

THE ROCK GARDEN 129



July 2012

SUBSCRIPTIONS FROM 1st OCTOBER 2012

Members' subscriptions are payable annually on 15th October and provide membership of the SRGC until 30th September in the following year.

Subscription rates from 1st October 2012

	UK	OVERSEAS
Single annual membership	£16	£22
Junior membership <i>(Under 18 on 1st October 2011)</i>	£3	£7
Family membership <i>(Two adults and up to two children under 18 on 1st October 2011)</i>	£19	£24.50
<i>Each additional adult or child</i>	£3	£7

A three year membership is available at three times these annual rates.

All payments to the Club must be in GB Pounds Sterling.

Cheques should be made payable to 'The Scottish Rock Garden Club' and must be drawn on a UK bank. Unfortunately, due to the high commission now charged, we are unable to accept cheques or credit card payments in US dollars or Euros.

Where subscription payments are made by Visa or Mastercard they can only be accepted if all the following information is given: the number on the card, the name of the cardholder as shown on the card, the address of the cardholder as recorded by the credit card company, the card expiry date and the cardholder's signature.

Visa or Mastercard subscription payments can also be made via the secure order form on the Club's website at www.srgc.org.uk

No card details whatsoever are retained by the club after a transaction.

Applications for membership and all subscription payments or authorisations for payment from a Visa or Mastercard account should be sent to:

Christine Boulby,
10 Quarry Avenue,
Acklington,
Morpeth
NE65 9BZ

Telephone: 07986 849364
Email: subsec@srgc.org.uk

SRGC email - info@srgc.org.uk

The ROCK GARDEN

The Journal of the
Scottish Rock Garden Club
July 2012

Number 129

Cover: *Gentiana sino-ornata* (Milan Halada)

8 Camassias – A North American Treasure

– Edward Alverson

20 In Quest of Autumn Bulbs

– Davie Sharp

34 Back Yard to Alpine Garden

– Rosemary Sharp

40 Sowing *Aquilegias*

– Carrie Thomas

46 A Saucer on the Roof of the World

– Zdeněk Zvolánek

90 *Primula cachemiriana*

– David Shaw

94 Go West, Young Man: Part 2

– Graham Nicholls

1 President's Address

2 Discussion Weekend

4 Czech Conference

54 The Seed Exchange

58 Joint Rock Awards

64 Show Reports

106 Book Reviews



8



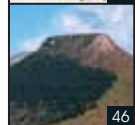
20



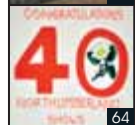
34



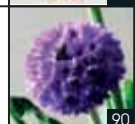
40



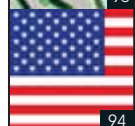
46



64



90



94

© The Scottish Rock Garden Club, 2012

Printed by Wyke Printers, Hull.

www.wyke-printers.co.uk

ISSN 0265-5500

www.srgc.org.uk

THE ROCK GARDEN

is published twice yearly by The Scottish Rock Garden Club
on 31 January and 31 July

Anton Edwards
Duguid's Wark
Manse Road
Caputh
Perthshire
PH1 4JH
01738 710774
antonedwards@aol.com

The Editor welcomes articles, photographs and illustrations on any aspects of alpine and rock garden plants and their cultivation. Authors are encouraged to submit material electronically but articles may also be submitted in manuscript. Digital images are particularly welcome but 35 mm slides, high quality prints or drawings may also be submitted.

The deadlines for contributions are 1 November for the January issue and 1 April for the July issue. These dates also apply for material for the Yearbook & Show Schedules.

Journals normally arrive in February or August. Please contact the Subscriptions Secretary in case of non arrival (see inside front cover).

Enquiries about advertising should be made to:

David Nicholson
7 Carter Road
Ivy Bridge
Devon
PL21 0RX
01752 896307
d.avensis@virgin.net

Individual copies are available from:

Glassford Sprunt
17 Claremont Drive
Bridge of Allan
Stirlingshire
FK9 4EE
Tel. 01786 833607 (evenings only)
glassfordsprunt@aol.com

Photographs are usually by authors unless otherwise stated.

Permission to use photographs or articles should be sought from the editor or the author.

Contact may also be made through the website: www.srgc.org.uk

A President's Farewell

Liz Mills



Dear Friends, In 2013 the SRGC will be 80 years old - and we're making plans to celebrate. The main event will be a gathering at Pitlochry Festival Theatre on a Sunday in June. We hope to confirm the date in September 2012 and will publish it on the website, the January journal and to local groups. Members who live outside Scotland and who would like to come, please contact me for an invitation; places will necessarily be limited in number and allocated first come, first served. Pitlochry is in a beautiful part of Perthshire and is an excellent destination for a weekend or even longer. It's a well-known tourist destination in the Scottish mountains, with lots of interesting gardens close by, a theatre and plenty of accommodation of all standards.

Every three years we revise subscription rates and had planned to do so in 2012. However, because the Club's financial position is healthy we will give everyone an 80th anniversary present by keeping the rates unchanged till 2013.

As many of you know, my three years as president end at the AGM in November 2012. I can't approach the end of my term without mentioning a matter that has constantly been in my thoughts throughout those years. In my opinion the club is in the midst of great change as younger generations move away from some traditional activities and use modern technology to feed their thirst for knowledge and for sharing it. There will long be a place for talks, group meetings, competitive shows and the like but there will also be a place for a strong and vibrant website and other means of social interaction. Although the two cultures will co-exist for years to come I suspect that the balance will gradually tip towards website and internet activity. Looking to the future, our existing website has been reliant on an old system with many limitations, so we have decided to transfer it to a new dedicated server that will permit many improvements. I hope that next year you will see the fruits of the enormous workload the Club's web team has taken on.

One of my greatest joys as president has been meeting and working with so many of you, our wonderful and friendly members. I've made many new friends - in person and over the internet - and I shall miss the constant flows of e-mails and telephone calls that keep me so involved with every aspect of club activities. So I extend to each and every one of you a big, very big, thank you for enriching my life!

A handwritten signature in black ink, appearing to read 'Liz', located in the bottom right corner of the page.

Reivers Group Discussion Weekend 28th – 30th September 2012

The formal SRGC invitation:

The Reivers Group has once again organized the discussion week-end in the pleasant Cairndale hotel in Dumfries. There is a large function suite where plant sales and showing are on one level, a swimming pool and other leisure facilities. One bedroom is equipped for major disabilities and there is a lift to the second floor in the main part of the hotel only. Please let us know on the booking form if you have any special needs such as a room near lifts. Twin or double rooms are available but no single rooms now remain. If you wish to share please indicate your sharer on the back of the booking form. Extra nights are available as quoted on the booking form. Please return your booking and fee to Gill Lee as soon as possible; a late booking fee per person now applies.

The registration secretary: Mrs Gill Lee, Inglenook Cottage, The Neuk, Belford, Northumberland NE70 7NF, 01668 213925.

And noo - the invitation frae the Lallands!

Some folks hae been speerin about whit the Reivers are up tae in September. Mind noo – it's the 28th - 30th September. We've pit th'gither a couthy programme o' bonnie speakers. Oan Saturday mornin' they'll be a cupple o' practical sessions – yin fur bodies takin' photies an' the ither fur bodies wi' an artistic bent – an' a peint-box. We'll only be haen a pickle o' folk at each yin but fur maist there's a challenge ootside – Christie & Co tae the rescue o' a hotel bed, help us mak and pit doon. A' this is on a tak it or leave it basis – whit they ca' optional. Wur hopin that Ian Young'll gie the pictur workshop an Rosemary Cox the pentin yin.

Fur this year's speakers we're haen sum aul' freens like Henrik Zetterland, some young pals like Tim Lever and several new yins ye'll no hae heard tell o' afore, frae faur awa' places and wi' odd sounin' names. There's a guy frae Israel cried Oran Peri an' a young scud ca'd Clint Callens frae the Low Countries. An then there's aw'body's favourite John Massey, no' o'er his surgery, and we hope as fit as a fiddle. Oor ain laddie Colin Crosbie is traivelin up frae Wisley tae gie us his crack - somethin' frichtnin' this wey comes. We couldna dae wi'oot sum body frae the Botanics and this time we're ha'en Mark Watson (guid Reiver names these last twa) tae bring us picturs and wurd frae Nepal.

We're aye on the luk oot fur plants fur the raffle (an bottles, an buiks – the hail jing-bang) and the members' stall and this year's nae exception. Bring us yir spares, dooblers and misfits. Oan the show side we're haen a bran new class fur a photie o' a Scottish native plant, and there's tae be a brow bit o' stane fur the winner.

At the back en' last year we broat ye loads o' bonnie sweetsies an a dram forby, as weel as the ondeemous fechan tert. Whit'll it be this year? Ye'll need tae veesit the Cairndale tae fin oot.

Resident (per person)

Friday dinner – Sunday afternoon tea, double	£198
Friday dinner – Sunday afternoon tea, single	£258
Saturday morning – Sunday afternoon tea, double	£140
Saturday morning – Sunday afternoon tea, single	£170

Non-resident

Friday evening (including dinner)	£35
Saturday – morning coffee, lunch, afternoon tea	£50
Saturday – morning coffee, lunch, afternoon tea, dinner	£80
Saturday – dinner	£35
Sunday – morning coffee, lunch, afternoon tea	£50

Programme**Friday 28th September**

- 1600 Registration
1600 Plant staging (to 1730)
1800 Dinner
1945 President's welcoming address
2000 The Jim Archibald Lecture: Oron Peri (Israel) –
'The Bulbs of the Eastern Mediterranean'
2130 Small bulb exchange

Saturday 29th September

- 0800 Plant staging (to 0900)
0830 Registration
0930 Workshops
1330 Mark Watson (RBGE) – *'Flora of Nepal'*
1435 Tim Lever (Aberconwy) –
'The Kingdom of Bhutan – In Search of the Pink Poppywort'
1530 The William Buchanan Lecture: Clint Callens (Belgium) –
'The Discreet Charm of Paris and Podophyllum'
1900 Dinner
2130 Plant auction

Sunday 30th September

- 0930 John Massey (Kingswinford) – *'Hepaticas at Ashwood'*
1100 The John Duff Lecture: Colin Crosbie (RHS Wisley) –
'Shady Characters'
1330 Oron Peri – *'In Search of Plants'*
1430 The Harold Esslemont Lecture: Henrik Zetterlund (Sweden) –
'Where the Best Plants Dwell'

Czech Rock Garden Plants and the 2013 Conference

Zdeněk Zvolánek

(president of the Czech Rock Garden Society)



If you are a rock gardener considering a visit to the **Second Czech International Rock Garden Conference** in Tábora in the Czech Republic, here is a brief and helpful introduction to the collections of plants in our local rock gardens and the plants available to you to buy and take away to your own garden.

The Czech Republic has a continental climate (zones 4-5) so our plants are hardy in many other countries. The southern hemisphere is represented here by practically all the hardier *Oxalis*. Chinese plants such as gentians and androsaces are on trial in some cooler and wetter gardens in troughs in the Czech-Moravian Highlands and are, generally speaking, rarely seen. Lowland Czech and Moravian gardens are fit for growing white wines so are certainly suitable for warmth-loving steppe plants from western North America, southern western Europe, the Balkan peninsula and of course Turkey and Central Asia.

Contemporary Czech rock gardens include vertical courses of sedimentary stones; in these so-called crevice gardens some of the more specialized growers have such difficult plants as *Physoplexis comosa* in cultivation within tufa (a soft travertine rock). Fortunately, we still have sources of cheaper tufa stones from Slovakia and Slovenia. The tufa boulders are placed in troughs or in separate outcrops; some are arranged in walls but more often are placed in an irregular outcrop in the coolest corner of the garden. The bigger the stone, the better! Our conference will include a workshop about crevice gardening with five local specialists showing how they arrange stones and plants in troughs.

A classic collection in Czechoslovakia was saxifrages of the section *Porophyllum* (now *Porphyron*). There are many Czech cultivars available for sale nowadays and the breeder Karel Lang has a special nursery devoted to the 'Kabschia' saxifrages. The Czechs have the biggest

Facing: Slate outcrops at the May 2010 Prague show
Below: *Saxifraga x caroli-langii*





Erigeron chrysopsidis brevicaulis in cultivation

collections of these kinds of saxifrages in the world and are their best modern breeders.

Some plants are regularly propagated from seeds and in this way some wild plants have established or modified themselves to suit our dry and hot lowland gardens. One such example of this seed selection is *Erigeron chrysopsidis*, an alpine plant from the limestone of Wallowa in northeast Oregon. The Greek *Dianthus haematocalyx* var. *pindicola* self-sows on our southern slopes as do the Croatian *Degenia velebitica* and *Fibigia triquetra*. Czech gardens have a good variety of species from the Balkan genus *Edraianthus* and the Caucasian campanulas.

Our gardens are full of dwarf conifers (preferably witches' broom cultivars) and they are often available to buy. More rarely, there are collections from the genus *Daphne* - and specialist growers propagate them for sale. There are wonderful assortments of dwarf phloxes; people here are crazy for wild micro-phloxes, small eriogonums and all miniature shrubs. Often you will find that rocks are decorated and crevices are stuffed with different species and clones from the genera *Sempervivum*

Lewisia cotyledon at the May 2010 Prague show





Verbascum x 'Letitia'



Gentiana angustifolia

and Jovibarba. Cyclamens are still rare, although I myself manage to keep many of the hardier species outdoors.

Limestone lovers such as *Gentiana angustifolia*, *G. dinarica* and *G. clusii* often perform much better in Czech gardens than the acid loving *G. acaulis*. *Lewisia cotyledon* is frequently available in many effective colour selections and is always desirable for vertical crevices with eastern exposure.

Czech rock gardeners love dwarf ferns and dwarf azaleas (rhododendrons). In many gardens you will find haberleas and

ramondas but they are rarely offered for sale.

Because of some excellent Czech seed collectors, we have many otherwise unknown Turkish rock garden plants in cultivation. One of our best such introductions is *Aethionema subulatum* from the Dedegöl Mountains.

Our committee cordially invites all rock gardeners to come to Tábor in 2013 to share the joy and learning of rock gardens with us. We are in the Internet or web Age, so there is no full traditional advertisement for our

Second Czech International Rock Garden Conference, May 2nd - May 5th 2013. All information about the conference is available on the internet pages of the Czech Rock Garden Society: www.czrgs.cz.

Camassias – A North American Treasure

Edward Alverson

'Our camp is agreeably situated in a point of timbered land on the eastern borders of an extensive level and butifull prairie. The quawmash is now in blume at a short distance it resembles a lake of fine clear water, so complete is this desepction that on first sight I could have sworn it was water.'

The date was June 12th 1806 and the scene was Weippe Prairie in west central Idaho, where the Lewis & Clark expedition had been forced to wait for several weeks by deep mountain snows before it could cross the Rocky Mountains and return to 'civilization'. Meriwether Lewis was the expedition's principal naturalist and, during this delay, he collected a specimen of 'quawmash', which eventually became the type specimen for the scientific description of the species *Camassia quamash* prepared by Frederick Pursh in 1814.

However, the blue flower that was new to Lewis and to science was already well known to the native peoples in many parts of the Pacific Northwest; for millennia they had harvested the starchy bulbs, baked them in underground pits and then dried them for winter food or for trade. In fact, the plant that the Indians knew as quawmash has been one of their most important staple foods.

Only ten miles from my home in Oregon's Willamette Valley, archaeologists have excavated an ancient underground oven, more than 7000 years old. Within this oven were the remains of a long-forgotten meal: 135 charred - and thus overcooked - camas bulbs. Today, *Camassia* bulbs are still harvested, roasted, and eaten to a limited extent for cultural and



Most forms of *Camassia quamash* have irregular flowers and petals that wither separately



Camassia leichtlinii ssp. *suksdorfii* on Mount Pisgah, Oregon. The species has symmetrical flowers and petals that twist over the developing fruit when they wither

Camassia leichtlinii ssp. *leichtlinii*, a local endemic subspecies from Oregon's Umpqua Valley, has greenish-white flowers with blue or white anthers. It was first introduced to cultivation from Oregon in 1853 by the enigmatic Scottish plant collector John Jeffrey and was grown in gardens (including the rock garden at Kew) for more than two decades before it was recognized and described by John G Baker as a species distinct from *Camassia quamash*

ceremonial purposes. But the beauty of its flowers as well as its ease of cultivation have also made *Camassia* a genus of considerable garden value.

It is impossible to know why the ancient band of native Americans abandoned their meal. I like to think that a novice cook's poor results were ignored for others' more experienced efforts. Either way, this remarkable find tells us that at the very time that agriculture was first being practiced in Europe, people in the Pacific Northwest were noting flowering camas habitats



Camassia quamash is often associated with remnant prairie and oak savanna habitats in the Pacific Northwest, growing here with *Plectritis congesta* and *Micranthes integrifolia* in the *Camassia* Preserve near Portland, Oregon

and later returning to harvest, prepare and cook the bulbs of this beautiful wildflower. Eventually, these practices became a form of food-producing habitat management with important implications for camas lilies as well as for prairie biodiversity: many prairies have a climate suitable for the growth of forest vegetation but burning by native people has kept them as prairie and, in turn,



Occasionally, white-flowered plants of *Camassia leichtlinii* ssp. *suksdorfii* are mixed in with populations of typical blue to violet flowered plants. These may be distinguished from ssp. *leichtlinii* by their yellow anthers

maintained their extensive fields of camas and other important food plants.

Camassia is a small genus of six species distributed across much of the United States and portions of adjacent Canada. Four are native to western North America and two to eastern and central North America. Typically, they grow in a range of open natural habitats, including prairies, savannas, rock outcrops and - in a few cases - bogs. They are perennial geophytes, growing from a small to medium bulb that produces a rosette of strap-shaped leaves from which arises a raceme of numerous star-shaped, blue or purple (or in some cases white to cream) flowers. The flowers open sequentially from the bottom to the top of the

raceme. Long considered part of the lily family, camassias are now known from DNA evidence to be members of the Agave family and part of a related group of genera that includes *Chlorogalum*, *Hastingsia*, and *Schoenolirion*.

In prairies with controlled burns, springtime *Camassia quamash* bloom can be outstanding, as in this wet prairie near Eugene, Oregon





The Six Species


Camassia quamash is the most widespread of the western species, ranging from northern California to British Columbia, and east to Montana, Wyoming, and Utah. This species was and is most commonly harvested by native Americans for food. Although the bulbs are usually rather small, they may occur in such large numbers in certain prairies that a sizable food supply could be harvested from one good camas meadow. Harvesting was done with a digging stick after the plants had gone dormant in the summer; because only the larger bulbs were harvested, younger bulbs or seedlings flourished because of the effect this 'cultivation' had on competitors.

Within *Camassia quamash*, six subspecies have been distinguished, each with a specific geographic range and combination of morphological features. Flower colour varies from pale blue to deep bluish purple; other distinguishing characters include whether or not the withered tepals twist together over the ovary after flowering, and whether the fruiting pedicels are spreading or tightly appressed to the main flower stalk.

Camassia leichtlinii is also distributed from northern California to British Columbia but is only found in and west of the Cascade and Sierra Mountains and does not

Camassia howellii has small and stary purple flowers in open racemes that are sometimes branched. Photo by Susan Kephart





Centre: The purple flowers of *Camassia leichtlinii* ssp. *suksdorfii* are complemented by pink *Geranium oregonum* and yellow *Potentilla gracilis* in this wet prairie remnant in Oregon's Willamette Valley

extend eastward to the Rockies like *C. quamash*. The two species may be found in similar habitats and it is not unusual to find them growing together. However, *C. leichtlinii* is generally larger, flowers slightly later in the spring, and is distinguished from *C. quamash* by its radially symmetrical flowers in which the tepals twist over the top of the ovary after flowering. *C. leichtlinii* has two subspecies: ssp. *leichtlinii* has cream coloured flowers and is found only in a limited area in the vicinity of Roseburg, Oregon; ssp. *suksdorfii* has blue to purple flowers and occupies the remainder of the species' range.

The two other western *Camassia* species are of limited natural distribution. *Camassia cusickii* is a regional endemic found in the Wallowa Mountains of northeast Oregon, and across the Snake River in adjacent Idaho. It is the largest species of all, producing numerous pale blue flowers in late spring, and is the only western species that typically increases vegetatively by off-sets to produce large clumps. The bulbs have a soapy texture that renders them

Camassia cusickii is a tall plant with long racemes of light blue and narrow-petaled flowers





The light blue flowers of *Camassia scilloides* mature into small globose seed pods

unpalatable and, even though it has the largest bulbs, it is the only inedible species.

Camassia howellii is a local endemic in the Siskiyou Mountains of southwest Oregon, where it grows on soils derived from serpentinite and other ultramafic bedrock. *C. howellii* has rather small, pale blue flowers and is the latest blooming of the camassias.

Genetic studies have shown the two eastern and central North American species, *Camassia angusta* and *C. scilloides*, to be closely related to *C. quamash*. *C. scilloides* is more widespread, ranging from Texas eastward to Georgia, and the Carolinas northward to Pennsylvania, Ontario & Wisconsin. *C. angusta* has a more western distribution, largely correlated with the spread of the tallgrass prairies, from Texas northward to Iowa and Indiana. Both species have rather small, mostly pale blue flowers, but *C. angusta* is a more robust plant that blooms in June, rather than in May as does *C. scilloides*.

Camassias in the Garden

Camassias generally tolerate a variety of soil types from wet to dry and thus are fairly well adapted to garden conditions. However, the western species are usually found in habitats that dry out after the plants go dormant



Camassia angusta is a more robust plant than the related *C. scilloides*, blooming several weeks later in its mid-western tallgrass prairie habitat. Photo courtesy of Jim Kephart

by mid-summer and therefore may not tolerate consistently wet or boggy conditions throughout the year. Winter hardiness is not usually a problem - camassias are typically described as being hardy to USDA Zone 3 (-50° F or -45° C). I suspect that some forms from milder climates are less hardy, but all are probably winter hardy to 0°F or -18° C. Nevertheless, plants grown in pots may all too easily be killed if they freeze solid.

With their wide range of stature, there are camassias for any garden setting, from the perennial border or meadow garden to the rock garden. Camassias, however, are not really plants for anything but the brightest part of a woodland garden, preferring full sun to light shade if they are to flower their best. Short-statured forms such as *Camassia* 'Orion' are the



Camassia cusickii grows only on rock outcrops in a limited area of rugged mountains and canyons in northeastern Oregon and adjacent Idaho

right scale for the rock garden or trough, while taller species or cultivars are better suited for meadow plantings where they stand out among the grasses. In either case, having plants in sufficient quantity is the key to an effective display.

Mixed plantings of camassias with grasses or other, later-blooming, plants are useful for hiding the foliage during that awkward time in late spring and early summer, after flowering but before the foliage withers and plants go dormant. Interestingly, although camassias grow typically in habitats dominated by grasses, they do not compete well with the dense growth of many grass types. However, those grasses that accompany camassias in many of their native habitats are typically bunchgrasses, which leave plenty of space between their clumps for camassias and other wildflowers to grow.

Camassia leichtlinii and *C. cusickii* are the species that are perhaps best established in the commercial bulb trade. These robust camassias are good choices for a strong display from a small number of plants. Commercially available forms sold as *C. leichtlinii* 'Alba' (a selection of the cream-flowered *C. leichtlinii* ssp. *leichtlinii*) and *C. leichtlinii* 'Caerulea' (a selection of *C. leichtlinii* ssp. *suksdorfii*) both produce vegetative offsets and thus form clumps that may be divided every few years to expand a garden planting. Forms of *C. cusickii* commonly available in the bulb trade are more robust and paler-flowered than forms I have seen in the wild, and the patient bulb grower should try *C. cusickii* from wild-collected seed if possible.

Camassia quamash generally does not increase vegetatively from offsets and because of the smaller size of individual plants is perhaps best grown from seed for an effective garden display. *C. quamash* ssp. *maxima* is arguably the best subspecies for gardens, as it has nice purple flowers and in nature grows in a wide variety of habitats from seasonally wet prairies to mossy rock outcrops that become quite dry in the summer.

I have had success growing *Camassia scilloides*, though it is perhaps most suitable for gardens within its native range or for places with similar continental climates. Both *C. scilloides* and the related *C. angusta*, with which I have had no success, have great potential for hybridization with showier species, especially *C. leichtlinii* and *C. cusickii*, to develop new garden hybrids.

