= USDA 59233) - phaeochrysum var. levistratum
 11345 (= USDA 59610) - phaeochrysum var. agglutinatum
 11346 (= USDA 59611) - anthosphaerum
 11348 (= USDA 59234) - sinogrande
 11349 (= USDA 59612) - beesianum
 11351 (= USDA 59235) - fulvum subsp. fulvodes
 11352 (= USDA 59613) - sp.
 11354 (= USDA 59236) - anthosphaerum
 11355 (= USDA 59237) - wardii var. wardii
 11357 (= USDA 59614) - lukiangense
 11358 (= USDA 59239) - anthosphaerum
 11362 (= USDA 59240) - lepidotum
 11363 (= USDA 59615) - hippophaeoides var. hippophaeoides
 11364 (= USDA 59241) - hippophaeoides var. hippophaeoides
 11365 (= USDA 59616) - hippophaeoides var. hippophaeoides
 11366 (= USDA 59242) - anthosphaerum
 11367 (= USDA 59617) - adenogynum
 11368 (= USDA 59243) - cuneatum
 11368a (= USDA 59248a) - heliolepis
 11371 (= USDA 59618) - traillianum var. traillianum
 11372 (= USDA 59436) - traillianum var. traillianum
 11373 (= USDA 59619) - traillianum var. traillianum
 11376 (= USDA 59248) - anthosphaerum
 11376a (= USDA 59248a) - bureavii
 11377 (= USDA 59249) - anthosphaerum

11377a (= USDA 59249a) - bureavii	traillianum
11378 (= USDA 59250) - rex subsp. fictolacteum	11455 (= USDA 59631) - cephalanthum subsp. cephalanthum
11379 (= USDA 59754) - beesianum aff.	11459 (= USDA 59260) - traillianum var. traillianum
11380 (= USDA 59251) - irroratum subsp. irroratum	11460 (= USDA 59632) - traillianum var. traillianum
11381 (= USDA 59620) - irroratum subsp. irroratum	11461 (= USDA 59633) - traillianum var. traillianum
11382 (= USDA 59755) - bureavii	11463 (= USDA 59261) - beesianum
11383 (= USDA 59621) - beesianum aff.	11465 (= USDA 59262) - telmateium
11385 (= USDA 59756) - selense subsp. dasycladum	11468 (= USDA 59634) - primuliflorum
11386 (= USDA 59757) - uvariifolium var. uvariiflorum	11469 (= USDA 59263) - impeditum
11387 (= USDA 59758) - oreotrepes	11470 (= USDA 59635) - traillianum var. traillianum
11388 (= USDA 59759) - glischrum subsp. glischrum	11471 (= USDA 59636) - adenogynum
11389 (= USDA 59622) - wardii subsp. wardii	11473 (= USDA 59637) - Subsect. Taliensia
11390 (= USDA 59252) - anthosphaerum	11476 (= USDA 59638) - racemosum
11391 (= USDA 59623) - uvariifolium var. uvariiflorum	11500 phaeochrysum var. levistratum
11392 (= USDA 59253) - cuneatum	11501 beesianum
11393 (= USDA 59254) - cuneatum	11502 praestans
11395 (= USDA 59255) - rex subsp. fictolacteum	11503 praestans
11396 (= USDA 59256) - traillianum var. traillianum	11504 uvariifolium var. uvariiflorum
11397 (= USDA 59624) - rex subsp. fictolacteum	11505 lukiangense
11401 (= USDA 59257) - trichostomum	11506 saluenense subsp. saluenense
11403 (= USDA 59717) - racemosum	11507 selense subsp. selense
11404 (= USDA 59435) - decorum	11567 wardii var. wardii
11408 (= USDA 59625) - vernicosum	11597 chamaethomsonii var. chamaethomsonii
11415 (= USDA 59258) - racemosum	11634 praestans
11418 (= USDA 59626) - pleistanthum	11635 selense subsp. selense
11419 (= USDA 59760) - oreotrepes × zaleucum (hybrid)	11636 beesianum
11421 (= USDA 59761) - traillianum var. traillianum	11640 rex
11422 (= USDA 59713) - yunnanense	11642 rex
11424 (= USDA 59718) - racemosum	11644 coriaceum
11429 (= USDA 59627) - oreotrepes	11702 phaeochrysum var. levistratum
11430 (= USDA 59716) - lepidotum	11703 sp.
11434 (= USDA 59259) - rupicola var. rupicola	11704 heliolepis var. heliolepis
11452 (= USDA 59628) - rex subsp. fictolacteum	11706 leptothrium
11453 (= USDA 59629) - heliolepis var. brevistylum	
11454 (= USDA 59630) - traillianum var.	
	NW GANSU, CHINA EXP. (1925-26)

	13278 przewalskii
	13279 anthopogonoides
	13302 przewalskii
	13303 thymifolium
	13596 capitatum
	13597 anthopogonoides

13598	thymifolium	18125	sp.
13599	rufum	18138	(= USDA 3791) - phaeochrysum var. levistratum
13600	capitatum	18139	(= USDA 3788) - vernicosum
13601	rufum	18140	(= USDA 3738) - oreotrepes
13605	capitatum	18141	(= USDA 3790) - phaeochrysum var. levistratum
13610	anthopogonoides	18142	(= USDA 3749) - sikangense
13611	capitatum	18143	(= USDA 3741) - sp.
13612	przewalskii	18144	(= USDA 3757) - intricatum
13613	rufum	18149	(= USDA 3789) - beesianum
13622	capitatum	18150	(= USDA 3758) - beesianum
13628	rufum	18152	(= USDA 3751) - aganniphum var. aganniphum
13629	przewalskii	18153	(= USDA 3761) - balfourianum
13630	rufum	18155	(= USDA 3763) - roxieanum var. cucullatum
13634	capitatum	18156	(= USDA 3760) - balfourianum
13635	capitatum	18157	(= USDA 3792) - roxieanum var. cucullatum
13636	anthopogonoides	18158	(= USDA 3750) - balfourianum
13640	rufum	18159	(= USDA 3799) - phaeochrysum var. levistratum
13643	rufum	18160	(= USDA 3752) - balfourianum
13645	rufum	18161	(= USDA 3764) - roxieanum
13647	rufum	18162	(= USDA 3794) - sphaeroblastum
13649	rufum	18163	(= USDA 3762) - sp.
13650	rufum	18164	(= USDA 3756) - balfourianum
13674	capitatum	18168	(= USDA 3983) - phaeochrysum var. levistratum
13675	rufum	18169	(= USDA 3832) - sikangense
13676	przewalskii	18170	(= USDA 3831) - balfourianum
13677	przewalskii	18171	(= USDA 3990) - phaeochrysum var. levistratum
13678	rufum	18172	(= USDA 3842) - roxieanum var. cucullatum
13679	przewalskii	18173	(= USDA 3845) - balfourianum
13680	rufum	18174	(= USDA 3834) - alutaceum var. cucullatum
13681	przewalskii	18175	(= USDA 3841) - balfourianum
13682	rufum	18176	(= USDA 3833) - roxieanum var. cucullatum
13683	rufum	18177	(= USDA 3746) - balfourianum
13684	rufum	18178	(= USDA 3985) - sphaeroblastum
13685	przewalskii	18179	(= USDA 3830) - phaeochrysum var. levistratum
13686	przewalskii	18180	(= USDA 3991) - sphaeroblastum
13688	capitatum	18181	(= USDA 3936) - primuliflorum
13691	rufum	18182	(= USDA 3835) - sphaeroblastum
13692	rufum	18185	(= USDA 3988) - aff. mimetes var. simulans
13693	rufum		
13694	przewalskii		
13695	przewalskii		
13696	rufum		
13697	rufum		
14928	rufum		
15004	micranthum		
15014	rufum		
NW YUNNAN, CHINA EXP.			
(1929)			
18119	(= USDA 3745) - rubiginosum		

- 18186 (= USDA 3828) - roxieanum var.
cucullatum
- 18187 (= USDA 3829) - rupicola var.
chryseum aff.
- 18189 (= USDA 3987) - rubiginosum
- 18222 (= USDA 3838) - intricatum
- 18223 (= USDA 3839) - impeditum
- 18224 (= USDA 3844) - Subsect.
Laponica
- 18226 (= USDA 3840) - sikangense
- 18227 (= USDA 3984) - wardii var.
wardii
- 18228 (= USDA 3837) - adenosum
- 18234 (= USDA 3800) - rex subsp. rex
- 18275 (= USDA 3989) - racemosum
- 18277 (= USDA 3843) - sp.
- 18281 (= USDA 3986) - uvariifolium var.
uvariiflorum
- 18331 (= USDA 3847) - sinogrande
- 18332 (= USDA 3848) - wardii var.
wardii
- 18333 (= USDA 3849) - wardii var.
wardii
- 18336 (= USDA 3852) - arizelum
- 18337 (= USDA 3853) - arizelum
- 18338 (= USDA 3854) - semnoides
- 18339 (= USDA 3855) - fulvum
- 18341 (= USDA 3857) - megeratum
- 18350 (= USDA 3850) - stewartianum
- 18351 (= USDA 3851) - oreotrepes
- 18352 (= USDA 3861) - aperantum
- 18353 (= USDA 3862) -
campylocarpum
- 18354 (= USDA 3863) - aperantum
- 18355 (= USDA 3864) - haematodes
subsp. chaetomallum aff.
- 18356 (= USDA 3865) - haematodes
subsp. chaetomallum aff.
- 13357 (= USDA 3866) - haematodes
subsp. chaetomallum aff.
- 18359 (= USDA 3868) - haematodes
subsp. chaetomallum
- 18365 (= USDA 3784) - rupicola var.
rupicola
- 18366 (= USDA 3875) - roxieanum var.
cucullatum
- 18367 (= USDA 3976) - rupicola var.
rupicola
- 18369 (= USDA 3878) - mekongense var.
mekongense
- 18373 (= USDA 3881) - campylocarpum
- subsp. caloxanthum
- 18375 (= USDA 3883) - stewartianum
- 18376 (= USDA 3884) - stewartianum
- 18377 (= USDA 3885) - stewartianum
- 18378 (= USDA 3886) - stewartianum
- 18379 (= USDA 3887) - aperantum aff.
- 18380 (= USDA 3888) - calostrotum
subsp. riparioides
- 18381 (= USDA 3889) - calostrotum
subsp. riparioides
- 18382 (= USDA 3890) - haematodes
- 18383 (= USDA 3891) - campylocarpum
subsp. caloxanthum
- 18384 (= USDA 3892) - rubiginosum
- 18385 (= USDA 3893) - coriaceum
- 18386 (= USDA 3894) - glischrum subsp.
glischrum
- 18387 (= USDA 3895) - glischrum subsp.
glischrum
- 18388 (= USDA 3896) - mekongense
var. mekongense
- 18389 (= USDA 3897) - haematodes
subsp. chaetomallum
- 18390 (= USDA 3898) - semnoides
- 18391 (= USDA 3899) - rothschildii aff.
- 18395 (= USDA 3902) - sulfureum
- 18396 (= USDA 3903) - semnoides
- 18397 (= USDA 3904) - semnoides
- 18399 (= USDA 3905) - nuttallii
- 18400 (= USDA 3906) - sp.
- 18402 (= USDA 3908) - crinigerum var.
crinigerum
- 18403 (= USDA 3909) - sp.
- 18404 (= USDA 3910) - maddennii
subsp. crassum
- 18405 (= USDA 3911) - campylocarpum
subsp. caloxanthum
- 18406 (= USDA 3912) - haematodes
subsp. chaetomallum
- 18407 (= USDA 3913) - coriaceum
- 18407a (= USDA 3913a) - lanigerum
- 18408 (= USDA 3914) - tephropeplum
- 18409 (= USDA 3915) -
xanthospathanum
- 18410 (= USDA 3916) - zaleucum
- 18411 (= USDA 3917) - zaleucum
- 18412 (= USDA 3918) - tephropeplum
- 18413 (= USDA 3919) - tephropeplum
- 18415 (= USDA 3920) - eclecteum var.
eclecteum
- 18416 (= USDA 3921) - eclecteum var.

