Hanburyana

A serial for horticultural taxonomy and nomenclature

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Cover illustration:

Senecio candidans
(see page 8)

Drawn in 1769 by Sydney Parkinson (1745–1771) as "Cacalia lanuginosa". Under the supervision of Sir Joseph Banks, Parkinson accompanied James Cook as botanical artist on the Pacific voyage of the *Endeavour* in August 1768, producing 674 outline drawings of plants and 269 completed paintings.

Hanburyana Volume 5, June 2011

C. D. Brickell & A. C. Leslie. *Syringa pinetorum* W. W. Smith is in cultivation 3

F. Vrugtman. Lilac cultivar name registration 2009 5

C. M. Whitehouse. The correct name for the South American *Senecio* (sea cabbage) 8

J. Cullen. Naturalised rhododendrons widespread in Great Britain and Ireland 11

J. C. David. A short note on the names of primary hybrids in *Rhododendron* section *Pontica* 30

J. M. H. Shaw. A new combination in *Oxalis laciniata* Cav. 33

J. C. David. Nomenclature of intergeneric hybrids of *Zephyranthes* 37

J. M. H. Shaw. Miscellaneous nomenclatural and taxonomic notes mainly relating to cultivated plants 47

I. M. Turner. The correct name for the weeping form of the Indian mast tree (*Polyalthia longifolia*, *Annonaceae*) 57

E. C. Nelson. *Ribes* × *beatonii*, the original name for *Ribes aureum* × *sanguineum* 61

C. M. Whitehouse. Recombination of *Iris* × *norrisii* 67

A. C. Leslie. Proposal to amend the *ICNCP* 68

S. R. Grayer. Nomenclatural Standards deposited in the Royal Horticultural Society's Herbarium, Wisley (WSY) November 2008 – October 2009 69

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Papers and other contributions are welcome from anyone carrying out research in horticultural taxonomy and nomenclature, both from the UK and overseas.

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- Checklists and additions to Registers
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- Papers and short notes on cultivated plant taxonomy
- Proposals to amend the *ICNCP* and papers on broader nomenclatural issues
- Bibliographic or biographic notes to assist with taxonomic research

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Manuscripts for publication in *Hanburyana* and requests for further information, including guidelines for authors, should be sent to:

Dr John David
RHS Garden Wisley
Woking
Surrey
GU23 6QB

Email: hanburyana@rhs.org.uk

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Syringa pinetorum W. W. Smith is in cultivation

C. D. BRICKELL[1] & A. C. LESLIE[2]
[1] *The Camber, The Street, Nutbourne, Pulborough, West Sussex RH20 2HE*
[2] *109 York Street, Cambridge CB1 2PX*

In an earlier issue of *Hanburyana*, Freek Vrugtman (2009) drew attention to the fact that material under this name in collections and nurseries was in fact *S. yunnanensis* and that the true plant had not yet been successfully introduced to cultivation. We are happy to report that at least one plant of this species is in cultivation in the United Kingdom, at the Royal Botanic Gardens, Wakehurst Place in Sussex. This was derived from seed collected by us in September 1987 from the edge of pine woodland beside the river in the Be Shui valley, along the eastern flank of the Yulong Shan range, north of Lijiang, China.[1] This was distributed as B & L 12197 (not 12097 as has sometimes been listed in error) and a voucher for the collection is in the RHS Herbarium at Wisley (**WSY**). A specimen under this B & L number was confirmed as *S. pinetorum* by Peter Green in June 1990. If any other plants grown from this seed are still in cultivation we would be pleased to know about them: there is a possible unconfirmed candidate at RHS Garden Harlow Carr, but none at RHS Garden Wisley.

The species was first named by W. W. Smith (1916), from material collected by George Forrest (F 12472) at Lijiang in 1914. The taxonomy of the group to which *S. pinetorum* belongs has recently been revised by J. Y. Chen *et al.* (2008). As a result of studying variation, especially in leaf shape and indumentum, in several wild populations in China, they concluded that five previously described species should be treated as a single taxon, for which they use the name *S. pinetorum*. Thus they treat *S. wardii* W. W. Sm., *S. mairei* (H. Lév.) Rehd., *S. rugulosa* McKelvey and *S. chuanxiensis* S. Z. Qu & X. L. Chen as synonyms of *S. pinetorum*. As now constituted *S. pinetorum* occurs in thickets, forests and forest margins through western Sichuan, south-east Xijiang and north-west Yunnan.

[1] Now often referred to as the Baishui River.

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Vrugtman, F. (2009). *Syringa afghanica* and *S. pinetorum*: a mis-identification alert. *Hanburyana* **4**: 13–16 (2009).

Lilac cultivar name registration 2009[1]

F. VRUGTMAN
International Registrar, International Cultivar Registration Authority Genus Syringa L., Royal Botanical Gardens, Box 399, Hamilton, Ontario L8N 3H8, Canada

All correspondence concerned with additional information or plants or propagules of newly registered lilac cultivars should be directed to the registrants listed below, not to the Registrar.

Commencing with Lilac Registrations 1995, standard portfolios are being established in accordance with Division V: Nomenclatural Standards of the *International Code of Nomenclature for Cultivated Plants*, edn 8 (2009).

Previous registration lists of *Syringa* cultivar names appeared in *AABGA Bulletin* (**13**(4):105–110; **14**(3):95; **15**(3):71–72; **16**(4):131–132; **17**(3):67–69; **18**(3):87); *HortScience* (**23**(3):458; **24**(3):435–436; **25**(6):618; **26**(5):476–477; **29**(9):972; **31**(3):327–328; **32**(4):587–588; **33**(4):588–589; **34**(4):600; **35**(4):549; **36**(5):836; **37**(7):1145; **38**(6):1301; **39**(6):1524; **40**(6)1597; **42**(1):5; **43**(3):589).

Syringa reticulata subsp. ***reticulata*** 'Bailnce' was registered 10 November 2009 as United States Plant Patent No. 20,458, a statutory registration, by Rodney Bailey, Bailey Nurseries, Inc., St Paul, Minnesota, USA. The original plant was discovered by Mr Bailey as a mutation (sport) of *S. reticulata* in a residential garden in Hastings, Minnesota, in 2000. Initial vegetative propagation took place in 2000. Propagated plants are 100% true to the original plant in all characteristics. Characteristics distinguishing 'Bailnce' from Japanese tree lilacs commonly in the nursery trade include flower production at an earlier age, heavy blooming habit, reliable annual bloom, essentially sterile flowers, and darker foliage color. 'Bailnce' is said to produce more flowers and fewer seed pods than 'Ivory Silk'; the foliage of 'Bailnce' is puberulent

[1] Contribution No. 190, Royal Botanical Gardens, Hamilton, Ontario, Canada.

rather than glabrous. Thyrses up to 27cm in length and width; florets about 7mm in diameter. At maturity 'Bailnce' will reach about 6m in height and about 5.5m in width. Hardy in USDA Zone 3 to 7. Plants of this cultivar are marketed under the trade designation SNOWDANCE™.

Syringa pubescens subsp. ***patula*** 'Colby's Twinkling Little Star' was registered 12 December 2009 by Frank Moro, Select Plus International Nursery, 1510 Pine, Mascouche, Quebec J7L 2M4, Canada. The original plant was selected from seedlings in 2008; the seed resulted from open pollination of *S. pubescens* subsp. *patula* 'Excellens'. The new selection was discovered by Corinna Moro, named by Sara Moro and described by Frank Moro. Initial vegetative propagation took place in 2009. The foliage is dark green. Thyrses are on average 12 to 15cm long and 6 to 8cm wide; usually there is one thyrse per flowering branch. Flower buds are dark purple. Florets about 1cm in diameter, apex of corolla lobes sharply turned inward; the tubes about 1.5cm long; tubes and corolla dorsally dark to medium purple, ventrally pale purple with a deep purple stigma, giving the florets a bicolour effect. The florets are considerably darker in colour than those of 'Miss Kim'. This lilac reblooms in autumn. At seven years of age the original plant is about 1.5m tall and 1m wide. Hardy at least to USDA Zone 4b, but has not yet been tested elsewhere. Plants of this cultivar will be introduced and distributed by Select Plus International Nursery. A standard portfolio will be opened at Royal Botanical Gardens Herbarium, Hamilton, Ontario, Canada (**HAM**).

Syringa '**Penda**' was registered 27 December 2009 by Timothy Wood, Spring Meadow Nursery, Inc., Grand Haven, Michigan, USA. The original plant was selected from seedlings in 2004; the seed was collected from *S.* 'Josée'; the pollen parent being either *S.* 'George Eastman' or 'Red Pixie'. The new selection was discovered, named and described by Timothy Wood. Initial vegetative propagation took place in 2006. Propagated plants are 100% true to the original plant in all characteristics. Plants vigorous; to about 1m tall and 1.5m broad; relatively compact, upright and somewhat spreading; freely branching. Lateral branches will develop at every node after pinching, i.e. removal of terminal apices. Foliage dark green. Initial bloom commences in mid-May in Michigan; reblooming in July and continuing until frost.

Floriferous and fragrant. Thyrses on average 10cm long and 7cm wide. Flower buds 83A, dark violet (*RHS Colour Chart* 1995 and *Mini Colour Chart* 2005). Florets about 8mm in diameter, about 1.4cm in length; when fully opened tubes and corolla dark pink violet, 77A. Hardy at least to USDA Zone 3; has been grown successfully as far South as Raleigh, NC, Zone 7b. United States Plant Patent No. 20,575 was granted on December 15, 2009; see also for detailed description. Canadian Breeders Rights has been applied for, application number 08-6377. Plants of this cultivar are marketed under the trade designation BLOOMERANG™ PURPLE, registration number 3655456. The cultivar name 'Penda' was published in *Lilacs, Quarterly Journal of the International Lilac Society* **38**(4):129–131, November 2009; the name has been established and accepted. Plants are being distributed in the US by Wayside Gardens, Hodges, South Carolina; and in Canada by Sheridan Nurseries, Georgetown, Ontario. A standard portfolio will be opened at Royal Botanical Gardens Herbarium, Hamilton, Ontario, Canada (**HAM**).

The correct name for the South American *Senecio* (sea cabbage)

C. M. WHITEHOUSE
RHS Garden Wisley, Woking, Surrey GU23 6QB

The name *Senecio candicans* has had rather a confused history. It is usually applied in horticultural circles to a plant from the Falkland Islands and southern tip of South America with broad ovate silvery leaves and rather insignificant yellow-orange flowers. It is not particularly hardy in the UK but is sometimes grown in the milder counties (Taylor, 1980) and Ireland (Besant, 1939) for its attractive foliage. Unfortunately, in the *RHS Dictionary of Gardening* (Huxley & Griffiths, 1992) and the *RHS Plant Finder* (Philip & Lord, 1994 and onwards), the name *S. candicans* has been linked to *S. cineraria*, a Mediterranean species to which it is evidently unrelated. This confusion appears to have arisen from the similarly named *S. candidus* DC., considered by *Flora Europaea* (Tutin *et al.*, 1976) as a synonym of *S. bicolor* subsp. *nebrodensis* but now treated as a distinct species by the Euro-Med Project under the name *Jacobaea candida*.

However, the name *Senecio candicans* was first coined by Wallich in his catalogue for an Indian plant. It was later validated by de Candolle in 1834. This would make any later use of *S. candicans* for the southern Atlantic plant a homonym and therefore illegitimate. Thus we are left with the question of the legitimate name for the plant grown in gardens today as *S. candicans.*

The South American plant was first described by Vahl in 1794, based upon a specimen collected by Commerson on the shores of the Magellan Straits, using the name *Cacalia candicans*. De Candolle (1838: 412) concluded that this plant should be included in the genus *Senecio* under the name *S. candidans*. Whether by good fortune or good forethought, because he was aware of the problems it would cause, de Candolle changed the spelling of Vahl's epithet. The name *S. candidans* could be considered an orthographic error to be corrected under Art. 60 of the *ICBN*. This interpretation is supported by de

Candolle's (1838: 332) treatment of *Cacalia* in the same publication, where the Vahl name, correctly given as *C. candicans*, points to *Senecio candicans* as the accepted name. However, regarding the name as an orthographic error would serve no benefit as a new name would then be required. By adopting *S. candidans* as an intentional *nomen novum* by de Candolle the problem of homonymy is avoided. This name has already been adopted by Moore (1983) amongst others including the International Plant Names Index (IPNI). It appears appropriate to adopt this subtle change of name in our garden literature as well.

Senecio candidans DC., *Prodr.* **6**: 412 (1838); Hook.f., *Fl. Antarctica*: 312, t. 109 (1846); Wedd., *Chloris Andina* **1**: 117 (1856); *Kew Bull.* 1899, App.: 52 (1899); Reiche, *Flora of Chile* **4**: 227 (1905); Cuatr. in *Fieldiana* **27**: 38 (1951); Moore, *Flora of Tierra del Fuego*: 242 (1983); Erskine, *Alpine Garden Society Bulletin* **62**: 72 (1985); Dillon, *Helen Dillon's Garden Book*: 119 (2007). Based on *Cacalia candicans* Vahl.
= *Cacalia candicans* Vahl, *Symb. Bot.* **3**: 91, t. 71 (1794)
= *Culcitium gayanum* J. Rémy, *Fl. Chil.* **4**(2): 130 (1849)
= *Brachypappus candicans* (Vahl) Sch.-Bip., *Flora* **38**: 119 (1855)
= *Senecio culciremyi* Cuatr., *Fieldiana* **27**: 43 (1950). Based on *Culcitium gayanum* Remy
= *Senecio candicans sensu* Nicholson, *Illustrated Dictionary of Gardening*, Suppl.: 667 (1901); Vallentin, *Illustrations of the Flowering Plants and Ferns of the Falkland Islands*: t. 30 (1921); Besant in *Gard. Chron.* 106: 392 (1939); *Proc. Roy. Hort. Soc.* **85**: 50, 94 (1960); Elliott in *Journ. Roy. Hort. Soc.* **89**: 277 (1964); Taylor, *The Milder Garden*: 217 (1990); Erskine, *Alpine Garden Society Bulletin* **62**: 274 (1994)
= *S. cineraria sensu* Huxley & Griffiths, *RHS Dictionary of Gardening* **4**: 277 (1992); Lord *et al.*, *RHS Plant Finder* (1994 onwards), *pro parte quoad syn.*

Not to be confused with:

Senecio candicans Wall. ex DC. in Wight, *Contributions to the Botany of India*: **22** (1834); DC., *Prodr.* **6**: 369 (1838).

Senecio candidus (C. Presl) DC., *Prodr.* **6**: 355 (1838).
= *Cineraria nebrodensis* Guss., *Cat. Pl. Hort. Boccadifalco*, Add.: **4** (1821)

= *Cineraria candida* C. Presl in: Presl & Presl, *Delic. Prag.*: 95 (1822)
= *Senecio bicolor* (Willd.) Tod. subsp. *nebrodensis* (Guss.) Chater, *Bot. J. Linn. Soc.* **68**: 273 (1974); Tutin *et al.*, *Flora Europaea* **4**: 194 (1976)
= *Jacobaea candida* (C. Presl) B. Nord. & Greuter, *Willdenowia* **36**: 712 (2006).

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Naturalised rhododendrons widespread in Great Britain and Ireland

J. CULLEN
Stanley Smith (UK) Horticultural Trust, Cory Lodge, PO Box 365, Cambridge CB2 1HR

Introduction

The genus *Rhododendron* is a large one (about 1,000 species) with a wide distribution across the northern hemisphere extending into south-east Asia and into the southern hemisphere in Australia. It consists of ground-growing or epiphytic subshrubs, shrubs and small to large trees, often with striking and colourful inflorescences, so it has been of interest to gardeners since at least the middle of the 18th century. The plants are generally easy to grow, as long as the soil is acidic or neutral; many of them are relatively easy to propagate (seed, cuttings, grafts and layers are all used), and they are long-lasting, so specimens planted 200 years ago can still be extant in gardens or plantations.

The genus is divided into 8 subgenera, some of these further divided into sections and subsections (Cullen, 2005; see also Argent, 2006). Most of the hardy evergreen cultivated species belong to two of the major subgenera: subgenus *Rhododendron*, and subgenus *Hymenanthes*. As a general rule, species of subgenus *Rhododendron* will hybridise easily and spontaneously with each other in gardens, as will species of subgenus *Hymenanthes*. Hybridisation between members of the different subgenera is possible, but is much more difficult and does not occur spontaneously. Hybrids (produced easily when plants of different species are grown together in gardens or collections, as well as by design) tend to be much more vigorous than either of their parents, setting seed more prolifically – a classic example of "hybrid vigour". The possibility of such hybridisation means that many new types of plant can be produced in gardens: at present over 20,000 cultivars, most produced by hybridisation followed by selection, are registered with the Royal Horticultural Society, the International Cultivar Registration Authority for the genus, and there

are probably many more that are not yet registered. They generally show the hybrid vigour mentioned above, and often have larger, more colourful flowers than the wild species; hence they are very widespread in gardens and estate plantings.

In the late 18th century, almost the only species available to gardeners were those from Europe and North America and hybrids between them.[1] In the early 19th century, a few species from the Himalayas were introduced, including the very striking *R. arboreum* Smith. This was found to be not entirely hardy, so was deliberately crossed and variously back-crossed with species and hybrids already in gardens, producing a whole range of hybrids known as the "Old Hardy Hybrids", many of which still decorate gardens and parks in Britain and Ireland. In the middle of the 19th century, Joseph Hooker's expedition to Sikkim, followed by the publication of his lavishly illustrated *Rhododendrons of the Sikkim Himalaya* (1849–1851) led to the introduction of yet more Himalayan species, which again were hybridised with the already existing stocks. Later in the century, French missionaries working in south-west China demonstrated the wide range of species available from this area (Franchet, 1884–1888, 1889–1890). Their introductions were largely unsuccessful, but the publication of works by Franchet suggested to the English gardener A.K. Bulley that it would be worthwhile investigating the area more thoroughly. This led to the organisation of nine expeditions to the area between 1904 and 1930 by George Forrest (see McLean, 1997, 2004), who collected over 3,000 *Rhododendron* herbarium specimens, and sent back seed of very many of these, which were grown on at the Royal Botanic Garden Edinburgh. His efforts stimulated other collectors to visit the area: Frank Kingdon-Ward, Joseph Rock, C.K. Schneider and H. Handel-Mazzetti, among others, extended the areas explored and, again, introduced many new *Rhododendron* collections, often described as new species, which were immediately used in hybridisation in Europe (especially in the UK). All this exploration made it clear that south-west China and adjacent Burma and India represented one of the main centres of the

[1] Some tropical, non-hardy south-east Asian species of subgenus *Rhododendron* section *Vireya* (subgenus *Vireya*; see Argent, 2006) were introduced early on to Dutch gardens, where they were grown in glasshouses.

genus, with a very large number of species concentrated in a relatively small but geographically and geologically diverse area. Collection in this area is still continuing, and new material is introduced into cultivation every year.

At present there are thousands of rhododendron plantings in Britain and Ireland. Some of these are of the wild species (especially collections in Botanic gardens); others (in mainly private and amenity gardens) are of mixed species and cultivars.