Establishing camassias in the garden poses a dilemma. Bulbs of flowering size are relatively expensive but the plants are most effective when grown in abundance. Although camassias are easily grown from seed that is sown in the fall and left outside to stratify over the winter, they take many years – five is typical – to reach flowering size. If you are fortunate to come into a large quantity of seed, an impressive display may be achieved with a bit of patience. Another strategy is to purchase a small quantity of flowering size bulbs of a preferred species or form, then



Companions of *Camassia leichtlinii* ssp. *suksdorfii* on this rocky butte in the Willamette Valley foothills include *Heuchera micrantha* and the fern *Polystichum imbricans*

collect and plant the seeds that are produced. In either case seeds are probably best started in pots and the young bulbs planted out when they are a few years old. Simply tossing a packet of seeds into an area of meadow vegetation is unlikely to result in an impressive display five years later. My experience has been that *Camassia leichtlinii* is more likely than *Camassia quamash*

to self-sow and increase on its own over the passage of time, though it is possible that different species might respond differently in other climates.

Not only are camassias beautiful plants, both in the wild and in cultivation, but they represent the connection between the native habitats and the native people of North America. Today, when I grow camassias in my own garden, I feel that I am paying homage to seven millennia of beneficial interaction between these plants and their human enthusiasts.

Camassia scilloides dapples the understory of this well-managed oak savanna in southern Iowa





A wet meadow near Roseburg, Oregon, has both light blue *Camassia quamash* ssp. *intermedia* and greenish-white *Camassia leichtlinii* ssp. *leichtlinii*



In Quest of Autumn Bulbs in the Peloponnese

Davie Sharp

After the disastrous 2011 Scottish summer, we thought a Mediterranean trip in search of autumn flowering bulbs in the Peloponnese would recharge the body's batteries for the coming winter. I grow a number of the bulbs that might be found there and was interested to see them in their natural habitat. Maggie and I usually value our independence and the freedom to take our time to soak up the country we visit. When botanizing, we like to look at a plant and its habitat; as we say in Scotland, 'we're like the coo's tail - aye following' and - with my impaired hearing - when in a group we miss out on the leader's pearls of wisdom. So, we often go it alone or find someone willing to organize small parties. However, on researching the potential growing areas, it quickly became apparent that to track down plants in such a vast region it would be necessary to join a tour. I found intriguing websites (<http://www.alpines-offroad.com/eng/index.htm> or www.greekmountainflora.info) that seemed to tick all our boxes, with the minimum number of people being two and the maximum six.

We set off on our fourteen-day Greek odyssey with a mental wish list of bulbs we hoped to find, although in no way was this the main or uppermost objective. Our prime aim was to soak up the flavour of the country, to get off the main tourist routes and to experience what makes this ancient land tick, away from the bright lights and media.

Our first base was at Anigraia on the east coast. The area was peppered with Sea Squill - *Urginea maritima*; I mention this as it has a bulb of about 15 cm and many protrude out of the ground by about half

Above: *Pinus nigra* and Mount Taygetos



(like Amaryllis bulbs) with a dense flowering spike about 50 to 90 cm, of white or pink veined tepals. From Anigraia we ventured into the Parnonas mountain range. Before long we started to climb narrow twisting roads past shrines that, found on most bends, were quickly given the nickname of 'Holy Hooses'. Most commemorated a driver or passenger who had lost their life and each had a space for a wax candle or an oil lamp. It was surprising how many were not only in good repair but also lit. Around the base of one such *Holy Hoose* were the bright yellow chalices of *Sternbergia sicula*, announcing their existence in a bewildering number of unlikely places. They were accompanied by the ubiquitous *Cyclamen graecum*, with varying shades of pink flowers darkening to a protruding deep carmine mouth, a variation of colour zoning of the leaves and almost dark purple reverses. They were so very beautiful - as confirmed by our numerous photos. Like the *Sternbergia*, they occurred from sea level in open coastal shingle, up to heights over a thousand metres, in all kinds of situations from shallow rock scoops to crevices in the limestone rock that dominates the mountain ranges. We soon became familiar with the very variable white to light lilac or violet *Crocus laevigatus* and its deep yellow throat, some with a marked stripe of purple-blue or feathering on the outer petals. The stamens are white and the anthers and stigma orange, branching with maturity. The variation in shades of colour and height (8 to 14 cm) of *C. laevigatus* was remarkable; we also encountered *C. hadriaticus*, with its yellow stamens and throat and dark orange or red anthers and stigma - more of which anon. It was noticeable that most

Above: *Sternbergia sicula*



Colchicum cupanii

were in shade, out of the midday sun. We only came across one small colony of the large ivy-leaved *Cyclamen hederifolium*, with pink flowers, terminating with a dark stain around its mouth. These grew deep in the microclimate of a shrub, sheltering from a bitter mountain wind and a chill 4°C on a plateau just below the summit of Mount Megali Tourla (1937 m). Here also grew the demure little *Colchicum cupanii*, similar to *C. pusillum* except with darker anthers and broader leaves. On the way to this site we visited some remarkable churches and uninhabited monasteries; a large number of these establishments have in their courtyard an ancient mulberry tree, *Morus alba*. This dates from the days when Greece was a stopping-off place for travellers moving between east and west. Hidden deep in the hills are sleepy villages; most of them were loosely planned around a water source; where there is water there is a Plane (*Platanus orientalis*). Indeed, one of these villages was named Platanos. The tree occurs in the myth of the kidnapping of Europa by Zeus, who metamorphosed into a raging bull and lay - so to say - beneath a Plane with Europa.

On another trip we visited the chestnut village of Kastanitsa (860 m), amidst a sweet chestnut forest - hence its name (Greek *kastanea* is chestnut). Once again the vehicle climbed twisting winding tracks until halting by the village of Orino (Upper) Korakovouni, populated in the soaring heat of summer but whose inhabitants move back down to the lower village for the winter. Our reason for stopping, apart from having a brew, was to look at the upper slopes where nice little groups of *Colchicum cupanii* were partnered by *Cyclamen graecum*. We continued



The Sweet Chestnut, *Castanea sativa*

up to the deserted monastery, Aghios Dhimitrios. Only the church survives. Our journey was punctuated by another crocus growing by cultivated ground. It was *C. hadriaticus*, with snow-white petals through to blushed lilac, with and without yellow throats but with distinctive yellow-brown upper tubes. Up at the monastery and outwith its grounds were good freshly opened colonies of *Crocus laevigatus*, their outer purple-blue markings ranging from stripes to beautiful blue featherings. Further on, we visited another monastery, Prodromos; perched high on top of a rock outcrop away from grazing goats were golden beacons of *Sternbergia sicula*, (*S. lutea* var. *graeca*), a miniature *S. lutea*, smaller in every way but more dramatic, with flowers a deeper yellow, about 3.5 cm, a very short flowering stalk giving it the appearance of sitting on the surface of the ground, and with leaves shorter than *S. lutea*. Eventually we reached Kastanitsa and walked through its narrow streets to a flag-bearing promontory above. This showed the village off to advantage, perched in the sweet chestnut forest as it was clothed in the orange-reds, yellows and hints of ochre of the late afternoon light; our photographs did not do it justice. We were promised a return journey during the annual Chestnut Festival; a couple of days later we followed a different route along the faster main road, now busy with travellers going to the festival. A surprise on the way was to see *Daphne jasminea* growing in crevices on a steep limestone cliff. They were quite different to plants seen on the show bench. *D. jasminea* 'Delphi Form' is more upright with a mounded habit and creamy white flowers, whereas all the plants we saw were prostrate, 20 to 35 cm across, with pure white flowers and a green-yellow tube 2.5

to 3 cm, some single flowers and others in pairs. The leaves were oblong, bluish green 2.5 to 3 cm, and the wood of the main branches was one to two cm thick, furnished with a small cluster of leaves with either one or a pair of flowers at their centre. The plant normally flowers in April & May and on into the summer in most years, so to discover it in November with such numerous flowers was a glorious find! We then went on to the floral and national flag bedecked village complete with festive cheer and at least seven ways of using chestnuts including roast, puréed, sweetened with honey, savoury, in sweets and in chocolates.

Journeying on down through the village of Tzitzina and up to the summit of a pass, we first glimpsed the distinctive three peaks of Mount Taygetos. Along the way, we came across white crocus *C. laevigatus* and *C. hadriaticus*. Then down through scorched earth, the remnants of a fire that had raged through the area in 2007 leaving nothing but charred tree trunks. Replanting was in progress and we passed crèches of trees in root trainers (long narrow pots). The scorched earth was sprinkled here and there with crocus. Climbing back up to the village of Kosmas (1150 m) we continued to Elonis Monastery, inhabited by nuns, built under an overhang and over a measureless sheer drop. Apart from its cultural aspects, the limestone rock was botanically interesting. It was studded with *Campanula asperuloides* and was home to endemic *Asperula elonea*, named after the monastery and growing beside stalactites, all making quite a spectacle. Then on to Fokiano for a couple of nights lounging by the sea, not sun-bathing temperatures unless you were wearing a fleece - in my case two fleeces.

The following morning's walk along the beach brought us nothing new botanically but the afternoon walk along a hillside path that contoured around the coast was quite different. By a shrub we found *Crocus niveus*, a large crocus with mauve to light lilac petals 4 to 5 cm, yellow throat, yellow stamens, with three or more orange to red long style branches that in over half the colony protruded above the petals. The other noticeable feature was the length of the 10 to 12 cm yellowish tube. The tightly closed petals were darker in



Crocus laevigatus

Crocus hadriaticus



Crocus hadriaticus

Asperula elonea



The nunnery at Elonis, its
cliffs populated by
Asperula elonea and
Campanula asperuloides





Forms of *Crocus niveus*

colour and topped with their orange-red styles extending above like a bad-hair day. On the shore were a few sun-bathing *Cyclamen graecum*, fully exposed to the elements, while the sea lapped only a few metres away. Further along the contour, through the scrubland or maquis, were more delights such as *Arbutus unedo* (Strawberry Tree) in fruit, *Quercus coccifera* (Kermes Oak) complete with acorns to see at close quarters without getting stabbed or scraped by prickles. For me the star was a single flower of *Arisarum vulgare*, about twenty cm with a distinctive cylinder-shaped yellow-green spathe and red-brown stripes. The short spadix had not extended out of the mouth of the spathe. Its leaves are long-stalked and heart-shaped.

Arisarum vulgare



Cyclamen graecum





Cyclamen graecum

The next day we travelled further south by a circuitous route to Kyparisi - not far as the crow flies from Fokiano. We climbed from the coast to 660 m near Peleta, finding more *C. niveus* and *C. laevigatus* among *Sternbergia sicula*. By a rough track to Kremasti (plateau) we found three late-flowering *Colchicum bivonae*, a widespread Mediterranean colchicum that ranges from Italy to Turkey. The Greek representative normally flowers at the end of September; it has large sturdy 5 cm flowers, with purple, pink and light pink tessellations over white tubes. We continued until José shouted that there was something tall in the grass! And there were indeed a few *Narcissus serotinus*, about 15 to 20 cm in height. White flowers, 3 to 5 cm, petals 1 to 2 cm, shallow orange cup with 6 lobes; I was fair delighted with that find. I jokingly said to Klaas, 'Now I would really be pleased if you could show me 7500!' Talk about being hoist by your own petard - not five minutes later I was introduced to a colony of the daffodils in numbers too many to count, or I was too amazed to estimate their number: 'Follow that, Klaas' ... so he did! Moving on to the outskirts of Lambokambos (538 m), in a deserted garden was a good number of *Crocus goulimyi*, amongst others. This crocus is very grand and aristocratic. It reminds me of a long-stemmed wine glass with its long white perianth tube on which is blown a lilac-bluish to violet bowl. The stems of those in front of us ranged from about 10 cm to 16 cm,



Above: *Colchicum bivonae*

Facing page: *Crocus goulimyi*

Below & right: Photographing *Narcissus serotinus* near Sotiras monastery







Crocus boryi

with petals 4 to 7 cm. They differed in colour between the various groups and they grew in a wide range of conditions: crevices in a rock outcrop; tall grass in the open; *coorying* (a Scots term for being huddled down out of harm's way - in this case out of reach of goats and sheep) under dense shrubs; and at the edge of a cultivated garden. That evening we stayed in the walled city of Monemvasia, built on a rocky island two hundred metres high and separated from the mainland by a short causeway. The walk up to the highest point felt like a garden planted with the numerous plants that we had already seen and even some out of season flowering plants.

Next day we travelled south and west to the Taygetos mountain range on the way to Faris, our base for three nights. On our way we visited an old olive grove at Potamia, hoping to see a *Crocus laevigatus* relative, *C. boryi*. The book description reads as for *C. laevigatus* and goes on to say it is much bigger, especially in the chalice shaped flower. This does not forewarn you for the truth! Yes, it is very much larger and the petals are chalk white, accentuating the purple-blue stripe or, in some cases, feathering on the outside. The yellow throat appears to be confined to the base of the flowers and the top of the tube. The orange-red stigma filaments are more divided than those of *C. laevigatus* but we made no measurements for comparison. We noticed that the petals didn't open out to a star even in those plants that were fully exposed to the midday sun.

The next day we visited the Mani peninsula to walk round the Tower Houses, notably in the town of Vathia. *En route*, we paused at Kotronas (88 m) to photograph *Crocus cancellatus* ssp. *mazziaricus*. This is widespread with subspecies to be found in Greece and on through Turkey, Iran, Iraq, Israel and Jordan. As to its description, it is also large and

Facing: *Galanthus reginae-olgae*





Crocus biflorus ssp. *melantherus*



Crocus cancellatus ssp. *mazziaricus*

white flowered with a very definite yellow zone in the throat and at the top of the tube, fading nearer the base, its anthers orange-red. Stopping outside the monastery at Sotiras to brew up a cup of coffee and botanize, we found *Narcissus serotinus*.

While travelling the tracks south of Taygetos we passed more lovely sleepy villages. One of note was Arna, whose centre has a majestic plane tree that is estimated to be four or five hundred years old, with a girth only to be encompassed by the outstretched arms of eleven mature people and - yes - there was a spring. On the same excursion we passed a man gathering wild spinach and in another area a group of three was collecting *Bellis perennis* by cutting the rosettes off at ground level with a large kitchen knife. Seemingly, the daisies are pounded with pestle and mortar and then mixed with olive oil to make a salve for sore backs, among other things.

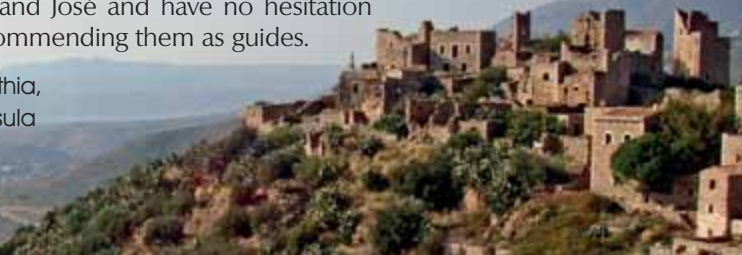
Before leaving Faris we contoured around the wooded slopes of Mount Taygetos at heights of 500 to 1300 m, heading eventually for Mistras. We caught sight of our first *Galanthus reginae-olgae*, 15 to 20 cm in height, length of outer petals varying between 3 and 4.5 cm, with - like *G. nivalis* - a single green chevron mark on the inner petals. All these plants were situated on or at the base of steep wooded slopes and all grew near running water in damp and cool air.

Our penultimate bulb was a crocus tracked down the next day, midway between Sparta and Tripoli, just on the outskirts of Alepohori (865 m). It was *C. biflorus* ssp. *melantherus*. We only found three, each with a freshly opened white flower, with three purple stripes or an attractive feathering rising from the top of a yellowish tube, yellow throat, with anthers purple-black. A most attractive conclusion!

Walking along the coast near Anigraia on our last day we met many out of season flowering plants. One to mention was a nice specimen of *Narcissus tazetta*. This is another well-travelled plant found throughout Europe and as far as China and North Africa. In most places it is a spring-flowering and clump-forming plant that may be found in flower in warmer countries if all its requirements are met. We saw a number of plants in the group but only one was flowering. It was about 30 cm in height; there was just one white flower about 3 to 4 cm, slightly reflexed with a bright yellow-orange tube, leaves grey-green.

There were many more finds I have not included but, without turning this account into a book, I must end here. I close by thanking *Alpines Offroad* for showing us the hidden autumnal secrets of the Peloponnese. We pay tribute to the skilled driving and excellent planning of Klaas and José and have no hesitation whatsoever in recommending them as guides.

Tower houses in Vathia,
on the Mani peninsula



Back Yard to Alpine Garden via a Pile of Sand

Rosemary Cox

Deciding to move a full growing season before doing so meant that I had time to dig up all my choice plants either to sell or to give to good homes. I had decided that I should move to a much smaller garden so only my real favourites, the plants I couldn't live without, were to move with me. The new garden turned out in the end to be little more than a back yard with potential.

It is about 9 m x 7 m, although that includes a reasonably sized garage so that the growing area is more like 9 m x 4 m with a narrow (1 m x 3 m) shady area behind the garage, which was built deliberately shorter than the original workshop because the garden faces south and, when I moved in, had no shady areas whatsoever.

The garden needs to be very easy to care for and there is no room for an alpine house. I have allowed myself one 2 m x 0.5 m access frame for those plants that really will not grow outside: tecophilaeas, some cyclamen and a few American fritillaries. The garden soil is silty sand on the alkaline side of neutral. It doesn't drain immediately in a heavy

- The starting point
- Southwest across the mound
- Building the cliff
- The bald strata



downpour but is always friable even after rain. This is very different from my previous gardens, all on heavy and acid boulder clay. It shouted bulbs at me, never a success on clay.

My brother agreed to come from Australia and create the garden so I sent him a copy of Peter Korn's article (*The Rock Garden*, 119) on growing alpines in piles of sand. John is a dry stone waller so wanted to create something using dry stone walls; I left the design to him. In one corner I had already created an acid environment using Swedish peat blocks, backfilled with sand and top dressed with most of the compost and leaf mould I had brought with me. It was more or less in the shade behind a 1.5 m brick wall.

John arrived in May and we went to buy nine square metres of gritstone with some thinner pieces of siltstone. His vision was of a winding crag edge with almost vertical strata and a dip slope facing the house with ribs of the siltstone creating crevices and scree reminiscent of the summit ridges of the mountains of Wester Ross – Cul Mor, Suilven and Quinag. Once the structure was in, the area was back filled with a couple of tonnes of sand on top of the garden soil. This is the main planting area. The only feeding that is done is a sprinkling of blood, fish and bone each Spring.

John's planting was a bit hit and miss. He would ask, for example, where *Asphodelus acaulis* should go and I'd say 'sunny and well drained'. Since that

- The satellite view
- Northwest across the mound
- *Aubrieta gracilis* and others
- *Bulbinella hookeri* and others





was the case for almost everything that came from my alpine house, plants were just dropped in without too much aesthetic planning. Two large pots of mixed *Rhodohypoxis* seemed to go everywhere when broken up into smaller lumps, giving a wonderful mixed display of white to dark cerise throughout the first summers. The extreme winter cold of 2010-11 killed all but the white ones (why?), which still gave a good show last summer. Some plants were too happy and I needed to remove them after the first year - such as the *Asphodelus acaulis* and *Silene siberica borealis*, the latter settling in at the foot of the crag. On the short and slightly steeper north-facing slope a couple of *Ramonda nathaliae* and a nice white one thrive, as does *Anemone rupicola*. Other plants that had struggled in their pots on the so-called lawn for a year have taken several years to start to flower again - for example, *Fritillaria carica* flowered at last on the north facing slope.

Although the dip slope was rapidly covered by the *Silene siberica*, *Aethionema* 'Warley Rose', self-seeding *Narcissus rupicola*, *N. rupicola* ssp. *watieri*, clumps of *Crocus imperati* ssp. *suaveolens*, *C. malyi*, *C. banaticus*, *C. goulimyi*, *Primula modesta* var. *fauriei*, *Papaver fauriei* and *Sterbergia sicula* ... the crag has been slower. There is no soil held between the dry stone blocks and so planting and self-seeding is along the base. It is becoming colourful

- Dactylorhizas
- *Merendera montana* in situ
- May 2010
- *Trillium nivale* in sand

with *Erinus alpinus* that climbs up the crag, dactylorrhizas - a few planted but now self-seeding at the damp base along with *Primula vulgaris*, *Antirrhinum molle*, and a few dry habitat ferns – *Asplenium ceterach* (rusty back) and *Asplenium trichomanes*. *Primula* 'Lismore Yellow' also seems happy here.

To cover the boundary brick walls we erected trellis. Although only thirty cm higher than the wall it has given the garden much needed privacy and shade. Winter jasmine and a couple of clematis clothe one side, *Clematis florida* 'Sieboldii' grows in the sheltered pocket behind the garage amongst a variety of ferns and I've just replaced the huge and rather unsightly *Clematis armandii* that appeared to suffer clematis wilt each summer by an ivy. *Ecchremocarpus scaber* flowers and self-seeds with gay abandon in deep rich scarlet through orange to pale yellow wherever I don't get round to weeding.

The small peat block area and its equally small humus-rich bed support a fine *Glaucidium palmatum* that had struggled in Harrogate with slug damage, *Erythronium* 'White Beauty', *Rhododendron camtschaticum* (grown from seed sprinkled on the bare peat block and now flowering), shortias and *Dactylorhiza fuchsii*, *D. x elatior*, and their hybrids. This applies to gentians too, of course: *Gentiana septemfida* var. *lagodechiana*, *G. paradoxa* and a now confused profusion of *Gentiana* 'Hedgehog', *G.* 'Shot Silk', *G. x 'Caroli'* and *G.* 'Susan Jane'.

- The high humus corner
- *Lilium mackliniae*
- The peat bed
- *Shortia uniflora* 'Grandiflora'





Merendera montana

In 2009 I decided to see whether I had succeeded in my aim of having plants flowering throughout the year and to follow their flowering periods to see whether they really are flowering earlier. To my amazement I listed over 350 different species of flowering plant in the garden. That includes a number growing in an 8 m x 4 m sized plot at the front of the house. Again, it is easy care, covered with large gravel or bark chippings to cut down the weeds. Self-



The *Dactylorhiza* path

seeding is encouraged and there is no watering. In one section furthest from the house is a 'woodland' area of small flowering shrubs and spring bulbous plants, the *Hamamelis* 'Pallida', *Viburnum* x *bodnantense* and *V. tinus* brightening the winter gloom and underplanted with *Anemone blanda*, *A. nemorosa* 'Robinsoniana', *Helleborus niger* and *H.* 'Walberton's Rosemary', colchicums and cowslips.



The *Dactylorhiza* path



Iris barbatula with
Anemone rupicola

Sowing Aquilegias

Carrie Thomas

Dear Reader, I am from Swansea in Wales and I'd like to share with you some of the delights of sowing my favourite plants - aquilegias. I hold the two National Plant Collections of them but sadly I cannot provide the conditions needed for alpine aquilegias, varied and beautiful as they are. So which SRGClubber is willing to take on *that* National Collection?!



Alpines such as *Aquilegia canadensis* 'Corbett', *A. flabellata* 'Ministar', *A. bertolonii*, *A. canadensis* 'Nana' & *A. flabellata* var. *pumila* 'Rosea' – and many others - await a curator for a National Collection. Any volunteers?

There are as many ways of sowing aquilegias as there are gardeners but this works for me: I sow in winter, starting whenever I receive seeds (and to suit myself), any time after Christmas. I keep the 3" pots in an unheated greenhouse (it keeps hazards such as cats at bay) after very lightly covering the seeds with compost. Then I wait - they'll come up in their own good time. In 2004 I experimented with the 96 types I had sown and by 25th May 88 (92%) had germinated. I found that my sowings on 23rd January took an average of 8 weeks 6 days to germinate, yet those sown ten days later on 2nd February generally came up about the same date, taking an average of only 7 weeks 2 days. Those sown a further three

Successful germination



'... thin out the green-leaved forms from coloured-leaf cultivars ...'





'... simply select seedlings with no purple in their leaf stems'

weeks later on the 20th February were slightly quicker again at 6 weeks 3 days. The longest took over thirteen weeks and the shortest just 5 weeks 2 days. If you sow during May to July they will germinate in about 4 weeks. I prefer to sow in January as there's little else to do gardening-wise (or the weather's too cold, too wet or too miserable). In March there's plenty else I can sow, and many other things that I need to do in the garden. I also sow alpines and bulb seeds at this time – basically, as soon as I receive the seeds.

What growing medium to use? I compared three last year. Two were peat based, first a standard multipurpose and second a good quality grow-bag (I find these are easy to carry and are often cheaper). The third was a John Innes sowing medium that was saturated and claggy to use, proving cumbersome when filling pot corners. Germination was good in all mediums although the John Innes was noticeably slower, probably due

'water well before ...