- 18418 (= USDA 3923) - zaleucum
 18420 (= USDA 3925) - glischrum subsp.
 glischrum
 18421 (= USDA 3926) - martinianum
 18424 (= USDA 3929) - sp.
 18433 (= USDA 3935) - rothschildii
 18434 (= USDA 3936) - maddenii subsp.
 crassum
 18435 (= USDA 3937) - roxieanum
 18436 (= USDA 3938) - roxieanum var.
 roxieanum
 18437 (= USDA 3939) - traillianum var.
 traillianum
 18438 (= USDA 3940) - traillianum var.
 traillianum
 18439 (= USDA 3941) - traillianum var.
 traillianum
 18440 (= USDA 3942) - beesianum
 18441 (= USDA 3943) - traillianum var.
 traillianum
 18442 (= USDA 3944) - rupicola var.
 rupicola
 18443 (= USDA 3945) - beesianum
 18444 (= USDA 3946) - traillianum var.
 traillianum
 18445 (= USDA 3993) - beesianum
 18446 (= USDA 3947) -
 clementinae
 18447 (= USDA 3948) - rex subsp.
 fictolacteum
 18448 (= USDA 3939) - clementinae
 18449 (= USDA 3950) - glischrum subsp.
 glischrum
 18450 (= USDA 3951) - saluenense
 subsp. chameunum
 18451 (= USDA 3952) - rex subsp.
 fictolacteum
 18452 (= USDA 3953) - rex subsp.
 fictolacteum
 18453 (= USDA 3954) - saluenense
 subsp. riparioides
 18454 (= USDA 3955) - saluenense
 subsp. riparioides
 18455 (= USDA 3956) - wardii var.
 wardii
 18456 (= USDA 3957) - oreotrepes
 18457 (= USDA 3958) - oreotrepes
 18458 (= USDA 3959) - hippophaeoides
 var. occidentale
 18459 (= USDA 3960) - rex subsp.
- fictolacteum
 18460 (= USDA 3961) - orthocladum var.
 longistylum
 18462 (= USDA 3963) - russatum
 18463 (= USDA 3964) - citriniflorum var.
 horaeum
 18464 (= USDA 3965) - sanguineum var.
 didymoides
 18465 (= USDA 3966) - floccigerum
 18466 (= USDA 3967) - sperabile var.
 weihsiense
 18467 (= USDA 3968) - sperabile var.
 weihsiense
 18468 (= USDA 3969) - sperabile var.
 weihsiense
 18469 (= USDA 3970) -
 floccigerum/sperabile
 18471 (= USDA 3972) - leptothrium
 18473 (= USDA 3974) - leptothrium
 18474 (= USDA 3975) - sp.
 18475 (= USDA 3976) - leptocarpum
 18476 (= USDA 3977) - sp.
 18477 (= USDA 3978) - crinigerum var.
 euadenium
 USDA 4007 - sp.
 USDA 4012 - sp.
 USDA 4020 - sp.
 USDA 4021 - sp.
 USDA 4022 - sp.
 USDA 4023 - sp.
 USDA 4082 - sp.
 USDA 4083 - sp.
 USDA 4084 - sp.
 USDA 4085 - sp.
- NW YUNNAN, CHINA EXP.
 (1932)**
- 21993 sanguineum var. haemaleum
 21994 sperabiloides
 21995 bainbridgeanum
 21997 saluenense subsp. saluenense
 21999 bainbridgeanum
 22000 crinigerum var. crinigerum
 22001 pocophorum var. pocophorum
 22002 pocophorum var. pocophorum
 22003 eclecteum var. eclecteum
 22004 haematodes subsp. chaetomallum
 22005 stewartianum
 22006 genestierianum
 22007 xanthostephanum

- 22013 genestierianum
 22014 xanthostephanum
 22019 edgeworthii
 22021 rex subsp. fictolacteum
 22023 rex subsp. fictolacteum
 22024 arizelum 'Rubicosum'
 22025 rex subsp. fictolacteum
 22028 selense subsp. selense
 22029 selense subsp. selense
 22030 selense subsp. selense
 22031 bainbridgianum
 22032 selense subsp. selense
 22033 selense subsp. selense
 22034 sanguineum var. haemaleum
 22037 rex subsp. fictolacteum
 22038 rex subsp. fictolacteum
 22039 rex subsp. fictolacteum
 22040 beesianum
 22041 beesianum
 22042 uvariifolium var. uvariiflorum
 22045 virgatum subsp. oleifolium
 22050 chamaethomsonii var.
 chamaethomsonii
 22056 monanthum
 22058 haematodes subsp. chaetomallum
 22059 haematodes subsp. chaetomallum
 22063 rupicola var. rupicola
 22064 sanguineum var. cloiophorum
 22065 haematodes subsp. chaetomallum
 22066 haematodes subsp. chaetomallum
 22069 haematodes subsp. chaetomallum
 22070 temenium var. dealbatum
 22090 mekongense var. mekongense
 22091 rex subsp. fictolacteum
 22092 fulvum subsp. fulvoides
 22094 arizelum
 22095 anthosphaerum
 22096a uvariifolium var. uvariiflorum
 22096b uvariifolium var. uvariiflorum
 22097 fulvum subsp. fulvoides
 22100 eclecteum var. eclecteum
 22102 selense subsp. setiferum
 22106 rex subsp. fictolacteum
 22108 arizelum
 22110 arizelum 'Rubicosum'
 22111 fulvum subsp. fulvoides
 22112 crinigerum var. crinigerum
 22117 rex subsp. fictolacteum
 22119 martinianum
 22120 megeratum
 22121 floccigerum
 22122 sperabiloides
 22123 martinianum
 22126 floccigerum
 22183 sanguineum subsp. didymum
 22184 brachyanthum subsp.
 hypolepidotum
 22187 haematodes subsp. chaetomallum
 22188 haematodes subsp. chaetomallum
 22189 citriniflorum var. horaeum
 22191 citriniflorum var. citriniflorum
 22192 citriniflorum var. horaeum
 22193 citriniflorum var. horaeum
 22194 citriniflorum var. horaeum
 22196 citriniflorum var. horaeum
 22197 haematodes subsp. chaetomallum
 22198 sanguineum var. sanguineum
 22199 haematodes subsp. chaetomallum
 22201 sanguineum var. sanguineum
 22202 sanguineum var. cloiophorum
 22203 sanguineum var. sanguineum
 22204 sanguineum var. sanguineum
 22205 citriniflorum var. horaeum
 22206 citriniflorum var. horaeum
 22207 citriniflorum var. horaeum
 22208 citriniflorum var. horaeum
 22210 citriniflorum
 22211 haematodes subsp. chaetomallum
 22212 citriniflorum var. horaeum
 22213 citriniflorum var. horaeum
 22214 leptocarpum
 22215 sanguineum var. himertum
 × temenium (hybrid)
 22216 nuttallii
 22219 rex subsp. fictolacteum
 22220 rex subsp. fictolacteum
 22221 beesianum
 22222 eclecteum
 22223 beesianum
 22224 eclecteum
 22225 selense subsp. selense
 22226 × erythocalyx (hybrid)
 22227 rex subsp. fictolacteum
 22228 crinigerum var. crinigerum
 22229 rex
 22230 eclecteum
 22231 rex subsp. fictolacteum
 22232 arizelum
 22233 rex subsp. fictolacteum
 22234 beesianum
 22235 temenium var. gilvum hybrid
 22236 sanguineum var. haemaleum

22237	selense var. selense	23338	aganniphum var. aganniphum
22238	sanguineum var. haemaleum	23348	sp.
22269	eclecteum var. eclecteum	23350	phaeochrysum var. levistratum
22271	temenium var. gilvum	23360	rupicola var. chryseum
22272	temenium var. gilvum	23369	phaeochrysum var. levistratum
22277	citriniflorum	23371	aganniphum var. aganniphum
22279	rex subsp. fictolacteum	23394	phaeochrysum var. levistratum
22288	tapetiforme	23398	rupicola var. chryseum
22289	campylogynum	23400	primuliflorum
22290	temenium var. gilvum	23401	aganniphum var. aganniphum
22291	selense subsp. selense	23405	aganniphum var. aganniphum
22292	temenium var. gilvum	23406	phaeochrysum var. levistratum
22293	sanguineum	23407	Subsect. Fortunea
22295	eudoxum var. eudoxum	23408	wardii var. wardii
22297	saluenense subsp. saluenense	23410	nivale subsp. boreale
22298	temenium var. gilvum	23414	wardii var. wardii
22301	floccigerum	23452	beesianum
22302	fletcherianum	23453	rex subsp. fictolacteum
22303	floccigerum	23467	rupicola var. rupicola
22304	haematodes subsp. chaetomallum	23477	augustini subsp. chasmanthum
22305	haematodes subsp. chaetomallum	23480	crinigerum var. crinigerum
22306	haematodes subsp. chaetomallum	23481	eclecteum var. eclecteum
22307	rex subsp. fictolacteum	23482	martinianum
22345	heliolepis var. brevistylum	23483	megeratum
22440	megacalyx	23485	crinigerum var. crinigerum
22465	catacosmum	23487	fulvum subsp. fulvodes
22466	haematodes subsp. chaetomallum	23488	fulvum subsp. fulvodes
22634	virgatum subsp. oleifolium	23489	crinigerum var. crinigerum
22649	anthosphaerum	23490	crinigerum var. crinigerum
22657	habrotrichum aff.	23491	oreotrepes
22659	fletcherianum	23492	selense subsp. selense
23294	haematodes subsp. chaetomallum	23494	Subsect. Thomsonia
23301	heliolepis var. brevistylum	23495	floccigerum/sperabile
23302	heliolepis var. brevistylum	23496	praestans
23304	haematodes subsp. chaetomallum	23497	fulvum subsp. fulvodes
23305	haematodes subsp. chaetomallum	23498	chamaethomsonii var. chamaethomsonii
23306	haematodes subsp. chaetomallum	23502	fulvum
23307	aganniphum var. aganniphum	23506	floccigerum/sperabile
23308	beesianum	23508	fulvum
23310	nivale subsp. boreale	23509	eclecteum var. eclecteum
23314	wardii var. wardii	23510	eclecteum var. eclecteum
23321	phaeochrysum var. agglutinatum	23511	eclecteum var. eclecteum
23322	primuliflorum	23512	eclecteum var. eclecteum
23324	phaeochrysum var. agglutinatum	23513	mekongense var. mekongense
23325	phaeochrysum var. agglutinatum	23514	rubiginosum
23326	oreodoxa var. fargesii	23515	sp.
23328	aganniphum var. aganniphum	23516	eclecteum var. eclecteum
23330	saluenense subsp. chameunum	23517	uvariifolium var. uvariiflorum
23331	aganniphum var. aganniphum	23518	beesianum
23332	pleistanthum	23520	praestans
23333	aganniphum var. aganniphum		