Review of *R. ponticum* and its relationship with the invasive rhododendron in the UK

It is against this background that we can consider the rhododendrons that have naturalised themselves in the British landscape in suitable areas, and gained such notoriety for their impact on the landscape and natural habitats. It is the case that, excluding a few accidental occurrences of Old Hardy Hybrids (see above) and similar plants, such invasive material derives from only four species. Referred to as "ponticum group" below, these are the species which formed series *Ponticum* subseries *Ponticum* of the 1930s classification of the genus (Stevenson, 1930), and which are still found as a group (though without a formal name) within subgenus *Hymenanthes* section *Pontica* subsection *Pontica* in Chamberlain (1982). These species, which were all introduced by the early 19th century, are: *R. ponticum* L. (isolated areas in Portugal and Spain, one location each in Bulgaria and adjacent Turkey in Europe, the Black Sea coast of Turkey and Georgia, and an outlier in Lebanon); *R. catawbiense* Michx. (eastern North America); *R. maximum* L. (eastern North America) and *R. macrophyllum* G. Don (western North America). Of these, *R. maximum* and *R. catawbiense* are very hardy, being able to withstand very low winter temperatures; *R. ponticum* is not reliably hardy in most of Britain and Ireland, while *R. macrophyllum* is less hardy and less widely grown than the other species.

In the Iberian peninsula, *R. ponticum* itself is neither vigorous nor invasive; Ingram (1931), after studying several populations of the wild Portuguese populations, remarked: "in all cases the plants were growing on the shaded banks of streams where the ground

was cool and moist. In such positions it does not appear to be very floriferous and there were only a few old flower-heads to be seen and a very small number of flower-buds. I spent some time carefully searching for seedlings, but could find none. From these observations it would seem that this Rhododendron is not reproducing itself freely in Portugal." These observations are generally borne out by Sales (1996). In northern Turkey the species is more abundant and forms large populations.

These plants existed together in nurseries and gardens in the early 19th century, and were deliberately, as well as accidentally hybridised and back-crossed, giving rise to a complex hybrid swarm involving all the species. It is likely that deliberate hybridisation of *R. ponticum* with *R. catawbiense* and *R. maximum* was carried out to produce hybrids with greater cold-tolerance, as was done later on for the Old Hardy Hybrids (Standish & Noble, 1850). The hybrids evidently found conditions in the British Isles particularly congenial, and have spread throughout the whole of the islands, except in those areas where the soil is alkaline (Cross, 1975; Dehnen-Schmutz & Williamson, 2006).

Plants belonging to this hybrid swarm were widely grown as ornamentals or were used as stocks for the growing of more exotic species and cultivars that did not survive so well on their own roots. These plants were also soon recognised as producing rapidly spreading "stands" (actually interbreeding groups, equivalent to wild populations) which occur in suitable places throughout the countryside.

These stands seem to represent a complex, variable, but reasonably stable and invasive hybrid, acting more or less like a distinct species, which is found only in Britain and Ireland. The plants are generally referred to as "*R. ponticum*", but they have been suspected to be hybrids for some time (see, e.g., Cox & Hutchinson, 1963; Clement & Foster, 1994:113). It is the case that there is no name for the hybrid nor has it been properly characterised. An investigation, based largely on molecular characters, was carried out by Milne & Abbott (2000); this, however, did not specifically examine the morphological variation, and no adequate voucher specimens were kept or can be found. Milne & Abbott supported the idea that introgression had occurred

between some British *R. ponticum* populations and other species, in particular *R. catawbiense* and *R. maximum*. The most interesting result of their work is that in all the British and Irish material, the wild *R. ponticum* in the swarm is all derived from Iberian stocks. This bears out anecdotal experience from the Royal Botanic Garden Edinburgh gathered over many years, which indicates that Turkish accessions of *R. ponticum* grow rather poorly in British situations, and succumb to sudden and unexplained death.

In order to address the lack of morphological data on the stands the present study, which was initiated by Arthur Chater, was undertaken. BSBI members were encouraged to send the author specimens for study and comparison, to see if taxonomic recognition could be given to this group, and, if possible, to recognise within it distinct morphological types at some rank.

The survey of British and Irish naturalised material

First survey

In response to an appeal distributed to BSBI county recorders in April 2006, 121 specimens were received (up to the end of August 2006). These were provided by 11 collectors, with a major contribution from Arthur Chater. As well as these, some 28 specimens already existent in herbaria (**BM**, **CGE**) were also studied, giving a total of 149 (it is remarkable that there are so few herbarium specimens of the group in British herbaria – it seems that collectors of the local flora have almost entirely ignored them). The coverage of Britain is rather patchy, with records from Vice Counties 1, 6, 9, 10, 11, 13, 16, 26, 28, 29, 38, 44, 46, 48, 49, 56, 59, 70, 74, 83, 88, 103, 106, 108, 110, H6, H12. In contrast there is almost complete cover indicated for *R. ponticum* in the 2nd edition of the *Atlas of the British Flora* (Preston, Pearman & Dines, 2002). The details of all these specimens are available from the author.

Of these 149 specimens, plants with characters from species outside of the ponticum group (such as *R. arboreum*) can be removed. There are 11 of these, eight of which are old hardy hybrids close to *R.* 'Altaclarense' or cultivars derived from it; three are hybrids involving

a species of section *Pontica* subsection *Fortunea* (perhaps *R. fortunei* Lindley). These 11 collections probably represent plants that originally were deliberately sited as ornamentals.

From the remaining 138 specimens, a further group of 33 can be selected. These represent those plants which have characters that are outside the range of variation of *R. ponticum* in the wild, as described on pp. 20–21. These characters have been derived from the other species in the ponticum group and are as follows:

1. Pedicels with dendroid hairs: 4 specimens. This is a character of *R. catawbiense*.
2. Calyx more than 3mm: 21 specimens. This is a possible character from *R. maximum*.
3. Ovary rounded, hairy (generally red or brown tomentose): 5 specimens This is a character of *R. catawbiense*, *R. maximum* and *R. macrophyllum*.
4. Ovary rounded, hairy and glandular: 2 specimens. This is a character of *R. maximum*.
5. Leaf length/breadth ratio less than 2.5, the apex and base rather rounded: 3 specimens. A character of *R. catawbiense*.
6. With very small flowers (less than 2.8cm): 1 specimen. A character of *R. maximum*.

Most of these specimens show only one extraneous feature, but one shows characters of both *maximum* and *catawbiense*; one shows characters of *maximum* and perhaps any of the others; and two show two characters perhaps derived from *R. maximum*.

Extraction of this group (33) and the non-ponticum hybrid group (11) leaves 105 specimens which show no morphological feature of any species other than *R. ponticum* (apart from a wider range of corolla and corolla-spot colour), but which have the vigour characteristic of hybrids. There seems to be no way in which this collection could be divided up into infraspecific taxa; numerous 1-character units could be devised, but these would overlap with each other, giving rise to a situation in which individual specimens could belong to more than one infraspecific taxon. This was done by Fedde for varieties of

Papaver rhoeas – see Fedde, 1909 – but is certainly not good botanical taxonomic practice. A better way might to be to recognise a small number of distinctive types (i.e. those with characters of the other species) as *formae*, but even with this solution, they would represent only individual plants growing among others.

In the 138 specimens available there are collections which represent more than one specimen from the same stand (or population). These give some idea of the variability of the material as it exists in the field. There are 69 specimens representing 16 stands, one from Stornoway in the Isle of Lewis, one from Warwickshire, one from Merioneth, one from Norfolk and twelve from Ceredigion. All of these suggest that characters of *R. catawbiense*, *R. maximum* and perhaps *R. macrophyllum* occur as individuals among plants that are much closer to *R. ponticum*, and that each stand is likely to contain some such plants.

Stands surveyed in 2007

Because of the results mentioned in the last paragraph, in the second year contributors were asked to record several morphological details (pedicel indumentum, calyx length, corolla length, corolla colour, corolla spot colour and ovary indumentum) on up to 10 randomly selected plants from a population. For each population they were also asked for any details on its history, its size, and whether or not it was expanding. The results from this survey were rather disappointing; most of the stands studied were in the southern part of the British Isles. Thirteen stands were included from Surrey, two from Buckinghamshire, one from Devon, one from Norfolk, one from North Lancashire and 19 from Ceredigion. Nothing at all was contributed from Scotland, where the situation may be somewhat different (Milne & Abbott, 2000). Field workers are encouraged to look at naturalised rhododendrons wherever they occur, and to compare them with the plants recorded here.

Study of the returns essentially confirmed the pattern recorded from the individual specimens. All the stands showed great variation in corolla and corolla-spot colour (a rather surprising result, and one not easy to interpret, as the variation in corolla and corolla-spot colour of wild Iberian material is not well recorded). Further, almost

every sample contained at least one specimen that had at least one character apparently derived from species in the ponticum group, and some samples contained up to half with such characters. No possible division into *formae* or other taxa seems possible.

In summing up, it seems clear that the British naturalised "R. ponticum" is a variable hybrid swarm or neospecies. Though much of it is not morphologically easily distinguishable from wild *R. ponticum*, some of it is; it is, however, distinguishable mainly on the variation in corolla and corolla-spot colour and the physiological character of vigour, which has not been quantified for this group of plants, but for which there is strong anecdotal information and some scientific evidence (see Ingram, 1931; Cross, 1975).

Taxonomy

This group of species is relatively easily defined and recognised. It consists of evergreen shrubs without scales or flattened hairs and with terminal, racemose inflorescences (subgenus *Hymenanthes* section *Pontica*), which are many-flowered, generally ultimately pyramidal, the rhachis and pedicels extending after flowering, the corollas with lobes as long as, or slightly longer than the tube (subsection *Pontica*), and the leaves ultimately more or less glabrous beneath when mature ("Subseries Ponticum" Stevenson, 1930). The species themselves are described below, and a key to them is provided (the descriptions are based on those published in various Floras and accounts of the genus, as modified by information provided by specimens studied for this project).

Observations on some of the characters used in the descriptions and key:

1. *Leaf-shape and size*. In general, the smaller the leaf, the more likely it is to be narrowly elliptic rather than obovate. But leaf-measurements are somewhat uncertain: the leaves beneath the inflorescences in all species tend to be smaller and more elliptic than those on the vegetative shoots; and in many herbarium specimens the only leaves included are those beneath the inflorescences. Thus, the measurements for these characters must be used with caution.

2. *Leaf punctation and the presence of hair bases in mature leaves*. In many specimens hair-bases or small dots (punctae) are noticeable on the undersurface of the leaves. The only species that is described in the literature as having these is *R. catawbiense*, but punctae certainly appear on the leaves of a number of wild specimens of *R. ponticum* from Portugal and Spain. The significance of this character requires further study in the wild material.

3. *Presence of dendroid hairs on the pedicels*. This is another character that is characteristic of *R. catawbiense*; in this species the dendroid hairs are easily seen, as glandular hairs are absent or few. In at least some of the other species, the pedicels are very glandular and sticky, and various kinds of material adhere to them. Dendroid hairs are present on the pedicels of some specimens, but it is extremely difficult to decide whether they are attached directly to the pedicel or stuck to the viscid glands (dendroid hairs occur on the bud-scales, and can be easily transferred to the pedicels). Again, this character has to be considered with some caution.

4. *Hairs on the ovary*. In all the literature I have seen, the ovaries of *R. ponticum* (the wild species from all parts of its range) are described as "glabrous". This, in fact, is incorrect. In about half of the wild herbarium specimens I have seen from Iberia, the ovary bears very few to few small, white, bristle-like hairs; these seem to persist into fruit, but are then very scattered and easily missed. No specimens I have seen from Turkey and Lebanon have such hairs. In British naturalised material, such hairs have been used as evidence of genetic material of some of the other species (*R. catawbiense*, see Clapham, Tutin & Moore, edn 3, 1987), but this is clearly not definitely established, as such hairs could have come from the original introduction of Iberian *R. ponticum*.

5. *Ovary shape*. In wild *R. ponticum* the ovary is very narrowly cylindric, tapering only a little above, and the apex is truncate; the surface is dark green to brownish to almost black, and is always visible even if bristles are present, as they are scattered. In the other species the ovary is much more rounded above, less obviously cylindric, and the tomentose or tomentose and glandular hair-covering completely

obscures the surface of the ovary. In some British material the tomentose or tomentose and glandular hair-covering is rather sparse, and the ovary surface can generally be seen to be green; such plants, otherwise resembling wild *R. ponticum*, do presumably carry genetic material from the other species.

Key to species[1]

1a. Ovary narrowly cylindric, truncate, glabrous or with white bristles, but these few so that the dark green, brown or almost black surface is clearly visible ..... **ponticum**

1b. Ovary rather rounded, not truncate, densely hairy or glandular so that the surface is not visible **2**

2a. Ovary densely glandular; calyx-lobes ovate to oblong or strap-shaped, 3.5mm or more, longer than broad; corolla 2–3cm long..... **maximum**

2b. Ovary densely reddish-tomentose but not glandular; calyx-lobes semi-orbicular, up to 1.5mm long, broader than long; corolla generally more than 3cm long **3**

3a. Leaves rounded to the shortly acute apex and base, length/breadth ratio up to 2.4; pedicels with dendroid hairs..... **catawbiense**

3b. Leaves acute at the apex and tapered to the base, length/breadth ratio more than 2.8; pedicels glabrous or sparsely glandular .... **macrophyllum**

Rhododendron ponticum L.

Willkomm & Lange (1870: 341); Sampaio (1947:453), Castroviejo *et al.* (1993: 508), Valdés *et al.* (1987: 460), Popova (1972: 9), Stevens (1978: 93), Chamberlain (1982: 313–316).

Illustration: *Botanical Magazine*, t.690 (1803).

= *R. baeticum* Boiss. & Reut.

Shrub, sometimes tightly growing and small (to 1 m) in drier situations, otherwise up to 6m and rather open in growth. Leaves evergreen, hairy when young, glabrous when mature though often with punctae persisting beneath, dark green above, pale green or brownish beneath, narrowly elliptic to obovate, gradually tapered to base and apex, 9.5–

[1] The complex hybrid taxon named below would potentially key out in any of these couplets.

15(–21) × 3.0–3.6cm, length/breadth ratio 3.0–3.6 (the smaller the leaves the greater their tendency to be narrowly elliptic. Inflorescence up to 14-flowered, pyramidal, the pedicels and rhachis elongating during the life of the inflorescence, the branches spreading; developing before the new leaves. Rhachis glabrous to finely silky-hairy to glandular. Pedicels generally glandular-sticky, often densely so, sometimes with simple hairs as well, especially towards the top. Bud-scales (bracts & bracteoles): densely hairy, the hairs often dendroid, quickly deciduous. Calyx 0.5–2(–3.5)mm, 5-lobed, the lobes flattened-triangular or rarely 1 of them developing a strap-shaped apex, greenish or pale. Corolla 3–4.5cm, generally pale or pinkish purple with orange, yellow or greenish spots on the upper lobe (the precise colours of the wild plants are not recorded on the specimens); lobes as long as, or longer than the tube. Stamens 10, each filament with dense, cellophane-like hairs forming a patch towards the base. Ovary cylindric-conical, dark green, brown or almost black, truncate at the apex, glabrous or with few or rarely many simple, white bristles (often mainly found towards the base), the surface clearly visible between them. Style inserted in a depression in the top of the ovary. Capsule ripening late, woody, glabrous or occasionally with some bristles.

DISTRIBUTION: Bulgaria, Georgia, Lebanon, Portugal, Spain, Turkey.

Introduced into Britain in 1763 or 1770 (Bean, 1976), a number of varieties (sometimes also given the rank of subspecies or even species) have been described within *R. ponticum*, but none of them seems to have any distinctiveness. These are: var. *baeticum* (Boiss. & Reut.) Willk. (= *R. baeticum* Boiss. & Reut., subsp. *baeticum* (Boiss. & Reut.) Hand.-Mazz.) the name applied to western Mediterranean material – see Sales (1996); var. *brachyphyllum* Boiss., a name applied to Lebanese material; var. *skorpilii* Domin, a name applied to Bulgarian material; and var. *heterophyllum* Anşin, a name recently given to some Turkish material (Anşin & Terzioğlu, 1994), but it is not clear as to how it differs from "normal" Turkish *R. ponticum*.

Several cultivars are usually directly attributed to selections from *R. ponticum*, notably: 'Album', 'Album Multimaculatum', 'Angustifolium', 'Angustissimum', 'Atropurpureum', 'Aureomarginatum',

'Bullatum', 'Cassinefolium', 'Cheiranthifolium' 'Coerulescens' 'Contortum', 'Elegantissimum', 'Flore Pleno', 'Foliis Albis Variegatis', Foliis Argenteis', 'Foliis Aureis', 'Foliis Marginatis', 'Foliis Purpureis', 'Foliis Variegatis', 'Frondosum', 'Granulatum', 'Nazarethii', 'Obtusum', 'Ovatum', 'Pumilum', 'Punctatum', 'Roseum', 'Rotundifolium', 'Salicifolium' and 'Vacciniifolium'. These need further investigation to clarify their relationships with the plants included in this study. None of them has been extensively planted, and their invasive proclivities are uncertain.

Rhododendron maximum L.

Small (1933: 997–998), Fernald (1950: 1117–1118), Leach (1962), Radford, Ahles & Bell (1968: 798), Chamberlain (1982: 316).

Illustration: *Botanical Magazine*, t.931 (1806).

Shrub or straggling tree to 10m. Young branchlets pubescent and stipitate-glandular. Leaves evergreen, very thick, oblong or oblong-obovate to elliptic or elliptic-oblanceolate, 10–30 × 2–8cm, acute or shortly acuminate at the apex, abruptly narrowed to the base, dark green above, paler and often scurfy-tomentose (when young, the indumentum sometimes persisting towards base near midrib) beneath; length/breadth ratio 2.8 or more. Petioles sparsely tomentose. Inflorescence 10–30-flowered, condensed, developing with or after the new leaves are unfolding (Leach, 1962). Pedicels densely viscid-glandular. Calyx-lobes: slightly unequal, ovate to oblong, mostly longer than wide, obtuse, glandular, 3.5–6mm. Corolla campanulate, 3.5–4cm broad, 2.5–3cm long, rose-pink and white or wholly white in f. *album* (Pursh) Fern. or deep pink to purple in f. *purpureum* (Pursh) Fern., greenish in the throat on the upper side and spotted with yellow or orange. Ovary glandular and hairy, the surface not visible, rather rounded. Capsule narrowly ellipsoid or cylindric-ellipsoid, glandular. Seeds less than 2mm.

DISTRIBUTION: USA (Connecticut, Georgia, Kentucky, Maine, Massachusetts, New Hampshire, North Carolina, Rhode Island, South Carolina, Vermont, Virginia, West Virginia).

Introduced to Britain in 1736 (Bean, 1976). There is some uncertainty concerning the possible indumentum of the leaves in this species. Leach

(1962), who knew the plant well in the wild, says of it: "forms with a conspicuous, plastered indumentum are fairly common, the hairy coating dense enough to give the undersurface of 2-year-old leaves a coppery colour with a metallic sheen... Under the microscope the hairs are shortly and intricately branched..." In contrast, Chamberlain (1982) has: "lower surface with a thin fugaceous indumentum that is embedded in a thin surface film and usually persists towards the base of the leaf, especially near the midrib". Of the specimens that I have seen, all agree more closely with Chamberlain's description, having no obvious hairs on any part of the mature leaf undersurface, though it is possible some might have been missed near the veins.