... tipping out to tease seedlings apart'





Aquilegia 'Touchwood Dragon's Breath' mix is from red & yellow doubles

to its being colder, and its seedlings were slower to develop. For these reasons, together with higher costs and heavier bags, I decided against using John Innes again ... until it came time to prick out, when it was a joy to use the John Innes seedlings compared to the abnormally abundant root growth that we find in peat composts.

After germination, thin out to a reasonable number, certainly not more than twice the number you feel you need. You may thin out the green-leaved forms from coloured-leaf cultivars at this time. These are

Stages in pricking out





Double aquilegias in a mixture of reds and yellows

known as the Vervaneana Group and comprise variegated leaved forms such as the Woodside range, as well as golden-leaved forms like ones I've introduced, including 'Elegance', with near-black flowers that look stunning over the golden foliage. White-flowered *Aquilegia vulgaris* cultivars (and what I term marbled colours) may also be predicted at seedling stage: simply select seedlings with no purple in their leaf stems. However, I've discovered that this rule does not hold true for long-spurred cultivars: purplish stemmed ones can flower creamy-white, whereas non-purplish stems may give brightly bicoloured flowers!

Prick out when large enough to handle; don't leave too long, because root growth is rapid. First soak the pot with water, then tip out the contents and tease seedlings apart from the edge of the compost ball. I even sometimes prick out at the seedling-leaf (cotyledon) stage, planting them directly where they are to grow on - either in nursery rows in the garden or in grow-bags.

This means I need to harden off seedlings for a couple of weeks beforehand, which I do by just leaving them in the relatively protected area between my shed and greenhouse.



A mixture of *Aquilegia* 'Touchwood Elite' with no simple single blooms

Planting into flowering positions may be done at any time from autumn to spring before the flowering shoot appears, though plants may be forgiving even when moved in first-flower stage, if treated understandingly. I have to pot up each one and keep until it flowers in May so that I know for certain that they are true to type and may be correctly named and put into the collection.

The SRGC seed list always offers a wide range of aquilegia species and cultivars, so do widen the boundaries of which ones you sow next season, and share your successes (and failures?) through these pages.



A mixture of *Aquilegia* 'Touchwood Blushes'

Further information about aquilegias as well as my own seeds and breeds is available on www.touchwoodplants.co.uk. Do look out for the special ones such as yellow doubles ('Shooting Stars' mix), and red & yellow doubles ('Dragon's Breath' mix).

In addition to my own advice, John Drake, another aquilegia specialist, advocates sowing immediately when ripe, otherwise a considerable drop in viability occurs. This may well be more important for other species.



A Saucer on the Roof of the World

Zdeněk Zvolánek (photos by Milan Halada)

Keen gardeners, nurserymen and top seed collectors usually have no time for writing and sometimes have difficulties with typing and taming computers; Czech seed collectors must also surmount a great language barrier if they are to write an article in English.

Every modern editor in the small world of rock gardening must be flexible; some collectors are keen to shoot good photographs so that after an expedition they can harvest pictures from their cameras, combining brief information about plants with the basic details of their habitats and the surrounding countryside. To get important information for their readers (the growers of new plants), brave editors must produce a good mixture of facts, internet information and old literature. Such cooperation and personal effort usually produce a hybrid with good vigour and a maximum of available facts. This kind of instant information speedily pushes along the quick introduction, propagation and successful cultivation of new rock garden plants. The gardeners' handbooks sometimes printed by huge companies, who for economic reasons cannot cover the subject properly, simply cannot keep pace with journals and blogs that present the latest news from the plant hunting fields.

Ninety eight years ago the famous English plant and seed collectors William Purdom & Reginald Farrer visited a wild area between eastern Tibet and western China (on the South Kansu - Tibet boundary). They

Above: Min Shan - the Gentian Peak





stayed there all year, spending the winter of 1914 in the Chinese town of Lanchow. Farrer wrote parting remarks about a frustrating botanical expedition, in which they had gathered - from unknown local mountains - plants new to herbariums. They explored and collected on the slopes of a big mountain range called the Min Shan, where Farrer had the '*curious feeling of being in the saucer on the roof of the world*'.

In October 2011 a small party of Czechs (Pavelka, Halada and Staněk) travelled by taxi to a high pass (3000 m above sea level) of the Min Shan massif and explored an unnamed peak with a stony narrow plateau at the top. The northern slopes of the peak were covered by rhododendron shrubbery while on the other exposures were alpine turfs with unusual numbers of gentians. Here were presented - as if on a saucer - at least seven different species of the divine genus *Gentiana* - the *Trumpets of Heaven*! This dense diversity, so rare and apparently from the Horn of Plenty, together with the perfect pictures that were available, raised in me the natural temptation to write about it for my colleagues, even though I myself have never visited China.

Gentiana veitchiorum





Gentiana georgei f. *alba*

On the lowest wet and cool turf are small seas of azure blue formed by the classic *Gentiana sino-ornata* (see cover). Their stems are slender and the exteriors of the long tubes of their erect single flowers are decorated with broad yellow stripes framed by dark violet lines. You must ascend 200 metres to reach the gentians sitting at the top of the peak. The intensive dark blue colours in the drier alpine turf belong to superb *Gentiana veitchiorum*. This was surely the most photogenic species in this locality and Milan Halada lay on his belly many times to portray its slender and long wide-mouthed vases. The colouring is vivid: well-saturated blue with purple-violet lines marking vanilla yellow stripes. This species is not taller than 8 cm.

All members of the three or four weeks long expedition assured me that *G. veitchiorum* is a species tolerant of cultivation in drier substrates in



Gentiana georgei

cooler gardens or cooler microclimates. We can accordingly admire this form in cultivation in the internet photographs of the Canadian nurseryman Harvey Wrightman and the Czech amateur Zdeněk Řeháček.

Adopting the low position (the snake view) for photography takes time and poor Milan always had to run to keep pace with his pack of friends. It is an exhausting process to be a careful photographer and collector on the roof of world, running in thin air and always seeking another outstanding object for the digital recording of beauty in paradise. Milan's main interest was to find and collect samples of white-coloured gentians. He is proud of introducing *Gentiana georgei* f. *alba* from the Min Shan Alps, whereas its normal colour is an artistic mixture of pale blue, lilac-blue and violet. Short and plump obconical trumpets open from delicately painted tight buds with sharp tops. This species has a robust

central rosette of light green, long and narrow basal leaves. The height of this alpine plant is 5 to 7 cm.

Gentiana georgei was the only species that was seen growing in crevices of the rock at the summit. The rock is probably slightly alkaline dolomitic limestone, because Farrer wrote that Min Shan is calcareous. Tolerance of calcite and love for crevices are promising omens for growing this attractive species (one day) in my drier and alkaline north-facing crevice bed.

Related closely to *G. georgei* is *Gentiana szechenyii* (syn. *G. rosularis* and *G. callistantha*); it forms a similar dense central rosette with 4 to 6 cm long leaves. Campanulate flowers are longer (5 to 6 cm) and usually in pale blue and dull purple or porcelain bluish-white varieties. This species is commonly seen as a small compact clump (see the Tibetan populations photographed by Harry Jans at www.jansalpines.com) but

Gentiana szechenyii variety



here, in this rich locality, was an indescribable variety that formed small tough carpets woven together with many criss-crossed central rosettes. We know from hard experience that *G. szechenyii* is regularly killed if cultivated in too wet a soil in either winter or summer.

Somewhere on the grassy slopes of the Gentiana Peak, Milan photographed a species from a different section and Mojmir Pavelka identified it as *Gentiana purdomii*. It is more herbaceous (5 to 25 cm tall) but reveals a lovely bunch of tubular white flowers speckled and lined with sapphire blue. It has rhizomes up to 15 cm long, erect basal rosettes and erect glabrous stems.

Mojmir Pavelka identified for me all the gentians shown in this article. Trust me that it is not easy to penetrate the jungle of botanical description and drawings if you wish to reach the right name for some discovery from the vast country of autumn-blooming gentians. Many

Gentiana purdomii





Gentiana species, or hybrid?

pictures offered on the internet do not have their correct names. The situation is worsened by easy hybridizing of different species and the rich variability inside many single species. Indeed, seed collectors usually know better the diversity of the genus *Gentiana* than people who work only with herbarium items. Milan Halada photographed one plant that could not be identified and might indeed be a hybrid. It is a very instructive photograph - taken from the ground.

In the appendix that concluded his book *The English rock-garden*, Reginald Farrer celebrated his successful introduction of *Gentiana* sp. F217 and F332, named *Gentiana hexaphylla*. The Latin specific refers to the

Gentiana hexaphylla



count of leaves 'at the end of the whorled-foilage stems which spring in such masses from the crown'. *Flora of China* lists six to seven whorls of stem leaves. Farrer mentioned 'the profusion of its pale clear water-blue (single) trumpets, most delicately lined with darkness on their outside'. You, dear reader, can see the real plant photographed in the alpine turf but we do not know which variety of this variable species it is.

There is therefore a possibility that the firework-like descriptions of the Master Farrer would not be so bright had he had a Canon digital camera with its precise pictures to illustrate his book. Sometimes this inventor of the richest horticultural English used the most imaginative adjectives to describe outstanding beauty. Relative to him, I feel quite incompetent (this, coming from a man who writes the most charming fairy-tale English for us, is rich! *Ed*) to comment on the poetry of the portrait of *Gentiana tetraphylla*, the last species offered in this informative article. I can only say that it would be interesting material for English and Scottish breeding efforts. I like this charming western Chinese gentian with its compact clumps of short stems, a dense cover of whorls made from the clever connection of four (or five) linear leaves together. The tubular corollas with dark blue stripes are four cm long.

There is a great chance that the Czech party neither saw nor photographed other species hidden in far corners among short grass, but even seven species should be enough to stimulate a proper appetite in your mind to go there as a pilgrim or to grow them and touch them in a quiet and reverent daily service.

Gentiana tetraphylla



The 66th SRGC Seed Exchange - and a few notes from the seed diaries

Ian and Carole Bainbridge

We're writing this at a time when the bread trays in the yard, which are full of seed pots, are inspected daily. The three *Omphalogramma minus* seedlings have reappeared after their winter rest; *Jeffersonia dubia* has germinated this week, and *Loasa nana* seedlings are growing away. Six species of peonies have just been pricked out. In the first year you see nothing; they just grow a root (this is hypogeal germination, for the technically-minded) and in the second year the shoots appear early and grow strongly. We're now waiting for another few years to see the flowers on the *Paeonia rockii* ssp. *linyanshanii*! It's all fascinating and reminds us just how interesting it is being part of the SRGC seed exchange.

Seed Compost

We are often asked about seed composts, as if there's lots of alchemy involved in the process. We use just three variants. The general compost we use is John Innes 2 (a light one, not a soggy lump) and we mix it about 3:1 with chick grit. This is 5 mm flint grit we buy from the agricultural merchant - a twenty kilo bag costs less than £10. For high alpine plants we might add more grit - maybe 2:1. For woodland and ericaceous plants, we'll mix sieved leaf-mould or ericaceous compost 1:1 with the John Innes before we add the grit volume. The small grit is really helpful when you come to prick out the seedlings; it keeps the compost open, which means it falls apart when you knock out the pot, making separating the seedlings very easy. We also use the chick grit to top the pots; it stops seeds splashing around when it rains and keeps the moss and liverwort down to some degree.

Sowing Bulb Seeds

With bulb seeds, we adopt one of two approaches. We sow granular seeds such as *Narcissus*, *Allium*, *Erythronium* and *Muscari* in the centre of a 7 cm pot. Fill the pot with compost, push a one cm deep hole in the centre with a thumb, and pour all the seed into the hole. Put a drop of extra compost in the hole, top dress with chick grit, water and leave outside to stratify and germinate. When the seed germinates we leave it well alone for the first year and let the seedlings grow as a nice tight group, supporting each other to some extent. We let the seedlings begin growing in the second season and then pot on. To do that, we put a couple of centimetres of compost in the bottom of an 11 cm pot, place an empty 7 cm pot in the centre, fill the gap between the two pots with

compost and tap down. You can then gently lift out the 7 cm pot, leaving a nice square hole in the centre. Take your growing seedlings, invert the pot carefully and lift off the 7cm pot. With a little panache you can then turn the seedling pot the right way up and drop it carefully into the hole. Your seedlings are then re-potted for another year or two without disturbing sensitive roots; the young bulbs will simply push each other apart as they grow and you can break up the pot after three or four years, when the bulbs are dormant, and separate the bulbs and repot in the normal way.

For small volumes of flake-shaped bulb seed, such as *Tulipa* and *Fritillaria*, we sometimes adopt a similar approach but sow the seed shallowly in the centre of the pot. With bigger volumes and especially for *Cardiocrinum* and *Lilium*, we sow seeds across the top of compost in a fish box, add a shallow layer of compost on top and then grit the surface. Leave it in a shady corner in the garden for four years. As *Cardiocrinum* germinate over several years, after four years we have seedlings of a range of sizes. We carefully knock out the whole box early in the growing season (or chop the box to pieces around the compost block!) and divide the plants into big (*plant straight out into the garden*), medium (*into 11 cm pots*), modest (*8 cm pots*) and small (*prick out into another fish box in rows*). This immediately gives you a sequence of sizes to plant out in successive years to ensure you have some cardiocrinums flowering each year.

Mediterranean Shrubs

Ian wrote a couple of years ago (*The Rock Garden, 123*) about germinating *Cistus* seed by placing the filled seed pots in the oven at 90°C. Since then, we've done that with several *cistus* collections and species, with excellent and rapid germination, so why not give it a try? You need to be careful with the labels though: the ones we buy from from the SRGC go bendy and curly at that temperature, so we take the labels out before cooking and replace them afterwards (remembering which label in which pot, of course!). We're now wondering whether the same technique might apply to other Mediterranean-habitat shrubs that grow in 'frequent fire' conditions, say from the South-African fynbos or the Californian chaparral. Any advice or experience out there?

Cardiocrinum planted out (left) from seedlings grown in a fish box (right)



The 66th SRGC Seed Exchange 2012-13

The Seed Exchange will operate in its usual way in 2012-13 and we hope you'll participate in it. Full details will be in the secretary's pages with this issue, but here are a few key points and requests:

For **Seed Donation**, please send your seed **before 31st of October** to the Seed Reception Manager: Prof. Stuart Pawley (gsp.srgc@tesco.net), Acres of Keillour, Methven, Perth, PH1 3RA, Scotland.

The seed list is prepared on 1st November, so if you think your donation might be late, please post a separate list early or send Stuart an e-mail with the list in the text but without attachments – so as to reduce the risk of viruses. Your seed should be clean, dry and in paper envelopes, with the seed's name and your own written clearly on the packet.

Seed Lists will be available around 10th November. UK non-donors should send a stamped addressed C5 envelope to Stuart Pawley before 14th December if they wish to receive a seed list. All donors and overseas members will receive the list as of right. The seed list will also go online at the same time; you may browse and order online as well as by post, by January 15th. **The seed password for 2012/13 will be: s66dlist**. You also need to enter your membership number (from the envelope that brought you this issue of *The Rock Garden*).

Seed Packeting: Ian Pryde will organise the seed packing between early November and December and will continue to use his faithful band of packeters. He would welcome a few more volunteers so, if you're willing to help and packet seed, Ian will send you a modest box of seed with all necessary instructions through the post to anywhere in the UK. Please contact Ian on 0774 629 8334, 01875 615185, or by email at ipryde@btinternet.com

Seed Distribution will begin in early January, best donors first, and all main orders will be completed before surplus requests are sorted in the

Why not join the Edinburgh seed distribution team? - and have fun!





Cardiocrinum giganteum - all yours via the Seed Exchange

second half of the month. Everyone will receive their main and surplus requests separately, usually about two weeks apart.

Seed Requests should be sent to the Seed Request Manager: Dr Alan Hayes (alan.hayes31@blueyonder.co.uk), 31 Liberton Brae, Edinburgh, EH16 6AG, Scotland. Requests should be sent before 15th January. Overseas members need to send payment for surplus, and home members for **all** seed requests. Full details will be in the Seed List.

Finally, to our American friends, please remember to send us your APHIS '*small lots of seed*' permits, and labels, and **check they are still valid**, as many of the first permits have expired. You may send your permits with your donations, rather than waiting for the order form to arrive. For US, Australian and New Zealand members, we still need you to **send a numbered list of requested seeds** unless you order online, when the computer does that job for you and us. Other overseas members are asked to check with their authorities whether any import requirements exist; we do wish to comply with any laws relating to seed imports.

Full details of ordering information will be issued in the Seed List, so please donate some lovely seed, order some gems, and share the benefits of the 66th SRGC Seed Exchange!

RHS JOINT ROCK GARDEN PLANT COMMITTEE
Recommendations made at SRGC shows in 2011

DUNBLANE 3RD FEBRUARY

Awards to Plants

Award of Merit (as a hardy flowering plant for exhibition)

To *Gymnospermium albertii*, exhibited by Royal Botanic Garden, Edinburgh



STIRLING 19TH MARCH

Awards to Plants

Certificate of Preliminary Commendation
(as hardy flowering plants for exhibition)

To *Galanthus nivalis* 'Dreycote Greentip',
exhibited by Ian Christie, Kirriemuir



To *Fritillaria* aff. *karelinii* (sp. nova),
exhibited by Cyril Lafong, Glenrothes



Awards to Exhibitors

Certificate of Cultural Commendation

To Jean Wyllie, Dunblane, for a pan of
Narcissus 'Betty Mae'

To Cyril Lafong, Glenrothes, for a pan
of *Primula* 'Nightingale'

PERTH 9TH APRIL

Awards to Plants

First Class Certificate (as a hardy flowering plant for exhibition)

To *Pteridophyllum racemosum*, exhibited by John Lupton, Westhill



Award of Merit (as hardy flowering plants for exhibition)
To *Soldanella alpina alba*, exhibited by Cyril Lafong, Glenrothes



To *Narcissus obesus* 'Lee Martin Form', exhibited by Bill Robinson, Paisley



To *Phlox hoodii* ssp. *muscooides*, exhibited by C & I Bainbridge, Easter Howgate



Certificate of Preliminary Commendation (as a hardy flowering plant for exhibition)
To *Astragalus loanus*, exhibited by Sam Sutherland, Kincardine



Botanical Certificate
(as a hardy flowering
plant for exhibition)
To *Primula euprepes*,
exhibited by S & D
Rankin, Lasswade



Awards to Exhibitors
Certificate of Cultural
Commendation
To Peter Semple, Stirling,
for a pan of *Ranunculus
calandrinoides*
To C & I Bainbridge, for
a pan of *Phlox hoodii*
ssp. *muscoides*

ABERDEEN 21ST MAY

Awards to Plants

Certificate of Preliminary Commendation (as a hardy flowering plant for exhibition)

To *Pleione hookeriana*, exhibited by Cyril Lafong, Glenrothes



To *Erigeron leiomerus*, exhibited by Mike Hopkins, Kemnay



Certificate of Cultural Commendation

To Sam Sutherland, Kincardine, for a pan of *Eriogonum ovalifolium*

Recommendation for AGM assessment

To *Erigeron leiomerus*, exhibited by Mike Hopkins, Kemnay

GARDENING SCOTLAND, INGLISTON, 4TH JUNE

Awards to Plants

Certificate of Preliminary Commendation (as hardy flowering plants for exhibition)

To *Cypripedium reginae* f. *album*, exhibited by Jacques Amand International, Stanmore



To *Lilium martagon* 'Claude Stride', exhibited by Jacques Amand International, Stanmore



To *Meconopsis* 'Evelyn', exhibited by Ian Christie, Kirriemuir

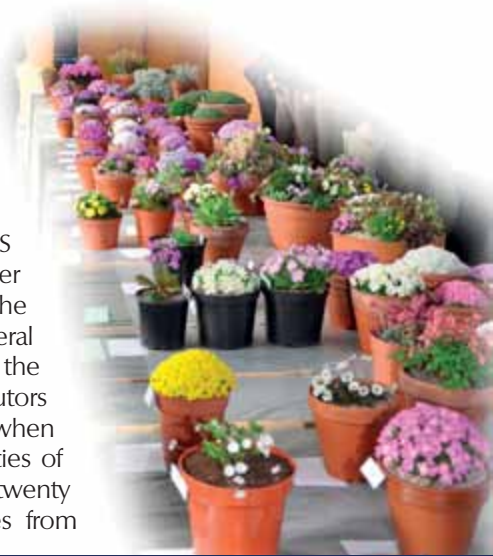
Recommendation for AGM assessment

To *Dactylorhiza* 'Harold Esslemont', exhibited by S & D Rankin, Lasswade

To *Roscoea cautleyoides* 'Pennine Purple', exhibited by Neil Huntley, Alston

Blackpool 17th March 2012

This year the show was held under AGS rules, offering the opportunity for a Farrer medal award. Spring did not bring the snow flurries that last year precluded several exhibitors from the Lothians actually making the long journey south. These northern contributors add to the wide flowering variations seen when compared to those from the southern counties of England. Lionel Clarkson was celebrating twenty four years in charge of the show that goes from



On the bench



Saxifraga 'Coolock Kate'
Androsace ciliata
Saxifraga 'Tenerife'

Dionysia lamingtonii
Dionysia 'Ludwig Jahn'



strength to strength and usually offers exhibitors some additional entertainment by means of an afternoon lecture - this year it featured an excellent talk by Diane Clement on hepaticas, complementing her hepatica display. Local member Sid Cumbus put on a photographic display of the flora of the Spanish Pyrenees that gained a silver award - as did Diane's display. The premier award went to Geoff Rollinson for a plant of *Saxifraga*

Judging *Draba sphaeroides*



Dionysia 'Monika'



Asarum campaniflorum
Cyclamen pseudibericum
Ipheion 'Rolf Fiedler'



'Coolock Gem' that had previously won a Forrest medal in 2009. Geoff has now thirty seven Farrer medals to his name and is carefully nurturing stable mates *Saxifraga* 'Coolock Kate' and *S.* 'Coolock Jean' to the same standard. Stan de Prato's large pan of *Primula warshenewskiana* was in vulgar health; its pink flowers glowed intensely from a top dressing of moss, appropriate to a plant that inhabits stream beds in northwestern Afghanistan, northern Pakistan and Tajikistan around 1800 to 4500 metres; frequent division is necessary to maintain vigour. Ivor Betteridge received a certificate of merit for his stunning pot of *Ipheion* 'Rolf Fiedler', named for the man who regularly sent seed from South America.

Snowdrops were notable absentees because of the weather experienced earlier in the year but Mike & Christine Brown managed a well-flowered pot of *Galanthus elwesii* 'David Shackleton'; its basal markings varied somewhat, possibly indicating seedling infiltration to the original clump. The Browns' other success came through a certificate of merit for a magnificent *Cyclamen pseudibericum*, which they grow so particularly well.

Asarum campaniforme showed stunning flowers, not shielded by the leaves as in some other species; the plant was a tribute to Wilma & Jim Wright's cultivation that had commenced as long ago as 2005. Alan Furness received the Kirby cup for his *Celmisia* aff. *gracilentia*, originally sown in 2001, its leaves a mix of silver and dark markings, clean and neatly presented. Local member George Jaworski won the Donald Lowndes memorial bowl with *Pleione* Tongariro gx and also took the Reginald Kaye trophy for the most first prize points in the novices' section.

Other successes on this altogether successful day included Tony Stanley - awarded the Michael Roberts memorial trophy, Ian Kidman - taking the AGS medal in the open section small six-pan class, and Derek Pickard - taking the Duncan Lowe award and a certificate of merit for his *Dionysia bryoides*.

Dave Riley



Crocus dalmaticus
Crocus veluchensis



Stirling 23rd March 2012

The Stirling show has existed for about 30 years with Sandy Leven as its secretary ever since its inception. During this time it has been held in three venues, the last being the Victoria Hall in Dunblane. It was sad but understandable to see it go: *sic transit gloria mundi*. Fortunately, Sam Sutherland volunteered to resurrect it and this year the 'Stirling' show was held in the community centre in Kincardine on Forth. It was, no doubt, a great relief for the new secretary to see the benches filling up. The show was smaller than usual but this has been true of other shows that I have attended this year. The weather is in part to blame because of the relatively dry and unseasonably warm weather we have enjoyed since New Year.

In spite of the reduced bench load, there were many good plants on show and it was great to see some of our members attending from south of the border. One disappointment was the lack of number of entries in section 2. Perhaps this is, at least in part, owes



Saxifraga x concinna 'Beinn Alligin'



Trillium rivale 'Purple Heart'



Narcissus bulbocodium oboesus



Iris rosenbachiana 'Harangon'

Sempervivum arachnoideum





Saxifraga 'Mollie Broom'



Tecophilaea cyanocrocus 'Violacea'



Three pan class 1



Rhododendron 'Lucy Lou'

to the inexplicable attraction that electronic games have for the young.