- 23521 beesianum
 23524 sanguineum
 23526 roxianum var. roxianum
 23527 beesianum
 23528 beesianum
 23529 sanguineum
 23530 beesianum
 23540a rupicola var. chryseum
 23540b proteoides
 23545 saluenense subsp. saluenense
 23546 saluenense subsp. chameunum
 23548 saluenense subsp. saluenense
 23553 brachyanthum subsp.
 hypolepidotum
 23555 rex. subsp. fictolacteum
 23556 saluenense subsp. saluenense
 23559 cephalanthum subsp.
 cephalanthum
 23560 campylogynum
 23561 roxianum var. roxianum
 23562 alutaceum var. iodes
 23563 sanguineum var. sanguineum
 23564 citriniflorum var. citriniflorum
 23569 heliolepis var. brevistylum
 23575 alutaceum var. iodes
 23578 sanguineum var.
 23579 citriniflorum var. citriniflorum
 23580 sanguineum
 23581 citriniflorum var. citriniflorum
 23586 rex subsp. fictolacteum
 23587 praestans
 23588 floccigerum
 23589 coriaceum
 23590 rubiginosum
 23591 lukiangense
 23592 edgeworthii
 23593 temenium var. temenium
 23615 mekongense var. mekongense
 23616 nivale subsp. boreale
 23617 temenium var. temenium
 23618 phaeochrysum var. agglutinatum
 23619 beesianum
 23620 saluenense subsp. saluenense
 23621 eclecteum var. eclecteum
 23622 sanguineum
 23625 beesianum
 23626 Subsect. Selensia
 23627 saluenense subsp. saluenense
 23628 sanguineum
 23629 temenium var. temenium
 23630 eclecteum var. eclecteum
 23631 sanguineum
 23632 eclecteum var. eclecteum
 23633 cephalanthum subsp.
 cephalanthum
 23634 saluenense subsp. saluenense
 23635 sanguineum var. himertum
 23636 sanguineum var. didymoides
 23637 sanguineum var. haemaleum
 23638 citriniflorum var. citriniflorum
 23639 sanguineum var. haemaleum
 23640 temenium var. gilvum
 23641 sanguineum var. sanguineum
 23642 sanguineum var. haemaleum
 23643 sanguineum
 23645 sanguineum var. himertum
 23646 eudoxum var. mesopolium
 23647 citriniflorum var. citriniflorum
 23648 campylogynum
 23649 citriniflorum var. horaeum
 23650 sanguineum var. sanguineum
 23651 aganniphum var. aganniphum
 23652 aganniphum var. aganniphum
 23653 aganniphum var. aganniphum
 23660 alutaceum var. iodes
 23661 adenogynum
 23662 adenogynum
 23663 eudoxum var. mesopolium
 23664 sanguineum var. sanguineum
 23666 heliolepis var. brevistylum
 23669 citriniflorum
 24278 impeditum
 24280 sphaeroblastum
 24281 balfourianum
 24282 rufescens
 24283 rubiginosum
 24284 phaeochrysum var. agglutinatum
 24285 primuliflorum
 24295 phaeochrysum var. agglutinatum
 24296 proteoides
 24299 roxianum var. cucullatum
 24302 phaeochrysum var. agglutinatum
 24304 primuliflorum
 24306 phaeochrysum var. agglutinatum
 24307 beesianum
 24309 yunnanense
 24310 sphaeroblastum
 24311 sphaeroblastum
 24314 phaeochrysum var. levistratum
 24317 phaeochrysum var.
 phaeochrysum
 24319 telmateium

24320	thymifolium	24524	phaeochrysum var. agglutinatum
24321	trichostomum	24531	hemitrichotum
24322	sikangense	24540	primuliflorum
24325	sphaeroblastum	24541	hemitrichotum
24336	telmateium	24544	trichostomum
24339	wardii var. wardii (in cult.)	24569	impeditum & rex subsp. rex
24343	sphaeroblastum	24573	rex subsp. rex
24350	sphaeroblastum	24582	beesianum
24359	phaeochrysum var. agglutinatum	24583	beesianum
24360	wardii var. wardii	24591	yunnanense
24361	telmateium	24592	yunnanense
24363	phaeochrysum var. agglutinatum	24599	rubiginosum
24365	phaeochrysum var. agglutinatum	24602	yunnanense
24366	phaeochrysum var. agglutinatum	24604	uvariifolium var. uvariiflorum
24368	wardii var. wardii	25233	Sect. Tsutsusi
24369	impeditum	25234	scabrifolium var. scabrifolium
24381	balfourianum	25235	sp.
24382	balfourianum	25236	sp.
24383	balfourianum	25237	spinuliferum
24384	impeditum aff.	25238	sp.
24385	nivale subsp. boreale	25239	microphyton
24395	phaeochrysum var. agglutinatum	25240	sp.
24403	phaeochrysum var. levistratum	25246	adenogynum
24404	oreotrepes	25247	rubiginosum
24406	balfourianum	25251	uvariifolium var. uvariiflorum
24410	phaeochrysum var. agglutinatum	25252	traillianum var. traillianum
24413	sphaeroblastum	25258	rupicola var. rupicola
24414	phaeochrysum var. agglutinatum	25259	traillianum var. traillianum
24418	phaeochrysum var. levistratum	25260	selense subsp. dasycladum
24421	pleistanthum	25272	preptum aff.
24432	yunnanense	25277	rupicola var. rupicola
24433	decorum subsp. decorum	25278	lepidotum
24434	vernicosum	25301	traillianum var. traillianum
24439	trichostomum	25302	rupicola var. rupicola
24440	sikangense	25303	saluenense subsp. chameunum
24445	phaeochrysum var. levistratum	25305	adenogynum
24446	intricatum	25306	rex. subsp. ficolacteam
24457	phaeochrysum var. levistratum	25308	adenogynum
24458	Subsect. Fortunea	25313	sphaeroblastum
24459	phaeochrysum var. levistratum	25314	phaeochrysum var.
24460	impeditum		phaeochrysum
24461	phaeochrysum var. levistratum	25326	rubiginosum
24464	impeditum	25327	yunnanense
24471	sikangense	25328	traillianum var. traillianum
24481	sphaeroblastum	25329	rubiginosum
24487	wardii var. wardii	25331	vernicosum
24489	primuliflorum	25334	lepidotum
24495	wardii var. wardii	25340	anthosphaerum
24501	proteoides	25345	beesianum
24503	roxieanum	25349	adenogynum
24512	phaeochrysum var. agglutinatum	25350	primuliflorum

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|-------|---------------------------------------|-------|-----------------------------------|
| 25352 | uvariifolium var. uvariiflorum | 25442 | bureavii |
| 25368 | traillianum var. traillianum | 25443 | scabrifolium var. scabrifolium |
| 25370 | yungningense | 25444 | rex subsp. ficolacteum |
| 25372 | rubiginosum | 25445 | bureavii |
| 25373 | vernicosum | 25446 | scabrifolium var. scabrifolium |
| 25375 | adenogynum | 25447 | rex subsp. ficolacteum |
| 25376 | primuliflorum | 25448 | rex subsp. ficolacteum |
| 25377 | nivale subsp. australe | 25451 | irroratum subsp. irroratum |
| 25381 | yunnanense | 25452 | roxieanum var. roxieanum |
| 25384 | traillianum var. traillianum | 25453 | edgeworthii |
| 25386 | irroratum subsp. irroratum | 25454 | edgeworthii |
| 25387 | adenogynum | 25455 | roxieanum var. cucullatum |
| 25388 | semnoides aff. | 25458 | pronum |
| 25389 | semnoides | 25459 | campylogynum |
| 25390 | alutaceum var. alutaceum | 25462 | roxieanum var. cucullatum |
| 25391 | wardii var. wardii | 25463 | roxieanum var. cucullatum |
| 25393 | semnoides | 25464 | roxieanum |
| 25394 | semnoides | 25465 | xanthostephanum |
| 25395 | irroratum subsp. irroratum | 25466 | rex subsp. ficolacteum |
| 25396 | rex subsp. ficolacteum | 25467 | wardii var. wardii |
| 25398 | selense subsp. dasycladum | 25468 | fulvum subsp. fulvoides |
| 25400 | irroratum subsp. irroratum | 25470 | phaeochrysum var. agglutinatum |
| 25401 | clementinae | 25472 | sphaeroblastum |
| 25402 | hippophaeoides var.
hippophaeoides | 25474 | phaeochrysum var. levistratum |
| 25405 | roxieanum var. cucullatum | 25476 | sikangense |
| 25406 | roxieanum var. cucullatum | 25478 | sphaeroblastum |
| 25407 | roxieanum var. cucullatum | 25480 | sphaeroblastum |
| 25414 | rex subsp. ficolacteum | 25482 | phaeochrysum var.
phaeochrysum |
| 25417 | fastigiatum | | |
| 25418 | rex subsp. ficolacteum | | |
| 25419 | uvariflorum | | |
| 25421 | uvariflorum | | |
| 25422 | roxieanum | | |
| 25423 | roxieanum | | |
| 25424 | rex subsp. ficolacteum | | |
| 25425 | fulvum subsp. fulvoides | | |
| 25426 | fulvum subsp. fulvoides | | |
| 25428 | selense subsp. dasycladum | | |
| 25429 | oreotrepes | | |
| 25430 | clementinae | | |
| 25431 | fulvum subsp. fulvoides | | |
| 25432 | clementinae | | |
| 25435 | bureavii | | |
| 25436 | bureavii | | |
| 25437 | balfourianum | | |
| 25438 | rubiginosum | | |
| 25439 | bureavii | | |
| 25440 | cephalanthum subsp.
cephalanthum | | |
| 25441 | rex subsp. ficolacteum | | |

**TIBET & YUNNAN, CHINA EXP.
(1948-49)**

- | | |
|----|-------------------------------------|
| 1 | campylocarpum subsp.
caloxanthum |
| 2 | crinigerum var. crinigerum |
| 3 | crinigerum var. crinigerum |
| 4 | Subsect. <i>irrorata</i> |
| 5 | saluense subsp. chameunum |
| 6 | temenium var. dealbatum aff. |
| 6a | sanguineum aff. |
| 6b | eudoxum var. eudoxum |
| 7 | Subsect. <i>Laponica</i> |
| 8 | beesianum |
| 9 | fulvum subsp. fulvoides |
| 10 | floccigerum |
| 11 | sanguineum |
| 12 | brachyanthum var.
hypolepidotum |
| 13 | haematodes subsp. chaetomallum |
| 14 | arizelum |

15	xanthostephanum	70	genestierianum
16	arizelum	71	rubiginosum
17	virgatum subsp. oleifolium	72	lukiangense
18	sanguineum	73	uvariifolium var. uvariiflorum
19	alutaceum var. iodes	92	forrestii subsp. forrestii
20	crinigerum var. crinigerum	93	brachyanthum subsp. hypolepidotum
21	mekongense	94	proteoides
22	haematodes subsp. chaetomallum	95	megeratum
23	sanguineum	96	oreotrepes
24	sanguineum	97	arizelum
25	arizelum	98	crinigerum var. crinigerum
26	fulvum subsp. fulvoides	100	crinigerum var. crinigerum
27	sanguineum	101	temenium var. gilvum aff.
28	rubiginosum	101a	sanguineum var. haemaleum aff.
29	eclecteum var. eclecteum	102	arizelum aff.
31	sanguineum var. haemaleum	103	praestans
32	floccigerum	104	martinianum
33	eclecteum var. eclecteum	105	campylogynum
34	sp.	106	sanguineum var. sanguineum
36	beesianum	107	aganniphum var. aganniphum
37	eclecteum var. eclecteum	108	citriniflorum
38	crinigerum var. crinigerum	109	beesianum
39	haematodes subsp. chaetomallum	110	saluenense subsp. saluenense
40	haematodes subsp. chaetomallum	111	sanguineum aff.
41	haematodes subsp. chaetomallum	112	sanguineum
42	beesianum	113	temenium
42a	Subsect. Neriiflora	114	temenium
43	Subsect. Lapponica	115	Subsect. Neriiflora
44	sanguineum subsp. didymum	116	Subsect. Neriiflora
45	sanguineum subsp. didymum	117	beesianum
46	sanguineum	118	praestans
47	martinianum	119	citriniflorum aff.
48	bainbridgianum	120	coriaceum
49	floccigerum	121	anthosphaerum
50	fulvum subsp. fulvoides	122	mekongense var. mekongense
51	Subsect. Falconera	123	eclecteum var. eclecteum
51a	arizelum	124	citriniflorum var. citriniflorum aff.
52	haematodes subsp. chaetomallum	125	sperabiloides
53	sanguineum subsp. didymum	125a	temenium
54	sanguineum subsp. didymum	125b	sanguineum var. sanguineum
56	saluenense subsp. chameunum	126	sanguineum var. sanguineum
57	martinianum	128	sanguineum subsp. didymum
58	calostrotum subsp. keleticum	129	heliolepis var. heliolepis
59	sanguineum	131	eclecteum var. eclecteum
60	temenium var. dealbatum	132	campylogynum
61	sanguineum subsp. didymum	133	maddenii subsp. crassum
62	sanguineum subsp. didymum	134	fulvum subsp. fulvoides
63	alutaceum var. iodes	135	edgeworthii
64	alutaceum var. iodes	136	sanguineum var. sanguineum
65	sanguineum subsp. didymum		
69	Subsect. Neriiflora		