Leach also mentions (under *R. catawbiense*) that this is easily distinguished from *R. maximum* "because it lacks the incomplete tuft of bracts resembling miniature leaves which encircle the buds, both vegetative and floral." The specimens of *R. maximum* available to me do not show this characteristic, as buds are extremely rarely available on herbarium or, indeed, flowering specimens, but the small diagram in Leach's book does show that the lowermost bud scales tend to spread. This is a character that needs to be looked at in living specimens when not in flower. Further, Leach notes that the inflorescences of this species open very late, and are frequently obscured by the newly developing leaves. Here is another character that is not readily assessed from dried material; it should be looked for in the living material.

Rhododendron catawbiense Michx.
Small (1933: 997–998), Fernald (1950: 1117–1118), Leach (1962), Radford, Ahles & Bell (1968: 798), Chamberlain (1982: 316).
Illustration: *Botanical Magazine*, t.1671 (1814).
Shrub 1–3 m, or rarely a small tree. Young branches finely pubescent. Leaves elliptic or almost so to oval, 6.5–16 × 3.5–5cm, rounded to the abruptly pointed apex, rounded or subcordate at the base, glabrous throughout but with persistent hair-bases beneath and petiole pubescent when young; length/breadth ratio up to 2.4. Inflorescence dense, 15–20-flowered, appearing before the new leaves. Pedicels usually glandular, always hairy with dendroid hairs. Calyx-lobes semi-orbicular to broadly deltoid, much wider than long, 0.5–1.5mm.

Corolla broadly campanulate, 3.0–5.0cm long, deep pink to purple, rarely white or whitish, with faint spots. Ovary densely reddish-tomentose, the surface not visible, rather rounded. Capsule more elongate, tomentose.

DISTRIBUTION: USA (Alabama, Georgia, Kentucky, Massachusetts, North Carolina, South Carolina, Tennessee, Virginia, West Virginia).

Introduced to Britain in 1809 (Bean, 1976). This species is often pollinated in the wild by hummingbirds. There are a few named varieties of the species (e.g. var. *compactum* Hort.) and a few cultivars directly attributable to the species, of which 'Album' (with large, white flowers) and 'Catalgla' (a finer selection from 'Album') are most widely grown.

Rhododendron macrophyllum G. Don
Hitchcock, Cronquist, Ownbey & Thompson (1959: 27), Munz (1959: 412), Hickman (1993: 566), Chamberlain (1982: 317).
Illustration: *Botanical Magazine*, t.4863 (1855), as *R. californicum*.
= *R. californicum* Hook.
Shrub to 5m high, with stout, coarse shoots, which are tomentose when young. Leaves leathery, dark green above, paler beneath, oblong-obovate to elliptic, 6–20 × 3–6cm; length/breadth ratio 2.8 or more, apex acute, base tapered. Petioles stout. Pedicels glabrous or sparsely glandular. Inflorescence dense, congested, many-flowered, appearing before the new leaves. Calyx-lobes broader than long, *c.* 1mm. Corolla broadly campanulate, 2.5–4cm, rose to rose-purple or rarely white. Ovary densely reddish-tomentose, the surface not visible, rather rounded. Capsule elongate, tomentose.

DISTRIBUTION: USA (California, Oregon, Washington), Canada (British Columbia).

Introduced to Britain in 1850 (Bean, 1976). This species is essentially a western vicariant of *R. catawbiense*. It was introduced rather late, and its contribution to the British hybrid swarm is uncertain.

The hybrid swarm

As mentioned above, there seems no possibility of recognising any kind of taxonomic units within the British stands. The only possibility is for proper taxonomic recognition of the hybrid as one variable entity, a name and description of which is provided below.

Rhododendron × superponticum Cullen

Parentage: *R. ponticum* L. × *R. catawbiense* Michx., *R. maximum* L. et/vel *R. macrophyllum* G. Don

A *R. pontico* L. habitu fortissimo et late invadenti differt; in plantarum aggregatione qualibet inveniantur specimina notis characteristicis peculiaribus *R. catawbiensis* Michaux (foliorum apicibus basibusque rotundatis; foliis minus quam 2.4plo longioribus quam latioribus; pedicellis pilos dendroideos ferentibus), *R. maximi* L. (floribus minoribus (2–3cm), magis roseis; calyce lobum ut minimum unum 3.5mm longum vel longiorem, longiorem quam latiorem, ligulatum praebente) vel *R. macrophylli* G. Don (pedicellis sparsissime glandulosis vel glabris).

Differs from wild *R. ponticum* (see description above) in that it is extremely vigorous and invasive and has a wider range of corolla and corolla-spot colour. In any stand of the plant there will be individual specimens that show individual characteristics of *R. catawbiense* (leaf apices and bases rounded, leaf length/breadth ratio less than 2.4, pedicels bearing dendroid hairs, ovary reddish brown tomentose), *R. maximum* (flowers smaller: 2–3cm, pinker, calyx with at least 1 lobe 3.5mm or more, longer than broad, strap-shaped) or *R. macrophyllum* (pedicels very sparsely glandular to glabrous).

An extremely vigorous shrub; sometimes tightly growing and small (to 1 m), generally in drier situations, otherwise up to 6m and rather open in growth.

Leaves evergreen, hairy when young, glabrous when mature, though often with punctae persisting beneath, dark green above, pale green or brownish beneath. narrowly elliptic to obovate, gradually tapered to base and apex (rarely rounded to both apex and base), 9.5–15(–21) × 3.0–4.0cm, length/breadth ratio 2.8–4.0 (occasionally less than

2.4). Inflorescence up to 14-flowered, pyramidal, the pedicels and rhachis elongating during the life of the inflorescence, the branches spreading; developing before the new leaves. Rhachis glabrous to finely silky-hairy to glandular. Pedicels generally glandular-sticky, often densely so, sometimes with simple hairs as well, especially towards the top (occasionally with dendroid hairs as well) or occasionally glabrous. Bud-scales (bracts & bracteoles): densely hairy, often dendroid, quickly deciduous. Calyx 0.5–2(–3.5)mm (rarely 3.5–7mm), 5-lobed, the lobes flattened-triangular or rarely 1 or more of them developing a strap-shaped apex, greenish or pale. Corolla 3–4.5cm, variable, rose-pink to pale or pinkish purple to deep purple, with orange, yellow or greenish spots on the upper lobe; lobes as long as, or longer than the tube. Stamens 10, each filament with dense, cellophane-like hairs forming a patch towards the base. Ovary cylindric-conical, dark green, brown or almost black, truncate or sometimes rounded at the apex, glabrous or with few or many simple, white bristles (often mainly found towards the base), the surface clearly visible between them (rarely tomentose or tomentose-glandular with the ovary surface not visible). Style inserted in a depression in the top of the ovary. Capsule ripening late, woody, glabrous or occasionally with some bristles (rarely hairy).

Holotype: UK, Wales, Cardiganshire (v.c. 46), naturalised in mixed estate woodland E of river 450m N of Trawsgoed mansion, alt. 55 m, 23 v 2006, *Chater* 06/41 (**CGE**).

Paratypes: UK, Wales, Cardiganshire (v.c. 46), Aberystwyth, estate woodland behind Plas Penglais, alt. 70 m, 22/595821, 27 v 2001, *Chater* 01/116 (**CGE**) – shows characters of *R. catawbiense* (leaves with rounded apices and bases, length/breadth ratio 2.2); Cardiganshire (v.c. 46), Llanerchaeron, naturalised in estate woodland, alt. 40 m, 22/48016020, 22 v 2006, *Chater* 06/34 (**CGE**) – shows characters of *R. maximum* (smallish flowers, calyx-lobes longer than broad, strap-shaped, 4–7mm).

It has been necessary to choose a holotype and paratypes to cover at least some of the variation shown by the taxon.

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A short note on the names of primary hybrids in *Rhododendron* section *Pontica*

J. C. DAVID
RHS Garden Wisley, Woking, Surrey GU23 6QB

Following the proposal of a hybrid epithet for the complex hybrid of *R. ponticum*, it was clear that it would be useful to list the names available for the primary hybrids in this group. The list below has been drawn principally from information provided by Schneider (1912) and Rehder (1949).

Rhododendron × **intermedium** Wender., *Flora* **9**: 337 (1826).
Parentage: *Rhododendron maximum* × *R. ponticum*.
Note: *R.* × *intermedium* Tausch (1836) was described for the hybrid *R. ferrugineum* × *R. hirsutum*, for which the correct name is *R.* × *halense* Gremblich (1875) according to Rehder (1949). The name *R.* × *intermedium* Tausch has recently been used (DASIE, 2009) for an alien taxon in the European flora, and it is likely that this is intended to refer to the hybrid named by Wenderoth.

Rhododendron × **morelianum** Lem., *L'Horticulteur Universel* **4**: 1 (1843).
Parentage: *Rhododendron catawbiense* × *R. ponticum*.
= *Rhododendron robustissimum* Lindl. ex Lemaire, *Flore des Serres et des jardins de l'Europe* **2**: 21, 1846, as "Rhododendron robustissimum fastuosum flore pleno".[1]

Rhododendron × **sochadzeae** Kharadze & Davlian., *Zametki po Sistematike i Geografii Rastenii* **27**: 84 (1969).
Parentage: *Rhododendron caucasicum* × *R. ponticum*.
Note: This hybrid was known in 19th-century literature as *Rhododendron* "caucasicum hybridum" and the best-known example is the cultivar 'Cunningham's White', resulting from the cross *R. caucasicum*

[1] Lemaire (l.c.) refers to an earlier publication by Lindley "Gardener's Chronicle, 23 mai 1846" but no trace of this name can be found in this issue.

× *R. ponticum album*, but is not to be confused with *R.* × *cunninghamii* T. Moore (*R. maximum* × *R. arboreum*).

Rhododendron × **stanwellianum** Methven ex Rehder, *Manual of Cultivated Trees & Shrubs*: 683 (1927) [*nomen subnudum*, *fide* Rehder (1949)].
Parentage: *Rhododendron catawbiense* × *R. caucasicum*.
Note: Rehder (1949: 505) cites "Hort. ex Millais" as the authority for this name, but Millais (*Rhododendrons* **1**: 247, 1917) lacks any description and gives the parentage of the hybrid as "*R. campanulatum* × garden hybrid". However, the parentage stated by Rehder is supported in a note by Sir Edmund Loder (*Rhododendron Society Notes* **1**: 14, 1916) where he comments, "Some years ago I bought in Edinburgh a quantity of hybrids of *Rhododendron caucasicum* "*Rh. Stanwellianum*" = *R. caucasicum* × *R. catawbiense*…". The epithet commemorates Stanwell, the Edinburgh nursery of Thomas Methven, who died in 1879 and which was continued by his son, John, who died in 1913 (Desmond, 1994). Some catalogues of T. Methren & Son are held in the library at the Royal Botanic Gardens Edinburgh, and one for "Seedling and Transplanted Forest Trees, Rhododendrons, Coniferae, ornamental trees, shrubs, fruit trees", dated 1884, lists *R. stanwellianum* with the brief description "[flowers] vivid crimson". No parentage is stated. A further variety, *album*, is given as "snowy white, compact habit, profuse bloomer, fine".

This taxon is also known as *Rhododendron* Stanwellianum Group under the provisions of the *International Code of Nomenclature for Cultivated Plants* (Brickell *et al.*, 2009; Leslie, 2004).

Rhododendron × **wellesleyanum** Waterer ex Rehder, *Manual of Cultivated Trees and Shrubs*: 683 (1927) [*nomen subnudum*, *fide* Rehder (1949)].
Parentage: *Rhododendron catawbiense* × *R. maximum*.
Note: The hybrid was originally sold by the Waterer Knap Hill nursery from around 1880. This taxon is also known as *Rhododendron* 'Wellesleyanum' under the provisions of the *International Code of Nomenclature for Cultivated Plants* (Brickell *et al.*, 2009; Leslie, 2004).

For ease of reference the following table is provided:

Table 1. **Primary hybrids in *Rhododendron* section *Pontica***

	R. ponticum	***R. maximum***	***R. caucasicum***
R. catawbiense	*R.* × *morelianum*	*R.* × *wellesleyanum*	*R.* × *stanwellianum*
R. caucasicum	*R.* × *sochadzeae*	[no epithet]	
R. maximum	*R.* × *intermedium*		

It is interesting to note that while *R. macrophyllum* (syn. *R. californicum*) has been in cultivation since 1850, there are apparently no primary crosses with other members of section *Pontica* recorded or named.

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A new combination in *Oxalis laciniata* Cav.

J. M. H. SHAW
c/o RHS Garden Wisley, Woking, Surrey GU23 6QB

In a previous paper (Shaw, 2009) *O. squamoso-radicosa* was reduced to synonymy under *O. laciniata*, although *O. squamosa-radicosa* var. *pubescens* Skottsberg was left untreated, largely because it was dismissed by Lourteig (1988, 2000).

Following extensive field work in Patagonia over several years by Chris Brickell, Peter Erskine and Martin Sheader, new information is now available to clarify the position of this variety. The latter's field notes are provided as an Appendix to this paper.

The original description of var. *pubescens* provided in Skottsberg (1916) was as follows: "Folia hirsuta. Pedunculus superne pubescens. Calyx albolanatus. Petala azureo-violacea, margine puberula. Cetera ut in typo." This may be translated as, "Leaves hirsute. Upper part of flower stalks pubescent. Calyx with long white hairs. Petals blue-violet, shortly hairy along margins. Other characters as the typical variety."

Far from occurring at random through out the range of *O. laciniata*, plants that match this description are restricted to a very limited area in north-west Santa Cruz province, Argentina, and neighbouring Chile, forming an island within the distribution of *O. laciniata* var. *laciniata*. This distribution covers 197km north to south by only some 30km east to west and includes the type locality given by Skottsberg. This limited distribution is shared with at least two other species, notably the most southern rosulate viola, *Viola auricolor*, and *Adesmia ruiz-lealii*. Until recently, this tiny rhizomatous legume had been recorded on only one occasion at the type locality, Meseta del Lago Buenos Aires, but it has since been found at all the localities where *Oxalis laciniata* var. *pubescens* occurs.

There are a few records of typical *O. laciniata* to the north of Lago Buenos Aires. Monte Zeballos forms the south-west corner of Meseta

del Lago Buenos Aires. In the meseta centre and eastern part of the meseta are typical *O. laciniata*. The steppe to the east as far as the Atlantic coast has typical *O. laciniata*, as has the area to the south of Río Capitán.

In cultivation plants of *O. laciniata* var. *pubescens* have set seed in the absence of other plants to cross-pollinate with, indicating they are self-compatible. This self-compatibility is not known in typical var. *laciniata*. This biological difference in the breeding system provides further evidence for the recognition of var. *pubescens* and therefore the requisite combination is provided:

Oxalis laciniata Cav. var. **pubescens** (Skottsberg) J. M. H. Shaw **comb. nov.**

Basionym: *Oxalis squamoso-radicosa* Steudel var. *pubescens* Skottsberg, *Kongl. Svenska Vetenskaps-akad. Handl.* **56**(5): 254 (1916).

Type: Argentina, Santa Cruz, Lago Pueyrredón-Posadas, by Río Tarde, 1050m, *Skottsberg* 21 Dec. 1908 (holotype **UPS**, isotype **K**!).

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Martin Sheader

Fig. 1. ***Oxalis laciniata* var. *pubescens* from Pico Sur, Chile (top), Monte Zeballos, Argentina (bottom left), and Río Capitán, Argentina (bottom right).**

Appendix 1. Field notes on the occurrence of *O. laciniata* var. *pubescens*

The following field notes have been kindly supplied by Martin Sheader.

1. Ridge over Lago del Toro, Rio Capitan, Argentina (48 25.408S, 71 41.866W, 1094m). Not very common. A few specimens of *O. laciniata* were found at lower altitude, though still with broad leaflets. (Together with *O. enneaphylla* & *O. loricata*)

2. Perito Moreno National Park, Argentina (47 47 21.70S, 72 04 04.87W, 930m). Fairly common, again with non-hairy, broad leaflet plants. Rhizome often up to twice width of typical *O. laciniata*. (Together with *O. loricata*)

3. Monte Zeballos Pass, Argentina (47 00 18.17S, 71 48 08.22W, 1400-1660m). Common. No typical *O. laciniata* present. (Together with *O. loricata* & *O. adenophylla*)

4. Pico Sur, Chile Chico, Chile (46 39.501S, 71 44.991W, 1000-1136m). Common. No typical *O. laciniata* present. (Together with *O. loricata* & *O. adenophylla*).

Nomenclature of intergeneric hybrids of *Zephyranthes*

J. C. DAVID
RHS Garden Wisley, Woking, Surrey, GU23 6QB

It is well known that many species in different genera in the *Amaryllidaceae* are capable of being hybridised and will produce viable progeny. Although these bigeneric hybrids do rarely occur in the wild, they are more often generated by horticulturists and, as such, these hybrids are customarily published in the horticultural literature. This means that the published names not infrequently do not meet the requirements of the *ICBN* for valid publication and even more confusion has been caused when later authors have attempted to correct these errors. Some botanists today take the view that too many genera are recognised in the *Amaryllidaceae*, and their separation based on differences in floral morphology only reflects pollination syndromes which are often polyphyletic in origin and do not represent monophyletic groups. This is supported not only by the molecular phylogeny for the American *Amaryllidaceae* (Meerow *et al.*, 2000) but also by morphological studies (e.g. Arroyo-Leuenberger & Leuenberger, 2009). However, since these names are available and still widely used, it is thought helpful, for the horticultural literature at least, to attempt to resolve some of the nomenclatural problems.

1. ×***Cooperanthes*** Percy-Lanc. (1913) (*Cooperia* × *Zephyranthes*)
This nothogenus was introduced by Percy-Lancaster (1913)[1] for the hybrid which had been made by his father, Percy Lancaster, and for which the parents were stated to be "Cooperia oberwetti" and *Zephyranthes robusta*. This hybrid was named × *Cooperanthes lancastrae* and was one of three crosses raised by Percy Lancaster: the others being × *Cooperanthes rosea* (*Cooperia drummondii* × *Zephyranthes carinata*) and × *Cooperanthes* 'Sunset' (*Cooperia drummondii* × *Zephyranthes andersonii*). The plants raised from these crosses were subsequently

[1] Born Sydney Percy Lancaster (1886–1972), son of Percy Joseph Lancaster (d.1904), the author of the genus subsequently hyphenated his middle name and surname, and this is how his name appears in Brummitt & Powell (1992).

lost and Percy-Lancaster created a set of new hybrids using a range of species in *Cooperia* and *Zephyranthes* (Percy-Lancaster, 1913). Father and son carried out their work in India, the latter during his long period of service as Secretary to the Royal Agricultural and Horticultural Society of India, based in Alipore and subsequently working for the National Botanical Gardens at Lucknow (Khoshoo, 1976).

The genus *Cooperia* Herb. (1836) has more recently been merged with *Zephyranthes* Herb. (1821) (Traub, 1951), the latter having precedence and, as such, the nothogenus ×*Cooperanthes* is also reduced to synonymy with *Zephyranthes*. However, based on the actual parents cited, the included nothospecies cannot all be transferred to *Zephyranthes*.