As usual, the benches were graced with a considerable number of pans by Cyril Lafong - with plants grown to perfection. His pan of *Trillium rivale* 'Purple Heart' stood out from the rest and was clearly a contender for the Forrest medal - that was in due course awarded. It was part of his three pan entry in class 1. The other two were *Primula* 'Broadwell Milkmaid' and *Tecophilaea cyanocrocus* 'Violacea'; either at any other time could have been Forrest medal winners. Bill Robinson exhibited a spectacular pan of *Narcissus bulbocodium obesus* that was awarded a certificate of merit. Sam Sutherland displayed a pan of *Iris rosenbachiana* 'Harangon' which was deservedly given a certificate of merit. On the day, all the blooms were in perfect condition.

Jean Wyllie's *Shortia galacifolia* x *S. uniflora kantoensis* was on the bench and won a first prize. It had been shown at the Blackpool show the previous week, when it was brought before the Joint Rock Garden Plant Committee. There, it had been granted a preliminary commendation - conditional upon

Townsendia rothrockii



its being given a clonal name. The name given is that of its originator, 'Brian Wilson', after Maureen Wilson granted permission, and it will now have its award confirmed. Tom Green from Rowlands Gill put some magnificent plants on the bench. His pan of *Townsendia rothrockii* was outstanding, the plant being not far short of 25 cm across. Although it is not uncommon to see this plant on the bench, it is unusual to see one of such a remarkable size.

Sandy Leven showed three species under the name of *Heloniopsis*. As so often happens to us as gardeners, taxonomists change the names and leave us stranded: *Heloniopsis japonica* is now known as *H. orientalis*. The other two in his group are now *Ypsilandra cavaleriei* and *Ypsilandra thibetica*. There is little doubt that *Heloniopsis orientalis* is the superior plant. Cyril Lafong's crammed 26 cm pan of *Tecophilaea cyanocrocus* 'Violacea' was awarded a certificate of merit. Ian Steele's contribution of *Pleione* 'Shantung Ducat' certainly caught



Corydalis x allenii



Heloniopsis japonica



Shortia galacifolia x S. uniflora kantoensis 'Brian Wilson'

Pulsatilla vulgaris – blue





Narcissus rupicola watieri 'Abaleish'



Callianthemum farreri

Callianthemum farreri

Callianthemum farreri belongs to the family Ranunculaceae and come from forests and grassy slopes; 3500-4000 m. S Gansu, NW Sichuan, China

C. farreri needs good, fertile and well-drained soil. In late autumn the plant goes into dormancy when watering should be reduced to keep it just moist. Growth starts in late winter when watering can be resumed. It is likely that cross pollination with another clone is necessary to get viable seeds. It is possible to propagate it by careful division as with other callianthemums.

Show notes on *Callianthemum farreri*

the eye and was very nicely presented. Cyril's *Callianthemum farreri* made a rare appearance. Going back through my records as far as 1993, I found only one record of its display by Carole & Ian Bainbridge in Blackpool in 2009. The main obvious difference is the colour of the flower.

The Ben Ledi trophy for the best European plant in section 1 was won by Cyril Lafong, who also won the Institute of Quarrying quach for the best non-European plant in section 1. The Carnegie Dunfermline Trust trophy for the most points in section 1 was won by Stan da Prato. The Fife county trophy for the most points in section 2 was won by Liz Mills and the Spiller trophy for the best primula was won by Cyril Lafong.

The ladies of the Inner Circle provided the catering services at the show and their help in this regard was much appreciated. The services and varieties of plants provided by the ever-patient and attentive nurserymen were particularly and greatly valued.

Glassford Sprunt

Tulipa biflora



Hexham March 31st 2012

This was the 40th year of the Northumberland show, the twentieth year it has been held in the spacious venue in Hexham, and in honour of the occasion we were treated to a splendid birthday cake provided for exhibitors by the SRGC. We were also fortunate to welcome



Bette Ivey, our honorary president and winner of the very first show, who has obviously been an exhibitor from an early age. Forty years would be 'ruby' if it were a marriage; Mala Janes, on behalf of the local group, presented an enormous display of photographs of ruby-themed plants along one wall of the show hall and justifiably won a gold award for her efforts in cajoling local group members to provide the photographs.

Exhibitors always seem to proclaim that it has been a 'strange year for weather' as they heave their show plants onto the bench but this year fully lived up to the comment, with high temperatures during most of March and lewsias appearing on the show bench at an unseasonably early date. The number of entries was, as expected, slightly down on last

Chris Lilley's Forrest Medal winning *Saxifraga x edlithae* 'Bridget'



year, but over 630 plants eventually appeared on the day and once again the tables were full of magnificent plants. The main difference I noted, casting a quick glance around the entries, was the absence of the large mass of pink forms of *Primula allionii* that normally occupies much of the central area of the show and gives the judges such a hard time deciding upon a winner. This time their task was made even harder as two adjacent classes contained eight pots of *Primula* 'Broadwell Milkmaid' amongst the twenty-four plants.

The Forrest medal was awarded this year to a plant of *Saxifraga x edithae* 'Bridget' that Chris Lilley - who has not exhibited in Hexham for some time - had brought up from South Yorkshire, making his long journey well worthwhile. This saxifrage is often grown in the open garden or in a trough but not many people grow it such a long time in a pot to create the massed and very even display that Chris had on show. It also lasts well - it was looking just as good the following week at the AGS Cleveland show.

We had a good number of entries in the 'B' and 'C' sections this year, and it is always encouraging to see new exhibitors on the scene. Some of the plants in these classes were extremely well grown and could

Clockwise from top left: *Primula* 'David Valentine'; *P. bracteata*; *P.* 'Broadwell Milkmaid' & *P. loiseleurii* 'Coy'. Centre: A glory of primulas





have competed in the open section but one of my favourites in section 'C' was a lovely and very floriferous potful of the lilac form of *Primula denticulata*, which may be 'only' a good garden plant but was well presented by Colin & Kathleen Billington as one of their entries that won them the Cyril Barnes trophy for the most first prize points in this section.

Amongst the bulbous classes, two magnificent pots of *Fritillaria* reversed the recent trend for these plants to be out of the limelight, with Frank & Barbara Hoyle's massive potful of the yellow *Fritillaria thunbergii* and Don Peace's *Fritillaria bucharica* with its clusters of flared white bells both winning certificates of merit for their owners. The show also hosted the AGS Narcissus salver - a travelling award - this year, and although the weather conditions had on the whole worked against the narcissus growers this season, Clare Oates's *Narcissus*



Pterostylis curta
Pulsatilla ambigua

'Segovia' was a worthy winner of this trophy. While considering the awarded trophies, mention must go to Ian Kidman, who once again carried away the trophy for the most prize points in the open section. Without the trophy in front of me to count the number of times his name is engraved there, I can only say that he has won it every year for some time and that he is now into his second decade of consecutive wins – a magnificent effort.

But it is not all about the trophy winners, and amongst the other plants that caught my eye were two large splendid pots of *Sanguinaria canadensis* var. *multiplex* that had been artistically top-dressed with moss by David Boyd and looked as if they were well-established in their pots – although I understand that several groups of plants had been combined in each entry. The miniature garden class seems to be undergoing a renaissance, helped by



Fritillaria thunbergii
Rhododendron 'Anna Baldsiefen'





Primula albenensis alba - one of the rarest primulas in Europe. The recently described and rare Italian *P. albenensis* is usually blue. This white form is even rarer. It is plunged in a sandbed in an alpine house open all year.

enthusiastic support from John & Clare Dower from Cheshire, who have been trying to encourage other exhibitors to provide them with some competition for their wonderful creations. This seems to be working, as we had several entries this year and John was pushed into second place by local member Peter Hood.

I have already referred to lewisias being seen on the Hexham show benches, almost unheard of for a late March show, and Margaret Pickering showed a lovely salmon-pink *Lewisia tweedyi*, very compact and covered with flowers, that came second in the large 'one rock plant in flower class' where the competition can be very varied. To select one final plant, I turn to the genus *Pulsatilla*: Alan Furness has exhibited a splendid soft-pink





Fritillaria gentneri

Pulsatilla ambigua for several years now, winning an AGS Farrer medal in the process, and it again appeared on the bench at Hexham - but this is a seed-grown plant and is not yet widely available. An excellent and more widely available alternative was a fine *Pulsatilla vulgaris alba*, shown by Elizabeth Dodds, which in its white form seems to be more refined than the commoner purple forms seen in gardens.

Once again, the Northumberland show was a huge success with both exhibitors and the general public and I would like to thank all the local group members, exhibitors and other club members who contributed to its achievement.

Peter Maguire

Dionysia viscidula x *D. freitagii*



Perth 21st April 2012

The show didn't get off to such a good start with the group locked out of the hall on Friday night and a pile of tables getting wet outside! The hall had been double booked for the time when setting up was to start on the Friday night. We were all a lot happier when a discount on the hall booking was offered as well as free tea and coffee! The weather didn't improve a great deal but this didn't dampen the spirits of exhibitors turning up with loads of super plants. There were plenty of public visitors on the day, with good takings on the door, plant stall and teas.

Who was the winner of the Forrest Medal and the Bulb Trophy? Cyril Lafong (Glenrothes), with a very beautiful pan of *Cypripedium* 'Urse!'. I was told that 'Urse!' is a hybrid between *C. fasciolatum* and *C. henryi* that has benefited by having two flowers per pedicel, a characteristic it inherited from the *henryi* part of the cross. This plant has about fourteen stems coming from one nose. If you want to grow a *Cypripedium*, you could do worse than to take Cyril's advice and use a mix of around 20% J1 and 80% grit/perlite/seramis. Cyril keeps the plant under glass and does not allow it to dry out. It flowers early. I had to reveal my ignorance about the growth medium and discovered that seramis is a kind of clay found in Tertiary deposits in Westerwald in Germany. The granules do not compact; because of their porosity they retain a large amount of water and also allow air down to the roots. It sounds like a useful material to try out with tricky subjects like cypripediums. An article by Cyril (*The Rock Garden*, 122, page 111) illustrates this hybrid, but the one at Perth was a lot bigger!

Cypripedium 'Urse!' - Cyril Lafong's Forrest Medal winner



Sam Sutherland's
Astragalus utahensis





Primrose 'Maisie Michael' x wild primrose (Margaret & Henry Taylor)

thomasii, *Paraquilegia caespitosa*, *Primula* 'Blairside Yellow' and *Androsace vandellii*. Cyril also won the R S Masterton memorial trophy for best Asiatic primula with his *Primula bracteata*. And no other person than Cyril won the Joyce Halley award for the best plant grown from seed, which was *Androsace selago*. This *Androsace* was grown from 'Euroseeds' sown in 2007 and germinated in 2008. It is a tricky one to grow, needing gritty compost and careful watering. It is a plant of dry mountain slopes, distributed across Bhutan, India and Sikkim. Apart from having some twin flowers, it is similar to *Androsace tapete*. The Ulster quaich, a rotating trophy, was at Perth this year. The meritorious plant was *Benthamiella patagonica*, another one from Cyril's glasshouse and also to be seen in *The Rock Garden* article mentioned above.

The coveted Major-General Murray-Lyon trophy (the chamois) was awarded to Ian Christie (Kirriemuir) for his very robust plant of *Trillium chloropetalum* whose white flowers were suffused with maroon or rose-coloured bases. The scent of this plant was much admired and sniffed!

The Perthshire medal was won by Margaret & Henry Taylor (Invergowrie) with 210 points, the most by members of the Perth Group.

John Lee's *Leucocoryne coquimbensis*





Pleione Britannia 'Doreen'

One interesting plant exhibited by them in class 47 was their own hybrid – a cross between *Primula* 'Maisie Michael' and a wild primrose. This plant has primrose-like flowers - one per pedicel, with reddish-coloured foliage and stems. Margaret told me that the seed was sown in July 2009 and was grown on in rich moist compost in a cold frame.

Sam Sutherland (Kincardine) brought a very attractive plant in the form of *Astragalus utahensis*, a lovely textured soft grey with hairy leaves and rich magenta vetch-like flowers. In the wild, this grows in dry desert-like

Arisaema sikokianum
Cassiope 'Arctic Fox'



conditions on rocky hillsides. Another plant that I particularly liked was the *Leucocoryne coquimbensis* hybrid brought by John Lee from Glasgow and seen at several shows this spring. The genus *Leucocoryne* is a member of the Alliaceae from Chile where its habitat requirements are for good but freely-draining soil and full sun. This one had a lovely blue-purple and white colour. The worthy winner of the E H M Cox trophy for the best rhododendron was Stan da Prato with his *Rhododendron* 'Snipe'. For Stan's hints on growing fine rhododendrons like this one, try last year's Perth show report. It has to be said that Stan grows them *par excellence*.

In section 2, the winner with the most points was no less than our president herself, Liz Mills. Well done to Liz! She also won the John Duff prize for her *Primula elatior*. But where can we get some youngsters? - there were no entries in the junior section. We'd like to thank all the judges and of course everyone who made the show such a success.

Cathy Caudwell

Calanthe bicolor (Alan Gardner)
Saxifraga federici-augusti (Carol & David Shaw)



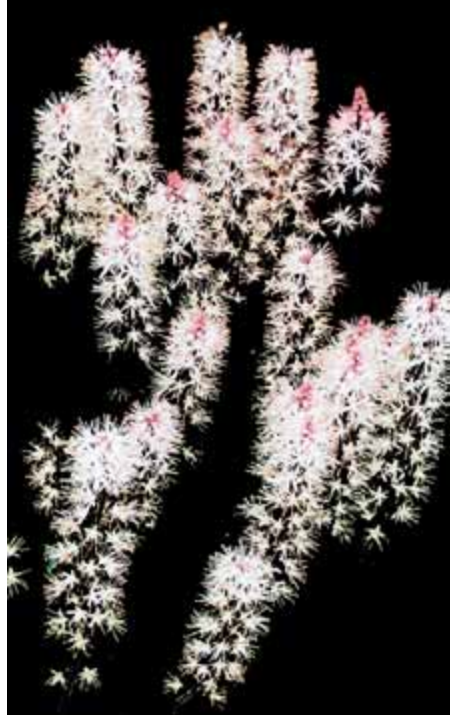
Highland 28th April 2012

The Highland Rock Garden Club has held its own show for a considerable number of years. I became involved four years ago, the year after its move from Inverness to the new Nairn Community Centre. Under the guidance of the joint show secretaries, Carol & David Shaw, and a hard-working team of enthusiastic helpers, the show has steadily improved and grown year on year to acquire a deservedly good local reputation.

In spring 2011, Carol & David mooted the idea that we should bring the show up to national SRGC status. Many understandable doubts were expressed but the decision was finally taken to give it a go. That meant that despite much careful preparation the approach of 'the day' caused hugely mixed emotions – including both excitement and trepidation. Would we have enough people come up north? It is amazing that more than once we had heard folk say how far it was - further for them to come north to our show than for us to go south to their show! Would we get the crucial support we needed from the hard-core exhibitors? And, most of all, would we have enough quality plants on the benches to wow both local visitors and those from further afield? Thankfully, our fears were not realised. In my opinion and from all the feedback I received, the answer was an unqualified 'Yes' to all the questions: the show was a success! Thanks to our supporters, we believe we have established a secure foundation for a new SRGC show in the Highlands.

There was a total of 196 entries, resulting in 263 pots on the benches. Very gratifyingly, 79 entries were in Section 2. Nor was quality lacking - there were some superb plants on display. No less than seven came under consideration for the Forrest medal. The final victor was a fantastic *Astragalus utahensis* with plentiful lilac flowers, shown by Sam Sutherland in the class for three pans of different genera. It was quite striking and, sited not far from the hall entrance, was the first plant many people focused on, attracting considerable attention.

The trophies were reasonably well distributed amongst exhibitors. Stan da Prato won the Highland trophy for most points in section 1 and our own Olive Bryers won the George Roslyn-Shirras tankard and a bronze medal for most points in section II. Both had many much-admired plants.



Tiarella 'Spring Symphony'

The Askival trophy for the best pan of bulbs and the Weir shield for the best plant exhibited by a Highland or Moray group member went to Carol & David Shaw for a lovely even pan of *Fritillaria pontica* that had hardly a blemish. How nice it is to see a relatively common plant being recognized like this. Carol had to be rescued from the embarrassment of announcing their own success at the prize-giving. Carole & Ian Bainbridge won the Culloden cup for the best primula with a large and very floriferous bluish-lilac-flowered plant of *Primula rusbyi* ssp. *ellisiae* from western North America that was as near perfect as any I have ever seen. Another nice specimen of the same species paired with *Petrophytum hendersonii* won them the two pan class for North-American natives. Their plant that most impressed me was a delicious eight cm diameter mound of *Benthamiella patagonica*. Grown in an open mix of John Innes compost and grit, the mass of yellow flowers totally obscured the foliage. I was not the only person to drool over it!

Tina Finch, who won five classes in Section II, took the Dunbarney salver for the best plant in the section with a well-flowered *Morisia monanthos*. It is a plant I have always found difficult to keep and this one made my failures feel even more painful to me. *Anemone obtusiloba* 'Pradesh', a form whose flowers open pale and spotted before darkening to a beautiful deep blue as they mature, appeared in two classes. It won class 29 (Ranunculaceae) for John Owen and when Ian Christie paired it with a lovely *Meconopsis x cookei* 'Old Rose' it won the class for two plants native



Judges at work

to Asia. Ian's plant is probably the parent of John's, coming north from Kirriemuir as a very small plant four years ago. Difficult to propagate in quantity because it never seems to set seed and non-flowering offsets do not seem to exist, it may never become truly commercial.

Morisia monanthos (monantha)





- John Owen and Liz Mills
- *Crevice beauty*
- *Cassiope selaginoides*
- *Gentiana acaulis* 'Maxima'

David & Stella Rankin also had considerable success across a variety of classes, including a new species of primula in class 4 and a trio of the purple *Primula elatior* ssp. *meyeri*, rosy-lilac and leathery-leaved *P. limbata* and pink *Primula* cf. *neurocalyx* in the three pan primula class. Overall, the benches looked spectacular, from the large and bright pink *Rhododendron* 'Snipe' shown by Stan da Prato to the tiny *Benthamiella* specimens. I apologize to anyone who thinks I should have mentioned their plant and did not. Inevitably, I can only include a selection of my personal highlights but I really did enjoy seeing them all.



Androsace cylindrica x hirtella •
Dionysia involuocrata •
Saxifraga pubescens •
 And ... guess what? •

Although a show would be a pretty dismal affair without a good display of plants (only 6 out of 89 classes had no entries) and we are grateful to exhibitors from right across Scotland for staging them, it is also essential to have a good team of workers - show secretaries, stewards, welcoming door people and plant sellers. As convener of the HRGC, I saw it all come together and I express my gratitude to our members for making it such a success. I am sure it was a happy birthday for Carol Shaw - and even better when she finally got home to a well-deserved glass of wine in her hand.

I am convinced that we opened the world's window onto the SRGC very well and put on a worthwhile show. Those of us up north are a welcoming and civilized bunch. Come and see for yourselves next year; make it a date now!

John Owen



Glasgow 5th May 2012

An eclectic mix of plants and exhibitors was the catalyst for a very memorable show. The plants displayed a tremendous range, aided by the massive variation in cultivation locations, probably more than some 300 miles overall which in turn



represented considerable diversity of weather patterns for growth. Exhibitors included more than a dozen members from south of the border who found the usual warm welcome from John & his team and clearly enjoyed the day and the refreshments!

The climax to the day's enjoyment was the 43rd Forrest medal award to Cyril Lafong; I believe this equals the previous record held by Harold Esslemont. The award went to his *Daphne petraea* 'Persebee' (Peter Erskine clone 97/T13 from Cima Tuflungo a little east of Tremalzo, and named as 'Persebee' by the breeder) which out-flowered his *Daphne calcicola* despite the smaller pot size. Some seven plants were initially considered for the premier award, further underlining the show's quality. Cyril's winning streak included certificates of merit for the *Daphne calcicola* and *Trillium pusillum*, the Charles Simpson memorial trophy for *Dactylorhiza* 'Sweet Corn' - fully justifying its name with corn-coloured heads of flower, the 75th anniversary prize for his Forrest medal *Daphne* and, finally, the Diamond Jubilee class A award for six pans of rock plants.

Below: *Trillium pusillum*

Above: *Campanula besenjinica*





Primula bracteata

Foremost again in this collection was the Forrest medal *Daphne*, but ably supported by *Daphne calcicola* 'Gang Ho Ba', *Cypripedium* 'Maria' (a *speciosum* x *parviflorum* cross), *Sebaea thomasi*, *Daphne petraea* 'Idro' and *Androsace hausmannii* x *hirtella*.

Three further certificates of merit were also awarded on this day of quality to George Young for his *Helichrysum sessilioides*, a large cushion covered in papery white flowers, to Alan Spenceley for his *Paeonia cambessedesii*, a week from full flower but nevertheless a major

Meconopsis delavayi





contender for the premier award on any other day, and to a glorious trough of *Meconopsis delavayi* with one plant displaying six flowers of imperial purple offset with golden bosses of stamens. Apparently another trough with more potential was left at home despite much handiwork to make it presentable! We rarely see this many flowers on a single plant and Glassford Sprunt has fittingly captured the event for posterity.



Continuing the accolades – remarkably, Stan Da Prato and Shelagh & Brian Smethurst shared the Crawford silver challenge cup while, similarly, Richard Green and Sue Simpson shared the James A Wilson trophy. Watt Russell took the Ian Donald memorial trophy with his *Paris*



Clockwise from bottom:
Pleione cambessedesii •
Mimulus naiandinus •
Pleione 'Fuego' •
Androsace robusta purpurea •
Cypripedium 'Maria' •
Border: *Helichrysum sessilioides*



quadrifolia, George Young took the Henry Archibald challenge rose bowl, Stan Da Prato won the Edward Darling memorial trophy, Ian Kidman overcame strong competition to win the Joan Stead prize with a *Primula bracteata* (many thought it hotly contended by a multi-crowned snow-white *Primula reidii williamsii* tabled by Graeme Butler) and, finally, Carole & David Shaw won the Don Stead prize for the most bulb points.



In conclusion, two small seedlings shown by Peter Hood excited considerable envy among exhibitors. These were *Oreosolen wattii* and *Androsace robusta purpurea*, both derived from collections by Chris Chadwell in Tibet.



Dave Riley

Clockwise from top:

- *Silene hookeri*
- *Daphne petraea* 'Idro'
- *Daphne calcicola*
- *Daphne petraea*
- *Daphne calcicola* 'Gang Ho Ba'

Border: *Sedum humifusum*

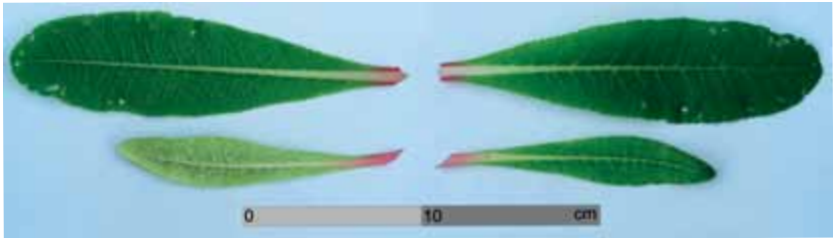




Primula cachemiriana

David Shaw

Those of us lucky enough to hear Pam Eveleigh's talk on Himalayan primulas may have noticed that she spent a little time referring to *Primula cachemiriana*. Carol and I have been growing a plant in the garden that we purchased many years ago as *P. cachemiriana* but I have always been sceptical of exotically named plants coming into my possession and believed that it was probably just *Primula denticulata* hiding behind an alias. Even so, I could see differences between these two primulas and therefore I lifted a plant to take to the Edinburgh show, which Pam would be visiting. I asked both Henry Taylor and Pam to look at our plant to give me an opinion of what they thought it might be. In both their opinions it was definitely *P. cachemiriana*: good enough for me! You may wonder, just what are the differences between *P. denticulata* and *P. cachemiriana*? There is very little information in the literature or on web sites so here are my own observations.