- 137 rubiginosum
 138 roxieanum var. roxieanum
 139 alutaceum var. iodes
 140 coriaceum
 141 alutaceum var. iodes
 142 roxieanum var. roxieanum
 143 fulvum subsp. fulvodes
 144 floccigerum
 145 heliolepis var. brevistylum
 146 mekongense var. mekongense
 147 proteoides
 148 eclecteum var. eclecteum
 149 sanguineum
 150 sanguineum var. sanguineum
 151 proteoides
 152 saluenense subsp. saluenense
 153 praestans
 154 selense subsp. selense
 155 beesianum
 158 uvariifolium var. uvariiflorum
 159 leptothrium
 161 fulvum
 162 glischrum subsp. glischrum
 163 anthosphaerum
 164 beesianum
 165 oreotrepes
 166 haematodes subsp. chaetomallum
 167 rothschildii aff.
 169 stewartianum
 170 rothschildii aff.
 171 temenium
 172 annae
 173 uvariifolium var. uvariiflorum
 174 Subsect. Irrorata
 175 saluenense subsp. chameunum
 176 beesianum
 177 sperabile var. weihsiense
 178 calostrotum subsp. riparioides
 179 rigidum
 180 fulvum subsp. fulvodes
 182 sinogrande
 184 rubiginosum
 185 irroratum subsp. irroratum
 186 rubiginosum
 187 rubiginosum
 188 fastigiatum
 189 rubiginosum
 190 rubiginosum
 191 Subsect. Irrorata
 192 irroratum subsp. irroratum
 193 rex subsp. fictolacteum

- 199 augustinii subsp. hardyi

Russell, J.
JAPAN EXP. (1987)

- 871 molle subsp. japonicum
 893 makinoi
 941 kaempferi
 943 quinquefolium
 949 sanctum
 965 sanctum

Rushforth, K.
SICHUAN, CHINA EXP. (1980)

- 139 ambiguum
 141 calophytum var. calophytum
 142 calophytum var. calophytum
 143b ambiguum
 143c wiltonii
 143d calophytum
 150 pingianum
 172 oreodoxa × pachytrichum
 (hybrid)
 172a davidii?
 173 sp.
 176 pachytrichum
 177 faberi
 178a faberi
 178c faberi
 184 pingianum
 185 nitidulum var. omeiense
 187 ambiguum
 195 ambiguum
 198 pachytrichum × stigillosum
 (hybrid)
 214 pachytrichum
 336 decorum subsp. decorum
 337 siderophyllum

BHUTAN EXP. (1985)

- 755 arboreum subsp. arboreum
 813 succothii
 818 lepidotum
 839 lepidotum
 850 wallichii
 862 campanulatum subsp.
 aeruginosum

870	campanulatum subsp. aeruginosum	1194	thomsonii subsp. thomsonii
873	lanatum	1226	kesangiae var. kesangiae
882	wallichii	1231	argipeplum
884	cinnabarinum subsp. xanthocodon	1232	pendulum
885	lanatum	1233	camelliiflorum
886	wightii	1234	flinckii
890	baileyi	1235	campylocarpum subsp. campylocarpum
901	baileyi	1237	campylocarpum subsp. campylocarpum
903a	lepidotum	1242	kesangiae var. kesangiae
904	lepidotum	1243	argipeplum
905	lepidotum	1245	campylocarpum subsp. campylocarpum
909	lepidotum	1253	camelliiflorum
911	baileyi	1257	kesangiae aff.
931	barbatum	1270	dalhousiae var. rhabdotum
938	arborescens subsp. arborescens	1277	camelliiflorum
954	keysii	1286	dalhousiae var. rhabdotum
958	kesangiae var. kesangiae	1291	camelliiflorum
966	arborescens subsp. arborescens	1292	edgeworthii
974	keysii	1296	camelliiflorum
1014	edgeworthii	1298	camelliiflorum
1017	dalhousiae var. dalhousiae	1304	maddenii
BHUTAN EXP. (1987)		1308	kesangiae
.....		1309	cinnabarinum subsp. cinnabarinum
1023	arborescens subsp. arborescens	1310	argipeplum
1047	cinnabarinum subsp. cinnabarinum	1312a	glaucophyllum var. glaucophyllum
1050	arborescens var. roseum	1333	maddenii
1051	wallichii	1340	grande
1053	campylocarpum subsp. campylocarpum	1349	succothii
1059	edgeworthii	1371	hodgsonii
1078	camelliiflorum	1401	falconeri subsp. falconeri
1084	kesangiae var. kesangiae	1424	succothii
1087	barbatum	1432	hodgsonii
1091	kesangiae var. kesangiae	1442	flinckii
1091a	falconeri subsp. falconeri	1453	hodgsonii aff.
1093	lindleyi	1455	cinnabarinum subsp. xanthocodon
1100	kesangiae var. kesangiae	1459	glaucophyllum var. tubiforme
1121	falconeri subsp. falconeri	1465	flinckii
1128	falconeri subsp. falconeri	1472a	kendrickii
1130	kesangiae var. kesangiae	1481	kesangiae aff.
1131	arborescens var. delavayi	1483	hodgsonii
1135	argipeplum	1488	kesangiae aff.
1136	kesangiae var. kesangiae	1496	flinckii
1175	kesangiae var. kesangiae		
1176	argipeplum		
1181	hodgsonii		
1181a	sp.		

E BHUTAN EXP. (1990)

- 1562 arboreum var. delavayi
 1583 virgatum subsp. virgatum
 1626 arboreum
 1629 kesangiae
 1640 kesangiae aff.
 1655 thomsonii subsp. thomsonii
 1666 wightii
 1682 kesangiae × falconeri (hybrid)
 1685 kesangiae × falconeri (hybrid)
 1695 maddenii subsp. maddenii
 1710 grande aff.
 1712 kendrickii
 1720 grande aff.
 1726 argipeplum
 1727 kesangiae
 1737 kesangiae
 1738 thomsonii subsp. thomsonii
 1739 arboreum
 1743 wightii
 1745 nivale subsp. nivale
 1750 bhutanense
 1751 bhutanense
 1752 sp.
 1753 bhutanense
 1754 sp.
 1755 flinckii aff.
 1756 bhutanense
 1763 thomsonii subsp. thomsonii
 1767 kesangiae
 1768 campylocarpum subsp.
 campylocarpum
 1771 keysii
 1778 neriiflorum subsp. phaedropum
 1800 falconeri subsp. falconeri
 1811 hodgsonii
 1814 argipeplum
 1820 lindleyi
 1821 griffithianum

VIETNAM EXP. (1991)

- 1876 poilanei (Sect. Vireya)
 1877 Subsect. Maddenia
 1880 nuttallii
 1881 sp.
 1885 sp.
 1886 poilanei (Sect. Vireya)
 1894 maddenii subsp. crassum
 1922 lyi

- 1922a Subsect. Maddenia
 1924 poilanei (Sect. Vireya)
 1925 sp.
 1929 lyi
 1955 Subsect. Maddenia
 1981 Subsect. Irrorata
 1986 protistum var. giganteum
 1990 arboreum aff.
 1992 protistum var. giganteum
 1995 excellens aff.
 1998 protistum var. giganteum
 2002 protistum var. giganteum
 2005 Subsect. Maddenia

VIETNAM EXP. (1992)

- 2108 nuttallii
 2116 lyi aff.
 2165 maddenii subsp. crassum
 2178 protistum var. giganteum
 2180 lyi aff.
 2184a sp.
 2189 sp.
 2199 protistum var. giganteum
 2202 sp.
 2203 maddenii subsp. crassum
 2203a excellens aff.
 2204 Subsect. Parishia
 2204a excellens aff.
 2205 protistum var. giganteum
 2205a maddenii subsp. crassum
 2214 excellens aff.
 2215 lyi
 2225 lyi
 2229 maddenii subsp. crassum
 2231 poilanei (Sect. Vireya)
 2246 maddenii subsp. crassum
 2247 veitchianum aff.
 2247a veitchianum aff.
 2248 ovatum
 2251 sp.
 2260 veitchianum aff.
 2261 nutallii
 2270 excellens aff.
 2279 sulfureum
 2279a excellens aff.
 2279b sp.
 2314 sp.
 2319 sulfureum
 2321 sp.
 2330 edgeworthii

- 2334 lyi
 2356 sororium (Sect. Vireya)
 2357 rushforthii (Sect. Vireya)
 2359 lyi
 2385 excellens aff.

YUNNAN EXP. (1993)

- 2494 dendricola
 2499 decorum subsp. decorum
 2553 arboreum var. peramoenum
 2559 Sect. Choniastrum
 2570 arboreum var. delavayi
 2571 decorum subsp. diaprepes
 2572 sinogrande
 2584 neriiflorum aff.
 2586 leptothrium
 2610 leptothrium
 2628 facetum
 2637 sp.
 2639 Subsect. Boothia
 2651 sinogrande
 2657 basilicum
 2681 sidereum
 2682 neriiflorum
 2687 zaleucum
 2701 edgeworthii
 2710 coriaceum
 2711 edgeworthii
 2719 Subsect. Maddenia
 2720 calostrotum aff.
 2725 racemosum
 2726 decorum subsp. decorum
 2731 neriiflorum
 2734 rubiginosum var. rubiginosum
 2736 trichocladum
 2740 stewartianum
 2745 rubiginosum var. rubiginosum
 2748 cyanocarpum
 2750 rex subsp. fictolacteum
 2758 virgatum subsp. oleifolium
 2760 lacteum
 2761 selense subsp. jucundum
 2763 rex subsp. fictolacteum
 2764 taliense
 2765 balfourianum
 2780 racemosum
 2793 decorum subsp. decorum
 2801 rubiginosum subsp. rubiginosum
 2805 yunnanense
 2833 vernicosum

VIETNAM EXP. (1994)

- 2919 sp.
 2929 sororium (Sect. Vireya)
 2932 sp.
 2935 moullainense
 2939 sp.
 2941 Subsect. Irrorata
 2960 saxicolum
 2961 lyi
 2976 poilanei (Sect. Vireya)
 2978 maddenii subsp. crassum
 2983a sororium (Sect. Vireya)
 2987 lyi
 2989 Subsect. Irrorata
 2992 veitchianum aff.
 2998 excellens aff.
 3002a Subsect. Maddenia
 3011 chunii aff.
 3021 tanastylum
 3023 huidongense aff.
 3025 sulfureum
 3026 maddenii subsp. crassum
 3028 sp.
 3045 chunii aff.
 3057 maddenii subsp. crassum
 3080 sororium (Sect. Vireya)
 3093 nuttallii
 3095 xanthostephanum
 3096a facetum aff.
 3097 rushforthii
 3097a Sect. Vireya
 3099 excellens aff.
 3111 tephropeplum
 3112 protistum var. giganteum
 3114 protistum var. giganteum
 3116 maddenii subsp. crassum
 3121 irroratum subsp. pogonstylum
 3145 sp.
 3148 poilanei (Sect. Vireya)
 3212 triumphans
 3284 irroratum 'Langbianense'
 3285 fleuryi
 3295 irroratum 'Langbianense'
 3297 triumphans (Sect. Vireya)

XIZANG (TIBET) EXP. (1995)