(i) ×***Cooperanthes lancastrae*** (also frequently given as "lancasterae") The first parent cited is "Cooperia oberwetti", which is not a formally published valid name, although it is cited as *Cooperia oberwetteri* Hort. in the Kew *Hand-list of Tender Monocotyledons*: 129, 1897. This is almost certainly the correct form of the name, as it would seem to be named after Peter Henry Oberwetter (1830–1915), from Austin, Texas, who was known to have collected and introduced amaryllids (Hall, 1935). This entity is now treated as a synonym of *Cooperia drummondii* Herb. which, when transferred to *Zephyranthes*, is known as *Z. chlorosolen* (Herb.) Dietr. as there already is a separate species *Zephyranthes drummondii* D. Don (1836). The second parent, *Zephyranthes robusta*, is now treated in the genus *Habranthus*, where it was originally described by Herbert (1830), which would, theoretically, make Lancaster's hybrid a bigeneric cross between *Zephyranthes* (as *Cooperia*) and *Habranthus*, were it not for the confusion in cultivation over the naming of plants grown as *H. robustus*. This species is superficially similar to *Zephyranthes grandiflora* Lindley and not infrequently the one is sold under the other name. It is clear that this confusion has a long history and it is highly probable that Percy Lancaster and Sydney Percy-Lancaster were working with *Z. grandiflora* rather than *H. robustus*, a conclusion suggested by Flagg & Florey (1976: 75) and also reached by Howard (1990: 122). Remarkably, the required combination in *Zephyranthes* has not been published:

Zephyranthes ×lancastrae (Percy-Lanc.) J. C. David **comb. nov.**
Basionym: ×***Cooperanthes lancastrae*** Percy-Lanc., *J. Roy. Hort. Soc.* **38**: 531 (1913).

There was a brief description given by Percy-Lancaster (1913) which is repeated in Percy-Lancaster (1958).[1] From the description it may be inferred that the peduncle was 12" (*c.*30cm) or more, stout; the ovary was brownish green; the flower had an apple-green centre and yellowish white tepals, "going off" into pinkish lilac. I have not been able to trace an illustration of this hybrid, although in Percy-Lancaster (1958), two types of ×*Cooperanthes* flowers are depicted: a "large flowered type" and a "Sydneya type". The latter refers to the renaming by Traub (1954) of ×*Cooperanthes lancastrae* as ×*Sydneya lancast[er]ae* (see below). From this it would be possible to consider Percy-Lancaster (1958) fig. 2 as representing something like *Z.* × *lancastrae*. Percy-Lancaster (1922) divided the hybrids into two main types: those having *Cooperia drummondii* as a parent ("C. D.") that had erect flowers and those having *Zephyranthes* as a parent ("Z. R.") with semi-nodding flowers. He noted that Lancasteri [sic] is of C. D. type, white or white shaded pink.

Similarly there is little reliable preserved material to help with resolving the identity of the plants. Apart from the loss of the original hybrids as recorded by Percy-Lancaster (1913), it appears that subsequently much of the living collection was lost during the Second World War when the bed containing the ×*Cooperanthes* hybrids was crushed by military trucks. What remained after the end of the war was carefully nurtured back to life and transferred to the National Botanic Gardens at Lucknow, but many of the best varieties were lost (Percy-Lancaster, 1958). In the herbarium at Kew, the earliest specimen is from Henry Elwes and dates from 1919. It is evident that this must represent one of the hybrids published in 1913 but in the absence of any further evidence to confirm its precise identity, it cannot be used to secure the interpretation of the name. Subsequently plants were sent to Kew directly from India by A. P. Lancaster.[2] These were evidently grown

[1] The publication has no author, but internal evidence in the paper points to Percy-Lancaster as the author.

[2] Alick Percy-Lancaster, Sydney Percy-Lancaster's son (Khoshoo, 1976).

on at Kew; the specimens preserved in the herbarium were collected in 1939 and 1940. All the relevant Kew specimens are labelled as *Cooperanthes* or *Zephyranthes*: no epithet is given. A further specimen is labelled "×Cooperanthes hortensis (ined.)" and had been sent to Kew from the Agri-Horticultural Society of India in 1949. The origin of this hybrid is not recorded and the specimen does not resemble the earlier ones.

Material in cultivation was available from Mike Salmon (Monocot Nursery) up until 2005 and had also been listed by Paul Christian in 1997 (*RHS Plant Finder 2005–2006* and *1996–1997*). The former also listed the cultivar 'Mary', which was among the first to be described by Percy-Lancaster (see below).

A description is provided below of the material obtained from Monocot Nursery:

Leaves linear, two or more per bulb, dark green with a slight reddish tint and a glaucous bloom. Flowers solitary, borne on an erect peduncle up to 13cm long, usually oriented along the axis of the peduncle, not at an angle. Flower pedicel and bud enveloped by a spathe up to 50mm long, bifid but fused at the apex to leave a small gap below, initially pinkish but later more straw-brown in colour. Flowers narrowly trumpet-shaped, perianth segments 60–65mm, outer segments overlapping, ovate, up to 18mm wide, inner segments narrowly ovate up to 12mm wide, apex mucronate; perianth segments pale pink. Flowers have a distinct but not sweet scent. Stamens reaching the mouth of the perianth tube, not exserted, all of the same length; anthers with deep-yellow pollen. Style is shorter than the stamens.

(ii) ×***Cooperanthes rosea*** Percy-Lanc. (1913)
The parents for this hybrid are given as *Cooperia drummondii* and *Zephyranthes carinata*; the former species is now *Z. chlorosolen* and the latter is a synonym of *Z. grandiflora*. As such, this is an interspecific hybrid in *Zephyranthes* and since there is already a *Z. rosea* Lindley (1824), Traub (1954) provided a *nomen novum* for the hybrid, *Z.* × *lancasteri* Traub. However, it is most likely that this is the same hybrid as *Z.* × *lancastrae*, and should be treated as a synonym of the latter.

(iii) ×***Cooperanthes*** **'Sunset'**
Since Percy-Lancaster did not give this hybrid a Latin name, it is adopted here as a cultivar name under the *ICNCP*. The parents were stated to be *Cooperia drummondii* and *Zephyranthes andersonii*. The latter is now included in *Habranthus*, as a synonym of *Habranthus tubispathus*. Traub (1954) introduced the new name ×*Sydneya india* for this hybrid. If the hybrid name were required it would need to be recombined under ×*Zephybranthus* T. M. Howard.

(iv) ×***Cooperanthes bella*** Percy-Lanc. (1913)
This is the first of the hybrids made by Percy-Lancaster using *Cooperia drummondii* and *Zephyranthes robusta* as parents. Based on the parentage, this entity is a synonym of ×*C. lancastrae*, which was stated by Traub (1954). Given the question over the identity of the parent *Z. robusta* noted above, this too should be treated as a synonym of *Z.* × *lancastrae*.

(v) ×***Cooperanthes blanda*** Percy-Lanc. (1913)
Percy-Lancaster made use of *Cooperia oberwetteri* and *Zephyranthes treatiae* to create this hybrid. With both parents belonging to *Zephyranthes*, the hybrid is correctly known as *Z.* × *blanda* (Percy-Lanc.) Traub (1954).

(vi) ×***Cooperanthes*** **'Alipore Beauty'**
As with 'Sunset', since a non Latin name was used by Percy-Lancaster, it is best treated as a cultivar name. The parents given are *Cooperia oberwetteri* (*Z. chlorosolen*) and *Z. robusta* (probably *Z. grandiflora*), and therefore the hybrid should be correctly known as *Z.* × *lancastrae* 'Alipore Beauty'.

(vii) ×***Cooperanthes*** **'Percy'**
In this cross Percy-Lancaster used *Zephyranthes citrina* and *Cooperia drummondii* as parents. Traub (1954) introduced the formal hybrid name *Z.* × *percyi* for this cross.

(viii) ×***Cooperanthes*** **'Mary'**
With *Cooperia drummondii* and *Zephyranthes robusta* as parents of this hybrid, this is another cross that should be assigned to *Z.* × *lancastrae*. The correct name should be *Z.* × *lancastrae* 'Mary'.

(ix) ×***Cooperanthes*** **'Sydney'**
This is the reverse cross of 'Percy' and could be designated as *Z.* × *percyi* 'Sydney'; however, it is doubtful that this hybrid is still in existence.

A wild origin "Cooperanthes" from Mexico

For some time a *Zephyranthes* has been widely distributed in cultivation under the cultivar name 'La Buffa Rose' but also under a range of variants such as 'Labuffarosa', 'Labuffarosea' or 'Labufaroseus'. Howard (2001) referred to it as ×*Cooperanthes* "Labufaroseus" and commented on the correct form of the name.

These names have been used for plants derived from a natural population discovered by Carl Schoenfeld and John Fairey (Yucca Do Nursery, Texas, USA) near to San Carlos in Tamaulipas, Mexico. The population occurs on an outcrop of granite through an underlying bed of limestone with a unique flora. The first collection was made on 4th July 1992, from a site at 4,000 feet, where the plants were growing under *Ilex rubra* (Schoenfeld, pers. comm.). Schoenfeld has observed the plants at this site to be variable in flower form, size, stem height and pigmentation and has already named two clones from the wild population ('Lily Pies', 'Itsy Bitsy'). Further clones released in 2010 ('Confection', 'Heart Throb', 'Summer's Chill', 'Aperitif' and 'Star Spangled') have arisen in cultivation.

The natural population is widely considered to be hybrid in origin and Howard (2001) states that the plant is intermediate between *Cooperia pedunculata* (= *Zephyranthes drummondii*) and a native pink-flowered species of *Zephyranthes*. Schoenfeld (pers. comm.) believes it to be a triple hybrid between *Z. drummondii*, *Z. traubii* and an undescribed pink-flowered species.

The correct form of the epithet is problematic. Both "Labuffarosea" and "Labufaroseus" are Latin in form and therefore not acceptable as names for plants under the *ICNCP*. The name is derived from the locality whence the plants were collected but an Internet search for the name indicates that it would be spelled with one "f" not two. This has been confirmed by Carl Schoenfeld who notes that the locality is called La Bufa del Diente in the Sierra Chiquita, south of the small

town of San Carlos. In view of the occurrence of a number of cultivars attributable to this taxon, and in the absence of a suitable botanical species or hybrid name, it is proposed to establish a Group epithet for these plants, as *Zephyranthes* La Bufa Rosa Group, as agreed with Carl Schoenfeld.

2. ×***Coobranthus*** T. M. Howard (1990) (*Cooperia* × *Habranthus*)
Howard (1990) did not accept the synonymisation of *Zephyranthes* and *Cooperia* and consequently proposed the new bigeneric hybrid ×*Coobranthus* for hybrids between *Cooperia* and *Habranthus*. While the nothogeneric name is valid, unfortunately the single species he described, ×*Coobranthus coryi*, is not, as the protologue lacks a Latin diagnosis. This species is stated to be a natural hybrid between *Habranthus howardii* and *Cooperia pedunculata* Herb. (= *Zephyranthes drummondii*), which was collected in Mexico.

Howard (1990), despite having explained that one of the parents of *Z.* × *lancastrae* is most likely to be *Z. grandiflora*, made the combination of ×*Cooperanthes lancastrae* into ×*Coobranthus* but gave the epithet as "lancasteri". We can be certain that he was not referring to Traub's *nom. nov.* (see above under ×*C. rosea*) as he clearly refers to ×*Sydneya lancasterae* immediately before making the combination and cites Percy-Lancaster as the author of the basionym.

3. ×***Sydneya*** Traub (1954), *nom. inval.* (*Zephyranthes* × *Habranthus*)
Traub (1954) introduced the nothogeneric name ×*Sydneya* for the bigeneric hybrid *Zephyranthes* × *Habranthus* and cited ×*Cooperanthes* Lancaster as a synonym. The name ×*Sydneya* is nomenclaturally invalid (*ICBN* Art. H.6.2) as bigeneric hybrid names must be condensed formulae of the parent genera, as noted by Howard (2001). Further, ×*Cooperanthes* cannot be a synonym in the strict sense as *Habranthus* is not one of the parent genera. Traub (1958) subsequently made clear that his approach was based on the concept of nothogenera having types, which is contrary to the *ICBN* (H.9.1, Note 1). He had "typified" ×*Cooperanthes* on a later hybrid made by Percy-Lancaster, ×*C. blanda*, the cross between *Cooperia oberwetteri* and *Zephyranthes treatiae* S. Watson, which Traub, who recognised that *Cooperia* is a synonym of *Zephyranthes*, regarded as a species of *Zephyranthes*. He designated

× *C. lancastrae* as the "type" of his new genus × *Sydneya*, stating the parents to be *Z. brazosensis* (the name Traub used for *Z. chlorosolen*) and *Habranthus tubispathus*, an error he subsequently corrected (Traub, 1958). Traub provided the combination × *S. lancasterae* (Percy-Lanc.) Traub, which Howard (1990) transferred to × *Coobranthus*, taking Percy-Lancaster's statement of the parentage (see above) at face value.

× ***Sydneya bella*** (Percy-Lanc.) Traub (1959), *nom. inval.* Art. 43.1.
= *Zephyranthes* × *lancastrae* (Percy-Lanc.) J. C. David

× ***Sydneya castellanosii*** Traub (1958), *nom. inval.* Art. 43.1.
Parentage: *Zephyranthes grandiflora* × *Habranthus juncifolius.*

× ***Sydneya india*** Traub (1954), *nom. inval.* Art. 43.1.
Based on × *Cooperanthes* 'Sunset'.

× ***Sydneya lancasterae*** (Percy-Lanc.) Traub, *Plant Life* **10**: 47 (1954), *nom. inval.* Art. 43.1 (as "lancastrae" in Traub (1959: 40)).
= *Zephyranthes* × *lancastrae* (Percy-Lanc.) J. C. David

× ***Sydneya morrisii*** Traub (1965), *nom. inval.* Art. 43.1.
Parentage: *Habranthus immaculatus* Traub & Clint × *Zephyranthes bifolia* M. Roem. This name was previously also invalidly published by Clint (1964).

4. × ***Zephybranthus*** T. M. Howard (1990) (*Zephyranthes* × *Habranthus*)
This is the correct name for the bigeneric hybrid which is given as "× Zebranthus" in Howard (2001). While Howard did not make any combinations into this genus, he referred to an unnamed bigeneric hybrid, *Zephyranthes grandiflora* × *Habranthus teretifolia*, previously reported by Traub, although it has not proved possible to trace the source of the report.

Two of Traub's nothospecies in *Sydneya* belong here but being invalidly published, they need to be validated as new species by direct reference to the earlier publications of the names, which otherwise fulfil all the requirements for valid publication:

×Zephybranthus castellanosii Traub ex J. C. David **sp. nov.**
= ×*Sydneya castellanosii* Traub, *Plant Life* **14**: 50 (1958), *nom. inval.*

×Zephybranthus morrisii Traub ex J. C. David **sp. nov.**
= ×*Sydneya morrisii* Traub, *Plant Life* **21**: 95 (1965), *nom. inval.*

As stated above, ×*Cooperanthes* 'Sunset' would belong in this hybrid genus.

5. ×***Sydneyara*** T. M. Howard (1990), as "Traub emend. Howard".
Parentage: *Zephyranthes* × *Cooperia* × *Habranthus.*
Howard (1990) introduced this hybrid genus to allow for the existence of hybrids where the genus *Cooperia* is regarded as distinct from *Zephyranthes*. He did not provide an example or make any combinations into the genus.

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The research that led to this paper could not have been achieved without access to the unique resources of the Royal Botanic Gardens, Kew (both the herbarium and the library) and of the Royal Horticultural Society and it is my pleasure to acknowledge their support. I am also grateful to Carl Max Schoenfeld of Yucca Do Nursery (Texas, USA) for his freely sharing the information about the origin of the *Zephyranthes* from La Bufa del Diente and enabling me to resolve the nature and correct spelling of the name.

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Miscellaneous nomenclatural and taxonomic notes mainly relating to cultivated plants

J. M. H. SHAW
c/o RHS Garden Wisley, Woking, Surrey GU23 6QB

1. *Dichroa* × *Hydrangea* (*Hydrangeaceae*)
Recent breeding work to develop *Hydrangea* cultivars in the USA has included intergeneric crosses with *Dichroa* (Kardos *et al*., 2006). Further work has revealed wild populations of this intergeneric cross in the wild, and some of the variation within *Dichroa* is now thought to be due to hybridisation with *Hydrangea*. Consequently a name is provided for this cross.

×**Didrangea** J. M. H. Shaw **nothogen. nov.**
= *Dichroa* Lour. × *Hydrangea* L.

2. *Disporopsis* (*Liliaceae sensu lato*, *Convallariaceae*)
A *Disporopsis* endemic to the Philippines was originally described as *Disporum luzoniense* Merrill. Subsequent studies (Kumar & Brandham, 1980; Saito, 2009) have confirmed the placement of this taxon in *Disporopsis*. I concur with this, having examined an image of the isotype (E. D. Merrill 6619, NY) and compared it with material in cultivation. These and some other authors have followed the treatment provided by Jessop (1979) for *Flora Malesiana*, which included *Disporum luzoniense* as a synonym of *Disporopsis fuscopicta* Hance, a species based on a collection from Guangdong Province, China (holotype: *B. C. Henry* s.n. in Herb. Hance 22186, **BM**!). Jessop frequently employed very broad species concepts in his revisions, which subsequent workers have found necessary to modify. For example, *Peliosanthes* in *Flora Malesiana* (Jessop, 1976, 1979) is reduced to a single species, whereas currently about 18 species are recognised (Shaw, 2009). The Philippine plant exhibits several characters that distinguish it from *D. fuscopicta*, most notably the rhizome which is fleshy with elongated internodes, rather than moniliform; anthers about 1mm long, as opposed to 2–2.5mm, and corona lobes emarginated as opposed to emarginate to 2–3-dentate. Consequently a new combination for this plant is provided.

Disporopsis luzoniensis (Merrill) J. M. H. Shaw **comb. nov.**
Basionym: *Disporum luzoniense* Merrill, *Philipp. J. Sci.*, **5** (Bot.): 338 (1910).

3. *Disporum* (*Colchicaceae*, formerly *Convallariaceae*)
Disporum 'Green Giant' is a vigorous selection by Dan Hinkley forming thickets to 2m high, widely available in the USA and UK and usually attributed to *D. cantoniense*, under which it is listed in the *RHS Plant Finder 2010–2011*. Examination of the original stock in Hinkley's garden reveals that 'Green Giant' was originally a selection from *D. longistylum* (H. Lév. & Vaniot) H. Hara. A specimen collected from Hinkley's garden (B. Wynn-Jones s.n., 2008) is here designated as a nomenclatural standard and has been deposited at **WSY**.

Disporum 'Night Heron', another Hinkley selection, is also better placed under *D. longistylum*.

D. longistylum can easily be distinguished from *D. cantoniense*. *D. cantoniense* produces mostly pseudolateral inflorescences, in which the flowers are terminal on a short lateral branchlet opposite a leaf, and the tepals longer than the stamens, so that they are included, whereas *D. longistylum* produces flowers in a truly terminal inflorescence at the apex of a stem or branch, with tepals, 1–1.4cm long, shorter than stamens, so that the stamens are exserted.

Plants in cultivation as *D. megalanthum* are also usually *D. longistylum*. Genuine *D. megalanthum* may be distinguished from *D. longistylum* by stamens shorter than or equalling tepals which are 2–3.5cm long.