Above: *Primula denticulata* - lower and upper leaf surfaces
 Below: *Primula cachemiriana* - lower and upper leaf surfaces

I am neither a trained botanist nor a taxonomist and my thoughts are those of an ordinary gardener. The obvious initial visual differences are that *P. cachemiriana* is a smaller and more compact plant than *P. denticulata*; also, every year, *P. cachemiriana* only starts to flower when *P. denticulata* is going over. The leaves probably give the first real clues to the difference between these two primulas. *P. denticulata* has a familiar large and solid leaf, typically 20 – 25 cm long and up to 7 cm broad. *P. cachemiriana* is much more linear, 15 cm long but only 2 to 3 cm broad at its widest. Not so readily noticeable in a garden plant during springs such as that of 2012 is the farina on the leaves. As I write I have just been out to cut a leaf of *P. cachemiriana* to examine and I found my fingers to be covered in its yellow farina; not so with the adjacent denticulate leaf. This whitish-yellow farina is an identification point referred to by all authorities.

Now to another difference and to the root (*sorry!*) of the matter. None of the authorities that I have read describes the roots of the plant. Many of us are familiar with the long and thick roots of *P. denticulata*; they are useful for propagation by root cuttings and are easily damaged when splitting clumps. The roots of *P. cachemiriana* are much shorter, not fibrous and much finer than the thongs of *P. denticulata*. The plant that I lifted for the show bench fitted into a ten inch half-pan with plenty of compost beneath the root ball. A similar sized *P. denticulata* would have needed a

Pam Eveleigh shows the yellow farina on Margaret & Henry Taylor's *Primula cachemiriana*



full pot and, even then, its long roots would have needed to be curled around the bottom.

What's in a name - what should it be called? In 1882, Hooker gave it the varietal name of *Primula denticulata* var. *cachemiriana*; Smith & Fletcher considered it a garden hybrid although John Richards thinks they may have been describing a hybrid between *P. denticulata* and *P. cachemiriana*. Richards considers that, apart from the flower head, the two plants are so different that *P. cachemiriana* should be given specific rank.

As I have admitted, I am just an ordinary gardener but to my mind these are very different plants and, for the moment, I consider them to be separate species. Apart from the above-ground characteristics, the defining factor for me would be the very different root structures. Are they rare in cultivation? Certainly *P. cachemiriana* is not as common as *P. denticulata* and its recognized varieties but I doubt that it is as rare as some

authorities suggest.

I suspect that it may be growing in many of our gardens but unrecognized for what it really is.

Searching through issues of *The Rock Garden*: in 1987 fifteen year old Joel B Smith (*the editor caught them young in those days*),

claimed in an excellent article on growing Asiatic primulas in Hampshire that *P. cachemiriana* was common and could be obtained from any good garden centre; by 2001 Alastair McKelvie noted that it was not often to be seen in gardens.

To my mind *Primula*



Roots of *P. cachemiriana* are much shorter, not fibrous and much finer than the thongs of *P. denticulata*.

cachemiriana is a much neater plant than *P. denticulata* and is well worth growing.

Primula cachemiriana has had a varied history in the literature. It was first described by the soldier and plant collector General William Munro in 1879 from a garden plant. It has been considered a hybrid of *Primula denticulata* x ? but nobody has been able to suggest a suitable second parent. Richards suggests that an unusual chromosome count may hint at hybridizing but this matter is beyond my experience. If the plant were to be a hybrid it is suggested that it would be sterile. I have never collected seed from our own plants but notice that there are several yet-to-flower seedlings whose foliage is identical to *Primula cachemiriana*, indicating that our plant is not a hybrid or is simply not sterile. It is now well-known to have been identified in the wild in Kashmir. It is a high altitude plant found by stream sides at 3700 metres and above in the vicinity of K2, possibly in the Byundar Valley - Frank Smythe's famed *Valley of Flowers*.

As regards cultivation, I have difficulty in growing some of the Asiatic primulas in pots, probably because I don't give them enough water and humidity in summer. John Richards feels that *Primula cachemiriana* is less vigorous than *P. denticulata* - but that is not my experience. Ours have survived dryish summers with the aid of the sprinkler and, unprotected, two recent winters with temperatures down to -15°C. Our *P. cachemiriana* grows in our 'meconopsis bed', on the north side of a neighbouring two metre *Cupressus leylandii* (*urgh!*) hedge. It gets lots of sun in the summer when the sun is high overhead but is in total shade all winter long. The bed is not overhung by any trees so there is plenty of light and the neutral soil is naturally light and silty. However, it has had plenty of humus and mulch added over the last twenty years and is now of a very good humus-rich texture. Living in northern Scotland, lack of rainfall is rarely a problem and the only time we normally need water is during periods of desiccating winds in March. Our plants grow here very happily and bulk up quite quickly. Not being certain of their true identity, I have never tried to collect seed. Knowing differently now, I will attempt to do so this year and I hope to be able to donate some to the Seed Exchange. So watch out for your opportunity!

Further Reading

- Primulas, John Richards 2003
- The Genus Primula, Smith & Fletcher c.1940
- The Rock Garden, J B Smith, 1987
- The Rock Garden, Alastair McKelvie, 2001

Go West, Young Man: Part 2



Graham Nicholls

Utah



After Ev Whittemore and I had been to the 1993 NARCS conference in Vail, Colorado, Ev proposed that we look for *Hymenoxys lapidicola* in the Blue Mountains adjacent to the Dinosaur National Monument. I jumped at the chance as the plant had been only recently discovered by Elizabeth

Neese, so we met up in Vernal in the northeast corner of Utah. The rodeo parade took place the day after we arrived and was great fun. Never having been to a rodeo, my wife Iris & I went although neither of us is horsey. We didn't enjoy it much so left early and went to the aptly named Dinosaur restaurant for a meal. I found my T-bone steak, the first I had ever had, to be tough and fatty – it seems I should have ordered a different cut, so I wasn't very happy. Anyway, the next day Ev emptied her 4x4 and drove us to the Blue Mountains. After a long and bumpy journey along a rough track came the long hike and hunt. Our quarry was said to

Hymenoxys lapidicola, Blue Mountain



Collecting on Blue Mountain



grow on the cliff face in full sun but we couldn't find it. However, after lunch we looked again and found one plant in flower - but it was in the shade. *Eureka!* While Ev & I drooled over it, Iris came out with the immortal words '*We haven't come all that way just to see this.*' Well, after much photographing and a bit more exploration we found dozens, if only in seed, so like a good alpine grower of the time I collected a packet of seed. Some was distributed once I returned home and I sowed some myself, resulting three years later in a lovely exhibit. With such sandy soil on Blue Mountain, there weren't very many alpines but we did see an unidentified penstemon and

Oenothera caespitosa with a couple of flowers. Not far away and endemic to the barren hills of the Utah-Wyoming border grows *Penstemon acaulis*, arguably the smallest penstemon of all. Seed has been listed commercially for several years and I have had limited success from it. Germination is not generous nor is growing it a breeze; however, once you have flowered this treasure it is a must for always.



Penstemon acaulis

Colorado



I started these articles with the 1982 ARCS conference in Boulder, also a good place to start a tour of Colorado. On nearing the Kansas-Colorado state border, we were perturbed to see dark clouds on the horizon. But what did we know? As we got closer we realised the 'clouds' were the Rocky Mountains. They soon towered over us as we reached the lupin fields where we could rest and take it all in. It was a fine introduction to our many future trips to this state: Rocky Mountain National Park - where we played snowballs in T-shirt and shorts and saw *Eritrichium nanum* for the first time; Mount Evans - a hair-raising vertiginous drive; Loveland Pass - to see *Claytonia megarhiza* and *Primula parryi*; Pikes Peak - for *Telesonix jamesii*; so many delights - and so little time. This is why I always recommend starting any Colorado trip in Denver.



Lupin fields near the Rockies



Pale-blue *Eritrichium nanum*, Pikes Peak



Rocks at Pikes Peak

The Rocky Mountains are the major mountain system of western



Mertensia alpina



Primula angustifolia



Hymenoxys acaulis var. *caespitosa*



Trifolium nanum & others

North America and are the easternmost belt of the North-American cordillera, extending more than 4800 km from central north Mexico to Alaska. Mount Elbert (4399 m) in Colorado is the highest peak and this state has 54 peaks over 4200 metres. They lie between the eastern Great Plains, from which they rise abruptly, and a series of broad basins and plateaus to the west. Many places I mention in these articles lie within the Rockies.

Visit Denver Botanic Gardens before driving off into the mountains and chat to the curator Panayoti Kelaidis; he is a volume of information about the Rockies. South from Denver is Colorado Springs where we stayed for a couple of nights so as to drive up Pikes Peak (4302 m) in the Front Range. Returning after a meal to our motel in darkness through ubiquitous road works was extremely hair-raising, especially as we were driving on the 'wrong' side of the road. The following day, Pikes Peak cheered us up; a toll road led to the summit so that no climbing was involved. The mountain was renamed from the Spanish settlers' 'El Capitan' after Zebulon Pike led an 1806 expedition that was beaten back by the winter snow. Luckily, we missed a famous motor race, the Pikes Peak International Hill Climb, so had an uninterrupted drive to the summit with its large car park, restaurant and gift shop. The flora near the bottom isn't particularly interesting but as you reach the

various zones, notice boards explain the flora & fauna. Other drivers seemed to want to ascend in record time but there are wide places by the road where I could get out to look around. Everyone knows that Pikes Peak is the place to see *Telesonix jamesii* ... if you know where to look. Although I knew it grew in rock crevices I had to look hard to find it in a crack in a very large rock formation; unfortunately it only had one flower although it did have lots of buds.

Leaving the car at the side of the road I couldn't help but wander off photographing many beautiful plants. Two different blue forms of *Eritrichium nanum* and a white form were within three metres of each other. I spotted a hillside gully still damp from snowmelt and supplying moisture to a plant or two - sure enough there was a long line of *Primula angustifolia* snaking its way down. I last saw it flowering in running water at Summit Lake on Mount Evans.

Mertensia alpina covered the roadsides and beyond with its deep blue flowers – so deep that at a distance they appeared to be eritrichiums. In deteriorating weather, we met a snowstorm near the summit but I spotted a number of yellow *Hymenoxys acaulis* whose beautiful silver leaves reflected the sun, had it not disappeared. By now I was freezing in my T-shirt and jeans but hung on to photograph a typical alpine plant scene of a clump of *Trifolium nanum* fringed



Penstemon hallii on Hoosier Pass



Loveland Pass



Aquilegia coerulea



Aquilegia flavescens



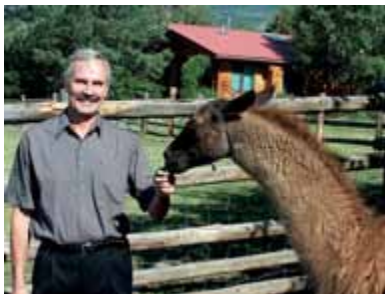
Aquilegia coerulea, white form



Anemone narcissiflora



Clematis hirsutissima



Llama parade at Cedaredge

with *Mertensia alpina* and *Geum rossii*. And so back to the car to warm up and descend to Colorado Springs ready for departure the next day. We tried to visit the Garden of the Gods Park but although we saw some fantastic rock formations in the dusk we needed more time than we had.

Mount Evans and the Rocky Mountain National Park are very close by and well worth a visit, especially as the Mount Goliath Alpine trail has been further developed in recent years. Loveland and Hoosier Passes are another pair of good areas for botanizing. After parking at Hoosier you must hike up through the trees to find choice plants like *Lloydia serotina*, *Phlox condensata* and *Polemonium viscosum*. I spotted a lovely clump of *Penstemon hallii* here with erect stems, unlike the compact plant that I had been growing. At Loveland Pass I found the best *Aquilegia coerulea* (the original specific, now often *caerulea*) that I had ever photographed, and pictured against the snowy mountain scenery was a beautiful *Anemone narcissiflora*. A marmot poked its head out on the tundra and a ptarmigan tried to camouflage itself near the rocks.

Aquilegia coerulea grows well in the garden and seed is offered in the UK commercial seed lists, although I collect my own. In my experience, this species needs to be pot grown for two years before planting out and if put out

beforehand does not grow very well. I like the North-American aquilegias because I have never found them to hybridize; any grown from seed come true, unlike the border types from garden centres that seed themselves as hybrids everywhere around the garden - although some of these can be quite nice as long as you hoe out the rubbish.

I cannot leave Colorado without mentioning our stay at a llama farm in Cedaredge. Every newcomer had to say hello to the llamas on their first morning as their owner paraded them. Cedaredge is just below the Grand Mesa, a great flat-topped mountain at the western end of Colorado and the largest mesa in the world. It has an area of 1300 square km and rises about 1500 metres above the surrounding river valleys to about 4000 metres, with its summit at Crater Peak. On several mornings we took a packed lunch on our drive to the plateau to find nice plants. Once on top, the rough Land's End Road goes east for around twelve miles and all sorts of goodies may be found along it. *Phacelia sericea*, *Phlox multiflora*, *Eriogonum umbellatum*, *Delphinium nelsonii*, *Penstemon strictus* and *Clematis hirsutissima* were just a few. So taken was I by the hoards of *Phlox multiflora* in one field that I didn't notice I was walking through clumps of *Clematis hirsutissima* until I was almost back at the car; I had to return - I couldn't miss such an opportunity. At the end of the road



Delphinium nelsonii



Frasera



Frasera



Penstemon whippleanus

is an observatory and a 4x4 (only – no rented cars!) track that connects with the highway below. We drove to the conference in Breckenridge via Gunnison and Crested Butte where we stayed for a few days during their Wild Flower Festival. It was on a photographic workshop field trip just outside Crested Butte that I photographed the most stunning alpine (?) at the side of the road. Known simply as the *Monument Plant*, it grows some two metres tall: *Frasera speciosa* was thought to be a biennial but research has shown that it is monocarpic and reputedly takes some twenty to eighty years to flower. It was a good year when we were there.

Wyoming



And so we travelled north to Wyoming and all its treasures. On our 1982 trip we entered by way of Utah and the Grand Teton mountain range before visiting Yellowstone National Park. Who would have thought that my next visit would be as a trail guide in the Tetons? During the 2006 interim conference at Snowbird the offered three day field trips were varied: the Tetons, Snowy Range, Wasatch, Rubys, Ceder Breaks and the Big Horn Mountains. I selected the Tetons with the then NARGS president Bill King as our tour manager and we stayed in Jackson

as an ideal base for field trips. The Bridger Gondola took us up Rendezvous Mountain to 2700 metres, giving us remarkable views of the surrounding peaks. We divided into two groups for plant hunting. My group had an area that varied from scree to partial woodland and it turned up a wide range of plants. I decided to explore a lovely natural crevice garden on the edge of the cliff overlooked by the gondola but shouting from the ranger passing overhead told me to get back to a safe place. Spoilsport! However, on wandering around the wooded area I found *Aquilegia flavescens* and *A. coerulea* in its normal blue form while a white form flowered in the open scree.

I had agreed to be a trail guide. This isn't just about identifying plants but also helps the leader look after the rest of the group. I was supposed to be 'tail-end Charlie', whipping up those who had dropped behind and making sure we didn't miss anyone, but while checking on everyone else I didn't notice that my wife had disappeared. After much searching I discovered her at a picnic table with a ranger - she thought sitting down to be better than hiking. Plant hunting again, I found the carmine form of *Penstemon whippleanus* hiding in the wood. In the scree area were several other choice plants such as *Linum perenne* var. *lewisii*, *Telesonix jamesii*, *Silene acaulis* and *Polemonium viscosum*.



Telesonix



Gentiana calycosa



Silene and Polemonium



Penstemon caespitosus

Some of the group ventured down the trail to a small lake where *Gentiana calycosa* and *Silene acaulis* grew. After a wonderful day in the mountains we returned to the motel to discuss the day's finds and go out on the town. Wyoming isn't just about the Tetons and during our travels we had driven long and lonely roads not seeing anyone for hours, yet finding other great plants. I particularly remember travelling a newly resurfaced road and coming across hundreds of *Penstemon caespitosus* in newly excavated soil along the verge.

We could not leave Wyoming without visiting Yellowstone National Park. We booked into a motel within the park, promising that one day we would stay at the Old Faithful Inn. Everyone goes to see Old Faithful erupting about every 45 minutes. Wild animals are plentiful, including bison and a herd of elk that crossed the road in front of us at dusk. In 1982, looking for wild and alpine flowers wasn't a priority but even so I couldn't miss *Castilleja* and *Gentianopsis thermalis* (the Fringed Gentian, the official flower of Yellowstone), growing near the hot springs and thereby earning its specific name. After pausing in Cody for a couple of days, we left eastward through Powell and Lovell to go north into Montana.



Big Horn Canyon, Montana



Townsendia spathulata, Pryor Mountains



Townsendia spathulata, Pryor Mountains

Montana



The state of Montana often is associated with cowboys and the battle of the Little

Bighorn. There is wonderful scenery to be enjoyed, especially in the National Recreational Area. An assortment of plants grew here and there in a rough and ready parking area by a sheer drop. I crawled around photographing them but on

looking up missed my wife. Worried, I searched but found her sitting in the car. She had hidden so as not to be associated with the crazy crawler. Nevertheless, I found some nice compact *Hymenoxys acaulis* and right on the edge of the canyon was *Petrophytum caespitosum*, which grows well with me in a sand bed, creeping over adjacent rocks.



Cottonball

Ev Whittemore had told me to go into the Pryor Mountains and look for a lovely foliage plant that she knew to grow there but it was like looking for the proverbial needle in a haystack. Her map on the back of a motel serviette proved a little hard to follow but the clue that the plant grew near the wild horses' area finally solved it - and there we came upon a soggy and sorrowful looking plant with grey foliage. Many of you already know the results of this discovery, with Ev's new-found foliage plant proving to be a much sought after *Townsendia* - perhaps *T. spathulata* - even as I write, a Kew botanist is trying to identify it. Since that occasion Brian Welzenbach from Bozeman in Montana has photographed a number in the wild; they show a great variation in colour although all are extremely compact. The flowers of the specimen of *T. spathulata* photographed by Brian in the Pryor Mountains have flowers much pinker than many I grow and the petal formation is different, being almost doubles.



Kelseya



Kelseya flowers & bee pollination



Habitat of *Kelseya* and Cottonball



Aquilegia jonesii



Androsace montana

Brian has also discovered what may be a brand new species presently known as the 'cottonball' because of its soft hairy foliage. It grows in the East Beartooth mountains of Southern Montana at about two thousand metres. A strip of steep limestone ridges runs along the exposed edge of the mountain and the plants grow on top of the ridges in shallow limestone scree. Brian discovered these plants in seed five years ago when the area was drier than normal. He said '*I have hiked the area extensively, and their range is very small, perhaps only a half mile strip of limestone.*' Associated species are *Kelseya uniflora*, *Eritrichum howardii*, and *Shoshonea pulvinata*. I have grown plants from seed sent by Brian in 2007 and they mostly flower in the second year of growth although some flower the following year if sown in autumn. I use very gritty compost with adequate watering in early spring but very little over the winter. Two plants await identification at Kew to see whether they are a form of *T. spathulata* or a new species. I have found that viable seed is set if I hand pollinate these cottonballs, unlike the plant that Ev Whitemore discovered - which has refused to set seed for me from plants grown from her seed and Brian's.

Exploration of the limestone scree areas in Montana can reveal a vast range of plants. My thanks go to Brian once again for photographing *Kelseya uniflora* as

we have never seen it before, including a cliff face covered with these treasures. I have seen kelseyas at shows about 22 cm across that have taken many years to grow but plants of these sizes must even be older than me! I find that plants grown from seed grow faster than those grown from cuttings, usually putting on four to six rosettes in the first year whereas rooted cuttings stay at just one rosette during the first year. That's alright in cultivation but these plants have grown from a seed that fell into a crevice in the limestone, germinated and then faced all the ferocious weather conditions for many years - extremely hot summers and freezing cold winters - what a feat of endurance! And then there is that other frustrating gem, *Aquilegia jonesii*, which grows well in cultivation but is reluctant to flower for most of us. Seed is often available in the exchanges but again often seems to be the wrong one or a hybrid. American seed lists have wild-collected seed and that is the best option. Other plants that love the Montana scree are *Androsace (Douglasia) montana* and *Phlox albomarginata*, which seeds itself into tiny crevices. Montana has such a wealth of flora that I am reluctant to leave it but leave it I must, looking forward to entering Idaho in my last and third part of this account.

I thank Brian Welzenbach for his many photographs of *Kelseya*, cottonball and many others.



Cottonball in the wild



Cottonball in cultivation

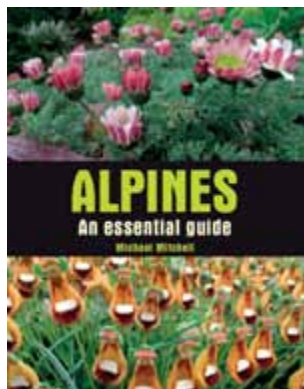


Rewards at the top: *Eritrichium nanum*, deep-blue form, Pryor Mountains



The easy way up! (Bridger Gondola, Wyoming)

Alpines - An essential guide
Michael Mitchell
144 pages, 217 colour photographs
ISBN 9781847972958
Crowood Press £16



How 'essential' a book is it? This slim volume should not divert one from reading weightier tomes but does the author really capture the essentials in 144 pages? I believe he does ...

Seven logical sections start with an explanation of 'alpine' plant types. Mitchell describes very well the main characteristics and adaptations of true alpines and explains how the term covers a wider range of plants suitable for today's smaller gardens. I like the brief explanation of the binomial naming system and how learning Latin terms helps the grower to understand the plants' forms, uses and habitats. Chapter two covers the ways we have grown alpines, from the earliest rock gardens through troughs, alpine houses, frames and many others. It explains the sharp drainage required by many of these plants and how to adjust your soil or compost to suit. Practical hints cover everything from the types and quantities of rock to the differences between clay or plastic pots. This chapter itself covers most advice a beginner needs to make, plant and maintain a rock garden or start an alpine house collection.

The next chapter on 'Contemporary Settings' shows new ways to display alpine plants. Some present-day containers and decorative planting may not be to everyone's taste but I am pleased to see them here as they may introduce some people to the fascinating world of alpines. Interestingly, a couple of pictures show beds divided geometrically into rectangular planting pockets. I recollect that this was one of the first methods of growing alpines in the 19th century – nothing is new. The currently fashionable crevice style of rock garden is mentioned along with green alpine roofs and alpine lawns. Reading this chapter makes you realise that you may have unutilised space to exploit!

Chapter four covers planting and maintenance, in some cases reinforcing previous information – not a bad thing. Planning, ground preparation and labelling are included along with the best times of the year to establish the plants. General information on watering, feeding and cutting back is commonly sought by beginners or more experienced gardeners and is well covered here. The chapter finishes off with the twelve months of the year and their jobs that you may have to tackle. I am delighted to see this, as people often do not realize there are tasks and interest in the garden all year round and not just in spring and

summer. Chapter five is a really useful guide to propagating and gives sound practical advice on how to increase your stock. The author runs a nursery, *Slack Top Alpines*, so these pages are full of good practical advice and cover everything from seed sowing and simple division to mist propagation. The next chapter helps identify some of the main pests and diseases, with sensible ways to deal with them. I especially commend the approach of using chemicals extremely sparingly and only as a last resort.

An A to Z guide to alpines gives good coverage of plants that are mostly easy to obtain and suitable for a wide range of conditions. Suitability for sun or shade is indicated as are the plants that have the RHS Award of Garden Merit. Descriptions include the ultimate size of plants, often with details of their wild origins and the garden conditions that best suit them. To further help the novice, a chart of the seasons of the listed plants ensures twelve months of interest from the rock garden. A glossary helps beginners to understand any botanical and horticultural words new to them. Gardens to visit, suppliers and specialist societies in Europe, the USA and the UK are useful, albeit contemporary, additions.

I have for long struggled to make a single recommendation to beginners taking up alpines and rock gardening other than the Collins *Guide to Alpines and Rock Garden Plants* by Anna Griffith (1964). I am confident that this excellent new book will guide both beginner and novice in all aspects. Although we might all suggest additions to the alphabetical plant list, the author gives a good variety of plants that are available and of which he has personal experience; frankly, extensive plant lists may be found in many books or nursery catalogues and are less important than all the practical advice that Mitchell so generously gives in this new book. It is obviously written from years of practical experience and lives up to its title – it indeed covers all the essential information you will need when growing alpines. Buy it and rejoice.