- 3325 sp.
 3336 principis
 3388 triflorum

3423 uvariifolium var. griseum
 3440 cerasinum
 3446 principis
 3448 nivale
 3453 lepidotum
 3458 uvariifolium var. griseum
 3460 cerasinum
 3465 faucium
 3489 Subsect. Fulgensia
 3490 hirtipes
 3492 sp.
 3501 forrestii
 3503 mekongense
 3506 chamaethomsonii var.
 chamaethauma
 3516 campylocarpum subsp.
 caloxanthum
 3519 forrestii
 3520 sp.
 3521 charitopes subsp.
 tsangpoense
 3522 chamaethomsonii var.
 chamaethauma
 3523 charitopes subsp.
 tsangpoense
 3528 aganniphum
 3532 wardii
 3582 virgatum
 3604 triflorum
 3628 faucium
 3654 principis
 3684 wardii
 3688 dignabile or pomense aff.
 3689 phaeochrysum var.
 agglutinatum
 3720 fragariiflorum
 3721 Subsect. Lapponica
 3722 kongboense aff.
 3723 sp.
 3724 sp.
 3725 kongboense aff.
 3726 principis
 3732 wardii
 3749 campylogynum
 3771 faucium aff.
 3774 uvariifolium var. griseum
 3783 uvariifolium var. griseum
 3784 faucium aff.
 3804 principis
 3844 principis
 3845 anthopogon

YUNNAN EXP.(1996)

3902 spinuliferum
 3908 microphyton
 3909 arboreum subsp. delavayi
 3910 arboreum subsp. delavayi
 3939 microphyton
 3946 decorum subsp. decorum
 3969 fulvum subsp. fulvoides
 3979 zaleucum
 3980 sidereum
 3986 facetum
 3997 neriiflorum aff.
 4006 valentinianum aff.
 4013 Subsect. Parishia
 4027 sinogrande
 4028 leptothrium
 4029 araiophyllum
 4049 rubiginosum
 4049a trichostomum
 4051 selense subsp. jucundum
 4051a cyanocarpum
 4051b selense subsp. jucundum
 4054 rex subsp. ficolacteam
 4055 lacteum
 4056 taliense aff.
 4056a taliense
 4057 lacteum
 4084 racemosum
 4085 cuneatum or hippophaeoides
 4086 vernicosum
 4089 Subsect. Lapponica
 4099 vernicosum
 4103 vernicosum
 4104 racemosum
 4112 wardii
 4113 oreotrepes
 4114 beesianum
 4131 wardii
 4150 beesianum
 4154 heliolepis aff.
 4158 uvariifolium var. uvariiflorum
 4164 yunnanense
 4208 vernicosum
 4217 yunnanense
 4229 arboreum subsp. delavayi
 4255 nuttallii or excellens
 4256 Subsect. Parishia
 4270 rufosquamosum aff.
 4278 sororium aff. (Sect. Vireya)
 4303 rufosquamosum aff.

Sakhalin-Ussuri Exp. (1994)

135 schlippenbachii

Schilling, A.**NEPAL 1966 EXP.**

1111 arboreum subsp. arboreum

NEPAL 1975 EXP.

2047 triflorum var. triflorum
 2048 setosum
 2049 arboreum var. cinnamomeum

NEPAL 1976 EXP.

2169 campylocarpum subsp.
 campylocarpum
 2170 setosum
 2171 anthopogon subsp. anthopogon
 2172 wallichii
 2187 arboreum var. cinnamomeum
 2188 campylocarpum subsp.
 campylocarpum
 2193 sp.

NEPAL 1977 EXP.

2252 campylocarpum subsp.
 campylocarpum
 2259 anthopogon subsp.
 anthopogon
 2260 setosum
 2264 lepidotum
 2269 nivale subsp. nivale
 2281 lepidotum
 2295 triflorum
 2299 barbatum

NEPAL 1978 EXP.

2328 barbatum
 2330 triflorum var. triflorum
 2343 hodgsonii

NEPAL 1983 EXP.

2649 arboreum var. roseum

BHUTAN EXP. (1988)

2963 lowndesii
 2980 dalhousiae var. dalhousiae

Simmons, Erskine, Howick & McNamara (SICH)**SICHUAN, CHINA EXP. (1988)**

40 polylepis
 141 przewalskii
 142 nivale subsp. boreale
 143 primuliflorum
 153 sp.
 155 rufum
 163 sp.
 239 lutescens
 240 decorum subsp. decorum
 244 sp.
 246 polylepis
 265 lutescens
 284 floribundum
 300 polylepis
 310 floribundum
 316 argyrophyllum subsp.
 argyrophyllum
 320 argyrophyllum subsp.
 argyrophyllum
 342 nivale subsp. boreale
 343 decorum subsp. decorum
 349 intricatum
 357 przewalskii
 377 souliei
 378 sp.
 380 decorum subsp. decorum
 385 sp.
 390 sp.
 401 pachytrichum var. pachytrichum

SICHUAN, CHINA EXP. (1991)

531 davidsonianum
 533 sp.
 542 sp.
 550 sp.
 552 thymifolium
 584 souliei
 585 sp.
 586 sp.

- 587 sp.
 588 bureavii aff.
 595 bureavii
 611 sp.
 622 davidsonianum
 650 sp.
 676 sp.
 685 sp.
 698 sp.
 702 thymifolium?
 712 sp.
 713 sp.
 756 sp.
 785 sp.
 786 sp.
 818 sp.
 819 sp.
 820 sp.
 821 sp.
 823 sp.
 832 sp.
 846 sp.

SICHUAN EXP., CHINA (1992)

- 921 decorum subsp. decorum
 922 yunnanense
 928 lutescens
 929 floribundum
 930 sp.
 943 irroratum
 944 decorum subsp. decorum
 947 yunnanense
 949 racemosum
 960 rubiginosum
 981 decorum subsp. decorum
 990 sikangense var. sikangense
 1010 phaeochrysum var. agglutinatum
 1014 rubiginosum
 1026 davidsonianum
 1037 rex subsp. rex
 1041 racemosum
 1045 davidsonianum
 1054 pachytrichum var. monosematum
 1065 davidsonianum
 1070 intricatum
 1071 rupicola var. muliense
 1074 beesianum
 1075 phaeochrysum var. agglutinatum
 1085 wardii
 1095 sp.

- 1124 yunnanense
 1134 rex subsp. rex
 1151 sp.
 1153 rex subsp. rex
 1171 ambiguum
 1177 spinuliferum
 1187 racemosum
 1188 racemosum
 1198 coeloneuron
 1207 yunnanense
 1230 polylepis
 1236 rex

SICHUAN EXP. (1994)

- 1317 sp.
 1318 sp.
 1322 sp.
 1352 sp.
 1409 sp.
 1412 sp.
 1428 sp.
 1436 sp.
 1437 sp.
 1445 sp.
 1473 rex subsp. fictolaceum
 1480 sp.

Simmons, J. & Elsley, J.

E USA EXP. (1981)

- 18 catawbiense
 62 calendulaceum

Simmons, Fleigner & Russell
(GUIZ)

GUIZHOU, CHINA EXP. (1985)

- 74 sp.
 75 haofui
 120 moupinense aff.
 121 maculiferum
 125 sp. Subsect. *Argyrophylla*
 148 maculiferum
 163 liliiflorum
 233 simsii var. simsii

Sinclair, I.**BHUTAN EXP. (1993)**

- 1720 virgatum subsp. virgatum
 1721 ciliatum
 1722 thomsonii subsp. thomsonii
 1724 thomsonii subsp. thomsonii
 1725 barbatum
 1726 maddenii subsp. maddenii
 1727 lindleyi
 1728 griffithianum
 1730 argipeplum
 1731 hodgsonii aff.
 1732 hodgsonii
 1734 cinnabarinum subsp.
 xanthocodon
 1735 flinckii
 1736 wightii
 1737 succothii
 1738 argipeplum
 1739 camelliiflorum
 1740 pendulum
 1741 falconeri subsp. falconeri
 1742 kendrickii
 1743 keysii
 1744 dalhousiae var. dalhousiae
 1748 griffithianum

E USA EXP. (1994)

- 1753 viscosum

Sinclair, I. & Long, D.G.**BHUTAN EXP. (1984)**

- 5220 campanulatum subsp.
 aeruginosum
 5348 setosum
 5671 kesangiae var. kesangiae
 5695 falconeri subsp. falconeri
 5696 camelliiflorum

Sino-American Exp. (SABE)**SICHUAN & W HUBEI, CHINA
(1981)**

- 863 maculiferum
 942 oreodoxa var. fargesii
 943 maculiferum

- 1322 argyrophyllum subsp.
 hypoglaucum

**Sino-British Exp. to Cangshan
(SBEC)****YUNNAN, CHINA (1981)**

- K058 spinuliferum
 K059 × duclouxii (hybrid)
 K063 decorum subsp. decorum
 K064 siderophyllum
 K068 spinuliferum
 K108 decorum subsp. decorum
 K112 decorum subsp. decorum
 K113 microphyton
 K141 pachypodium
 K143a microphyton
 K160 scabrifolium var. spiciferum
 K161 siderophyllum
 15 pachypodium
 42 decorum subsp. decorum
 47 arboreum var. delavayi
 60 yunnanense
 64 irroratum
 100 irroratum subsp. irroratum
 103 sulfureum
 104 sinogrande
 115 pachypodium
 116 decorum subsp. decorum
 119 × agastum (hybrid)
 120 arboreum var. delavayi
 121 rubiginosum
 130 rubiginosum
 160 rex subsp. ficolacteum
 162 cyanocarpum
 163 anthosphaerum
 172 neriiflorum subsp. neriiflorum
 181 decorum subsp. decorum
 182 sinogrande
 183 facetum
 184 neriiflorum subsp. neriiflorum
 194 yunnanense
 207 edgeworthii
 210 sulfureum
 218 yunnanense
 228 decorum subsp. decorum
 235 lacteum
 239 irroratum subsp. irroratum
 240 heliolepis var. brevistylum

- | | | | |
|-----|-------------------------------------|------|-------------------------------------|
| 244 | cyanocarpum | 640 | maddenii subsp. crassum |
| 249 | sulfureum | 641 | brachyanthum var.
brachyanthum |
| 257 | facetum | 664 | yunnanense |
| 258 | heliolepis | 694 | maddenii subsp. crassum |
| 260 | cyanocarpum | 720 | arborescens var. delavayi |
| 265 | virgatum subsp. oleifolium | 721 | irroratum subsp. irroratum |
| 295 | maddenii subsp. crassum | 734 | decorum subsp. decorum |
| 323 | × agastum (hybrid) | 749 | fastigiatum |
| 331 | yunnanense | 750 | trichocladum var. trichocladum |
| 334 | sinogrande | 751 | cephalanthum subsp.
cephalanthum |
| 343 | haematodes subsp. haematodes | 753 | fastigiatum pink |
| 345 | lacteum | 804 | fastigiatum |
| 349 | cyanocarpum | 805 | trichocladum var. trichocladum |
| 350 | roxieanum var. cucullatum aff. | 806 | racemosum |
| 351 | trichocladum var. trichocladum | 840 | anthosphaerum |
| 361 | cyanocarpum | 883 | irroratum × facetum (hybrid) |
| 363 | heliolepis | 890 | facetum |
| 364 | haematodes subsp. haematodes | 897 | rex subsp. fictolacteum |
| 365 | selense subsp. jucundum | 898 | irroratum subsp. irroratum |
| 439 | decorum subsp. decorum | 949 | facetum ? |
| 471 | trichocladum var. trichocladum | 957 | rex subsp. fictolacteum |
| 473 | neriiflorum subsp. neriiflorum | 969 | sp. |
| 474 | racemosum | 971 | cyanocarpum |
| 504 | trichocladum var. trichocladum | 1014 | facetum |
| 507 | neriiflorum subsp. neriiflorum | 1058 | yunnanense |
| 519 | campylogynum | 1059 | decorum subsp. decorum |
| 532 | sulfureum | 1060 | decorum subsp. decorum |
| 533 | fastigiatum | 1072 | maddenii subsp. crassum |
| 534 | rex subsp. fictolacteum | 1225 | decorum subsp. decorum |
| 535 | cyanocarpum | 1227 | virgatum subsp. oleifolium |
| 543 | selense subsp. jucundum | | |
| 544 | selense subsp. jucundum | | |
| 545 | dichroanthum subsp.
dichroanthum | | |
| 546 | taliense | | |
| 554 | balfourianum | | |
| 555 | taliense | | |
| 557 | fastigiatum | | |
| 561 | haematodes subsp. haematodes | | |
| 565 | yunnanense | | |
| 581 | taliense | | |
| 582 | lacteum | | |
| 583 | balfourianum | | |
| 584 | balfourianum × taliense ? (hybrid) | | |
| 585 | haematodes subsp. haematodes | | |
| 586 | haematodes subsp. haematodes | | |
| 587 | campylogynum | | |
| 601 | dichroanthum subsp.
dichroanthum | | |
| 607 | edgeworthii | | |
| 621 | virgatum subsp. oleifolium | | |