Disporum cantoniense (Lour.) Merr. is a variable species treated in depth by Hara (1988), who recognised four geographical races, two of which are island races. On the Asian mainland var. *cantoniense* with the tepals usually 1–2cm long is widespread, but in populations endemic to Sikkim, plants producing greenish white tepals, 2–3.2cm long, have been distinguished as var. *sikkimense* H. Hara. A fine colour plate is provided in Noltie (1994). Populations studied in the north of Vietnam around Y-Ti, in Lao Cai Province, produce flowers with tepals that are longer still, attaining 3.7cm, although they are not as broad as var. *sikkimense*. The flowers are borne on peduncles 2–3cm

BLEDDYN WYNN-JONES

Fig. 1. ***Disporum cantoniense* var. *y-tiense*.**

long, tepals are dark brownish red-purple, oblanceolate, around 4mm wide with an acuminate apex, keeled midrib, and green at the short, saccate base; anthers 4–4.5mm long, stamens 1.8cm long. This also contrasts with var. *cantoniense* in which the tepals are 1–2cm long, stamens 8–10mm and peduncles usually very short.

Since these wild populations consistently produce flowers with larger parts they are here formally named as a new variety.

Disporum cantoniense var. **y-tiense** B. Wynn-Jones, V. D. Nguyen & J. M. H. Shaw **var. nov.**
A var. *sikkimensi* H. Hara tepalis fuscis purpuratis, ad 3.7mm longis, antheris 4–4.5mm longis, staminibus 1.8cm longis differt.

Holotype: Cultivated at Crûg Farm, N. Wales, *B. Wynn-Jones* s.n., 2008 (**WSY**), from original collection: WWJ 11958. Y-Ti, Lao Cai Province, northern Vietnam.

4. *Glandularia* (*Verbenaceae*)

Umber (1979) reviewed the North American species of *Glandularia* and provided a detailed investigation supporting its separation from *Verbena*, wherein these species have been treated as section *Glandularia* Schauer. Since then the garden hybrid *Verbena* × *hybrida* has also been transferred to *Glandularia* (Pruski & Nesom, 1992). Since the fifth edition of the *RHS Encyclopaedia of Plants and Flowers* (Brickell, 2010: 589) recognises *Glandularia* as distinct from *Verbena* and combinations now exist in *Glandularia* for all the accepted species and hybrids with the exception of the following cultivated hybrid, the requisite combination is here provided.

Glandularia × **maonettii** (Regel) J. M. H. Shaw **comb. et stat. nov.**
Basionym: *Verbena tenera* var. *maonettii* Regel, *Gartenflora* **4**: 26, t.142 (1855).
= *Verbena tenera* var. *maonettii* Planchon, *Flore des Serres* 2nd ser. **11**: 115–116, t.1129 (1856).

To assist recognition of cultivars belonging to this hybrid, and distinguish them from *G.* × *hybrida*, it may be helpful to note that plants of *Glandularia* × *maonettii* produce flowers with a pattern of radiating alternate white and coloured stripes on the corolla.

5. *Hedychium* (*Zingiberaceae*)

While reviewing the names of hybrid *Hedychium*, it came to light that there are valid binomials available for several garden hybrids.

The name *H.* × *wilkeanum* W. Wats., *Gard. Chron.* 3rd ser., **16**(2): 276 (1894), is available for the cross *H. coronarium* × *H. gardnerianum.*

Dr Charles Nelson kindly drew my attention to another overlooked name, *H.* × *moorei* in *Gard. Chron.* **28**: 142 (1900), commemorating a past Director of the Botanic Garden at Glasnevin, F. W. Moore. This name has sufficient description to be accepted as valid under

the *ICBN*, and has since been listed in the International Plant Names Index (www.ipni.org). It applies to the hybrid *H. coccineum* × *H. gardnerianum*. There are several different names used for plants in cultivation, the most common being 'Tara', which originated from wild-collected seed, and was originally listed under *H. coccineum* (Schilling, 1982). Since then, in consultation with Chris Brickell and Tony Schilling, the consensus of opinion is that 'Tara' represents this hybrid. 'Tara' received both an AM in 1978 and an FCC in 1984.

Other plants apparently assignable to *H.* × *moorei* include:

H. 'Kewense', originally said to be this hybrid, probably selected by Charles P. Raffill, one-time Assistant Curator at Kew, and like 'Tara' regarded as *H. coccineum* by some. Branney (2005) points out that this epithet is commonly misapplied to another *Hedychium* with pink flowers.

H. 'Raffillii', syn. *H.* × *raffillii*, *H.* 'C.P. Raffill'. Another plant originating from Kew, and awarded an AM in 1941. According to the *ICBN* Art. 36.1, a Latin diagnosis became mandatory from 1st January 1935, hence the name *H.* × *raffillii* is invalid as it was described only in English in 1941. On the other hand, under *ICNCP* Art. 21.5 & 6, a Latin name published prior to 1st January 1959 is acceptable as a cultivar epithet, regardless of validity under the *ICBN*. Hence, as a cultivar epithet, 'Raffillii' is valid and has priority over the superfluous replacement name 'C.P. Raffill'.

One point that all these have in common is their similarity with *H. coccineum*, which has resulted in their being treated under that species at various times.

6. *Ligularia* (*Asteraceae*)

It has been noticed that accessions of *Ligularia fischeri* (Ledeb.) Turcz. from Cheju-do, an island off the southern tip of the Korean peninsula, differ from collections from elsewhere in its range by developing large swollen tuberous roots. Plants have been distributed under the cultivar name 'Cheju Charmer'. This variant is apparently endemic to Cheju Island, and is accordingly formally described here as a variety.

Ligularia fischeri var. **megalorhiza** B. Wynn-Jones & J. M. H. Shaw **var. nov.**

A var. *fischeri* radicibus tumidis et tuberantibus differt.

Holotype: Cultivated plant at Crûg Farm, N. Wales. *Wynn-Jones & Shaw* s.n., 31 Aug 2007 (**WSY**), from original collection: BSWJ 1158, Cheju Island, Korea.

7. Plectranthus (*Lamiaceae*)

There is a widespread, though uncommon, plant grown under the misapplied name *Plectranthus amboinicus*. It is illustrated under that name in Sajeva & Costanzo (1994) and Shaw (1999a: 73, illustr. on left-hand side), and has also been listed in nursery catalogues as *Coleus aromaticus*, which is a synonym of *P. amboinicus*. The plant is vegetatively propagated with ease, and originated as a field collection made by the late Werner Rauh of Heidelberg, between Normanga and Litokitok, Kenya, close to the border with Tanzania, an area relatively well collected. It has since been distributed by International Succulent Introductions of Huntington Botanic Gardens, USA, as ISI 1316, which accounts for it being seen in succulent plant nurseries.

The plant has a very characteristic neat appearance, with small, almost circular leaves, distinctive aroma, variously described as camphor or petrol, and hardly ever flowers, hence its confusion with *P. amboinicus*, a much more robust, square-stemmed, larger-leaved plant. Following an unusually sunny period a few years ago the author's plant flowered, and material was taken to Alan Paton at Kew, where it was retained in the herbarium at his request. One unusual feature is the presence of round foliar organs, like the cauline leaves, in the inflorescence. It was not a close match for anything in the herbarium, but by a process of elimination was determined to belong to *P. cylindraceus*. Since then, *P. cylindraceus* Benth., typified on African material, has been shown to be a synonym of *P. montanus* Benth., typified by a collection from Peninsular India (Suddee & Paton, 2004). Despite its rather distinctive appearance, ISI 1316 has the same distinctive scent as *P. montanus*, which is still generally known as *P. cylindraceus* in cultivation. Plants grown under this name are well illustrated in van Jaarsveld (2006: 81), wherein they can also be compared with *P. amboinicus*. This unusual variant, ISI 1316, is not mentioned in the recent *Flora of Tropical East*

Table 1. **References to *Podophyllum* in *Plants of Mount Emei* (Li & Shi, 2007)**

Name in Li & Shi	Name accepted in this account	Page in text	Illustration
Dysosma veitchii	*P. delavayi*	108, 257 (also as *D. majoensis*)	108
Dysosma veitchii var. *longipetalis*[1]	*P. delavayi* var. *longipetalum*	45, 257–258, 484	Not illustrated
Dysosma difformis	*P. difforme*	257	Not illustrated
Dysosma majoensis var. *emeiensis*	*P. emeiense*	45, 257, 484	Not illustrated
Dysosma versipellis	*P. versipelle* subsp. *boreale* var. *sichuanense*	68, 258	68

[1] Note that *D. veitchii* var. *longipetalis* (2007) is a heterotypic synonym of *P. delavayi* var. *longipetalum* (1999).

Africa account of *Lamiaceae* (Paton, 2009). It is here assigned the cultivar name 'Werner Rauh' and the specimen at **K** (*Shaw*, s.n., 2002, inflorescence from cultivated plant) is designated as a nomenclatural standard.

8. *Podophyllum* (*Berberidaceae*)

A *Podophyllum* known to be endemic to Emei Shan, in Sichuan, China has been included in earlier treatments as an undescribed species: *Podophyllum* sp. B. *New Plantsman* **7**(3): 158 (2000) and *Podophyllum* sp. A, J. M. H. Shaw in Stearn, W. T., *The Genus Epimedium*: 297–298 (2002). It was subsequently described under *Dysosma* in a Chinese publication (Li & Shi, 2007) and therefore a new combination is here provided under *Podophyllum*.

Podophyllum emeiense (J. L. Wu & P. Zhuang) J. M. H. Shaw **comb. et stat. nov.**

Basionym: *Dysosma majoensis* (Gagnep.) M. Hiroe var. *emeiensis* J. L. Wu & P. Zhuang, *Pl. Mt. Emei*: 484 (2007).

= *Dysosma emeiensis* J. L. Wu & P. Zhuang, *J. Wuhan Bot. Res.* **11**(1): 41–46 (1993) *nom. inval.* Art. 32.1.

Plants of Mount Emei (Li & Shi, 2007) is a catalogue of the flora of Emei Shan with special reference to endemic taxa, many of which are

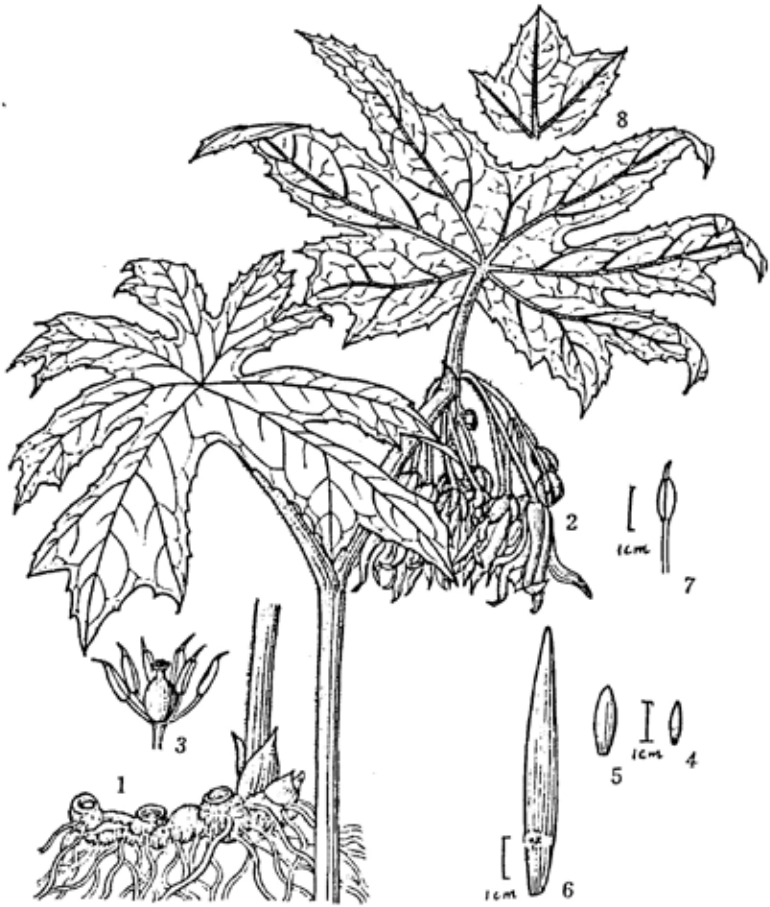

Fig. 2. ***Podophyllum emeiense*; unpublished illustration provided by Ping Zhuang. 1. Rhizome. 2. Aerial stem with inflorescence. 3. Flower with petals and sepals removed. 4. Inner sepal. 5. Outer sepal. 6. Petal. 7. Stamen. 8. Underside of leaf lobe apex.**

illustrated with high-quality colour images. As there is no detailed index and the pages of colour plates are unnumbered, although they are interspersed with text pages and continue the pagination sequence, details of where *Podophyllum* references may be found are given in Table 1 (p. 53).

Those working with the *Flora of Emei Shan* may wish to use the key to *Podophyllum* of Emei Shan in the *New Plantsman* (Shaw, 1999b) which has been successfully field-tested by Mikinori Ogisu.

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The correct name for the weeping form of the Indian mast tree (*Polyalthia longifolia*, *Annonaceae*)

I. M. TURNER
Research Associate, Royal Botanic Gardens Kew and Singapore Botanic Gardens

Polyalthia longifolia is a tree species native to Sri Lanka. It has a long history of cultivation in Sri Lanka and India and was originally described in 1782 as *Uvaria longifolia* by Sonnerat from specimens growing in Pondicherry in southern India.

Polyalthia longifolia is typically monopodial with a straight and erect main trunk and spreading side branches forming a relatively narrow crown. However, there is a form of the tree in cultivation with a weeping habit with short down-swept branches producing a very narrow, erect crown. It is commonly grown in gardens, parks and along roads in the Asian tropics and has found favour with landscape architects throughout the tropics. The plant is often referred to as *Polyalthia longifolia* var. *pendula*, but, believing that this taxon had never been validly described under the *International Code of Botanical Nomenclature* (McNeill *et al.*, 2006), I described the weeping form as a cultivar (Turner, 2000), choosing the cultivar name Temple Pillar. However, after further research through the literature it is now possible to make the case for 'Pendula' being the correct name for this entity. While names derived from Latin, such as Pendula, cannot generally be used for cultivated plants according to the *International Code for the Nomenclature of Cultivated Plants* (Brickell *et al.*, 2009), they can if based on epithets first published before 1 January 1959 (Art. 21.6). The earliest published reference to the weeping form of *Polyalthia longifolia* found so far is in *Complete Gardening in India* by K. S. Gopalaswamiengar (Gopalaswamiengar, 1935). In a section on ornamental foliage trees, a description of *Polyalthia longifolia* is followed by the sentence: "The weeping variety of the above, Var. *pendula* is more ornamental." Gopalaswamiengar's diagnosis of the variety in the single word "weeping" is debatable in its descriptive sufficiency but its rendering in English rather than Latin just passes the

deadline (1 January 1935) for valid publication under *ICBN*. *Complete Gardening in India* is largely compiled from Gopalaswamiengar's gardening column from *The Hindu* newspaper, so it is possible that var. *pendula* appeared in print before 1935. Unfortunately I have not been able to obtain access to any issues of the newspaper from the early 1930s. *Polyalthia longifolia* var. *pendula* is also referred to by Benthall (1946) with a more detailed description than provided by Gopalaswamiengar.

In his *Flowering Trees in India* published in 1957, M. S. Randhawa (p. 91) wrote: "An avenue of *Polyalthia pendula* appears very attractive along an ascending road. There is a beautiful avenue of this pendulous variety of asokan in 'Kamla Retreat', the house of Padampat Singhania at Kanpur." On page 171, asokan is given as one of the vernacular names of *Polyalthia longifolia*. Thus there can be no doubt that Randhawa was using *Polyalthia pendula* to refer to the weeping form of *Polyalthia longifolia*. *Polyalthia pendula* is here, certainly invalid as a species under *ICBN* (inadequate description and omission of Latin diagnosis).

Clearly the epithet "pendula" was applied to the weeping form of *Polyalthia longifolia* by those involved with horticulture in India well before 1959. Has the epithet been established as a cultivar name? After some searching, aided in part by the Internet, I have found an example where it has. There is a description of a visit by a group from the International Dendrology Society to Sri Lanka written by Dr Heino Heine in the Society's Yearbook (Heine, 1997), which includes a reference to *Polyalthia longifolia* 'Pendula' seen in the Royal Botanic Gardens, Peradeniya:

> Another, very frequently seen ornamental tree is the Indian maraillupai, *Polyalthia longifolia* (Annonaceae). Practically all of them belong to the cultivar 'Pendula' (see p. 74) and have a very regular fastigiate columnar habit, due to extensive clonal propagation. These trees have a most decorative, pendulous foliage, showing constantly the phenomenon of the "flushing" of the new shoots with coppery brownish young leaves. In the gardens here is a fine old "normal" specimen as well, with spreading branches, and hardly "pendulous" leaves.

The reference to page 74 concerns a photograph of a row of *Polyalthia longifolia* 'Pendula' in front of the Department of Agriculture building in the Botanic Gardens. These trees are mostly still alive at the time of writing (A. M. A. S. Attanayake, pers. comm.). Heine's description and accompanying photograph are perfectly adequate for diagnosing the cultivar, though technically "fastigiate" is misapplied as the side branches are pendent not almost erect as in a truly fastigiate tree. Heine's publication was certainly before my own, and therefore 'Pendula' has priority over 'Temple Pillar' and should be used. I propose Heine's published photograph as the nomenclatural standard for the variety (cf. *ICNCP* Div. V Note 6) as it is difficult to capture the diagnostic branching pattern of the tree on a herbarium sheet.

Given that *Polyalthia longifolia* was originally described from cultivation could the type specimen have been of the weeping habit (which would have major nomenclatural repercussions)? I do not believe it is possible to tell the forms apart from specimens of foliage (reproductive or not) – they differ solely in the branching habit. However, despite some authors claiming that the weeping form is an ancient cultivar, none of the floras or horticultural works from the nineteenth or early twentieth centuries that I have consulted makes any mention of the striking columnar variety. It seems to me likely that it has a more recent origin than perhaps expected from its common use in the grounds of historic temples.

Nomenclature

Polyalthia longifolia (Sonn.) Thw., *Enumeratio plantarum zeylaniae* 398 (1864).

Basionym: *Uvaria longifolia* Sonn., *Voyage aux Indes orientales et à la Chine* **2**: 233, t. 131 (1782); *Voyage aux Indes orientales et à la Chine* (octavo ed.) **3**: 260 (1782).

= *Uvaria altissima* J. König ex Pennant, *Outlines of the Globe* **1**: 83, t. 5 (1798), *nom. superfl.*

= *Unona longifolia* (Sonn.) Dunal, *Monographie de la famille des Anonacées* 109 (1817)

= *Guatteria longifolia* (Sonn.) Wall., *A numerical list of dried plants in the East India* Company's *Museum* no. 6442 (1832).

Type: Sonnerat's plate (lectotype, selected by Huber (1985)).

'**Pendula**' K. S. Gopalaswamiengar, *Complete gardening in India*: 229 (1935), as var. *pendula*, *nom. inval. ICBN* Art. 36.1.
Nomenclatural standard: Photograph in H. Heine, *International Dendrology Society Yearbook* 1996: 74 (photo on right) (1997).
= *Polyalthia pendula* M. S. Randhawa, *Flowering trees in India* 91 (1957), *nom. inval. ICBN* Art. 36.1, *non Polyalthia pendula* Capuron ex G. E. Schatz & Le Thomas (1990).
= 'Temple Pillar' I. M. Turner, *Gardenwise* **15**: 9 (2000).
Nomenclatural standard: Photograph in I. M. Turner, *Gardenwise* **15**: 9 (2000).