Ian Young

A Guide to Bearded Irises

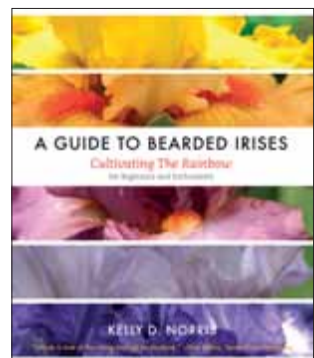
Kelly D Norris

347 pages including many pages of full colour photographs

ISBN 978-1-60469-208-2

Timber Press £25

Kelly Norris is a qualified horticulturist and plantsman from Iowa, 'one of the bright young stars of American horticulture'. He developed an interest in irises at age twelve, co-edits the Bulletin of



the American Iris Society and manages his family-owned *Rainbow Iris Farm*. From this background he has written this book with some vigour. In his first chapter he convincingly destroys seven prevalent myths that he has heard against growing bearded irises. His succeeding four chapters, all amply and well illustrated, move through cultivation, hybridizing and the historical development of bearded irises.

Following chapters illustrate the suitability of the sub-title 'Cultivating the Rainbow'. They deal with the six familiar horticultural classifications from Miniature Dwarf Bearded to Tall Bearded. Each gives an overview, then moves on to origins, evolution and growing & planting. The book's *tour de force* is the 'Cultivars You Should Grow' section towards the end of each chapter; here, Norris gives an alphabetical and excellently illustrated listing of his favourites, including when and by whom they were first raised. Each chapter ends with an equally well-illustrated gallery of other cultivars.

The photographs (many by the author) elevate the book well above the level of just another iris tome. All offer exceptional quality and reveal the printer's skilful rendering of the colours. The close-ups are breathtakingly beautiful. In many ways the book is well designed but I nevertheless found the frequent changes of font style and layout a mite irritating, as was constant use of the term 'Irisarian' for iris growers. But why then am I happy with the term 'Croconut'?

The book is aimed at the American market, with little attempt to broaden its international appeal. I am mindful of a recent comment on the SRGC Forum by a New Zealand based participant - that many more American-raised bearded iris cultivars are available in the southern hemisphere than British-raised ones. Nevertheless Norris lists only one UK supplier in his 'Sources of Bearded Irises', all others being USA based!

For the 'Irisarian' this book is a treasure to pore over frequently but for the non-specialist a rapid read and a place on the coffee table may be more appropriate.

David Nicholson



Volume 32 – Issues 126, 127, 128 & 129

- Acanthus** arboreus : 128/14
Acer palmatum 'Seiryu' : 128/68
Acis ionica : 128/39
— valentina : 128/39, 42
Adiantum capillus-veneris : 128/6
Aeonium arboreum atropurpureum
nigrum 'Schwarzkopf' : 126/58
— chrysanthum : 128/7, 7C
Aethionema subulatum : 129/7
— 'Warley Rose' : 129/36
Alchemilla minor : 127/81
Al Hajarah – architecture : 128/9C
Allium acuminatum : 126/4
— akaka : 126/58
— falcifolium : 126/6, 7C, 128/104, 104C
— moschatum : 128/48
Aloe rubroviolacea : 128/12
— sp. : 128/15C
— vacillans : 128/11C
Amaranthus hybridus : 128/11
Amaryllis belladonna : 127/46, 46C
Amerorchis rotundifolia : 127/76C, 80
Anagyris foetida : 128/38, 39C, 44
Andromeda polifolia : 126/102, 102C
Androsace ciliata : 129/64C
— cylindrica x hirtella : 129/85C
— delavayi : 126/26
— aff. forrestiana : 126/80
— hausmannii : 129/79
— — x hirtella : 129/87
— (Douglasia) montana : 129/104C, 105
— muscoidea : 128/95C
— neuwirthii >>> — coronata
— neuwirthii : 126/80, 80C
— rigida : 126/ : C, 44
— robusta purpurea : 129/88C, 89
— selago : 129/79
— spinulifera : 126/44
— studiosorum 'Doksd' : 126/57
— tapete : 129/79
— vandellii : 126/62C, 127/104C, 105; 129/79
— yargongensis : 128/51
Anemone blanda : 129/39
— narcissiflora : 129/98, 98C
— nemorosa 'Robinsoniana' : 129/39
— obtusiloba 'Pradesh' : 129/83
— parviflora : 127/81
— rupicola : 129/36, 39C
Anemonella thalictroides 'Oscar Schoof' : 127/109
Anigozanthos flavidus : 126/72C
Antennaria alpina : 127/81
Anthyllis vulneraria : 128/31
Antirrhinum molle : 129/37
Aquilegia bertolonii : 129/40
— canadensis : 128/88, 89C
— — 'Corbett' : 129/40
— — 'Nana' : 129/40
— chrysantha : 128/112, 112C
— coerulea : 129/97C, 98, 101
— — white form : 129/98C
— flabellata 'Ministar' : 129/40
— — var. pumila 'Rosea' : 129/40C
— flavescens : 129/101, 129/97C
— jonesii : 129/104C, 105
— pricking out : 129/42C
— seed germination : 129/40C
— Seedling Selection : 129/41C
— 'Touchwood Blushes' : 129/45C
— 'Touchwood Dragon's Breath' : 129/42C
— 'Touchwood Elite' : 129/44C
— vulgaris : 129/43
Aquilegia mixed : 129/43C
Arbutus unedo : 129/26
Arctostaphylos alpina : 127/26
Arctous alpina : 127/71
Arisaema candidissimum : 126/40, 44
— iyoanum var. nakaianum : 126/81
— lobatum Mount Emei Form : 126/81, 81C
— mayebarae : 126/81
— sikokianum : 127/110C, 129/80C
— triphyllum : 128/99
Arisarum vulgare : 129/26, 26C
Armeria maritima var. labradorica : 127/78
Arnebia densiflora : 127/8, 9C
Arnica angustifolia : 127/22
— lonchophylla : 127/81
Asarum campaniflorum : 129/66C, 67
Asparagus horridus : 128/43C, 44
Asperula elonea : 129/24, 24C, 25C
Asphodelus acaulis : 129/35, 36
Asplenium aethiopicum : 128/6
— ceterach : 129/37
— trichomanes : 129/37
— viride : 127/79C, 81, 82
Aster alpinus : 126/14
Aster souliei : 128/51, 99C, 100
Asteranthera ovata : 128/75C, 76
Astragalus coccineus : 128/106C, 107
— loanus PC : 129/61C
— utahensis : 128/89; 129/78C, 80, 82
Athyrium distentifolium : 127/26
— filix-femina 'Cristata' : 128/74
Aubrieta gracilis : 129/35C

Bartsia alpina : 127/78C, 81
Bellis perennis : 129/33
Benthamiella patagonica : 129/79, 83, 85C
Berberis thunbergii 'Atropurpurea Nana' : 128/87
— — 'Kobold' : 126/93C, 94, 94C
— x stenophylla 'Corallina Compacta' : 126/93, 93C
Bessera elegans : 126/77C, 78
Betula nana : 127/26
— pumila : 127/78
Big Horn Canyon : 129/102C
Blackpool Bench : 129/64C
Boophone disticha : 127/48, 48C
Brassica balearica : 126/62
Braya fernaldii : 127/77
— longii : 127/77
Brodiaea elegans : 126/3
Buddleja davidii : 128/51
— polystachya : 128/8, 8C
Building the Rock Garden : 129/34C
Bulbine abyssinica : 128/8
Bulbinella graminifolia : 127/50C
— hookeri : 129/35C

- Calanthe** bicolor : **129/81C**
— tricarinata : **126/58**; **128/88**
- Callianthemum** anemonoides : **126/64**
— farreri : **129/71**, **71C**
— — Show notes on to : **129/71C**
- Calluna** vulgaris : **127/26**
- Calocephalus** brownii : **127/113**; **128/87**
- Calochortus** amabilis : **128/104**, **104C**
— eurycarpus : **126/3C**, **4**
— howellii : **126/5**
— macrocarpus : **126/14**
— nudus : **126/6**
— nuttallii : **128/112**, **112C**
— subalpinus : **126/13**
— tolmiei : **126/1C**, **6**, **7**, **58**
— —, Forms : **126/6C**
— — x nudus : **126/11C**
- Calypso** bulbosa alba : **126/6**, **7C**
- Camassia** angusta : **129/14**, **15C**
— cusickii : **129/13**, **13C**, **16C**, **17**
— howellii : **129/12C**, **14**
— leichtlinii : **129/12**, **13**, **17**, **18**
— — 'Alba' : **129/17**
— — 'Caerulea' : **129/17**
— — ssp. leichtlinii : **129/10**, **10C**, **11**, **13**, **19C**
— — ssp. suksdorfii : **129/9C**, **11C**, **13**, **13C**
— — ssp. suksdorfii habitat : **129/18C**
— 'Orion' : **129/17**
— quamash : **129/8**, **8C**, **10**, **10C**, **12**, **13**, **17**, **18**
— — habitat : **129/11C**
— — ssp. intermedia : **129/19C**
— — ssp. maxima : **129/17**
— scilloides : **129/14**, **14C**, **17**, **18C**
- Campanula** asperuloides : **129/24**
— — habitat : **129/25C**
— besenginica : **129/86C**
— edulis : **128/5C**, **6**
— rotundifolia : **127/75C**, **78**; **128/35C**
— shetteri : **128/107C**, **108**
- Cardiocrinum** giganteum : **129/57C**
— seedlings : **129/55C**
- Carex** flacca : **128/31**
- Cassiope** 'Arctic Fox' : **129/80C**
— 'Badenoch' : **126/103**
— 'Edinburgh' : **126/104**
— fastigiata : **127/29**
— hypnoides : **127/22**
— mertensiana : **126/14**
— 'Randle Cooke' : **126/104C**
— selaginoides : **129/84C**
— tetragona : **127/27**, **27C**, **28**, **29**
— — habitat : **127/28C**
- Castanea** sativa : **129/23C**
- Castilleja** miniata : **126/15**, **15C**
— sulphurea : **128/111C**, **112**
- Cattha** edulis : **128/5**
- Celmisia** allanii : **128/87**
— astellifolia : **127/39C**
— aff. gracilentia : **129/67**
— hybrid : **127/39C**
— longifolia : **128/74**, **74C**, **81**
— petiolata : **127/39C**
— pugioniformis : **127/39C**
— saxifraga : **127/39C**
— semicordata : **127/39C**
— spectabilis : **127/38C**; **128/99**
- Centaurea** lagascana : **126/58**
- Centaurolihamnus** maximus : **128/14**
- Cephalanthera** kotschyana : **127/8**
- Cerastium** alpinum ssp. lanatum : **127/78**
- Ceratonia** siliqua : **128/44**
- Chamaecyparis** obtusa 'Kosteri' : **128/77**
- Chamaepericlymenum** suecicum : **127/29**
- Chamaerops** humilis : **128/43**
— humilis berries : **128/38C**
- Cichorium** bottae : **128/12**, **13C**
- Cicada barbara : **128/36C**
- Cirsium** soulei : **128/51**, **51C**
- Claytonia** megarhiza : **129/95**
— nevadensis : **127/111**
- Clematis** columbiana : **126/3**
— flammula : **128/42C**, **43**
— florida 'Sieboldii' : **129/37**
— hirsutissima : **129/98C**, **99**
— simensis : **128/8**
- Coeloglossum** viride : **127/80**
- Colchicum** bivonae : **129/27**, **28C**
— byzantinum : **127/63**
— cupanii : **129/22**, **22C**
— pusillum : **129/22**
— szovitsii : **127/8**
- Coprosma** repens 'Autumn Gold' : **126/99C**
— — 'Fireburst' : **126/99**, **99C**
— — 'Marble King' : **126/99**, **99C**
— — 'Pacific Sunset' : **128/75**
— — 'Evening Glow' : **128/75**
— x kirkii 'Kiwi Gold' : **126/100**, **100C**
— petrei x brunnea : **128/75C**, **80**
- Corallorhiza** striata : **126/4**
- Cornus** nuttallii : **126/7**
— suecica : **127/29**, **81**
- Correa** backhousiana : **126/97C**, **98**
— 'Dusky Maid' : **126/97**, **98**, **98C**
— reflexa nummularifolia : **126/97**, **98**, **98C**
- Corydalis** x allenii : **129/70C**
— benecincta : **126/26**, **30C**
— calcicola : **126/26**, **27C**
— henrikii : **127/8**
— malkensis : **126/67**
— melanochlora : **126/26**, **30C**
— oppositifolia : **127/8**
— popovii : **126/64**, **66C**, **67**, **68**; **127/112**
— rutifolia : **127/8**
— schanginii ssp. ainii : **126/67**, **67C**
— solida : **127/115**
— 'Alla Vita' : **126/67**, **67C**
- Crassula** alba : **128/6**, **7C**
— schimperi : **128/6**
- Cremanthodium** campanulatum : **126/26**, **31C**
- Crevice** beauty : **129/84C**
- Crocus** banaticus : **129/36**
— biflorus ssp. melantherus : **129/32C**, **33**
— — ssp. taurii : **127/8**
— boryi : **129/30**, **30C**
— cancellatus ssp. mazzaricus : **129/30**, **32C**
— dalmaticus : **129/67C**
— gargaricus : **127/92C**, **94**
— goulimyi : **126/75**, **76C**, **79C**; **129/27**, **29C**, **36**
— hadriaticus : **128/77C**; **129/21**, **23**, **24**, **24C**
— imperati ssp. suaveolens : **129/36**
— x jessopae and C. vernus x tommasinianus : **126/67**
— laevigatus : **129/21**, **24**, **24C**, **27**, **30**

- *malyi* : **129/36**
 — *niveus* : **129/24, 26C, 27**
 — *serotinus* : **128/78**
 — *veluchensis* : **129/67C**
 — *vernus albus* : **127/115**
 — *vernus x tommasinianus* : **127/115**
Cryptogramma *crispa* : **127/26; 128/74**
Cupressus *leylandii* : **127/92; 129/93**
Cyclamen *africanum* : **127/57**
 — *africanum* JCA. : **128/76C**
 — *cilicium* : **126/72C, 74; 127/57**
 — *coum* : **126/68; 127/57**
 — — ‘Maurice Dryden’ : **127/57**
 — *graecum* : **129/21, 22, 26, 27C**
 — — *anatolicum* : **126/72C, 74, 75C; 128/78**
 — — *candicum* : **126/72**
 — — Chimeran flames : **127/62C**
 — — ‘Glyfada’ : **127/57, 57C**
 — — *ssp. graecum* : **126/72**
 — — habitats : **127/61C, 62C**
 — — in leaf litter : **127/60C**
 — — leaf forms : **127/58C, 59C; 129/26C**
 — — white form : **127/57C**
 — *hederifolium* : **127/57; 128/78; 129/22**
 — — ‘Bowles Apollo’ : **127/57**
 — *mirabile* : **127/57; 128/76**
 — — *niveum* : **126/81**
 — *parviflorum* : **127/8**
 — *pseudibericum* : **127/8; 129/66C, 67**
 — *purpurascens* : **127/57**
 — *rohlfianum* : **126/78**
Cypripedium ‘Aki’ : **128/99C, 100**
 — *calceolus* : **127/97C**
 — *californicum* : **126/5**
 — *fasciculatum* : **126/112, 115C**
 — *fasciolatum* : **129/78**
 — *henryi* : **129/78**
 — *macranthos* : **127/95, 96-97C; 128/100, 100C**
 — ‘Maria’ : **129/87, 88C**
 — *montanum* : **126/3C, 4**
 — *parviflorum* : **127/76C, 81**
 — — *var. makasin* : **128/89, 90C**
 — — *var. planipetalum* : **127/80**
 — *reginae* : **127/96C**
 — — *f. album* PC : **129/63C**
 — ‘Ursel’ : **129/78, 78C**
Cyrtanthus *falcatus* : **127/41C, 48**
 — *obliquus* : **127/41C, 48**
Cystopteris *fragilis* : **127/79C, 81, 82**
Cytisus *decumbens* : **128/87**
- Dactylorhiza** *elata* : **127/95**
 — *x elatior* : **129/37**
 — *ericetorum* : **128/22C, 26**
 — ‘Eskimo Nell’ : **127/95, 95C**
 — *flavescens* : **127/8**
 — *fuchsii* : **128/23, 26; 129/37**
 — — *ssp. o’kellyi* : **127/95**
 — ‘Harold Esslemon’ : **129/63**
 — *hybrids* : **127/94C**
 — *maculata* : **128/26, 34C**
 — *path, The* : **129/38C, 39C**
 — *purpurella* : **128/21, 23C, 28C**
 — *sp.* : **129/36C**
 — ‘Sweet Corn’ : **129/86**
 — *viride* : **127/80**
- Daphne** *arbuscula* : **127/1, 2, 3**
 — — *f. albiflora* : **127/1, 1C**
 — — — ‘Czech Crystal’ : **127/3, 3C**
 — — — Rosettes : **127/2C**
 — *caliculata* : **128/84, 84C; 129/86, 89C**
 — — ‘Gang Ho Ba’ : **129/79, 87, 89C**
 — *crenorum* : **127/4, 5, 5C**
 — — ‘Argentea’ : **127/4**
 — — ‘Sweet Rock’ : **127/4**
 — — ‘Variegata’ : **127/4**
 — *jasminea* : **129/23**
 — — ‘Delphi Form’ : **129/23**
 — — *petraea* : **128/84; 129/89C**
 — — ‘Idro’ : **126/81, 81C; 129/87, 89C**
 — — ‘Persebee’ : **129/86**
 — — — ‘Tremalzo’ : **127/3**
Dasiphora = *Potentilla*
Dasiphora *fruticosa* : **127/81**
 — — *var. tenuifolia* : **127/78**
Davidia *involucrata* : **127/93**
Degenia *velebitica* : **129/6**
Delphinium *luteum* : **128/89**
 — *nelsonii* : **129/99, 99C**
Dianthus *haematocalyx* *var. pindicola* : **129/6**
 — *superbus* : **127/15C**
 — *uniflorus* : **128/5C, 6**
Diapensia *himalaica* : **127/23**
 — *lapponica* : **127/20, 21, 21C, 22C, 23, 23C, 24, 70C, 71**
 — — *ssp. obovata* : **127/23, 24**
 — *obovata* : **127/23**
 — *purpurea* : **126/26, 29C; 127/23**
 — *wardii* : **127/23**
Dicentra *formosa* : **126/5, 7**
 — ‘King of Hearts’ : **128/88**
Dionysia *aretzioides* ‘Alan Furness’ : **126/60C**
 — *bryoides* : **126/60; 129/67**
 — *gaubae* : **126/60**
 — *involucrata* : **129/85C**
 — *lamingtonii* : **129/64C**
 — ‘Ludwig Jahn’ : **129/64C**
 — ‘Monika’ : **126/60; 128/94C; 129/65C**
 — *viscidula* : **128/96C**
 — — *x D. freitagii* : **129/76C, 77C**
 — *zagrica* : **127/108C**
Dodecatheon *dentatum* : **128/112**
 — *jeffreyi* : **126/3C, 4**
Douglasia *nivalis* : **128/95C**
Draba *brunifolia* : **127/8**
 — *glabella* : **127/76**
 — *incana* : **127/76**
 — *longisiliqua* : **128/93C, 96**
 — *norvegica* : **127/72C, 76**
 — *sphaeroides* – *judging* : **129/65C**
Dryas *drummondii* : **126/58**
 — *integrifolia* : **127/78**
 — *octopetala* : **127/22, 32, 33C, 34, 36, 37**
 — — *group* : **127/35C**
 — — *habitat* : **127/34C**
Dudleya *cymosa* : **128/105, 105C**
- Eccremocarpus** *scaber* : **129/37**
Echinops *spinossissimus* : **128/12, 12C**
Echium *rauwolfii* : **128/14**
Empetrum *eamesii* : **127/71**
 — *nigrum* : **127/26**
Empodium *flexile* : **128/82**

- Enkianthus** campanulatus : 126/74
 — 'Wallaby' : 126/73C
- Epimedium** brevicornu f. rotundatum : 127/105
 — grandiflorum 'Lilafee' : 128/88, 88C
 — pinnatum ssp. calchicum : 127/104
- Epipactis** gigantea : 126/6
- Eranthis** cilicica : 127/8
 — tubergenii 'Guinea Gold' : 126/64, 70C
- Eremurus** spectabilis : 127/8
- Erigeron** 'Canary Bird' : 126/17
 — chrysoisidis : 129/6
 — — brevicaulis : 129/6C
 — — var. brevifolium : 126/3
 — — 'Grand Ridge' : 128/88, 88C
 — hyssopifolius : 127/78C, 81
 — leiomerus : 128/101; 129/63
 — leiomerus PC : 129/62C
 — peregrinus : 126/14
 — scopulinus : 128/103
- Erinus** alpinus : 129/37
- Eriogonum** holmgrenii : 128/110, 110C
 — ovalifolium : 126/2; 128/89, 101
 — ovalifolium CC : 129/63
 — shockleyi : 128/110, 110C
 — umbellatum : 126/4; 129/99
- Eritrichium** canum : 128/80
 — howardii : 129/104
 — nanum : 126/3; 129/95, 95C, 97, 105C
- Erodium** cicutarium : 128/11
- Erythronium** 'Ardovie Bliss' : 127/107C
 — citrinum : 126/6, 8C
 — grandiflorum : 126/4, 14C
 — hendersonii : 126/7, 10C
 — — x citrinum : 127/105
 — klamathense : 126/9C, 10
 — montanum : 126/13C, 14
 — oregonum : 126/7, 8C
 — sibiricum : 127/109C
 — 'White Beauty' : 129/37
- Erythroniums : 127/93C
- Eschscholzia** californica : 128/105, 105C
- Eucalyptus** gunnii : 127/94
- Euphorbia** ammak : 128/10, 10C, 12
 — fruticosa : 128/12
 — schimperii : 128/12, 12C
- Euphrasia** officinalis : 128/31
- Fauna:**
 Cicada barbara : 128/36C
 Corvus rhipidurus : 128/13
 Grasshopper : 128/37C
 Hirundo rustica : 128/36
 Montis ootheca : 128/38C
 Rüppell's Weaver (Bird) : 128/8
 Snail : 128/37C
 Wasps at work : 128/49C
- Felicia** abyssinica : 128/13, 14
- Ferraria** crispa : 127/46C
- Festuca** rubra : 128/31
- Fibigia** triquetra : 129/6
- Frasera** sp. : 129/99C
 — speciosa : 129/100, 100C
- Freesia** viridis : 127/48C
- Fritillaria** affinis : 126/8, 9, 11C
 — alburyana : 127/8
 — armena : 127/8
 — — habitat : 127/8C
 — aurea : 127/8, 9C
 — bucharica : 129/74
 — camschatcensis : 128/88
 — — Alaska Form : 126/81
 — — 'Aured' : 126/81; 128/89
 — carica : 129/36
 — chitralensis : 127/114
 — crassifolia ssp. poluninii : 128/96
 — delavayi : 126/26, 28C
 — gentheri : 126/8; 129/77C
 — gibbosa : 128/95C, 96
 — imperialis : 127/8, 114
 — aff. karelinii PC : 129/59C
 — meleagris : 126/60
 — aff. monantha : 126/80, 80C
 — persica : 127/8
 — — black form : 127/9C
 — pinardii : 127/8
 — pontica : 129/83
 — pudica : 126/9, 11C
 — pyrenaica 'Picos Form' : 126/58
 — recurva : 128/108C, 109
 — thunbergii : 129/74, 75C
- Galanthus** 'Cinderella' : 127/115
 — 'Dreycote Greentip' : 127/115
 — elwesii 'David Shackleton' : 129/67
 — — double : 126/23C
 — 'Lady Dalhousie' : 126/80
 — nivalis : 129/33
 — — 'Dreycote Greentip' PC : 129/58C
 — nivalis poculiformis 'Wedding Dress' : 126/80
 — nivalis sandersii : 126/22C
 — peshmenii : 126/74, 74C
 — plicatus : 126/22C
 — reginae-olgae : 126/78; 129/31C, 33
 — woronowii 'Elizabeth Harrison' : 126/80
- Galium** verum : 128/31
 Gardens : Crevice garden : 127/82C, 83C
 — May in Perthshire : 127/ : C
- Gaultheria** 'Pink Pixie' : 126/103, 103C
- Gaultheria** 'Pearls' : 126/81
- Geissorhiza** aspera : 127/50C
- Genista** pilosa minor : 126/94
- Gentiana** acaulis : 126/57, 57C; 129/7
 — — 'Maxima' : 129/84C
 — angustifolia : 129/7, 7C
 — 'Braemar' : 126/75, 75C
 — callistantha : 129/50
 — calycosa : 129/101C, 102
 — x 'Caroli' : 129/37
 — clusii : 129/7
 — dinarica : 129/7
 — 'Eugens Allerbesten' : 128/75, 76C
 — georgei : 129/49C, 50
 — — f. alba : 129/48C, 49
 — 'Hedgehog' : 129/37
 — hexaphylla : 129/52, 52C
 — paradoxa : 129/37
 — pumila ssp. delphinensis : 127/106
 — purdomii : 129/51, 51C
 — rosularis : 129/50
 — septemfida var. lagodechiana : 129/37
 — 'Shot Silk' : 129/37
 — sino-orata : 126/73C, 74; 129/ : C, 47C, 48