Sino-British Lijiang Exp.(SBLE)

YUNNAN, CHINA (1987)

- | | |
|-----|-----------------------------------|
| 24 | telmateium |
| 25 | cuneatum |
| 61 | primuliflorum |
| 71 | racemosum |
| 81 | vernicosum |
| 83 | rubiginosum |
| 103 | uvariifolium var.
uvariiflorum |
| 104 | cuneatum |
| 111 | orthocladum? |
| 141 | fastigiatum |
| 142 | decorum subsp. decorum |

144	vernicosum		
199	cuneatum		
200	rubiginosum		
201	oreotrepes		
202	beesianum	2a	vernicosum
203	adenogynum	10	racemosum
204	traillianum var. traillianum	14	hippophaeoides var. hippophaeoides
205	Subsect. Lapponica	24	oreotrepes
206	primuliflorum	35	vernicosum
219	heliolepis	46	hippophaeoides var. hippophaeoides
235	adenogynum	47	racemosum
236	telmateium	55	selense subsp. selense
237	traillianum var. traillianum	56	wardii var. wardii
245	primuliflorum aff.	63	uvariiflorum var. uvariiflorum
247	cuneatum	65	beesianum
299	trichostomum	66	heliolepis var. heliolepis
305	sp.	83	russatum
306	oreotrepes	90	rex subsp. fictolacteum
316	hippophaeoides var. hippophaeoides	94	decorum subsp. decorum
317	rubiginosum	95	decorum subsp. decorum
333	telmateium	99	wardii var. wardii
357	vernicosum	104	vernicosum
364	fastigiatum	108	phaeochrysum
403	mekongense	110a	phaeochrysum var. phaeochrysum
406	selense subsp. dasycladum	129	telmateium
423	lukiangense	131	saluenense subsp. chameunum
424	leptothrium	138	aganniphum var. aganniphum
433	racemosum	140	phaeochrysum var. levistatum
435	edgeworthii	143	aganniphum var. flavorufum
437	rex subsp. fictolacteum	144	phaeochrysum var. levistratum
438	anthosphaerum	148	primuliflorum
449	fulvum subsp. fulvodes	149	rupicola var. chryseum
453	saluenense subsp. chameunum	151	selense subsp. selense
454	phaeochrysum	160	tapetiforme
457	Subsect. Lapponica	161	primuliflorum
458	russatum	162	sp.
459	wardii var. wardii (litiense)	163	phaeochrysum
481	polycladum	164	primuliflorum
489	mekongense var. mekongense	173	tapetiforme
494	polycladum	221	oreotrepes
557	rupicola var. rupicola	224	balfourianum
560	balfourianum	229	hippophaeoides white
565	traillianum var. traillianum	230	trichostomum
568	cuneatum	248	primuliflorum
		250	beesianum
		270	rupicola var. chryseum aff.
		285	trichostomum
		292	beesianum

296	complexum
303	beesianum
304	heliolepis var. heliolepis
305	rupicola var. rupicola aff.
320a	aganniphum var. aganniphum
322	balfourianum
323	beesianum
350	cephalanthum subsp. platyphyllum
352	taliense
354	fastigiatum
358	lacteam
363	brachyanthum subsp. brachyanthum
364	dichroanthum subsp. dichroanthum
369	campylogynum
370	cyanocarpum
371	haematodes subsp. haematodes
372	trichocladum var. trichocladum
374	maddenii subsp. crassum
375	virgatum subsp. oleifolium

Smith, H.**GANSU, CHINA, ETC. C.1934**

13979	sp.
13982	phaeochrysum var. levistratum
17920	concinnum

Smitinand, T. - Thailand Exps.

(1962)

7819	ludwigianum
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(1974)

6	lyi
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Spring-Smythe, T. - E Nepal Exps.

(1961-62)

1	grande
2	arboreum
3	arboreum
4	dalhousiae var. dalhousiae
5	arboreum

6	campylocarpum subsp. campylocarpum
7	campanulatum
8	campanulatum
9	hodgsonii
10	hodgsonii aff.
11	campanulatum
12	campylocarpum subsp. campylocarpum
13	campylocarpum subsp. campylocarpum
14	campanulatum
15	barbatum
16	arboreum
17	wallichii
18	arboreum
19	camelliiflorum
20	camelliiflorum
21	barbatum
22	arboreum
23	arboreum
24	dalhousiae var. dalhousiae
25	arboreum
26	arboreum
27	arboreum
28	dalhousiae var. dalhousiae
29	arboreum subsp. cinnamomeum
30	barbatum
31	dalhousiae var. dalhousiae
32	dalhousiae var. dalhousiae
33	camelliiflorum
34	lepidotum
35	lepidotum
36	Subsect. Maddenia
37	grande
38	barbatum
39	camelliiflorum
40	barbatum
41	campanulatum
42	hodgsonii
43	campylocarpum subsp. campylocarpum
44	campanulatum
45	arboreum
46	lepidotum
47	Subsect. Maddenia
48	Subsect. Maddenia
49	camelliiflorum
50	arboreum
51	lepidotum
52	lepidotum

- 53 lepidotum
 54 Subsect. *Maddenia*
 55 Subsect. *Maddenia*
 56 lindleyi
 57 lindleyi aff.
 58 arboreum
 59 dalhousiae var. *dalhousiae*
 60 arboreum

(1970)

- 61a sp.
 61b arboreum
 61c arboreum
 61d grande
 61e arboreum
 62 grande
 63 grande
 64 grande
 65 arboreum
 67 arboreum
 68 arboreum
 69 grande
 70 arboreum

**Stainton, Sykes & Williams
(SSW)****C NEPAL EXP. (1954)**

- 8216 sp.
 8251 lowndesii
 8274 dalhousiae var. *dalhousiae*
 9090 anthopogon subsp.
 hypananthum
 9097 cowanianum
 9106 campanulatum
 9107 campanulatum

Tran, O.V.**VIETNAM (1993)**

- 5 moulmainsense
 27 excellens aff.
 28 sp.
 31 nuttallii
 32 tanastylum
 33 Subsect. *Irrorata*
 34 maddenii subsp. *crassum*

- 35 sinofalconeri
 36 Subsect. *Irrorata*
 64 sp.

Valder, P.G.**CAMERON HIGHLANDS
(1972)**

- F1 wrayi
 F2 wrayi
 F3 wrayi
 F4 wrayi
 F6 wrayi
 F7 wrayi
 F9 wrayi
 F10 jasminiflorum (sect. *Vireya*)
 F12 sp. (sect. *Vireya*)
 F13 javanicum (sect. *Vireya*)
 F14 javanicum (sect. *Vireya*)

SUMATRA (1994-95)

- I1 multicolor (sect. *Vireya*)
 I2 aequabile (sect. *Vireya*)
 I2a sumatranum (sect. *Vireya*)

KEDAH (1994-95)

- I12 moulmainsense
 I12a jasminiflorum (sect. *Vireya*)
 I12b longiflorum (sect. *Vireya*)

THAILAND (1994-95)

- I19 lyi
 I20 lyi
 I21 simsii
 I29 veitchianum
 I30 veitchianum
 I38 veitchianum
 I39 arboreum subsp. *delavayi*
 I42 veitchianum
 I42a moulmainsense

HONG KONG (1974-75)

- I47 simiarum
 I49 hongkongense
 I49a moulmainsense
 I50 simsii

- 151 farrerae
151a championiae

Warner & Howick
EASTERN USA EXP. (1985)

- 96 maximum
141 Sect. Pentanthera
142 Sect. Pentanthera
177 catawbiense

**CALIFORNIA, BRITISH
COLUMBIA & WASHINGTON,
W USA EXP. (1986)**

- 212 occidentale
235 occidentale

JAPAN EXP. (1987)

- 576 brachycarpum subsp.
brachycarpum
632 brachycarpum subsp.
brachycarpum
633 albrechtii
673 japonicum
691 albrechtii
704 albrechtii
708 brachycarpum?
709 tschonoskyi var. tschonoskyi
757 kaempferi
763 kaempferi
790 makinoi
794 dilatatum
796 stenopetalum
797 keiskei
819 sanctum

PYRENEES EXP. (1989)

- 964 ferrugineum

Wharton, P.
**GUIZHOU, CHINA EXP. (OCT.
1994)**

- 009 coeloneuron
020 Sect. Azaleastrum
034 Subsect. Fortunea

- 041 Subsect. Fortunea
044 Subsect. Fortunea
049 sutchuenense aff.
050 auriculatum
083 Subsect. Fortunea
090 × agastum (hybrid)
095 × agastum (hybrid)
097 Subsect. Triflora
098 × agastum (hybrid)
099 simsii

**Wilson, E.H. - Veitch-
Sponsored Exps.**

W HUBEI, CHINA (1899-1902)

- 311 argyrophyllum subsp.
hypoglaucum
317 latoucheae var. latoucheae
505 adenopodum
517 × geraldii (hybrid)
570 fortunei subsp. discolor
598 augustinii subsp. augustinii
648 fortunei subsp. discolor
683 mariesii
752 argyrophyllum subsp.
hypoglaucum
885 fortunei subsp. discolor
886 latoucheae var. latoucheae
887 stamineum
887b fortunei subsp. fortunei
920 auriculatum
938 ovatum
944 maculiferum
1077a fortunei subsp. fortunei
1181 fortunei subsp. discolor
1218 micranthum
1232 sutchuenense
1250 oreodoxa var. fargesii

W SICHUAN, CHINA (1903-05)

- 1433 concinnum
1435 pachytrichum var. pachytrichum
1519 orbiculare subsp. orbiculare
1520 longesquamatum
1521 argyrophyllum subsp.
argyrophyllum
1522 pachytrichum var. monosematum
1523 calophytum

1524 concinnum
 1525 pachytrichum var. pachytrichum
 1526 argyrophyllum subsp.
 argyrophyllum
 1527 faberi?
 1531 davidii
 1535 davidsonianum
 1538 bureavioides
 1539 'Magorianum' (hybrid?)
 1540 souliei
 1541 oreodoxa var. oreodoxa
 1543 intricatum
 1547 prattii
 1764 wasonii
 1766 concinnum
 1769 bureavii?
 1773 flavidum var. flavidum
 1777 vernicosum
 1779 davidsonianum
 1782 decorum subsp. decorum
 1800 wasonii
 1804 wiltonii
 1808 ririei
 1809 stamineum
 1810 orbiculare subsp. orbiculare
 1857 polylepis
 1862 trichanthum
 1863 przewalskii
 1864 praeteritum
 1865 pachytrichum var.
 pachytrichum
 1866 wasonii
 1867 concinnum
 1867a faberi
 1869 concinnum
 1870 strigillosum
 1871 wiltonii
 1872 watsonii
 1873 davidii
 1875 lutescens
 1876 wasonii 'Rhododactylum'
 1878 concinnum
 1879 ambiguum
 1880 ambiguum
 1881 ambiguum
 1882 'Planetum' (hybrid?)
 1885 argyrophyllum subsp.
 hypoglaucaum
 1887 wongii
 1888 sargentianum
 3942a polylepis

5137 argyrophyllum subsp.
 hypoglaucaum
 5139 ririei

Wilson, E.H. - Arnold
Arboretum-Sponsored Exps.