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Ribes × *beatonii*, the original name for *Ribes aureum* × *sanguineum*

E. C. NELSON
Tippitiwitchet Cottage, Hall Road, Outwell, Wisbech, Cambridgeshire PE14 8PE

A short, anonymous paragraph in *The Gardeners' Chronicle* on 30 April 1842 reported that a "*New Ribes*" had recently blossomed in the Clapton Nursery, then owned by Hugh Low (Willson, 1982: 105–106). The plant had been raised by Donald Beaton from *Ribes sanguineum* Pursh (red-flowering currant) deliberately cross-pollinated by *R. aureum* Pursh (golden currant), both north American species quite recently introduced to cultivation. The flowers, produced as profusely as in the seed-parent, were described as "being of a reddish yellow colour, more slender than those of *R. sanguineum*, while the leaves bear a strong resemblance to those of *R. aureum*." The habit was characterised as differing from both its parents "being ... much more erect and graceful" (Anon., 1842: 288). The paragraph was repeated or paraphrased in several other contemporary periodicals (for example, *Paxton's Magazine of Botany* **9**: 118, 1842). In none of these publications was any name provided for the hybrid.

A year later, in Loudon's *The Gardener's Magazine,* the plant was initially reported under the name *Ribes hybridum* without a description (Loudon, 1843a: 58): that binomial was not available because Besser (1809: 186) had published it for a European plant that was identical with *R. grossularia* L. Subsequently, in the same volume of *The Gardener's Magazine*, within "Arboricultural Notices" (Loudon, 1843b: 269), the currant was named *Ribes beatonii*: "a hybrid ... between *R. sanguineum* and *R. aureum* ... It is a vigorous plant, with long racemes of flowers, partaking of the colour of both species." Although very brief, this description is adequate to validate the name. Don (1845) listed "*Ribes Beatoni*" citing *Edward's Botanical Register* as the source of the name and although a list of *Ribes* was published in "Miscellaneous matter of the *Botanical Register* 1843" it does not include this name.

Very soon after Loudon's note was issued, a second name was published for this hybrid currant. The shrub was listed as "New; rare"

under the invalid name "*Ribes Hybridus Gordonianum*" in the seventh edition of William Kenrick's *The New American Orchardist* (1844: 450), for example. This suggests that it was thought inappropriate that the working gardener and not his deceased employer was receiving the credit: it is, of course, quite possible that Beaton himself wanted the name to change.

The name *Ribes gordonianum* was used by Charles Lemaire when the hybrid was illustrated in plate 165, dated November 1846, in *Flore de serres*. Lemaire seems to have been puzzled by this epithet and indicated that he did not know who the author was: "...et pour nous, nous ignorons l'auteur de son appellation dédicative". He referred to *Paxton's Magazine of Botany* but not to Loudon's *The Gardener's Magazine*, and clearly knew that Beaton was working at that time for Sir William Middleton at Shrubland Park. Subsequently, numerous authors (for example Koch, 1863a and 1863b) mistakenly stated that Paxton had named the hybrid – in fact, Paxton did not use any binomial even when he referred to the plant a second time (Paxton, 1843b).

After Lemaire's publication, the replacement eponym *gordonianum* was more commonly used, although authors sometimes were bewildered by it, implying that *beatonii* was more apposite (see, for example, Koch's (1863a) article about red- and yellow-blossomed "Johannisbeere" and the French translation of it (Koch, 1863b): "Ce même hybride était cultivé ... sous le nom de *Ribes Beatoni* qui rappelait le jardinier à qui il était dû; cette dernière dénomination lui est encore conservée par quelques personnes."

An added complication was indicated by Goldring (1888): "R[ibes]. Gordonianum ... is also known under the name R. Beatoni and R. Loudoni ...". This is not the earliest indication of the epithet *loudonii*, which also does not appear to have been validly published; it was included by Lavallée (1877: 121) in synonymy under *R. gordonianum* but without any explicit source. I have failed to trace an earlier printing of the name. Lavallée (1877) also gave "R. Bactoni *Aliq. Hort.*" as yet another synonym but it is most probably a misprinting of *beatonii* – "ac" instead of "ea" – although he also had a variety of *R. nigrum* with that particular name.

There is little doubt that *Ribes* × *beatonii* was the first name published for the artificial hybrid *R. sanguineum* × *aureum*, and under the *International Code of Botanical Nomenclature* (McNeill *et al*, 2006) it has priority and should be used instead of the later *R.* × *gordonianum*. There follows a summary of the synonymy of *R.* × *beatonii*.

Ribes × **beatonii** hortulanorum ex Loudon, *The Gardener's Magazine* **19**: 269 (1843b).
Neotype: icon. *Flore de Serres et des Jardins de l'Europe* **2**, plate 165.
= *R.* × *gordonianum* hortulanorum ex Lemaire, *Flore de Serres et des Jardins de l'Europe* **2**, plate 165 (1846)
= *R.* × *loudonii nom. ined.*, cit. Lavallée, *Arboretum Segrezianum. Énumération des arbres et arbrisseaux cultivés à Segrez, Seine-et-Oise* 121 (1877)
= *R.* × *bactonii sphalm.*, cit. Lavallée, *Arboretum Segrezianum. Énumération des arbres et arbrisseaux cultivés à Segrez, Seine-et-Oise*, 121 (1877).

A note on Donald Beaton (1802–1863)

Donald Beaton was a Gaelic-speaking native of Urray, Ross-shire, Scotland (Waymark, 2009). In 1829 he became a gardener and general manager at Haffield House in Hertfordshire, England, which was owned by William Gordon (1794–1836). Loudon (1837) noted:

> [Beaton] has been gardener and general manager to William Gordon, Esq., at Haffield, for the last eight years; and only leaves his situation in consequence of the death of his employer, and the reduction of the establishment. While in the employment of Mr. Gordon, he had, as he informs us, peculiar advantages for acquiring professional knowledge, being allowed the travelling expenses which he annually incurred in visiting gardens in distant parts of the country, including the London nurseries; and even the expense of an extensive correspondence with gardeners was defrayed by Mr. Gordon, who allowed him the free use of his extensive library.

Beaton found employment as gardener to Thomas Harris in Kilburn, London, before becoming head gardener at Shrubland Park in Suffolk,

the home of Sir William Middleton, in 1840. Beaton was credited with creating spectacular displays of summer bedding at Shrubland Park. As well as being a practical and expert gardener, he regularly wrote articles for *The Cottage Gardener* and also contributed to Loudon's *The Gardener's Magazine* and *The Gardeners' Chronicle*: Elliott (1990) wondered if Beaton had been the "greatest gardening journalist of the early nineteenth century". Beaton was adept at cross-breeding plants; in his autobiography he stated that while at Haffield House he had "crossed all sorts of plants". This experience led him to correspond indirectly through the columns of the *Journal of Horticulture* (formerly *The Cottage Gardener*) with Charles Darwin (see Elliott, 2010), but Darwin soon came to the conclusion Beaton was untrustworthy as far as botanical matters were concerned, "a clever, but d—d cock-sure man".

Given the date of the first notice of *Ribes* × *beatonii*, as well as the second name for it, his hybrid currant must have been raised while Beaton was employed by Gordon at Haffield House. It could not have originated at Shrubland Park (as erroneously stated, for example, by Bean, 1921). Donald Beaton was also commemorated in the generic name *Beatonia* by the Very Reverend William Herbert; it is relegated to synonymy under *Tigridia* Ker-Gawl. Beaton had cultivated this at Kilburn. One other plant was named after him, at least in gardening circles – the "very pretty" *Achimenes beatonii*, cultivated by W. P. Ayres, gardener to J. Cook Esq., of Brooklands, Blackheath, was shown at the Horticultural Society in Chiswick on 21 June 1845 (Harrison, 1846: 12). The plant circulated on the continent (Anonymous, 1847: 162, 187) and was described in some detail as a variety of *A. rosea* Lindl. by Löscher (1849: 135; see also Regel, 1848: 251).

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Recombination of *Iris* × *norrisii*

C. M. WHITEHOUSE
RHS Garden Wisley, Woking, Surrey GU23 6QB

The RHS Advisory Committee on Nomenclature and Taxonomy agreed to adopt for the 2011–2012 edition of the *RHS Plant Finder* the generic circumscriptions found in Goldblatt & Manning (2008). Two previously recognised monotypic genera, *Belamcanda* and *Pardanthopsis*, have now been sunk into *Iris*. *Pardanthopsis dichotoma* had previously been known as *I. dichotoma*, so no recombination was needed. On the other hand, as the epithet "chinensis" was already in use under *Iris* for a different species, *Belamcanda chinensis* needed the new name of *I. domestica* (L.) Goldblatt & Mabb. (Goldblatt & Mabberley, 2005).

However, there is also a hybrid between these two species, which is widely grown in horticulture under the common name candy lily. It was raised by Samuel Norris in 1967 by pollinating flowers of *Iris dichotoma* with pollen from *I. domestica* Avalon Hybrids. It was described by Lee Lenz some five years later as the bigeneric hybrid × *Pardancanda norrisii*. As this hybrid binomial does not appear to have a valid name under *Iris*, the requisite combination is published here.

Iris × **norrisii** (L. W. Lenz) C. Whitehouse **comb. nov.**
Basionym: × *Pardancanda norrisii* L. W. Lenz, *Aliso* **7**: 407 (1972).
Holotype: USA: California, Rancho Santa Ana Botanic Garden, grown from plants received from Samuel N. Norris, Owensboro, Kentucky. *Lee W. Lenz* 24895 (**RSA**).

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Proposal to amend the *International Code of Nomenclature for Cultivated Plants*

A. C. LESLIE
109 York Street, Cambridge CB1 2PX

Proposal H1: Date of Publication

> (H1) Art.26.4. Notwithstanding Art. 26.1, if a printed trade catalogue *or other publication* contains no evidence of date, subsequent published research may determine the effective date of that publication.

This proposal removes an anomaly in the current *ICNCP* (Brickell *et al.*, 2009) which enables research to establish the date of publication of an otherwise undated trade catalogue, but makes no provision for establishing dates for any other publication. The remainder of the article does not place restrictions on the publications covered and indeed the example given in Art. 26.4 Ex.2 mentions "nursery catalogues *and other publications*". There seems no logical reason to include trade catalogues and exclude other publications from this provision, as the names of new cultivars may potentially be established in a range of other publications besides trade catalogues.

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Brickell, C. D., Alexander, C., David, J. C., Hetterscheid, W. L. A., Leslie, A. C., Malecot, V., Jin, X., & Cubey, J. J. (2009). International Code of Nomenclature for Cultivated Plants, edn 8. *Scripta Horticulturae* **10**: i–xix, 1–184.

Nomenclatural Standards deposited in the Royal Horticultural Society's Herbarium, Wisley (WSY) November 2008 – October 2009

S. R. GRAYER
RHS Garden Wisley, Woking, Surrey GU23 6QB

In accordance with Division V.7 of the *International Code of Nomenclature for Cultivated Plants* (Brickell *et al.*, 2009), the following items in the Royal Horticultural Society's herbarium at Wisley (**WSY**) are hereby designated nomenclatural standards. This list is a continuation of the list previously published in *Hanburyana* **4**: 89–96 (2009).

The list that follows gives the plant name; the date it was collected or registered together with the form the standard takes (i.e. herbarium specimen – flowering (fl), fruiting (fr), vegetative (v); illustration – painting (p), photographic transparency (tr), colour photograph (pc) which includes prints from digital files); and the unique accession number.

Acer pauciflorum 'Blaze Away', 24 Sep 2009, (fr), WSY0112868
Agapanthus 'Aimee', 23 Jul 2009, (fl), WSY0112779
Anemone hupehensis 'Hadspen Abundance', 9 Sep 1997, (fl), WSY0070170
Azara serrata 'Maurice Mason', 16 May 2001, (fl), WSY0032965
Carex pendula 'Moonraker', 23 May 2009, (fl), WSY0112334
Centranthus ruber 'Nettleton', 23 Oct 2007, (fl), WSY0100510
Chrysanthemum 'Belle Chinoise', 1 Dec 1925, (p), WSY0016209
Chrysanthemum 'Husky', 14 Sep 2009, (fl), WSY0112954
Chrysanthemum 'Tim Wonnacott', 12 Jul 2009, (fl), WSY0112560
Clematis 'Akane no tsubo', 25 Sep 2008, (pc), WSY0112011
Clematis 'Andrew Van Laeken', 20 Nov 2008, (pc), WSY0101983
Clematis 'C.G. Dahl', 24 Jul 2008, (pc), WSY0101979
Clematis × *cartmanii* 'Joanna', 1996, (fl), WSY0096949
Clematis 'Celebration'(PBR), (pc), WSY0100485
Clematis 'Center Star', 1 Sep 2008, (pc), WSY0101980
Clematis CHEVALIER 'Evipo040', 23 May 2009, (fl), WSY0112367

Clematis DIANA'S DELIGHT 'Evipo026', 23 May 2009, (fl), WSY0112366
Clematis 'Dorothy Barbara', 28 Apr 2007, (fl), WSY0100831
Clematis FLEURI 'Evipo042', 23 May 2009, (fl), WSY0112368
Clematis 'Fuji-no-izumi', 2007, (pc), WSY0100497
Clematis 'Irene', 20 Nov 2008, (pc), WSY0101984
Clematis 'Jolly Jake', 18 May 2005, (pc), WSY0096750
Clematis 'Kahori no kimi', 25 Sep 2008, (pc), WSY0112013
Clematis 'Kasumi-no-kimi', 25 Sep 2008, (pc), WSY0112014
Clematis 'Murasaki no ue', 25 Sep 2008, (pc), WSY0112015
Clematis OOH LA LA 'Evipo041', 23 May 2009, (fl), WSY0112365
Clematis patens 'BCL 721', 24 Jul 2008, (pc), WSY0101978
Clematis 'Special Occasion', 1997, (tr), WSY0096800
Clematis 'Yugao', 25 Sep 2008, (pc), WSY0112016
Clematis 'Yugiri', 25 Sep 2008, (pc), WSY0112017
Cornus 'Norman Hadden', 9 Jul 1974, (fl), WSY0064837
Cornus 'Ormonde', 8 Aug 1972, (v), WSY0064881
Cornus 'Porlock', 18 Jun 1968, (fl), WSY0064883
Cymbidium Avranches grex 'Roche d'Or', 12 Feb 2008, (fl), WSY0101678
Cymbidium Loch Jess grex 'Lewes', 17 Mar 2008, (fl), WSY0101671
Cymbidium Mourier Point grex 'Saint Mary's Village', 15 Mar 2008, (fl), WSY0101677
Cymbidium Paternoster grex 'Trinity', 15 Jan 2008, (fl), WSY0101676
Dahlia 'Ace Summer Emotions' (PBR), 13 Mar 2008, (pc), WSY0101079
Dahlia 'Aladdin's Lamp', 25 Jan 2007, (pc), WSY0096680
Dahlia AMERICAN PIE 'Vdtg26' (PBR) (Dark Angel Series), 9 Oct 2008, (pc), WSY0101541
Dahlia 'Anna Mari US', 2 Oct 2008, (pc), WSY0101529
Dahlia 'Avoca Cheyenne', 15 Nov 2007, (pc), WSY0100699
Dahlia 'Avoca Comanche', 15 Nov 2007, (pc), WSY0100703
Dahlia 'Babylon Brons', 11 Sep 2008, (pc), WSY0101522
Dahlia 'Babylon Lila', 11 Sep 2008, (pc), WSY0101523
Dahlia 'Babylon Paars', 11 Sep 2008, (pc), WSY0101524
Dahlia 'Beemster's Mill Nightingale', 1 May 2008, (pc), WSY0101146
Dahlia 'Bill McKnight's Memory', 13 Sep 2007, (pc), WSY0100438
Dahlia 'Bob T', 9 Oct 2008, (pc), WSY0101645
Dahlia BRAVEHEART 'Vdtg67' (PBR) (Dark Angel Series), 9 Oct 2008, (pc), WSY0101536

Dahlia 'Butterpat', 6 Sep 2007, (fl), WSY0100537
Dahlia 'Cairo', 28 Jun 2007, (pc), WSY0100224
Dahlia 'Camargue', 11 Sep 2008, (pc), WSY0101526
Dahlia 'Davida', 9 Oct 2008, (pc), WSY0101551
Dahlia 'Deveny's Symphony', 27 Mar 2008, (pc), WSY0101129
Dahlia 'Diamond Prince', 8 Aug 2007, (pc), WSY0100414
Dahlia 'Dikara Apricot', 11 Sep 2007, (fl), WSY0100323
Dahlia 'Dikara Kelly', 18 Sep 2007, (fl), WSY0100395
Dahlia 'Dilys Ayling' , 2 Oct 2008, (pc), WSY0101534
Dahlia 'Ellie Taylor', 2 Oct 2008, (pc), WSY0101533
Dahlia 'Esta Bonita',12 Jun 2008, (pc), WSY0101210
Dahlia 'Evelyn Hancock', 1 Sep 1926, (p), WSY0017162
Dahlia 'Evelyn Taylor', 1 Feb 2007, (pc), WSY0096675
Dahlia 'Gallery Serenade' (PBR), 27 Mar 2008, (pc), WSY0101088
Dahlia 'Gallery Sisley', 27 Mar 2008, (pc), WSY0101085
Dahlia 'Griotte', 24 Jan 2008, (pc), WSY0100908
Dahlia 'Heather Jean', 9 Oct 2008, (pc), WSY0101552
Dahlia 'HS Date' (PBR), 13 Mar 2008, (pc), WSY0101082
Dahlia 'Janick's Symphony', 27 Mar 2008, (pc), WSY0101132
Dahlia 'Joanne Taylor', 1 Feb 2007, (pc), WSY0096674
Dahlia 'Kaio-sei J', 10 Apr 2008, (pc), WSY0101139
Dahlia 'Karma Choc' (PBR), 8 Aug 2007, (pc), WSY0100710
Dahlia 'Karma Irene' (PBR), 13 Mar 2008, (pc), WSY0101081
Dahlia 'Karma Pink Corona' (PBR), 12 Jul 2007, (pc), WSY0100709
Dahlia 'Karma Red Corona' (PBR), 26 Jul 2007, (pc), WSY0100708
Dahlia 'Kathy Bateson', 20 Dec 2007, (pc), WSY0100790
Dahlia 'Let's Dance', 9 Oct 2008, (pc), WSY0101540
Dahlia 'Lia Fiorina', 29 Mar 2007, (pc), WSY0096917
Dahlia 'Lilianna W', 2 Oct 2008, (pc), WSY0101531
Dahlia 'Little Abi', 20 Dec 2007, (pc), WSY0100787
Dahlia 'Marion Storer', 15 Nov 2007, (pc), WSY0100706
Dahlia 'Maroon Fox' (PBR), 9 Oct 2008, (pc), WSY0101537
Dahlia 'Mayan Blood', 16 Aug 2005, (fl), WSY0070260
Dahlia 'Mayan Firecracker', 25 Jan 2007, (pc), WSY0096682
Dahlia 'Mayan Swan', 6 Sep 2007, (fl), WSY0100458
Dahlia 'Melody Fanfare' (PBR), 13 Mar 2008, (pc), WSY0101084
Dahlia 'Melody Harmony' (PBR), 13 Mar 2008, (pc), WSY0101083
Dahlia 'Melody Lizza' (PBR), 13 Mar 2008, (pc), WSY0101086