— species, or hybrid?: **129/52C**
 — ‘Susan Jane’: **129/37**
 — szechenyii: **129/50, 51**
Gentiana szechenyii = *G. rosularis*
 — szechenyii var.: **129/50C**
 — tetraphylla: **129/53, 53C**
 — ‘The Caley’: **128/74, 74C**
 — verna: **127/8**
 — veitchiorum: **129/47C, 48**
Gentianella amarella: **128/21**
 — campestris: **128/21, 21C, 31**
 — defonsa ssp. nesophila: **127/75C**
 — propinqua: **127/81**
 — septentrionalis: **128/20C**
Gentianopsis defonsa var. nesophila: **127/78**
 — thermalis: **129/102**
Geranium oregonum: **129/13C**
Geum rossii: **129/98**
Gladiolus brevifolius: **127/46C**
 — carmineus: **128/79, 80C**
 — uysiae: **127/46C**
Glaucidium palmatum: **129/37**
Globularia bellidifolia: **128/89**
 — ‘Hort’s Form’: **128/89C**
Goodyera repens: **128/18C**
Graptopetalum paraguayense: **126/12**
Gymnadenia conopsea: **128/34C**
Gymnospermium albertii AM: **129/58C**

Hacquetia epipactis ‘Thor’: **128/92C, 93**
 — — variegata: **127/110C**
Haemanthus albiflos: **127/49C**
 — crispus: **127/48C**
Hamamelis ‘Pallida’: **129/39**
 Happy gardeners: **126/64C**
 Haraz Mountains, Terracing in the: **128/3C**
Harrimanella hypnoides: **127/72**
Helichrysum sessiloides: **129/87, 88C**
Helleborus niger: **129/39**
 — orientalis: **127/8**
 — ‘Ivory Prince’: **126/62C**
 — ‘Walberton’s Rosemary’: **129/39**
Heloniopsis japonica: **129/70, 70C**
 — orientalis: **129/70**
Hepatica japonica: **128/52, 53**
 — — ‘Chyouji-zaki’: **128/55, 55C**
 — — ‘Hyoujunka’: **128/53, 53C**
 — — ‘Karako-zaki’: **128/55, 56C**
 — — ‘Nichirin-zaki’: **128/54, 55C**
 — — ‘Nidan-zaki’: **128/54, 54C**
 — — ‘Otome-zaki’: **128/53, 54C**
 — — ‘Sandan-zaki’: **128/55, 56C**
 — — ‘Senne-zaki’: **128/56, 57C**
 — — ‘Yousei-zaki ‘Kazenosato’: **128/57C**
 — — ‘Yousei-zaki’: **128/57**
 — nobilis: **126/66; 128/52**
 — var. japonica: **128/52**
 — — var. nobilis: **128/52**
Hesperochiron pumilus: **126/9C, 10**
Heuchera micrantha: **129/18C**
 Hexham Birthday Cake: **129/72C**
 Hong Shan: **126/26C, 27C**
Hycinthoides lingulata: **126/78, 78C**
 — vincentina: **126/58**
Hydrophyllum capitatum var. capitatum: **126/10**
Hymenanthera alpina: **126/95**

Hymenoxys acaulis: **129/97, 103**
 — — var. caespitosa: **126/81; 129/96C**
 — lapidicola: **129/94, 94C**
Hypericum ericoides: **128/45, 45C**

Incarvillea delavayi: **128/87C**
 — himalayensis ‘Frank Ludlow’: **126/58**
Ipheion ‘Rolf Fiedler’: **129/66C, 67**
Ipomopsis aggregata: **126/2C, 3**
Iris acutiloba ssp. lineolata: **128/89**
 — — ssp. longipetala: **126/58**
 — barbatula: **129/39C**
 — bucharica: **126/60; 127/107**
 — hookeri: **127/80C, 81**
 — iberica ssp. elegantissima: **128/89**
 — — ssp. lycotis: **126/57C**
 — kirkwoodiae: **127/8**
 — magnifica alba: **127/102C**
 — mariae: **126/58, 58C**
 — reticulata: **127/8**
 — — ‘Edward’: **126/71C**
 — — ‘Katherine Hodgkin’: **126/69**
 — — ‘Sheila Anne Germaney’: **126/69**
 — rosenbachiana ‘Harangon’: **129/68C, 69**
 — sari: **127/8, 9C**
 — tenax: **126/4C**
 — willmottiana: **126/60; 127/107, 111**
 — winogradowii: **126/64, 66; 128/94C, 95**
Ixia viridiflora: **127/52, 53C**

Jasminum grandiflorum ssp. floribundum: **128/11C, 12**
Jeffersonia dubia: **129/54**
 — — alba: **126/61; 127/107C, 109**
Juniperus communis: **127/26**
 — — ‘Repanda’: **128/77**
 — — var. saxatilis: **127/78**
 — squamata ‘Blue Carpet’, Border: **126/69C**

Kalanchoe glaucescens: **128/7C**
 Kalmia = *Loiseleuria*
Kalmia microphylla: **126/14, 15C**
 — procumbens: **127/71, 82**
Kedrostis foetidissima: **128/11**
Kelseya uniflora: **129/103C, 104, 105**
 — — habitat: **129/104C**

Lachenalia bulbifera: **127/42C**
 — comptonii: **127/42C**
 — convallarioides: **127/44C**
 — elegans var. suaveolens: **127/44C**
 — kliprandensis: **127/42C**
 — latimeriae: **127/44C**
 — mathewsii: **127/44C**
 — mutabilis: **127/44C**
 — namaquensis: **127/44C**
 — reflexa: **127/45C**
 — rosea: **127/45C**
 — zeyheri: **127/45C**
 Lakamat al Qadi: **128/6C**
Lapiedra martinuzzi: **128/46C, 47**
Larix laricina: **127/81**
Lathyrus vernus: **127/102, 106**
Leucocoryne coquimbensis: **129/79C, 81**
Leiophyllum buxifolium: **126/101, 101C**
 — — ‘Nanum’: **126/58**
Leonice leontopetalum: **126/80**

Leptospermum nanum 'Pipit' : **126/96, 96C**
Lesquerella purshii : **127/76**
Leucocoryne coquimbensis : **126/58**
Leucogenes leontopodium : **128/87**
Leucojum aestivum : **128/40**
— Key : **128/40**
— valentinum : **128/38, 38C, 39, 41C, 43, 46, 46C, 49**
— — ssp. viorense : **128/39**
— — Seedheads : **128/40C**
— — Seeds : **128/39C**
— vernum : **128/40**
Leucothoe (fontanesiana) 'Rainbow' : **128/68**
— walteri 'Rainbow' : **128/68**
Lewisia 'Ashwood Hybrids' : **126/66**
— brachycalyx : **128/102C, 103**
— columbiana : **128/103**
— — 'George Henley' : **126/56, 56C**
— cotyledon : **126/55C, 128/102, 103; 129/7**
— — Display : **129/6C**
— disepala : **128/105, 106**
— kelloggii : **128/105, 106, 106C**
— leeana alba : **128/85**
— 'Little Peach' : **128/88**
— nevadensis : **128/103**
— pygmaea : **128/103**
— rediviva : **128/106**
— — var. minor : **128/104, 104C**
— 'Sunset Strain' : **126/17**
— tweedyi : **126/3; 129/76**
— — 'Alba' : **129/79**
— — 'Lemon' : **127/105, 105C**
Lilium canadense : **127/96**
— lijiangense : **127/97C**
— lophophorum : **126/26, 29C; 127/98C**
— mackliniae : **126/80, 81C, 86, 86C, 87C, 88C; 127/94C; 129/37C**
— — 'Saramati' : **126/90, 90C**
— — 'Tantallon' : **126/89C, 90**
— — White Form : **126/91C**
— martagon : **127/93C**
— — 'Claude Stride' PC : **129/63C**
— nanum flavidum : **127/99C**
— pardalinum : **126/5**
— souliei : **128/51**
— vollmeri : **126/5, 7C**
— washingtonianum : **126/5**
Limestone Barrens, Newfoundland : **127/70C**
Linnaea borealis : **128/21**
Linum boissieri : **128/85, 85C**
— catharticum : **128/31**
— perenne var. lewisii : **129/101**
Little Ferry pier : **128/26C**
Lloydia serotina : **129/98**
Loasa nana : **129/54**
Loiseleuria = Kalmia
Loiseleuria procumbens : **127/22, 24, 24C, 25C, 26, 34, 70C, 71**
Lotus corniculatus : **128/31**
Loveland Pass : **129/97C**
Lugu Lake : **126/24 – 25C**
Lupin fields near the Rockies : **129/95C**
Lupinus lepidus : **126/3**
— polyphyllus : **126/2C, 3**
Lychnis alpina : **127/78**

Macowania ericifolia : **128/8**

Massonia pygmaea : **127/49C**
Meconopsis delavayi : **127/99; 129/87C, 88**
— x cookei 'Old Rose' : **129/83**
— dhwojii : **127/96**
— 'Evelyn' PC : **129/63**
— grandis : **127/96**
— lancifolia : **127/99**
— latifolia : **127/96, 97**
— 'Lingholm' : **127/101**
— napaulensis : **127/96**
— prattii : **127/98**
— punicea : **127/100, 100C**
— — heads : **126/107C**
— — perennial form : **126/106, 108- 111**
— quintuplinervia : **126/107**
— rucis : **127/98**
— superba : **127/97**
— violacea : **126/37**
— wallichii : **127/97**
— wilsonii : **126/37; 127/97**
— — ssp. orientalis : **126/33C, 38**
— wumungensis : **126/34C**
Meliclytus alpinus : **126/95, 95C**
— alpinus in flower : **126/96C**
— alpinus in fruit : **126/96C**
Menziesia polifolia 'Spring Morning' : **128/87, 87C**
Merendera montana : **129/36C, 38C**
Mertensia alpina : **129/96C, 97, 98**
Micranthes integrifolia : **129/10C**
Mimulus kelloggii : **128/105, 105C**
— naindinus : **129/88C**
Min Shan - the Gentian Peak : **129/46C**
Minuartia filifolia : **128/6**
— rubella : **127/78**
Moneses uniflora : **126/4; 128/19, 19C**
Monotropa uniflora : **126/12, 12C**
Moraea calcicola : **127/47C**
Morisia monanthos : **129/83, 83C**
Morus alba : **129/22**
Muscari armeniacum : **127/8**
— aucheri : **127/8**
— azureum : **127/8, 9C**
— — habitat : **127/9C**
Myosotis eximea : **126/58**
Myrsine africana : **128/8**

Narcissus asturiensis 'Fuente De' : **127/115**
Narcissus 'Bethy Mae' : **126/64; 128/96; 129/59C**
— bulbocodium : **127/103C**
— — obesus : **129/68C, 69**
— — ssp. pallidus : **126/68**
— jacetanus : **126/68**
— luteolentus x triandrus pallidulus : **127/115**
— miniatus : **126/74, 74C**
— 'Mitzy' : **127/115**
— obesus 'Lee Martin Form' : **127/107, 109; 129/60C**
— rupicola : **126/61; 127/107; 129/36**
— — ssp. watieri : **129/36**
— — ssp. watieri 'Abaleish' : **128/96; 129/71**
— 'Segovia' : **129/74**
— serotinus : **126/74; 129/27, 28C, 33**
— 'Surfside' : **126/69**
— x susanna : **126/68**
— tazetta : **129/33**
— 'Twin Stars' : **127/107C**
Narthecium ossifragum : **128/27C, 29**

- Nerine bowdenii** : **127/46**
— bowdenii 'Wellsii' : **127/47C**
— humilis : **128/78C, 79**
— samiensis : **127/40C**
- Nomocharis hybrid** : **127/101C**
Nunnery at Elonis : **129/25C**
- Oenothera caespitosa** : **129/95**
- Olea europaea** : **128/44**
Olsynium = *Sisyrinchium*
- Olsynium douglasii** : **126/9; 127/113**
- Omphalogramma delavayi** : **126/50C, 51**
— minus : **129/54**
- On Cang Shan : **126/47C**
- Onosma alborosea** : **127/9C**
- Opuntia ficus-indica** : **128/10**
— maxima : **128/44**
— sp. : **128/44C**
- Orchis mascula** : **127/36; 128/24C, 27C**
— punctulata : **127/8**
- Oresitrophe rupifraga** : **128/96**
- Oreosolen wattii** : **129/89**
- Ornithogalum hispidum** : **127/51C**
— osmynellum : **127/51C**
- Oxalis massoniana** : **127/41C**
— (perdicaria) 'Citrino' : **128/83C**
- Packer = *Senecio*
- Packera pauciflora** : **127/78, 81**
- Paeonia cambessedesii** : **129/87**
— 'Early Glow' : **126/84C**
— 'Hilary' : **126/84C**
— 'Many Happy Returns' : **126/84C**
— 'Coral Supreme' : **126/85C**
— officinalis 'Rubra Plena' : **126/82, 83C**
— 'Paladin' : **126/82C**
— rockii ssp. *linyanshanii* : **129/54**
- Papaver fauriei** : **129/36**
- Paraquilegia anemonoides** : **128/92, 92C**
— caespitosa : **129/79**
— sp. : **127/111**
- Paris quadrifolia** : **128/85, 85C, 97, 98C, 98P; 129/88**
- Parnassia glauca** : **127/81**
— palustris : **127/81; 128/35C**
- Pedicularis densiflora** : **128/109**
— souliei : **128/51, 51C**
- Pelargonium multibracteatum** : **128/9, 9C**
- Penstemon acaulis** : **129/95, 95C**
— caespitosus : **129/101C, 102**
— cardwellii : **126/5**
— compactus : **128/111C**
— davidsonii : **126/3C, 4**
— fruticosus : **126/2, 2C, 15**
— hallii : **129/97C, 98**
— menziesii *microphylla* : **126/94**
— rupicola : **128/106C**
— speciosus : **128/107**
— strictus : **129/99**
— whippleanus : **129/100C, 101**
- Pentas lanceolata** : **128/5C, 6**
- People:
Bainbridge, Ian : **127/108C**
Band, Susan : **127/103C**
Celakovsky, Ladislav : **127/1B**
Leven, Sandy : **127/54C**
Lever, Tim : **127/54C**
- Mills, Liz : **127/108C**
Robinson, Bill : **127/108C**
Wenham, Graham : **127/108C**
- Pests:**
Brevipalpus oncidii : **127/55**
- Petrocosmea sericea** : **128/80, 83C**
- Petrophyllum caespitosum** : **129/103**
— hendersonii : **129/83**
- Phaiophleps biflora** : **126/58**
- Phlox albomarginata** : **129/105**
— condensata : **129/98**
— diffusa : **126/13**
— hirsuta : **128/108, 110C**
— hoodii : **126/13**
— — ssp. *muscooides* AM : **129/60C**
— — ssp. *muscooides* CC : **129/61**
— multiflora : **129/99**
— pulvinata : **128/111C, 112**
- x Phylliopsis 'Sugar Plum'** : **126/101, 101C**
- Phyllodoce aleutica** : **126/102, 102C**
— caerulea : **127/22, 29, 72, 82**
— empetriformis : **126/14**
- Physoplexis comosa** : **129/5**
Pikes Peak : **129/95C**
- Picea abies** 'Little Gem', Border : **126/68C; 128/87**
— glauca 'Tiny' : **128/87**
- Picris** sp. : **128/11C**
- Pieris japonica** var. *yakushimensis* 'Debutante' : **128/68**
- Pinguicula alpina** : **127/22**
— grandiflora : **128/88**
— vulgaris : **127/77C, 81; 128/23C**
- Pinus halepensis** : **128/45**
— leucodermis 'Schmidtii' : **128/77**
— nigra and Mount Taygetos : **129/20C**
— pinea : **127/63**
— sylvestris : **127/28**
- Pistacia lentiscus** : **128/38, 43, 44, 45**
- Pittosporum tenuifolium** 'Tom Thumb' : **127/111C**
- Platanthera aquilonis** : **127/80**
— hookeri : **127/80**
— huronense : **127/80**
— obtusata var. *collectanea* : **127/80**
- Platanus orientalis** : **129/22**
- Plectritis congesta** : **129/10C**
- Pleione Britannia** 'Doreen' : **129/80C**
— cambessedesii : **129/88C**
— 'Fuego' : **128/89, 91C; 129/88C**
— grandiflora : **127/104C, 106**
— hookeriana PC : **129/62C**
— 'Shantung' : **126/61C, 62**
— 'Shantung Ducat' : **129/70**
— Tongarira gx : **129/67**
- Podophyllum delavayi** : **128/90C, 99C**
— 'Kaleidoscope' : **128/99C**
— 'Spotty Doty' : **128/99C**
- Polemonium viscosum** : **129/98, 101, 101C**
- Polygonum viviparum** : **127/81**
- Polypodium australe** 'Cambicum Wilharris' : **128/80**
- Polystichum imbricans** : **129/18C**
— lonchitis : **127/81**
- Polyxena ensifolia** : **127/41C**
Porophyllum (now *Porphyron*) : **129/5**
- Potentilla crantzii** : **127/22**
— flabellifolia : **126/14**
— gracilis : **129/13C**
— neumanniana : **127/81**

- nivea : **127/81**
- stenophylla : **126/26**
- Primula** albenensis alba : **129/76, 76C**
- allionii : **126/59, 62C, 127/54, 55, 129/73**
- — ‘Anna Griffith’ : **127/113**
- — ‘Ken’s Seedling’ : **128/96C**
- — x pubescens ‘Lilac Fairy’ : **126/59**
- amethystina var. brevifolia : **126/39**
- angustifolia : **129/96C, 97**
- apoclita : **126/47**
- aurantiaca : **126/40, 41**
- — x bulleyana : **126/36C**
- aurantiaca & habitat : **126/38C**
- auricula ‘Mojave’ : **127/110C**
- auriculata : **127/8**
- bella : **126/27**
- ‘Blaiside Yellow’ : **129/79**
- blattariformis : **126/37C, 41**
- bilinii : **126/45**
- boreio-calliantha : **126/32C, 46, 52, 53**
- bracteata : **126/45, 46; 129/73C, 79, 87C, 89**
- ‘Broadwell Buttercup’ : **126/80, 80C**
- ‘Broadwell Milkmaid’ : **126/59, 64, 68; 128/92C, 93; 129/69, 73, 73C**
- bulleyana : **126/36C, 40, 41, 51, 52**
- cachemiriana : **129/90, 91, 92, 93, 93C**
- — leaf : **129/91C**
- calliantha ssp. bryophila : **126/53**
- chungensis : **126/42C, 45**
- ‘Clarence Elliott’ : **127/113**
- darialica : **126/59**
- ‘David Valentine’ : **129/73C**
- ‘Dawn Ansell’ : **127/114**
- denticulata : **129/74, 90, 91, 92, 93**
- — var. cachemiriana : **129/92**
- dickieana : **126/39**
- dryadifolia : **126/45C, 47**
- egalikensis : **127/74C, 78**
- elatior : **127/8; 129/81**
- — ssp. meyeri : **128/94C, 96; 129/84**
- euprepes BC : **129/61C**
- faberi : **126/35C, 38**
- farinosa : **128/30**
- florida : **126/44C, 45**
- forrestii : **127/111**
- ‘Gabrielle’ : **127/113**
- gemmifera var. monantha : **126/58**
- geraniifolia : **126/39C, 44**
- gracilenta : **126/48C, 49**
- handeliana : **126/58**
- hirsuta : **126/60C**
- ‘Holden Clough’ : **126/59**
- hongshanensis : **126/52**
- irregularis Hyb. : **127/111, 114**
- ‘Joan Hughes’ : **127/113**
- kingii : **126/39**
- knuthiana : **127/114**
- ‘Kusum Krishna’ : **129/79**
- laurentiana : **127/73C, 78**
- leaves : **129/91C**
- lilacina : **126/48, 49C**
- limbata : **127/111; 129/84**
- ‘Lindum Moonlight’ : **127/113**
- ‘Lismore Yellow’ : **129/37**
- loiseleurii ‘Coy’ : **129/73C**
- ‘Maisie Michael’ : **129/80**
- — ‘Maisie Michael’ x wild primrose : **129/79C**
- malvacea : **126/44**
- marginata ‘Casterino’ : **126/59**
- maximowiczii : **127/14, 14C, 103C, 106, 107, 108C**
- membranifolia : **126/50, 50C**
- mistassinica : **127/74C, 78**
- — alba : **127/78**
- modesta var. fauriei : **129/36**
- monticola : **126/44**
- muscarioides : **126/46, 47**
- nana x sessilis : **126/67**
- nanobella : **126/26, 26C**
- cf. neurocalyx : **129/84**
- nevadensis : **128/110, 110C**
- ‘Nightingale’ : **127/112, 113; 129/59C**
- cf. obconica : **126/43C**
- parryi : **129/95**
- ‘Peter Klein’ : **126/59**
- cf. polyneura : **127/15**
- pseudodonticulata : **126/44**
- ‘Raymond Wooster’ : **127/113**
- reidii : **128/87**
- — williamsii : **129/89**
- rockii : **126/44C**
- rusbyi : **129/79**
- — ssp. ellisiae : **129/83**
- scandinavica : **128/30**
- scotica : **128/28, 30C, 31, 31C, 35C, 83, 83C, 94C, 96**
- seratifolia : **126/51, 51C**
- sieboldii : **128/99**
- sikuensis : **127/15, 15C**
- spicata : **126/47C, 51**
- stricta : **127/78**
- suffrutescens : **128/106C, 107, 107C**
- szechuanica : **126/46**
- veris : **126/59**
- verticillata : **128/12, 14**
- — and its habitats : **128/14C**
- vialii : **126/41C, 44**
- vulgaris : **129/37**
- — ssp. heterochroma : **126/67**
- — warshenewskiana : **129/67**
- ‘Wharfedale Village’ : **126/59**
- whitei ‘Sheriff’s Farm’ : **126/67**
- ‘White Lady’ : **127/113**
- yuparensis alba : **127/111**
- Primulas, A Glory of : **129/73C**
- Prunella** vulgaris : **128/31**
- Pseudorchis** albida : **127/77C, 80**
- Pteridophyllum** racemosum : **126/56C, 57; 127/103C, 106, 109; 129/59C**
- Pterostylis** curta : **129/74C**
- Pulicaria** petiolaris : **128/6**
- Pulsatilla** albana : **127/8**
- ambigua : **129/74C, 76**
- occidentalis : **126/14**
- vernalis : **127/114**
- vulgaris : **127/107; 128/95C**
- — alba : **129/77**
- — blue : **129/70C**
- — ‘Röde Klokke’ : **128/93, 94C**
- Pyrethrum** leontopodium : **128/78C, 81**
- Pyrola** asarifolia : **127/77C, 81**
- sp. : **128/19C**

Quercus coccifera : 128/44, 45; 129/26
— **robur** : 128/43C

Ramonda nathaliae : 129/36

Ranunculus alpestris : 127/107
— **calandrinoides** : 127/105, 111; 129/61
— **navalis** : 127/22

Raoulia mammillaria : 128/85

Rhamnus lycioides : 128/38C, 43

Rhodiola rosea : 127/72C, 76, 81

Rhododendron 'Anna Baldsiefen' : 129/75C

— **camtschaticum** : 129/37
— **ciliatum** : 126/61
— 'Cream Crest' : 127/104
— **lapponicum** : 127/29, 30, 30C, 31C, 32, 34, 78
— **leucaspis** : 126/61
— 'Lucy Lou' : 129/69C
— **macrophyllum** : 126/5
— 'Maruschka' : 128/101
— **saluenense** : 126/26
— 'September Song' : 128/86
— 'Snipe' : 127/103, 104C; 129/81, 84
— 'Snow Lady' : 126/61
— **tomentosum** : 127/34

Rhodohypoxis milloides : 127/46

x Rhodoxis 'Hebron Farm Biscuit' : 126/81

Rock Garden Views : 129/35C

Rock Garden, Czech : 129/4C

Romulea atrandra : 127/115

— **sanguinalis** : 127/40C

Rosa abyssinica : 128/9

— **x damascena** : 128/9

Roscoea alpina : 128/70

— **x beesiana** : 128/63C
— **cautleyoides** : 126/44; 128/60C, 63, 65, 62
— 'Crüg's Late Lemon' : 128/68C
— 'Pennine Purple' : 129/63
— **humeana** : 128/62C, 63, 65, 67
— 'Purple Streaker' : 128/71C
— **f. alba** : 128/60C, 63
— **f. tyria** : 128/63
— 'Inkling' : 128/64
— 'Kew Beauty' : 128/58C
— **purpurea** : 128/59, 63, 68
— 'Red Gurkha' : 128/62C, 64
— 'Spice Island' : 128/63C
— 'Wisley Amethyst' : 128/67C
— **scillifolia** : 128/66C
— **tibetica** : 128/70
— var. **atropurpurea** BWJ7640 : 128/65C
— 'Vincent' : 128/64C, 69C