W HUBEI & W SICHUAN,
CHINA (1906-09)

509 sutchuenense
 567 stamineum
 569 simsii
 586 fortunei subsp. discolor
 608 augustinii subsp. augustinii
 660 micranthum
 800 molle subsp. molle
 879 moupinense
 882 hanceanum
 1195 lutescens
 1196 amesiae
 1196a concinnum
 1197a lutescens
 1198 hunnewellianum subsp.
 hunnewellianum
 1199 lutescens
 1200 micranthum
 1201 concinnum
 1202 flavidum var. flavidum
 1203 pachytrichum var. pachytrichum
 1204 longistylum
 1205 polylepis
 1206 watsonii
 1207 augustinii subsp. augustinii
 1207a polylepis
 1208 sargentianum
 1209 decorum subsp. decorum
 1209a calophytum var. openshawianum
 1210 argyrophyllum subsp.
 argyrophyllum
 1211 oreodoxa var. oreodoxa
 1220 trichanthum
 1221 polylepis
 1222 souliei
 1224 calophytum var. calophytum
 1225 websterianum
 1237 augustinii subsp. augustinii
 1256 vernicosum
 1274 davidsonianum
 1275 davidsonianum

- | | | | |
|---|----------------------------------|-------|--------------------------------------|
| 1276 | davidsonianum | 4232 | przewalskii |
| 1278 | longesquamatum | 4233 | amesiae |
| 1319 | × edgarianum (hybrid?) | 4233a | concinnum |
| 1320 | micranthum | 4234 | faberi |
| 1324 | ambiguum | 4235 | rufum |
| 1325 | Subsect. Taliensia | 4236 | concinnum |
| 1326 | pachytrichum var. pachytrichum | 4237 | sargentianum |
| 1328 | trichostomum | 4238 | augustinii subsp. augustinii |
| 1328a | websterianum | 4239 | davidsonianum |
| 1330 | ambiguum | 4240 | ambiguum |
| 1339 | insigne | 4241 | concinnum |
| 1341 | strigillosum | 4242 | trichanthum |
| 1342 | trichanthum | 4243 | przewalskii |
| 1343 | searsiae | 4244 | watsonii |
| 1345 | lutescens | 4245 | oreodoxa var. oreodoxa |
| 1349 | pachytrichum var. pachytrichum | 4246 | pachytrichum var. pachytrichum |
| 1350 | williamsianum | 4247 | oreodoxa var. oreodoxa |
| 1352 | davidsonianum | 4248 | hunnewellianum subsp. hunnewellianum |
| 1353 | wiltonii | 4249 | wasonii |
| 1361 | longesquamatum | 4250 | rufum |
| 1367 | calophytum var. calophytum | 4251 | wasonii |
| 1369 | calophytum var. calophytum | 4252 | ambiguum |
| 1391 | ovatum | 4253 | bracteatum |
| 1686 | fortunei subsp. fortunei | 4254 | galactinum |
| 1690 | ovatum | 4254a | 'Peregrinum' (hybrid?) |
| 3412 | maculiferum | 4255 | hanceanum |
| 3414 | calophytum var. openshawianum | 4256 | moupinense |
| 3415 | davidii | 4257 | decorum subsp. decorum |
| 3416 | oreodoxa var. fargesii | 4258 | strigillosum |
| 3418 | orbiculare subsp. orbiculare | 4259 | watsonii |
| 3425 | ochraceum | 4260 | oreodoxa var. oreodoxa |
| 3427 | auriculatum | 4261 | davidii |
| 3428 | racemosum | 4262 | micranthum |
| 3440 | pachytrichum var. pachytrichum | 4263 | longesquamatum |
| 3443 | argyrophyllum subsp. hypoglaucum | 4264 | wiltonii |
| 3445 | trichanthum | 4265 | ambiguum |
| 3448 | concinnum | 4266 | floribundum |
| 3454 | sargentianum | 4267 | strigillosum |
| 3465 | nivale subsp. boreale | 4268 | stamineum |
| 3467 | nivale subsp. boreale | 4269 | nivale subsp. boreale |
| 3468 | nivale subsp. boreale | 4270 | pachytrichum var. pachytrichum |
| 3469 | nivale subsp. boreale | 4271 | oreodoxa var. oreodoxa |
| 3473 | simsii | 4272 | faberi |
| 3474 | simsii | 4273 | thayerianum |
| | | 4274 | souliei |
| | | 4275 | argyrophyllum subsp. argyrophyllum |
| | | 4276 | argyrophyllum subsp. argyrophyllum |
| | | 4277 | lutescens |
| N & NW SICHUAN, CHINA EXP. (1910-11) | | | |
| | | | |
| 4041 | concinnum | | |
| 4231 | przewalskii | | |

- 4278 polylepis
- 4279 calophytum var. calophytum
- 4280 davidsonianum
- 4726 longistylum

JAPAN EXP. (1914-15)

- 7192 molle subsp. japonicum
- 7638 albrechtii
- 7657 tschonoskyi
- 7670 molle subsp. japonicum
- 7676 quinquefolium
- 7683 pentaphyllum
- 7683a quinquefolium
- 7694 reticulatum
- 7709 indicum
- 7709a kaempferi
- 7733 semibarbatum
- 7794 stenopetalum 'Linearifolium'
- 7801 tosaense
- 7813 weyrichii

KOREA, JAPAN & TAIWAN EXP. (1917-19)

KOREA

- 9251 dauricum
- 9411 weyrichii
- 9592 schlippenbachii
- 9595 tschonoskyi

LIUKIU & BONIN ISLANDS

- 10956 'Obtusum'
- 11248 kiusianum
- 11250 kiusianum
- 11255 kiusianum

TAIWAN

- 10928 pseudochrysanthum

- 10939 rubropilosum
- 10955 morii
- 11175 oldhamii

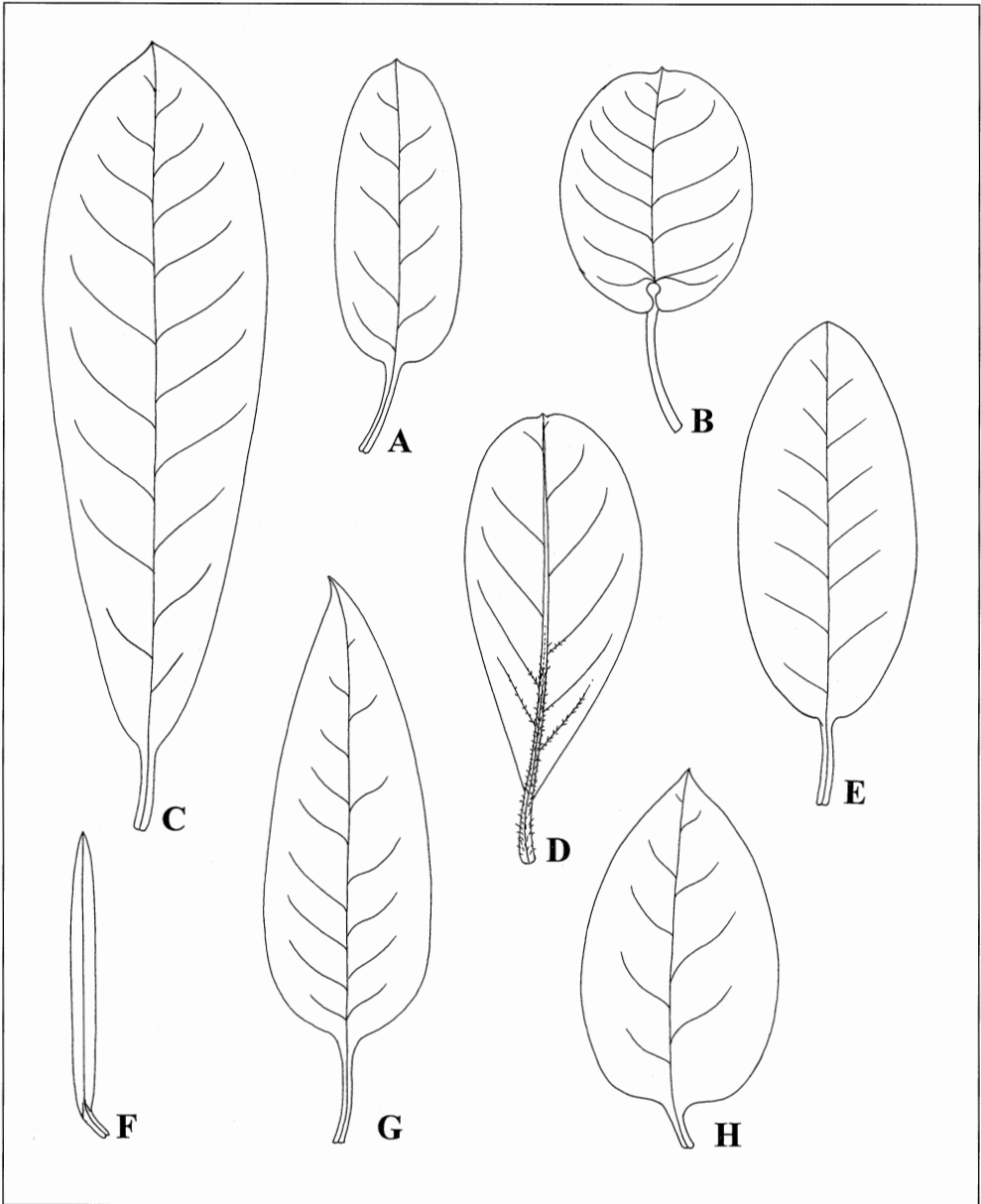
Yu, T.T.

YUNNAN (1938-39)

- 7860 saluenense subsp. saleunense
- 7867 selense subsp. selense
- 8611 saluenense subsp. chameunum
- 8645 saluenense subsp. chameunum
- 10925 racemosum
- 10958 decorum aff.
- 10961 rubiginosum
- 10993 racemosum
- 13809 vernicosum
- 13845 hippophaeoides
- 13886 rubiginosum
- 13937 hippophaeoides var. hippophaeoides
- 13961 vernicosum
- 14641 rupicola var. muliense
- 14694 vernicosum
- 14703 rubiginosum
- 14757 wardii var. puralbum
- 14843 hemitrichotum
- 14952 uvariifolium var. uvariiflorum
- 14955 adenogynum
- 14990 rubiginosum
- 15011 racemosum
- 15012 racemosum
- 15629 primuliflorum
- 17431 edgeworthii
- 19642 lukiangense
- 19757 calostrotum subsp. calostrotum
- 20750 fulvum
- 20817 cephalanthum subsp. cephalanthum
- 21005 dendricola
- 21031 maddenii subsp. crassum