Dahlia 'Miss Alison', 22 Sep 2009, (fl), WSY0112861
Dahlia 'Miss Blanche', 28 Jun 2007, (pc), WSY0100227
Dahlia 'Monet Mystique', 25 Jan 2007, (pc), WSY0096681
Dahlia 'Monet Sunlight', 25 Jan 2007, (pc), WSY0096683
Dahlia 'Nanno' Treseder, 1931, (p), WSY0016982
Dahlia 'Noir Desir', 2 Oct 2008, (pc), WSY0101530
Dahlia 'Palmares', 2 Oct 2008, (pc), WSY0101532
Dahlia 'Penhill Lavender Prince', 6 Dec 2007, (pc), WSY0100772
Dahlia PRETTY WOMAN 'Vdtg43' (PBR) (Dark Angel Series), 9 Oct 2008, (pc), WSY0101539
Dahlia 'Princesse Gracia', 25 Sep 2008, (pc), WSY0101436
Dahlia 'Princesse Laetitia', 25 Sep 2008, (pc), WSY0101437
Dahlia PULP FICTION 'Vdtg61' (PBR) (Dark Angel Series), 9 Oct 2008, (pc), WSY0101538
Dahlia 'Purple Explosion', 12 Jun 2008, (pc), WSY0101209
Dahlia 'Purple Flame', 28 Jun 2007, (pc), WSY0100226
Dahlia 'Ragazza', 5 Jun 2008, (pc), WSY0101208
Dahlia 'Revive', 23 May 2009, (fl), WSY0112390
Dahlia 'Roma' (PBR), 13 Sep 2007, (pc), WSY0100440
Dahlia 'Royal Mail', 25 Jan 2007, (pc), WSY0096687
Dahlia 'Scarlet Gem' Dobbie, 1932, (p), WSY0016593
Dahlia 'Serkan', 5 Jun 2008, (pc), WSY0101205
Dahlia 'Sophie Estié', 17 Apr 2008, (pc), WSY0101144
Dahlia 'Spanish Conquest', 14 Aug 2007, (fl), WSY0100460
Dahlia 'Stars and Stripes', 5 Jun 2008, (pc), WSY0101206
Dahlia 'Stephanie Chateau', 1 Feb 2007, (pc), WSY0096688
Dahlia 'Tirreno', 12 Jun 2008, (pc), WSY0101207
Dahlia 'Valbonne', 9 Oct 2008, (pc), WSY0101535
Dahlia 'Weissenpracht', 11 Sep 2008, (pc), WSY0101527
Dahlia 'Will's Carousel', 25 Sep 2008, (fl), WSY0112177
Dahlia 'Wizard of Oz', 25 Sep 2008, (pc), WSY0101435
Dahlia 'Wolstenholme's Fusilier', 6 Sep 2007, (fl), WSY0100515
Dahlia 'Woodbridge', 11 Sep 2007, (fl), WSY0100448
Dahlia 'Wymott', 11 Sep 2008, (pc), WSY0101528
Daphne 'Spring Beauty', 3 Mar 2009, (fl), WSY0112139
Daphne 'Spring Herald', 3 Mar 2009, (fl), WSY0112140
Delphinium 'Joanna', 27 Jun 2007, (fl), WSY0100175
Delphinium 'Purple Haze', 27 Jun 2007, (fl), WSY0100176

Dianthus alpinus 'Gwen's Blush', 16 May 2007, (tr), WSY0100127
Dianthus 'Anders Cherry Ripe', 15 Aug 2007, (pc), WSY0100741
Dianthus 'Anders Crimson Flame', 15 Aug 2007, (pc), WSY0100744
Dianthus 'Anders Crystal', 15 Aug 2007, (pc), WSY0100746
Dianthus 'Anders Molly Mo', 15 Aug 2007, (pc), WSY0100742
Dianthus 'Anders Peace', 15 Aug 2007, (pc), WSY0100739
Dianthus 'Anders Pluto', Aug 2007, (pc), WSY0100737
Dianthus 'Anders Salmon Sensation', 15 Aug 2007, (pc), WSY0100740
Dianthus 'Anders Tiny Tim', 15 Aug 2007, (pc), WSY0100743
Dianthus 'Bofield Louisa', 21 May 2007, (fl), WSY0112285
Dianthus 'Bofield Sadie', 21 May 2007, (fl), WSY0112287
Dianthus 'Camilla West', 13 Jul 2007, (fl), WSY0100269
Dianthus 'Don Portman', Jul 2003, (fl), WSY0041910
Dianthus 'Freda Woodliffe', 16 Jun 2008, (fl), WSY0101351
Dianthus 'Highland Charlie Davidson', 30 Oct 2007, (pc), WSY0100755
Dianthus 'Highland Dad's Memory', 30 Oct 2007, (pc), WSY0100758
Dianthus 'Highland John and Olivia', 30 Oct 2007, (pc), WSY0100757
Dianthus 'Highland Michael Wares', 30 Oct 2007, (pc), WSY0100760
Dianthus 'Joanne Lane', 13 Feb 2008, (pc), WSY0101040
Dianthus 'Kessock Flare', Sep 2009, (pc), WSY0112859
Dianthus 'Linfield Julie', 21 May 2007, (pc), WSY0100129
Dianthus 'Linfield Sarah Drage', 3 Dec 2007, (pc), WSY0100798
Dianthus 'Smasher', 24 Jul 2007, (pc), WSY0100759
Dianthus 'Sutton Amethyst', 20 Feb 2008, (pc), WSY0100965
Dianthus 'Sutton Bella Rouge', 2005, (pc), WSY0100966
Dianthus 'Sutton Crimson Halo', 2007, (pc), WSY0100967
Dianthus 'Sutton Double Duch', 2007, (pc), WSY0100968
Dianthus 'Sutton English Beauty', 2007, (pc), WSY0100969
Dianthus 'Sutton Fair Dinkum', 2007, (pc), WSY0100970
Dianthus 'Sutton Garnet Rose', 2007, (pc), WSY0100971
Dianthus 'Sutton Halcyon Days', 2007, (pc), WSY0100972
Dianthus 'Sutton Indian Silk', 20 Feb 2008, (pc), WSY0100973
Dianthus 'Sutton Indigo Ice', 2007, (pc), WSY0100974
Dianthus 'Sutton Mayfair', 2007, (pc), WSY0100975
Dianthus 'Sutton Melissa Haywood', 20 Feb 2008, (pc), WSY0100976
Dianthus 'Sutton Nile Sunset', 2005, (pc), WSY0100977
Dianthus 'Sutton Pamela Anne', 2006, (pc), WSY0100979

Dianthus 'Sutton Pamela's Choice', 2007, (pc), WSY0100978
Dianthus 'Sutton Peter Newby', 2007, (pc), WSY0100981
Dianthus 'Sutton Symphony', 2007, (pc), WSY0100982
Dianthus 'Sutton Tequila Rose', 20 Feb 2008, (pc), WSY0100983
Dianthus 'Sutton Twilight Shadow', 20 Feb 2008, (pc), WSY0100984
Epimedium 'Flowers of Sulphur', 21 Apr 2009, (fl), WSY0112872
Epimedium 'Madame Butterfly', 21 Apr 2009, (fl), WSY0112871
Epimedium 'Pink Elf' (PBR), 27 Apr 2009, (fl), WSY0112307
Fritillaria graeca subsp. *graeca* 'Bill Ivey', 5 Apr 2008, (fl), WSY0112273
Galanthus nivalis 'Dame Margot Fonteyn', Mar 2009, (fl), WSY0112317
Galanthus nivalis 'Dunskey Talia', 31 Jan 2008, (fl), WSY0100893
Gentiana 'Balmoral' (PBR), 4 Oct 2005, (fl), WSY0085193
Gentiana 'Saltire', 11 Oct 2006, (fl), WSY0089906
Geranium (Cinereum Group) 'Queen of Hearts', 15 Jun 2006, (fl), WSY0097760
Geranium 'King Penda', 22 Jul 2004, (fl), WSY0075929
Geranium 'Meryl Anne', 5 Jul 2004, (fl), WSY0075766
Geranium × *oxonianum* 'Cream Chocolate', 22 Jun 2004, (fl), WSY0070387
Geranium × *oxonianum* 'Rosemary Verey', 15 Jul 2004, (fl), WSY0075858
Geranium phaeum 'George Stone', 25 Apr 2007, (fl), WSY0098806
Geranium phaeum 'Rachel's Rhapsody', 25 Apr 2007, (fl), WSY0098816
Geranium psilostemon 'Jason Bloom', 22 Jul 2004, (fl), WSY0075961
Geranium sanguineum ALAN BLOOM 'Bloger' (PBR), 11 Jul 2005, (fl), WSY0087063
Geranium sanguineum 'Joanna', 11 Jul 2005, (fl), WSY0087048
Geranium sanguineum 'Robin's Rascal', 8 Jul 2005, (fl), WSY0087041
Geranium 'Southease Celestial', 20 May 2004, (fl), WSY0051169
Geranium sylvaticum 'Coquetdale Lilac', 18 May 2006, (fl), WSY0096485
Hebe 'Baby Blush' (PBR), 17 Jun 2009, (fl), WSY0112434
Hebe 'Black Knight', 26 Jun 2009, (fl), WSY0112594
Hebe 'Lowink', 17 Jun 2009, (fl), WSY0112437
Hebe 'Neopolitan', 1 Jul 2009, (fl), WSY0112595

Hebe 'Nold' (PBR), 17 Jun 2009, (fl), WSY0112435
Hebe 'Valentino' (PBR), 17 Jun 2009, (fl), WSY0112432
Hedera helix L. 'The Cup', 6 Oct 2009, (v), WSY0112964
Hydrangea 'Darlido' (PBR), 23 Jul 2007, (fl), WSY0105310
Hydrangea paniculata 'Ammarin', 31 Jul 2008, (fl), WSY0112130
Hydrangea paniculata 'Big Ben', 6 Aug 2007, (fl), WSY0112132
Hydrangea paniculata 'Bridal Veil', 3 Aug 2007, (fl), WSY0105354
Hydrangea paniculata 'Bulk' (PBR), 31 Jul 2008, (fl), WSY0112134
Hydrangea paniculata 'Dolly', 31 Jul 2008, (fl), WSY0112127
Hydrangea paniculata 'Great Escape', 6 Aug 2007, (fl), WSY0100723
Hydrangea paniculata 'Last Post', 25 Jul 2008, (fl), WSY0112129
Hydrangea paniculata 'Sherwood', 31 Jul 2008, (fl), WSY0112126
Hydrangea paniculata 'Tender Rose', 23 Jul 2007, (fl), WSY0105315
Hydrangea paniculata 'White Goliath', 31 Jul 2008, (fl), WSY0112135
Kniphofia 'Ample Dwarf', 14 Jul 2009, (fl), WSY0112950
Lathyrus odoratus 'Cherub Crimson', 26 Jun 2009, (fl), WSY0112473
Lathyrus odoratus 'Cyril Plater', 1 Jul 2008, (fl), WSY0101565
Lathyrus odoratus 'Duo Salmon', 26 Jun 2009, (fl), WSY0112494
Lathyrus odoratus 'Geoff Hughes', 23 Jul 2009, (fl), WSY0112613
Lathyrus odoratus 'Kiera Madeline', 23 Jul 2009, (fl), WSY0112616
Lathyrus odoratus 'Leominster Boy', 23 Jul 2009, (fl), WSY0112615
Lathyrus odoratus 'Lipstick', 26 Jun 2009, (fl), WSY0112605
Lathyrus odoratus 'Naomi Nazareth', 27 Jun 2008, (fl), WSY0101555
Lathyrus odoratus 'Sir Jimmy Shand', 1 Jul 2008, (fl), WSY0101563
Lathyrus odoratus 'Sir Max Hastings', 1 Jul 2008, (fl), WSY0101554
Lathyrus odoratus 'Summer Sunshine', 27 Jun 2008, (fl), WSY0101558
Lathyrus odoratus 'Yvette Ann', 28 Jun 2008, (fl), WSY0101556
Lavandula angustifolia 'Coconut Ice' (PBR), 5 Jan 2003, (fl), WSY0112618
Lavandula angustifolia 'Elizabeth', 12 Aug 2001, (fl), WSY0112606
Lavandula × *chaytoriae* 'Joan Head', 27 Jul 2002, (fl), WSY0112318
Lavandula × *chaytoriae* 'Molton Silver', 5 Jan 2003, (fl), WSY0112601
Lavandula dentata var. *dentata* 'Dusky Maiden', 1 Jul 2009, (fl), WSY0112599
Lavandula × *intermedia* 'Caversham Blue', 15 Aug 1996, (fl), WSY0112617
Lavandula × *intermedia* 'Nizza', 25 Oct 2001, (fl), WSY0112602
Lilium 'Clarion', 24 Aug 1981, (pc), WSY0112245

Lilium 'Emerald Beauty', 5 Sep 1992, (pc), WSY0112351
Lilium 'Feuerwerksmusik', 17 Feb 1997, (pc), WSY0112359
Lilium 'Fireworks', 16 Mar 1988, (pc), WSY0112362
Lilium 'Firnengold', 15 Apr 1999, (pc), WSY0112361
Lilium 'Flamenco', 16 Nov 1992, (pc), WSY0112360
Lilium 'Gartenglück', 26 Mar 1998, (pc), WSY0112363
Lilium 'Golden Dew', 18 Mar 1987, (pc), WSY0112354
Lilium 'Goldener Pavillon', 14 Apr 1999, (pc), WSY0112355
Lilium 'Goldener Turban', 15 Apr 1999, (pc), WSY0112352
Lilium 'Graf Almaviva', 19 Feb 1997, (pc), WSY0112356
Lilium 'Halka', 20 Feb 1997, (pc), WSY0112357
Lilium 'Libretto', 12 Nov 1992, (pc), WSY0112353
Lilium 'Little Egypt', 1981, (pc), WSY0112350
Lilium 'Sonnenflecken', 17 Feb 1997, (pc), WSY0112309
Lunaria annua 'Nettleton', 2 May 2007, (fl), WSY0100077
Miltonia La Garenne grex 'Jersey', 17 Mar 2007, (fl), WSY0101675
Miltonia Le Couperon grex 'Jersey', 17 Mar 2007, (fl), WSY0101670
Miltonia Point des Pas grex 'Jersey', 21 Apr 2009, (fl), WSY0112805
Narcissus 'Akcie', 2002, (pc), WSY0042115
Narcissus 'Andrew's Choice', 28 Mar 2008, (fl), WSY0112067
Narcissus 'Battersby', 30 Jun 2008, (tr), WSY0101389
Narcissus 'Biggar', 30 Jun 2008, (pc), WSY0101384
Narcissus 'Bracken Hill', 18 Apr 1997, (fl), WSY0048724
Narcissus 'Chief Joseph', 30 Jun 2006, (pc), WSY0103848
Narcissus 'Chobe River', 30 Apr 2009, (fl), WSY0112447
Narcissus 'Cormiston', 30 Jun 2008, (pc), WSY0101385
Narcissus 'Dalmeny', 30 Jun 2008, (pc), WSY0101367
Narcissus 'Eastbrook Beauty', 30 Jun 2008, (pc), WSY0101439
Narcissus 'Erin Marie', 30 Jun 2008, (pc), WSY0101440
Narcissus 'French Robin', 30 Jun 2008, (pc), WSY0101357
Narcissus 'Gold Bond', 30 Apr 2009, (fl), WSY0112454
Narcissus 'Golden Twins', 30 Jun 2008, (pc), WSY0101368
Narcissus 'Green Lawns', 30 Jun 2008, (pc), WSY0101370
Narcissus 'Hollowbridge', 30 Jun 2008, (pc), WSY0101361
Narcissus 'Hollypark', 30 Apr 2009, (fl), WSY0112449
Narcissus 'Kiss of Fire', 21 Jun 2006, (pc), WSY0103888
Narcissus 'Lady Eve', 30 Apr 2009, (fl), WSY0112450
Narcissus 'Lakeland Sunset', 30 Jun 2008, (pc), WSY0101253

Narcissus 'Leaf Peeper', 30 Jun 2008, (pc), WSY0101363
Narcissus 'Little Meg', 30 Jun 2008, (pc), WSY0101374
Narcissus 'Little Starlets', 21 Jun 2006, (pc), WSY0103893
Narcissus 'Mayor's Choice', 30 Jun 2008, (pc), WSY0101371
Narcissus 'Mist of Avalon', 30 Jun 2008, (pc), WSY0101373
Narcissus 'Moneybroom', 30 Jun 2008, (pc), WSY0101359
Narcissus 'Narrative', 25 Apr 2007, (fl), WSY0100101
Narcissus 'Nessa', 30 Jun 2008, (pc), WSY0101375
Narcissus 'Otaki Pearl', 30 Jun 2008, (pc), WSY0101386
Narcissus 'Paul Laurence Dunbar', 14 Jun 2007, (pc), WSY0100248
Narcissus 'Penelewey', 22 Mar 1927, (p), WSY0019428
Narcissus 'Pentland Firth', 30 Jun 2008, (pc), WSY0101383
Narcissus 'Rachel Bushen', 28 Mar 2008, (fl), WSY0101387
Narcissus 'Sissy', 30 Jun 2008, (pc), WSY0101378
Narcissus 'Spa Town', 30 Jun 2008, (tr), WSY0101390
Narcissus 'Taughblane', 30 Jun 2008, (pc), WSY0101364
Narcissus 'The Caley', 30 Jun 2008, (pc), WSY0101377
Narcissus 'Water Mill', 30 Jun 2008, (tr), WSY0101388
Narcissus 'West Post', 30 Apr 2009, (fl), WSY0112451
Narcissus 'Zikomo', 30 Jun 2008, (pc), WSY0101438
× *Odontioda* Bouley Bay grex 'Jersey', 15 Jan 2008, (fl), WSY0101672
× *Odontioda* La Villaise grex 'Saint Clement', 11 Dec 2007, (fl), WSY0101663
× *Odontioda* Trodais grex 'Saint Clement', 21 Apr 2009, (fl), WSY0112806
Paphiopedilum Knob Mochizuki grex 'Victoria Village', 15 Jan 2008, (fl), WSY0101682
Pelargonium 'Fir Trees Janet', 18 Aug 2009, (fl), WSY0112770
Pelargonium 'Fir Trees Jennifer', 18 Aug 2009, (fl), WSY0112766
Pelargonium 'Fir Trees Val', 23 Jul 2009, (fl), WSY0112761
Pelargonium 'Jip's Pip', 18 Aug 2009, (fl), WSY0112765
Pelargonium 'Princess Abigail', 18 Aug 2009, (fl), WSY0112763
Pelargonium 'Quantock Perfection', 18 Aug 2009, (fl), WSY0112764
Pelargonium 'Quantock Rory Paul', 18 Aug 2009, (fl), WSY0112772
Phragmipedium Augres grex 'Saint Helier', 11 Dec 2007, (fl), WSY0101684
Phragmipedium Grande grex 'Victoria Village', 21 Apr 2009, (fl), WSY0112869