Rosmarinus officinalis : 128/43, 44

Rubus arcticus : 127/77C

— **arcticus** ssp. **acaulis** : 127/81

Rupicapnos africana : 127/10C

Sagina nodosa : 127/78

Salix arctophila : 127/78

— **candida** : 127/76C, 78
— **cordata** : 127/78
— **glauca** : 127/76, 78
— **herbacea** : 127/26
— **jejuna** : 127/73C, 77, 81
— **reticulata** : 127/32, 72C, 76, 78
— **uva-ursi** : 127/70C, 72
— **vestita** : 127/76C, 78, 82

— **wiegandii** : 127/78

Sanguinaria canadensis flore pleno : 127/109

— var. **multiplex** : 129/75

Sarcoceda sanguinea : 126/12, 12C

Satureja spicigera : 126/95, 95C

Saxifraga aizoides : 127/74C, 78; 128/29, 29C

— 'Allendale Accord' : 126/68
— **x caroli-langii** : 129/5C
— **cebennensis** : 128/100
— **cespitosa** : 127/74C, 78
— **cinerea** hybrid TJR 615/01 : 127/114
— **clivorum** : 127/114
— **x concinna** 'Beinn Alligin' : 129/68C
— 'Coolock Gem' : 129/67
— 'Coolock Jean' : 129/67
— 'Coolock Kate' : 129/64C, 67
— **x edithae** 'Bridget' : 129/72C, 73
— **x edithae** 'Karel Stivin' : 128/93C, 94
— **federici-augusti** : 129/81C
— **fortunei** var. **rubrifolia** : 128/79C, 82
— **georgei** : 126/61, 62C
— **kotschyi** : 127/8

— 'Mollie Broom' : 129/69C

— 'Nicholas' : 126/81

— **oppositifolia** : 127/74C, 78

— **paniculata** : 127/74C

— var. **labradorica** : 127/78

— **pubescens** : 129/85C

— **scleropoda** : 127/114

— **stellaris** : 128/25C, 29

— 'Tenerife' : 129/64C

Scadoxus multiflorus : 128/8C, 9

Scilla italica : 127/105

— **melaina** : 127/8

— **obtusifolia** : 128/47, 48C

— **sibirica** : 127/8

Sebaea thomasi : 126/61; 129/79, 87

Sedum album : 128/44

— **humifusum** : 129/89C

— **sediforme** : 128/44

Selaginella yemensis : 128/13C, 14

Sempervivum arachnoideum : 128/74C, 75; 129/68C

— **ciliatum** var. **borisii** : 128/81, 82C

— 'Rubin' : 128/75

Senecio pauciflorus : 127/78, 81

Shepherdia canadensis : 127/76C, 81

— var. **prostrata** : 127/78

Shorlia galacifolia x 'Brian Wilson' : 129/70, 70C

— **x S. uniflora** **kantoensis** : 129/69

— 'Leona' : 127/111

— **uniflora** : 127/111

— 'Grandiflora' : 129/37C

— var. **kantoensis** : 127/111; 128/73C

Shoshonea pulvinata : 129/104

Shows:

Club Sales, Edinburgh 2011 : 127/109C

Showbench, Edinburgh 2011 : 127/107C

— Perth 2011 : 127/102C

Stirling 2012 - Three pan class 1 : 129/69C

Sibbaldia procumbens : 127/72

Sibbaldopsis tridentata : 127/78

Silene acaulis : 127/22, 73C, 76; 129/101, 101C, 102

— **californica** : 128/105, 105C

— **hookeri** : 129/89C

— ssp. **bolanderi** : 128/100C

— **ruscifolia** : 127/8

— sibirica : **129/36**
 — — borealis : **129/36**
 — uniflora : **128/87**
Skimmia japonica ssp. reevesiana : **128/68**
Smilax aspera : **128/38C, 43**
Snowdrops : **127/55C**
Solanum pseudocapsicum : **126/97, 97C**
 — villosum : **128/10C, 11**
Soldanella alpina alba : **127/102, 105C, 129/60C**
 — 'Spring Symphony' : **128/93C**
Solidago hispida : **127/78**
 — multifidiata : **127/78, 81**
Sorozeris rosularis : **126/26, 31C**
 Soulié, Jean André : **128/50**
Sparaxis tricolor : **127/40C**
 — villosa : **127/48C**
Stellaria longipes : **127/81**
Stellera chamaejasme : **126/40C, 44**
 — — var. chrysantha : **126/41**
Sternbergia canadica : **126/68**
 — lutea : **129/23**
 — lutea var. graeca : **129/23**
 — sicula : **129/21, 21C, 23, 27, 36**
 Strathy Point : **128/26C, 32C**
Strumaria truncata : **127/47C**
 — watermeyeri ssp. botterkloofensis : **127/49C**
Styrax chinensis : **128/68**
Succisa pratensis : **128/31**
Syncalathium souliei : **128/51**
Syringa meyeri 'Pallibin' : **126/94**

Table Posy by Jean Band : **127/106C**
Talinum brevifolium : **128/103, 104**
Tanacetum huronense terrae-novae : **127/75C, 78**
Tchihatchewia isatidea : **127/8, 9C**
Tecophilaea cyanocrocus : **126/61C, 127/111**
 — — var. leichtlinii : **126/60**
 — — 'Violacea' : **127/111, 129/69, 69C, 70**
 — — 'Storm Cloud' : **127/108C**
Telesonix jamesii : **129/95, 97, 101, 101C**
Tetrameuris acaulis var. caespitosa : **126/81**
 Thistle, Unfurling : **128/15C**
Thymus leucotrichus 'Peter Davis' : **126/94C**
 — praecox : **128/31, 34**
Tiarella cordifolia 'Cygnets' : **126/56, 56C**
 — 'Spring Symphony' : **129/82C**
Tofieldia glutinosa : **127/79C, 81**
 Tower houses : **129/33C**
Townsendia exscapa : **128/104, 104C**
 — montana : **128/111C, 112**
 — rothrockii : **127/108C, 111, 129/69C**
 — spathulata : **129/102C, 103, 104**
 — — 'Cotton Ball' : **128/81, 82C, 129/103C, 129/105C**
 — — — in the wild : **129/105C**
Trifolium nanum : **129/96C**
 — nanum : **129/97**
Trillium albidum : **126/8, 127/64, 64C, 65, 66, 66C, 104**
 — angustipetalum : **127/66**
 — chloropetalum : **127/105, 129/79**
 — grandiflorum : **128/85**
 — — 'Flore Pleno' : **126/56, 128/86C, 98, 99**
 — — 'Roseum' : **129/79**
 — hybrid : **127/66C**
 — kurabayashii : **127/64, 64C, 65, 66, 66C**
 — — pink : **127/65C**
 — — yellow form : **127/66C**

— luteum : **128/85, 86C**
 — nivale : **129/36C**
 — ovatum : **126/5, 5C, 7, 127/13C, 15C, 64, 65**
 — — var. oettingeri : **126/112-115, 112C**
 — pusillum : **128/86, 129/86, 86C**
 — rivale 'Purple Heart' : **126/64, 68, 127/112, 129/68C, 69**
Trollius europaeus : **127/29**
 Tronsen Ridge & Mount Howard : **126/2C**
Tropaeolum brachyceras : **127/102**
 — tricolor : **127/102**
Tulipa 'Albert Tear' : **127/69C**
 — armena : **127/8**
 — biflora : **129/71C**
 — 'Goldfinder' : **127/69C**
 — 'James Wild' : **127/69C**
 — 'Mabel' : **127/69C**
 — polychroma : **126/60**
 — tarda : **127/102, 106C**
 — 'Wakefield' : **127/67, 67C**

Urginea maritima : **128/44C, 48, 129/20**
 — maritima: seed heads : **128/45C**
 — undulata : **128/47**
Urtica urens : **128/11**
Uvularia grandiflora : **126/56**

Vaccinium myrtillus : **127/26**
 — uliginosum : **127/26, 71, 71C**
 — vitis-idaea : **127/26, 71C**
 — — var. minus : **127/71**
 — — 'Red Candy' : **128/80, 81C**
Verbascum 'Leffia' : **126/100, 100C, 129/7C**
Veronica cusickii : **126/14**
 — fruticans : **127/22**
Viburnum tinus : **129/39**
 — x bodnantense : **129/39**
 View near Yading : **126/46C**
Viola altaica : **127/8**
 — beckwithii : **128/109, 109C**
 — biflora : **127/22**
 — bubanii : **126/61, 67**
 — palustris : **127/22, 81**

Wachendorfia parviflora : **127/47C**
Westringia fruticosa 'Smokie' : **126/100, 100C**
Woodsia alpina : **127/81, 82**
 — giabella : **127/81, 82**
 — livensis : **127/79C, 81, 82**
 Wu Meng Shan : **126/34C**

Xerophyllum tenax : **126/14**

Yemen : **128/3M**
 Yemenis : **128/4C**
Ypsilandra cavaleriei : **129/70**
 — thibetica : **129/70**
 Yunnan, Route through : **126/28M**





TIMBER PRESS

The best in gardening books

Timber Press is the international publisher of a wide range of books on plants, planting and garden reference. Our books appeal to gardeners, garden designers, landscape professionals, students and plant-enthusiasts everywhere.



We are delighted to offer **SRGC members** a special discount of 20% off Timber Press books ordered via our website, plus free postage for UK customers.

To redeem this offer* please visit;

www.timberpress.co.uk and quote code:

SRGC2012 at the checkout

*offer expires 30th September 2012



2 The Quadrant, 135 Salusbury Road, London NW6 6RJ

TEL: +44 (0) 207 372 1703

EMAIL: sales@timberpress.co.uk

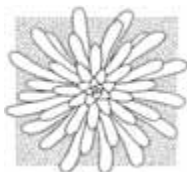
WEB: www.timberpress.co.uk

www.pitcairnalpines.co.uk
 Wide selection of bulbs,
 Erythronium, Lilies, Frits and others
 Scotts Park, Pitcairngreen, PERTH, PH1 3LT, Scotland info@pitcairnalpines.co.uk



PLANT & BULB SALES DAYS
 featuring talks by **Ron McBeath** will take place
Saturday 1st September
 at the former Lamberton Nursery, garden tours plus
 sales by Rob Potterton 9am to 4pm, talk begins at 2pm
Saturday & Sunday 15 & 16th September
 at **Pottertons Nursery Open Weekend**
 Talk at 11am on the Saturday at Nettleton Village Hall
 tickets £3, nursery open 9am to 4pm on both days
www.pottertons.co.uk

The Saxifrage Society



Benefits include an annual magazine, meetings, newsletters and a seed exchange.
Membership: Home and Overseas membership is £10 or €15 or \$20 US (non sterling cheques cannot be accepted). Details from Mark Childerhouse, The Gardens, 12 Vicarage Lane, Grasby, Barnetby, North Lincs, DN38 6AU, UK
 (membership@saxifraga.org)

www.saxifraga.org



www.nurseriesonline.co.uk

Dix export bv

classic, rare and unusual bulbs

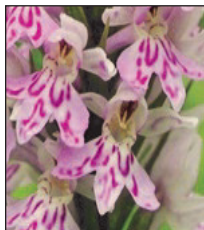
- Wholesale of quality flower bulbs, corms, tubers & perennials.
- Supplying specialist growers, gardens and enthusiasts all over Europe.
- 2500+ varieties for Summer & Autumn delivery.
- 1250+ varieties for Winter & Spring delivery.
- Minimum order value € 350.00
- Extensive range of rare varieties.

Register for 'new customer'
on our website

www.dixexport.com

When you don't have a company or VAT no.
use code SRGC at company.





Orchid Meadow

*hardy orchids
nursery grown
from seed*

A specialist nursery for British and European hardy orchids by mail order. Plants are grown from seed and by division using legally obtained stock. Please contact me by e-mail or send a S.A.E. for a plant list and order form:

Tony Heys,
14 Culllesden Road, Kenley, Surrey,
CR8 5LR

e-mail: Anthony.heys@sky.com

www.orchidmeadow.co.uk

SEMINA PRO LAETITIA

Seeds of alpiners & perennials from Eurasia

Caucasus, The Balkans, European Alps,
Sino-Himalaya, Tien Shan, Far East etc.



- focused on plants from the **Caucasus**
- attention to **correct determination** of species
- wide range of **lousewort** (Pedicularis) seeds for those who enjoy a challenge

Pavel Křivka

Pod lipami 711, CZ- 53003 Pardubice
delonix@delonix.cz

www.semina.cz

*However you like
your iridaceae ...*



The British Iris Society

www.britishirissociety.org.uk

Join via the website
or send a cheque for £14,
payable to *The British Iris Society*,
to Jill Christison,
Mill House,
Woodlands Lane,
Chichester PO15 5PA
jillchr@btinternet.com



paintings copyright © Estate of Pauline Dean

*Why not advertise in **The Rock Garden?***



*The ideal medium
to perfectly match
your market*

For full details please contact:-

David Nicholson
SRGC Advertising Manager
7 Carter Road
Ivybridge
Devon, UK, PL21 0RX
Tel: 01752 896307
d.avenis@virgin.net



ABERCONWY NURSERY

GRAIG, GLAN CONWY, LL28 5TL Tel: (01492) 580875

Visit our scenic hillside site in the Conwy Valley, Tue-Sun from March to Sept, to see the constantly evolving range of quality alpine and rock garden plants grown by the Lever family.

We don't offer a mail order service but you can see us at many AGS and SRGC shows. (Plant list available)



The Welsh Alpine Plant Specialists



Join the world's largest alpine garden society and enjoy the benefits:

- Highly acclaimed colour quarterly bulletin
- Opportunity to buy specialist publications
- Tours to see alpine in their natural habitats
- Local groups and countrywide national shows
- Annual seed distribution (over 6000 entries)

Alpine
garden society



www.alpinegardensociety.net

tel: 01386 554790 • email: ags@alpinegardensociety.net



Fachgesellschaft andere Sukkulenten e.V.

www.fgas-sukkulenten.de



"Avonia", the quarterly member journal of the German Society for other Succulents, written in German with English summaries, non-German manuscripts in original language too, containing colour photographs, excellent drawings and articles on all aspects of the other Succulents.

Annual subscription:

Germany: 30 € incl. PP
Other countries: 35 € incl. PP

Free available coloured online journal "Avonia-News", annual seed list for members and many more. Stakeholders for Aloe (incl. Haworthia a.s.), Ascleps, Euphorbia, Mesembs and Yucca/winter-hardy Succulents

For membership and further information contact:

Dr. Jörg Effel, Morgenstr 72, D-59423 Unna, praesident@fgas.sukkulenten.de or

Wilfried Burwitz, Postfach 100206, D-03002 Cottbus, geschaeftsstelle@fgas.sukkulenten.de



We offer an exciting range of alpines, rock plants and dwarf bulbs, many rare and unusual, ideally suited for rock gardens, screes, troughs, alpine houses and cold frames. We also grow a selection of South African bulbs including a large range of *Lachenalia* and *Nerine sarniensis*.

Choice Landscapes, Priory Farm Nursery
101, Salts Road, West Walton, Wisbech, Cambs. PE14 7EF
Tel: 01945 585051 Fax: 01945 580053

www.choicelandscapes.org

If you wish to visit the nursery please telephone first to make sure we will be open as we attend several shows throughout the year. For a catalogue please send 6 first class stamps to the above address. Visa, MasterCard & Maestro accepted. Orders can be collected from shows.

Don't miss our Bulb Weekend at the nursery Saturday 15 September 9.30-5PM and Sunday 16 September 10.30-4.30. Refreshments available.



Fresh Cyclamen Seed

Will be available soon to members of the Cyclamen Society.

- All seed freshly gathered, so germinates rapidly.
- All members receive four packets of seed free.
- Features seed from plants collected by Cyclamen Society expeditions.

For details contact Publicity Officer: Vic Aspland, 27 Osmaston Road, Norton, Stourbridge, West Midlands DY8 2AL, or visit our website at www.cyclamen.org

- • SHOW, Birmingham Botanical Gardens, Sunday 23rd September, 11.00am-3.00pm • •
- • SHOW, Hillside Events Centre, RHS Gardens, Wisley, Saturday 13th October, 11.30am-4.00pm • •

Membership: Single £10.00, Family £12.00, Europe 18 euro, Rest of world \$25.00

MENDLE NURSERY

Holme, Scunthorpe, North Lincolnshire, DN16 3RF
Telephone 01724 850 864

Or visit our website <http://www.Mendlenursery.co.uk>
ALPINES

We offer a wide range of alpine plants, bulbs and ericaceous plants, many rare and unusual, for the alpine house, raised beds, scree, troughs and tufa.

Opening times - Tuesday - Sunday 10am to 4.30pm

Mail Order All Year.

Please send 3 x First Class stamps for catalogue

North American Rock Garden Society



Join today. NARGS is for gardening enthusiasts interested in alpine, saxatile, and low-growing perennials. Annual dues outside North America are \$35, payable in U.S. funds. VISA/Mastercard accepted.

Benefits of membership include: *Rock Garden Quarterly* with articles on alpines and North American wildflowers, illustrated in color photographs and pen and ink drawings; annual seed exchange with thousands of plant species; study weekends and annual meetings in either U.S. or Canada; and book service.

Join on-line at www.nargs.org

Or write: Bobby J. Ward, Exec. Secretary NARGS, P.O. Box 18604, Raleigh, NC 27619-8604, USA



Discover our bulbs as well as alpine, bog and woodland plants from around the world, with lots of rarities.

Mail Order - Wholesale - Garden Design

Visit www.kevockgarden.co.uk

to see our on line bulb and plant catalogues.

Or, send 4x1st Class stamps for a printed copy to:

Stella Rankin, 16 Kevock Road, Lasswade, Midlothian EH18 1HT

Tel/Fax: 0131 454 0660

Email: info@kevockgarden.co.uk



British Cactus & Succulent Society



Website: <http://www.bcsc.org.uk>

- Quarterly full colour Journal, CactusWorld, for all levels of interest, covering conservation, cultivation, propagation, plant hunting and habitats, botanical gardens, plant descriptions, book reviews, seed lists, news and views, and advertisements from suppliers worldwide.
- Optional subscription to Bradleya, a high quality annual publication, with articles of a more scientific nature.
- Online discussion Forum and publications including books.
- See our website for current subscription details. Cheques should be made payable to BCSS.
- Over 80 local branches.
- Further details also available from our Membership Secretary:
Mr A Morris, 6 Castlemaine Drive,
Hinckley, Leicester LE10 1RY, UK.
Telephone: +44 (0) 1455 614410.
Email: membership@bcsc.org.uk



Join the

Scottish Rhododendron Society
Spring and Autumn garden tours and workshops

A Yearbook, plus two Reviews annually
Our own Seed List

Hosts to the annual Scottish National Rhododendron Show with plant sales
Free entry to Crarae and Arduaine Gardens

Optional membership of the American Rhododendron Society with quarterly Journal and access to Seed List
Membership starts at £15.00

Visit our website:

www.scottishrhodos.co.uk

Contact our secretary Willie Campbell
13 Fir Road, Doune,
Perthshire FK16 6HU

湯 沢 園 芸

-YUZAWA ENGEI-

Unusual and rare plants and seeds in fields, mountains and alpiners from Japan
<http://www.yuzawa-engei.net>

200-6 Toyama, Mnami-Ku, Sapporo-City,
Hokkaido 061-2275, Japan



Jelitto Perennial Seeds

Catalogue + Shop
www.jelitto.com

STAUDENSAMEN · PERENNIAL SEEDS · GRAINES DE PLANTES VIVACES

Production · Breeding · Seed Technology

UK-Agents: Meadows (Fenton) Ltd · PO Box 78 · St Ives, Huntingdon · Cambs PE27 6ZA
Phone: 01480 463570 · Fax: 01480 466042 · www.jelitto.com · e-mail: richard@jelitto.com

German Headquarters: Jelitto Staudensamen GmbH · P.O. Box 1264 · D-29685 Schwarmstedt
Phone ++49 50 71/98 29-0 · Fax ++49 50 71/98 29-27 · www.jelitto.com · e-mail: info@jelitto.com



Chris Chadwell, Little Tibet 2011

SEED COLLECTING EXPEDITION TO THE BORDERLANDS OF WESTERN TIBET 2012

Why not take out a share in Chris Chadwell's 27th plant hunting venture? An opportunity to experiment with rockery subjects and high alpiners seldom available in cultivation.

Prospectus available in April 2012

chrischadwell261@btinternet.com

chadwellseeds.co.uk

81 Parlaunt Road SLOUGH SL3 8BE UK



Linn Botanic Gardens

Cove, Helensburgh, G84 0NR.

A diverse collection of temperate plants.

Gardens open to the public all year.

Plants for sale - Tours welcome

Email: jamie@linnbotanicgardens.org.uk

Tel: 01436 84 2084

New Zealand Alpine Garden Society



invites you to join other overseas members enjoying the benefits of our Society. Two informative Bulletins each year and an extensive NZ Native section in our seed list enhance the contact with New Zealand alpine plant lovers. Enquiries to the Secretary, or join now sending N.Z. \$38 for annual membership, Visa, Mastercard or Banker's Draft in N.Z. \$

New Zealand Alpine Garden Society
P.O. Box 2984, Christchurch, NEW ZEALAND
www.nzags.com

SEMPERVIVUMS

Hundreds of named hybrids and species all photographed in full colour and all sent free delivery. Find us at:-

WWW.SEMPERVIVUMNURSERY.CO.UK





Naturetrek

Don't miss our 2013 selection of botanical holidays

WESTERN AUSTRALIA

September - 17 days - £4695

BHUTAN

April - 18 days - £4295

BULGARIA

June - 8 days - £1195

CHINA - SICHUAN

June - 22 days - £4195

CHINA - YUNNAN

May - 19 days - £4195

CRETE

October - 8 days - £1195

ECUADOR

September - 16 days - £3395

ESTONIA

June - 9 days - £1895

GREECE - PELOPONNESE

October - 8 days - £1195

IRELAND - BURREN

May - 4 days - £495

ITALY - DOLOMITES

June - 8 days - £1195

ITALY - GARGANO

April - 8 days - £1295

KAZAKHSTAN - TIEN SHAN

June - 13 days - £2695

KAZAKHSTAN - TULIPS

April - 16 days - £2795

MADAGASCAR

September - 14 days - from £4395

NEW ZEALAND

January - 20 days - £4895

NORWAY - GOL PLATEAU

July - 8 days - £1295

ROMANIA - CARPATHIANS

June - 8 days - £1395

SICILY

April - 8 days - £1295

S. AFRICA - NAMAQUALAND

September - 14 days - from £3995

S. AFRICA - DRAKENSBERG

January - 14 days - from £3795

SPAIN - ANDALUCIA

March - 8 days - £1295

SRI LANKA

March - 13 days - £2150

SWITZERLAND - ENGADINE

July - 8 days - £1395

SWITZERLAND - WENGEN

June - 8 days - £1695

2013 dates and prices are subject to confirmation



01962 733051

www.naturetrek.co.uk

Naturetrek, Cheriton Mill, Cheriton, Alresford, Hampshire SO24 0NG

EXPLORERS

THE SCOTTISH PLANT HUNTERS GARDEN

www.explorersgarden.com



China Uncovered

a photographic exhibition by Martin Walsh

open until 31st October, 2012 (FREE with entry to the Garden)

GARDEN WORKSHOPS



Dry Stane Dyking

with John Hughes

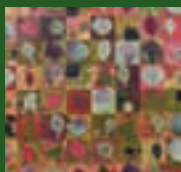
Sat 8th & Sun 9th September



Willow Weaving

with Trevor Leat

Sat 8th & Sun 9th September



Leafworks

with Jennie Ashmore

Sat 8th & Sun 9th September



Workshop Prices: £125 • **Times:** 10.15am to 4.30pm



FEED ME!

Exclusive offer for
SRGC Members

LITTLE SHOP OF HORRORS

Spend the day in the *Explorers* Garden followed by a two course dinner at Pitlochry Festival Theatre Restaurant and tickets to the hilarious smash hit musical comedy **Little Shop Of Horrors** for only £50. Phone the Box Office to arrange your special SRGC Member day out! **01796 484626**

We sell seeds and unusual plants too!