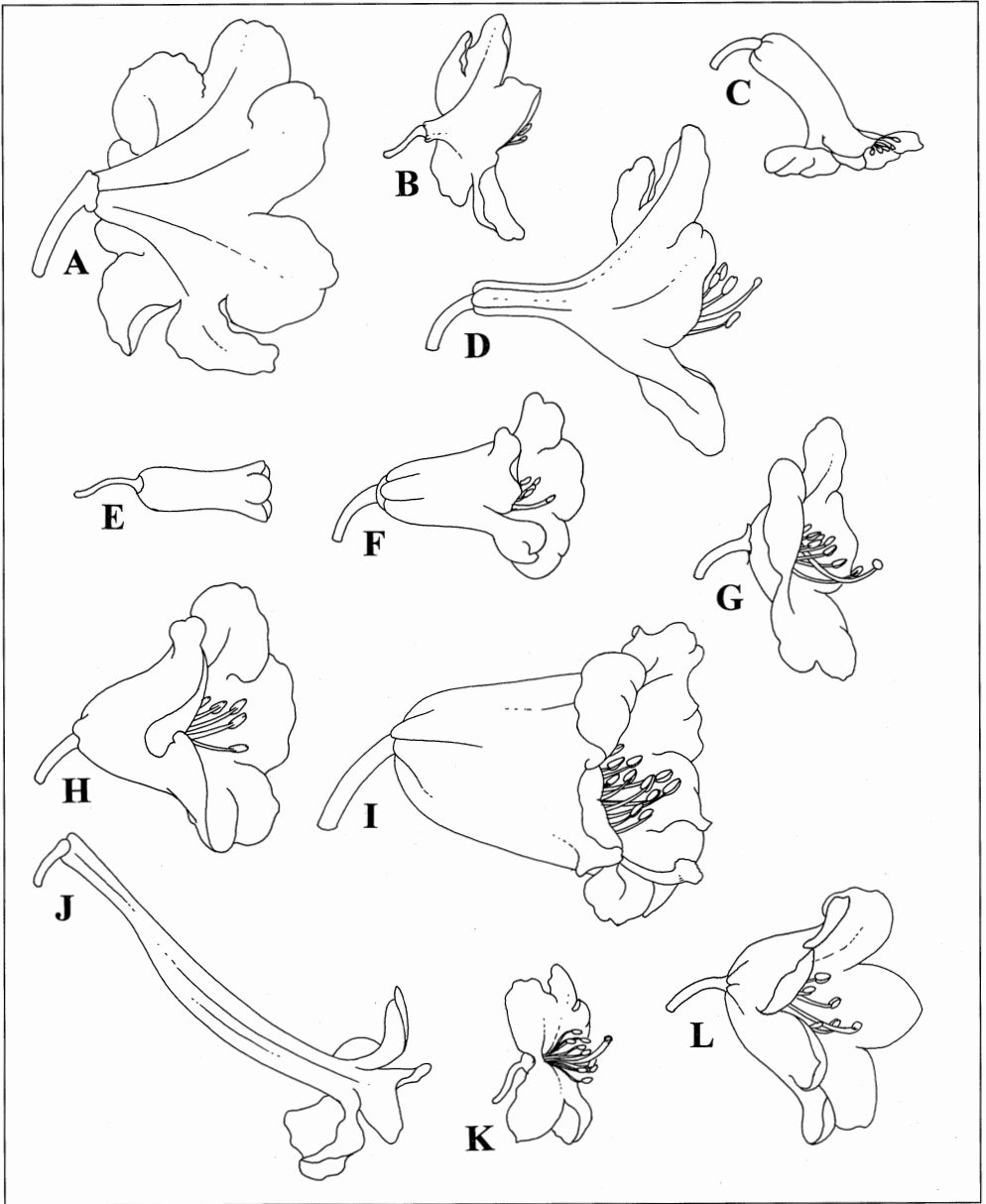
Glossary

- ACUMINATE:** of an apex that is blunt but with a projecting point
- ACUTE:** of an apex that is tapering to a sharp point
- ADPRESSED:** lying close and flat against
- AGGLUTINATED:** of an indumentum of hairs embedded in a surface film
- APICULATE:** as for acuminate but with a more pronounced point
- AURICULATE:** with small ear-like projections at the base of a leaf
- AXILLARY:** growing from the angle formed by the junction of leaf and stem
- BLOOM:** waxy covering
- CAMPANULATE:** bell-shaped (see p.348)
- CAPITELLATE:** of hairs that are compound, with a tuft of long and flexuous simple branches arising from a short stalk
- CARTILAGINOUS:** like cartilage, translucent and smooth
- CILIATE:** fringed with hairs
- CLONE:** vegetatively propagated progeny of a single individual
- CORDATE:** heart-shaped
- CORIACEOUS:** leathery
- CRENULATE:** with small rounded teeth
- CUNEATE:** of a leaf base, tapering into the petiole
- CUPULAR:** cup-shaped
- CURVED-CYLINDRICAL:** (see p.348)
- CUSPIDATE:** of an apex that has a substantial protruding point
- DECLINATE:** of a style that is curved downwards
- DEFLEXED:** of a style that is abruptly bent downwards
- DENDROID:** of a hair that is branched like a tree
- DETERSILE:** of an indumentum that is eventually completely shed
- DIMORPHIC:** of scales or leaves that are of two distinct kinds
- DISC:** a fleshy outgrowth at the ovary base that secretes nectar
- EGLANDULAR:** lacking glands
- ELLIPTIC:** (see p.347)
- EPIDERMIS:** the surface layer of a leaf
- EPIPHYTE:** growing on another plant but deriving no nourishment from it
- EVANESCENT:** of an indumentum that is gradually lost as the plant matures
- FASCICULATE (of hairs):** like capitellate but with a broad stalk of several layers of thickened cells
- FERRUGINEOUS:** rusty brown
- FILAMENT:** the stalk bearing the anther
- FILIFORM-ACICULAR:** of a hair that is slender but stiff
- FIMBRIATE:** of a scale or hair that has a fringed margin
- FLAGELLATE:** of hairs that are compound, with long whip-like arms
- FLOCCOSE:** possessing dense, woolly hairs that fall away in tufts
- FOLIOLIFEROUS:** of hairs that are compound, the stalk and arms of which are composed of leaf-shaped cells
- FUNNEL-CAMPANULATE:** intermediate between funnel-shaped and campanulate
- FUNNEL-SHAPED:** (see p.348)
- GLABRESCENT:** becoming glabrous
- GLABROUS:** without hairs or scales
- GLANDULAR:** bearing glands
- GLAUCOUS:** bluish green in colour
- HYPOCRATERIFORM:** salver-shaped
- INDUMENTUM:** a hair covering
- IMPRESSED:** of a style that arises from a sunken pit at the apex of the ovary
- INFLORESCENCE:** a flower cluster (see also truss)
- LANATE:** of an indumentum that is thick and woolly
- LANCEOLATE:** (see p.347)
- LEPIDOTE:** with scales
- LINEAR:** (see p.347)



A = oblong,
B = orbicular
C = oblanceolate
D = obovate

E = elliptic
F = linear
G = lanceolate
H = ovate



A = funnel-shaped
 B = broadly funnel-shaped
 C = curved-cylindrical
 D = tubular funnel-shaped
 E = tubular
 F = tubular-campanulate

G = saucer-shaped
 H = campanulate
 I = ventricose-campanulate
 J = trumpet-shaped
 K = rotate
 L = broadly campanulate

Glossary

- LINGULATE:** resembling a tongue
LORIFORM: of a hair that is simple, substantial and wavy
MAMILLATE: of an epidermis that is covered with nipple-like protruberances
MATT: with a dull surface
MUCRONATE: with a short narrow point
NECTAR POUCHES: sac-like protruberances at the base of the corolla, containing nectar
OBLANCEOLATE: (see p. 347)
OBLONG: (see p.347)
OBTUSE: of an apex that is blunt
OBOVATE: (see p.347)
ORBICULAR: (see p.347)
OVARY: the central female part of the flower enclosing the ovules, later becoming the capsule
OVATE: (see p.347)
PAPILLATE: covered by small elongate projections
PEDICEL: the stalk of an individual flower
PERULAE: scales surrounding a bud
PETIOLE: the stalk of a leaf
PILOSE: with long soft hairs
PUBERULOUS: with very short hairs
PUBESCENT: with short hairs
PUNCTATE: dotted or shallowly pitted
PYRIFORM: pear-shaped
RACEME: an inflorescence whose growing point continues to grow, usually lacking a terminal flower and with a lengthened axis
RADIATE: of a compound hair with branches that spread outwards from a common centre
RAMIFORM: of a hair that is branched
RETICULATE: marked with a network of veins
RETRORSE: directed downwards or backwards
RETUSE: of a leaf or bract that has a central depression in a rounded apex
REVOLUTE: rolled downwards
RHACHIS: the axis of the inflorescence
ROSULATE: of compound hairs that resemble the radiate type but have longer arms
ROTATE: (see p.348)
RUGOSE: wrinkled
SAUCER-SHAPED: (see p.348)
SCALE: small scale-like multicellular protruberance
SERRULATE: with small sharp teeth
SESSILE: with no stalk
SETULOSE: of an indumentum that is composed of short bristle-like hairs
SINUS: the depression between two lobes or teeth
STAMEN: the male reproductive organ, consisting of the stalk-like filament and the pollen-bearing anther
STELLATE: star-shaped
STIGMA: that part of the style receptive to pollen (usually apical)
STYLE: the usually attenuated beak to the ovary, with the stigma at its apex
STRIGOSE: with stiff adpressed hairs
SUBULATE: awl-shaped, with a long straight sharp point
TOMENTOSE: with a dense covering of short cottony hairs
TRUMPET-SHAPED: (see p.348)
TRUSS: the flower cluster (see inflorescence)
TUBULAR: (see p.348)
TUBULAR-CAMPANULATE: (see p.348)
TUBULAR FUNNEL-SHAPED: (see p.348)
VALVES: the outermost units into which the fruit breaks (excluding the thin skin that often peels away)
VENTRICOSE: swollen or inflated on one side
VENTRICOSE-CAMPANULATE: (see p.348)
VESICLE: a small bladder-like sac containing fluid or air
VESICULAR: like a vesicle
VILLOUS: shaggy
VISCID: sticky
VISCIN: of threads that are sticky, to which the pollen grains are attached
ZYGOMORPHIC: having only one plane of symmetry, hence irregular

New Combinations Published for the First Time in This Handbook

Rhododendron arboreum Sm. subsp. **albomentosum** (Davidian) D.F. Chamb., **comb. et stat. nov.** Basionym: *R. delavayi* Franch. var. *albomentosum* Davidian, *The Rhododendron Species Vol. 2* (Series Arboreum - Lacteam) 308 (1989). Type: West Central Burma, Mount Victoria, 10,000ft, 9 April 1956, Kingdon-Ward 21976 (holo. BM).

Rhododendron fulvum Balf.f. & W.W.Sm. subsp. **fulvoides** (Balf.f. & Forrest) D.F. Chamb., **comb. et stat. nov.** Basionym: *R. fulvoides* Balf.f. & Forrest in *Notes from the Royal Botanic Garden Edinburgh* 12:112 (1920). Type: China, NW Yunnan, Mekong/Salween divide, 11,000ft, x 1914, Forrest 13400 (holo. E)

Rhododendron morii Hayata var. **taitunense** (T.Yamaz.) D.F.Chamb., **comb. nov.** Basionym: *R. pseudochrysanthum* subsp. *morii* (Hayata) T.Yamaz. var. *taitunense* T.Yamaz. in *The Journal of Japanese Botany* 56:366 (1981); based on *R.*

rubropunctatum Hayata in *Icones Pl. Formos.* 3:141 (1913). Type: Taiwan, Pref. Taipei, Mt Shichisei, March 1991, S. Sasaki s.n. (holo. TI).

This new combination is required as *R. morii* is maintained here at specific rank, distinct from *R. pseudochrysanthum*.

Rhododendron pachytrichum Franch. var. **monosematum** (Hutch.) D.F.Chamb., **comb. nov.** Basionym: *R. monosematum* Hutch. in *Curtis's Botanical Magazine* 142: t.8675 (1916). Syn.: *R. strigillosum* Franch. var. *monosematum* (Hutch.) T.L.Ming in *Acta Botanica Yunnanica* 6:155 (1984). Type: a plant grown at Kew from seed collected by Wilson in 1903 as seed no 1521, from Mt Wu in Sichuan Province (holo. K).

From the plate in *Curtis's Botanical Magazine* it is clear that var. *monosematum* is closer to *R. pachytrichum* than it is to *R. strigillosum*; it may however have originated as a hybrid between these two species.

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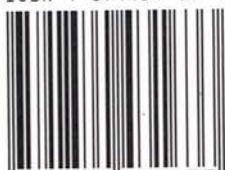
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