Phragmipedium Grouville grex 'Trinity', 12 Feb 2008, (fl), WSY0101674
Pterocarya stenoptera 'Fern Leaf', 16 Nov 1999, (v), WSY0019255
Ranunculus ficaria subsp. *bulbilifer* 'The Net', 23 Apr 2007, (fl), WSY0100088
Rhododendron 'Abby Kate', 23 Jan 2008, (pc), WSY0101030
Rhododendron 'Abby Lauren', 30 Dec 2008, (pc), WSY0101961
Rhododendron 'Adrien Le Fur', 1 Jul 2008, (pc), WSY0101331
Rhododendron 'Agnese Pallavicino', 2004, (pc), WSY0112244
Rhododendron 'Alberto Maria De Agostini', 3 Mar 2008, (pc), WSY0101262
Rhododendron 'Alessandra Castelli', 2004, (pc), WSY0112240
Rhododendron 'Alfonso Sella', 10 Mar 2008, (pc), WSY0101264
Rhododendron 'Alicia Kaye', 30 Dec 2008, (pc), WSY0101959
Rhododendron arboreum subsp. *arboreum* 'Tiger's Nest', 28 Apr 2008, (fl), WSY0112005
Rhododendron 'Armonica', 10 Mar 2008, (pc), WSY0101266
Rhododendron 'Balbo', 2008, (pc), WSY0112239
Rhododendron 'Brea Renee', 2 Jan 2008, (pc), WSY0100800
Rhododendron 'Caerhays Lavender', 26 Apr 2008, (fl), WSY0112021
Rhododendron 'Camilla Bianchi', 2004, (pc), WSY0112238
Rhododendron 'Cannero Riviera', 2004, (pc), WSY0112236
Rhododendron 'Caparo', 10 Jul 2008, (pc), WSY0101567
Rhododendron 'Capitano Neil McEacharn' , 2004, (pc), WSY0112231
Rhododendron 'Carroll's Brocaded Pillow', 7 Feb 2005, (pc), WSY0070186
Rhododendron 'Chantal de Kersulec', 21 May 2008, (pc), WSY0101191
Rhododendron 'Città di Biella', 25 Mar 2008, (pc), WSY0101346
Rhododendron 'Commendatore Salvatore Bianchi', 2004, (pc), WSY0112232
Rhododendron 'Conte Alessandro Orsetti', 2004, (pc), WSY0112230
Rhododendron 'December Red', 29 Dec 2008, (pc), WSY0101958
Rhododendron 'Dora Remotti', 10 Mar 2008, (pc), WSY0101267
Rhododendron 'Dotella', 15 Jul 2008, (pc), WSY0101571
Rhododendron 'Ed Hillary', 30 Sep 2008, (pc), WSY0101453
Rhododendron 'Elena Garibaldi', 8 Apr 2008, (pc), WSY0101321
Rhododendron 'Emily Jayde', 23 Jan 2008, (pc), WSY0101032

Rhododendron 'Emma Williams', 26 Apr 2008, (fl), WSY0112019
Rhododendron 'Enzo Piacenza', 8 Apr 2008, (pc), WSY0101338
Rhododendron 'Ermanno De Biaggi', 10 Mar 2008, (pc), WSY0101270
Rhododendron 'Favaro', 10 Mar 2008, (pc), WSY0101272
Rhododendron 'Fay Norman', 6 May 2008, (fl), WSY0101114
Rhododendron 'Felice Piacenza', 11 Mar 2008, (pc), WSY0101274
Rhododendron 'Galinit', 11 Mar 2008, (pc), WSY0101276
Rhododendron 'Giuseppe Bozzalla', 11 Mar 2008, (pc), WSY0101278
Rhododendron 'Grazia Castelli', 2004, (pc), WSY0112228
Rhododendron 'Guido Piacenza', 11 Mar 2008, (pc), WSY0101280
Rhododendron 'Harry's Ruby', 21 May 2008, (fl), WSY0101168
Rhododendron 'Holi', 15 Jul 2008, (pc), WSY0101574
Rhododendron 'Hong Yun', 2008, (pc), WSY0101887
Rhododendron 'Hydon Ben', 3 May 2007, (fl), WSY0108028
Rhododendron 'Ibykus', 15 Jul 2008, (pc), WSY0101576
Rhododendron 'Isabella Cavadini', 2004, (pc), WSY0112223
Rhododendron 'James Colville', 10 Mar 2008, (pc), WSY0101024
Rhododendron 'Jean Leggett', 4 Mar 2008, (pc), WSY0101021
Rhododendron 'Jiao Yan', 2008, (pc), WSY0101889
Rhododendron 'Jin Zhi Zhu', 2008, (pc), WSY0101888
Rhododendron 'Joan Elder', 4 Mar 2008, (pc), WSY0101022
Rhododendron 'Judy's Sunrise', 2 Jan 2008, (pc), WSY0100797
Rhododendron 'Kala Daag', 15 Jul 2008, (pc), WSY0101582
Rhododendron 'Kali', 15 Jul 2008, (pc), WSY0101583
Rhododendron 'Kenneth Wilson', 2 Jan 2008, (pc), WSY0100799
Rhododendron 'Kita-no-hakuho', 23 Jan 2008, (pc), WSY0101036
Rhododendron 'Kranenburg', 15 Jul 2008, (pc), WSY0101589
Rhododendron 'Kranenfee', 15 Jul 2008, (pc), WSY0101593
Rhododendron 'Kranengold', 15 Jul 2008, (pc), WSY0101599
Rhododendron 'Kranenpepper', 15 Jul 2008, (pc), WSY0101604
Rhododendron 'Kranenstar', 15 Jul 2008, (pc), WSY0101605
Rhododendron 'Lockington's Dawn', 30 Dec 2008, (pc), WSY0101955
Rhododendron 'Lorenzo Delleani', 11 Mar 2008, (pc), WSY0101282
Rhododendron 'Luigi Cavadini', 2004, (pc), WSY0112221
Rhododendron 'Luigi Squillario', 11 Mar 2008, (pc), WSY0101284
Rhododendron 'Luisa Pallavicino', 2004, (pc), WSY0112222
Rhododendron 'Mahasona', 15 Jul 2008, (pc), WSY0101608
Rhododendron 'Marabella', 15 Jul 2008, (pc), WSY0101616

Rhododendron 'Maria Ratti', 2004, (pc), WSY0112217
Rhododendron 'Marie-Louise Agius', 19 Mar 2008, (fl), WSY0112002
Rhododendron 'Mario Carmine', 2004, (pc), WSY0112215
Rhododendron 'Marnie's Charm', 30 Dec 2008, (pc), WSY0101953
Rhododendron 'Maurice Kupsch', 23 Jan 2008, (pc), WSY0101028
Rhododendron 'Maurizio Zumaglini', 12 Mar 2008, (pc), WSY0101288
Rhododendron 'Mayaro', 15 Jul 2008, (pc), WSY0101618
Rhododendron 'Miss Essie', 29 Dec 2008, (pc), WSY0101962
Rhododendron 'Monbarone', 12 Mar 2008, (pc), WSY0101287
Rhododendron 'Mondnacht', 15 Jul 2008, (pc), WSY0101626
Rhododendron 'Monte Mucrone', 12 Mar 2008, (pc), WSY0101289
Rhododendron 'Monviso', 12 Mar 2008, (pc), WSY0101291
Rhododendron 'Morioka-bijin', 30 Sep 2008, (tr), WSY0101455
Rhododendron 'Nicoletta Furno', 12 Mar 2008, (pc), WSY0101293
Rhododendron 'Nishan', 15 Jul 2008, (pc), WSY0101622
Rhododendron 'Nordic Smile', 2008, (pc), WSY0101964
Rhododendron 'Nordic Venture', 2008, (pc), WSY0101969
Rhododendron 'Oremo', 12 Mar 2008, (pc), WSY0101297
Rhododendron 'Oropa', 12 Mar 2008, (pc), WSY0101302
Rhododendron 'Our Kate Marise', 12 Mar 2008, (fl), WSY0112004
Rhododendron 'Parco Burcina', 12 Mar 2008, (pc), WSY0101301
Rhododendron 'Pier Giorgio Frassati', 12 Mar 2008, (pc), WSY0101306
Rhododendron 'Pietro Porcinai', 12 Mar 2008, (pc), WSY0101308
Rhododendron 'Pink Sunset', 18 Jun 2009, (fl), WSY0112559
Rhododendron 'Pitacca', 12 Mar 2008, (pc), WSY0101310
Rhododendron 'Pollone', 12 Mar 2008, (pc), WSY0101312
Rhododendron 'Provincia di Biella', 19 Mar 2008, (pc), WSY0101314
Rhododendron 'Pyari', 15 Jul 2008, (pc), WSY0101625
Rhododendron 'Ramella', 19 Mar 2008, (pc), WSY0101316
Rhododendron 'Rescassa', 25 Apr 2006, (fl), WSY0100141
Rhododendron 'Rosmini Antonio' , 2004, (pc), WSY0112213
Rhododendron 'S.I.R.', 19 Mar 2008, (pc), WSY0101323
Rhododendron 'San Barnaba', 25 Mar 2008, (pc), WSY0101334
Rhododendron 'San Pool', 25 Mar 2008, (pc), WSY0101336
Rhododendron 'Snow Man', 1985, (tr), WSY0010220
Rhododendron 'Sonnenwende', 15 Jul 2008, (pc), WSY0101637
Rhododendron 'Sophie Elizabeth', 23 Jan 2008, (pc), WSY0101029

Rhododendron 'Suna', 2004, (pc), WSY0112211
Rhododendron 'Terai-shiro', 29 Apr 2007, (pc), WSY0101031
Rhododendron 'Toco', 15 Jul 2008, (pc), WSY0101643
Rhododendron 'Valfenera', 25 Mar 2008, (pc), WSY0101340
Rhododendron 'Valle Elvo', 25 Mar 2008, (pc), WSY0101342
Rhododendron 'Vandorba', 25 Mar 2008, (pc), WSY0101344
Rhododendron 'Verbania', 2004, (pc), WSY0112209
Rhododendron 'Vito Ratti', 2004, (pc), WSY0112207
Rhododendron 'Xi Lin Men', 2008, (pc), WSY0101885
Rhododendron 'Xue Mei Ren', 2008, (pc), WSY0101886
Rhododendron 'Zi Yan', 2008, (pc), WSY0101890
Roscoea cautleyoides 'Pennine Purple', 31 May 2008, (fl), WSY0112074
Rosmarinus officinalis 'Bolham Blue', 11 Apr 2000, (fl), WSY0038562
Rubus cockburnianus 'Goldenvale', 26 Jun 1996, (v), WSY0001145
Scabiosa africana 'Jocelyn', 11 Sep 2009, (fl), WSY0112849
Streptocarpus 'Alissa', 19 May 2008, (fl), WSY0101198
Streptocarpus 'Hannah', 14 Sep 2009, (fl), WSY0112951
Streptocarpus 'Hope', 14 Sep 2009, (fl), WSY0112949
Streptocarpus 'Lucy', 18 May 2009, (fl), WSY0112339
Streptocarpus 'Megan', 18 May 2009, (fl), WSY0112340
Streptocarpus 'Rebecca', 12 Feb 2008, (fl), WSY0100985
Taraxacum officinale agg. 'Nettleton', 15 May 2009, (v), WSY0112337
Trifolium repens 'Hullavington', 15 May 2009, (v), WSY0112335
Trifolium repens 'Stephanie', 7 Sep 2006, (v), WSY0096103
Tulipa 'Bronzewing', 10 May 1927, (p), WSY0021918
Tulipa 'Clos de Vougeot', 21 May 1929, (p), WSY0021920
Tulipa 'Dipper', 8 May 1928, (p), WSY0021921
Tulipa 'Dorothy Ann', 21 May 1929, (p), WSY0021922
Tulipa 'Lady Ernle', 21 May 1929, (p), WSY0021925
Tulipa 'Mars', 10 May 1927, (p), WSY0021926
Tulipa 'Suzette', 20 May 1941, (p), WSY0021931
Tulipa 'Trinita', 1942, (p), WSY0021903
Urtica dioica 'Stephanie', 15 May 2009, (v), WSY0112336
Verbascum 'Aurora', 3 Jul 2007, (fl), WSY0112890
Verbascum 'Aztec Gold', 3 Jul 2007, (fl), WSY0112887
Verbascum 'Charlotte', 12 May 2008, (fl), WSY0101936
Verbascum 'Claire', 9 Jul 2007, (fl), WSY0112888

Verbascum 'Clementine', 12 May 2008, (fl), WSY0101175
Verbascum 'Elektra', 11 Jun 2009, (fl), WSY0112896
Verbascum 'Firedance', 13 Jun 2007, (fl), WSY0112875
Verbascum 'Hiawatha', 9 Jul 2007, (fl), WSY0112885
Verbascum 'High Noon', 5 Jul 2007, (fl), WSY0105388
Verbascum 'Merlin' (PBR), 12 Jun 2007, (fl), WSY0112892
Verbascum 'Moonshadow', 8 Jun 2007, (fl), WSY0105382
Verbascum 'Nimrod', 11 Jul 2007, (fl), WSY0112884
Verbascum 'Petra', 21 May 2008, (fl), WSY0101170
Verbascum 'Tropic Blush', 5 Jul 2007, (fl), WSY0105384
Verbascum 'Tropic Dawn', 11 Jun 2008, (fl), WSY0112900
Verbascum 'Tropic Moon', 6 Jun 2008, (fl), WSY0112904
Verbascum 'Tropic Rose', 10 Jun 2008, (fl), WSY0112909
Verbascum 'Tropic Spice', 6 Jun 2008, (fl), WSY0112902
Verbascum 'Tropic Sun', 5 Jul 2007, (fl), WSY0105387
Verbascum 'Virginia', 6 Jul 2007, (fl), WSY0112876

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Index

Achimenes beatonii 64
Beatonia 64
Belamcanda chinensis 67
Brachypappus candicans 9
Cacalia candicans 8, 9
Cineraria
  candida 10
  nebrodensis 9
Coleus aromaticus 52
× *Coobranthus* 43
  coryi 43
  "lancasteri" 43
× *Cooperanthes* 37
  'Alipore Beauty' 41
  bella 41
  blanda 41, 43
  hortensis 40
  "Labufaroseus" 42
  lancastrae 37, 38, 39, 41, 43, 44
  'Mary' 41
  'Percy' 41
  rosea 37, 40
  'Sunset' 37, 41, 44, 45
  'Sydney' 42
Cooperia 43, 45
  drummondii 37, 38, 39, 40, 41
  oberwetteri 37, 38, 41, 43
  pedunculata 42, 43
Culcitium gayanum 9
Dichroa 47
× *Didrangea* 47
Disporopsis 47
  fuscopicta 47
  luzoniensis 48
Disporum
  cantoniense 48
    var. *cantoniense* 48
    var. *sikkimense* 48
    var. *y-tiense* 49
  'Green Giant' 48
  longistylum 48
    'Night Heron' 48
  luzoniense 47
  megalanthum 48
Dysosma
  difformis 53
  emeiensis 53
  majoensis
    var. *emeiensis* 53
  veitchii 53
    var. *longipetalis* 53
  versipellis 53
Glandularia 50
  × *hybrida* 50
  × *maonettii* 50
Guatteria longifolia 59
Habranthus 45
  howardii 43
  immaculatus 44
  juncifolius 44
  robustus 38
  teretifolia 44
  tubispathus 41, 44
Hedychium 50
  coccineum 51
  coronarium 50
  gardnerianum 50, 51
  'Kewense' 51
  × *moorei* 50, 51
  × *raffillii* 51
  'Raffillii' 51
  'Tara' 51
  × *wilkeanum* 50
Hydrangea 47
Iris
  dichotoma 67
  domestica 67
  × *norrisii* 67
Jacobaea candida 8, 10
Ligularia
  'Cheju Charmer' 51
  fischeri 51
    var. *megalorhiza* 52
Oxalis
  laciniata 33–36
    var. *laciniata* 33, 34
    var. *pubescens* 34, *35*, 36
  squamoso-radicosa 33
    var. *pubescens* 33, 34
× *Pardancanda norrisii* 67
Pardanthopsis dichotoma 67
Plectranthus
  amboinicus 52
  cylindraceus 52
  montanus 52
  'Werner Rauh' 53
Podophyllum
  sp. A. & B. 53
  delavayi 53
    var. *longipetalum* 53
  difforme 53
  emeiense 53, *54*
  versipelle
    subsp.*boreale*
      var. *sichuanense* 53
Polyalthia
  longifolia 57–60
    var. *pendula* 57, 58
    'Pendula' 57, 58, 59, 60
    'Temple Pillar' 59, 60
  pendula 58, 60
Rhododendron 11–29, 30–32
  subg. *Hymenanthes* 11
    sect. *Pontica* 30–32
      subsect. *Pontica* 13, 18
  subg. *Rhododendron* 11
  subg. *Vireya* 12

Rhododendron (cont.)
arboreum 12, 15, 30
baeticum 20, 21
subsp. *baeticum* 21
californicum 24, 32
catawbiense 13, 14, 15, 16, 17, 19, 20, 23, 24, 25, 26, 30, 31, 32
'Album' 24
'Catalgia' 24
var. *compactum* 24
caucasicum 30, 31, 32
× *cunninghamii* 31
× *intermedium* 30, 32
macrophyllum 13, 16, 17, 20, 24, 25, 32
maximum 13, 14, 15, 16, 17, 20, 22, 23, 25, 26, 30, 31, 32
f. *album* 22
f. *purpureum* 22
× *morelianum* 30, 32
Old Hardy Hybrids 12, 13
ponticum 13, 14, 15, 16, 17, 18, 19, 20, 21, 25, 30, 32
album 31
var. *baeticum* 21
var. *brachyphyllum* 21
var. *heterophyllum* 21
var. *skorpilii* 21
robustissimum 30
× *sochadzeae* 30, 32
'Cunningham's White' 30
× *stanwellianum* 31, 32
Stanwellianum Group 31
× *superponticum* 25
× *wellesleyanum* 31, 32
'Wellesleyanum' 31
Ribes
aureum 61
× *bactonii* 63
× *beatonii* 61–66
× *gordonianum* 62, 63
hybridum 61
× *loudonii* 62, 63
sanguineum 61
Senecio 8
bicolor 10
subsp. *nebrodensis* 8
candicans 8, 9
candidans 8–10
candidus 8, 9
cineraria 8, 9
culciremyi 9
× *Sydneya* 43
bella 44
castellanosii 44, 45
india 41, 44
lancast[er]ae 39, 43, 44
morrisii 44, 45
× *Sydneyara* 45
Syringa 5–7
BLOOMERANG PURPLE 7
chuanxiensis 3
mairei 3
'Penda' 6
pinetorum 3–4
pubescens
subsp. *patula*
'Colby's Twinkling Little Star' 6
reticulata
subsp. *reticulata*
'Bailnce' 5
rugulosa 3
SNOWDANCE 6
wardii 3
yunnanensis 3
Tigridia 64
Unona longifolia 59
Uvaria
altissima 59
longifolia 57, 59
Verbena
× *hybrida* 50
tenera
var. *maonettii* 50
× *Zebranthus* 44
× *Zephybranthus* 41, 44
castellanosii 45
morrisii 45
Zephyranthes 37–46
andersonii 37, 41
bifolia 44
× *blanda* 41
brazosensis 44
carinata 37, 40
chlorosolen 38, 40, 41, 44
citrina 41
drummondii 38, 42
grandiflora 38, 40, 41, 43, 44
La Bufa Rosa Group 43
'Aperitif' 42
'Confection' 42
'Heart Throb' 42
'Itsy Bitsy' 42
'Lily Pies' 42
'Star Spangled' 42
'Summer's Chill' 42
'La Buffa Rose' 42
× *lancasteri* 40
× *lancastrae* 39, 40, 41, 43
'Alipore Beauty' 41
'Mary' 40, 41
percyi 41
'Sydney' 42
robusta 37, 38, 41
rosea 40
traubii 42
treatiae 41, 43