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The ROCK GARDEN

The Journal of the Scottish Rock Garden Club January 2007

Number 118

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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, preferably double spaced. Digital images are particularly welcome but 35 mm slides, high quality prints or drawings may also be submitted for professional scanning.

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

President's Introduction

ello to all of my fellow Scottish Rockers. I know that you are out there and it will be impossible to meet everyone over the next three years but I will try my utmost to visit all of the groups during my term as president. It is a great honour and a privilege to represent the club and I will endeavour to serve your interests at all times.

My first debt of gratitude and admiration goes to our immediate past president, Dr Ian Bainbridge, who has worked tirelessly for the club during his term of office. The members have benefited from his work and words of wisdom. I thank Ian sincerely for being such a great ambassador for The Scottish Rock Garden Club and look forward to working alongside him during the next three years.

I am just a part of a **TEAM** of weel kent faces which make up the club's council and who oversee the running of the club. We are a strong club. We attract new members via our excellent web site http://www.srgc.org.uk and - for those who cannot access us on the webour local groups organise shows throughout the year. I would strongly recommend that you visit at least one show, a virtual treasure of wonderfully grown alpines in pots. Despite being encouraged by some new membership each year it would be marvellous to attract a larger element of younger people to join us. I therefore ask that you spread the word, stressing that not only are we an enthusiastic group but that we are all young at heart and one of the friendliest societies.

'Gardening Scotland' is another shop window for the club with our enthusiastic team setting up impressive information displays every year. Over many years our Ayr group has exhibited a superb display garden and still continues to fly the flag for us at Ayr Flower Show. This year our thanks also go to Julia Corden for involving the club in some worthwhile workshops at The Plant Hunters Garden in Pitlochry. Such was the success of the practical demonstrations at Pitlochry that the club intends to expand on the idea and add another location to complement the existing programme at The Plant Hunters Garden. This will provide the opportunity for members in different geographical areas to attend the workshops, perhaps to learn from the experience and also to enjoy the fellowship of the club. Be sure to look in the journal for the venues and dates.

Finally, we are all lovers of these superbly diverse wee plants which come under the heading of 'Alpines'. I caught the bug away back in the early 1960s when I visited the garden of that great plant hunter Major George Sherriff and brought home my first packets of primula and meconopsis seed. I continued to visit the garden annually but it wasn't until the late 1970s - and quite by chance - that I visited my first SRGC

show in Aberdeen. From these early beginnings we started our alpine plant nursery and now, some thirty years later, I am still enjoying the challenge of propagating and learning about new plants.

Wherever you are in the world it is easy to keep in touch: if you have any questions or concerns or just want to say 'Hello', please contact me directly

by email ianchristie@btconnect.com or via the forum at http://www.srgc.org.uk

Ian Christie

... and Editor's Note

Inspired by Malcolm McGregor's splendid work over the last years, trusting in the competence of club members, and marvelling at Nature's beauty, I recklessly undertook to edit the journal. I am neither a front line rock gardener nor a botanist; there are many who could do this job better than I. So why do it?

We live in times when the public, environmentalists and governments speak loudly of sustainability – whatever that is - and the preservation of our planet's biodiversity. The SRGC contribution to these issues is relatively understated but is in truth both substantial and practical. The mountainous and wild parts of the world are shrinking under the pressures of development, climate change, and human footsteps. Throughout the world our members explore, plant, preserve, propagate and publicize groups of marvellous and intriguing plants from these areas.

It is not sufficient to preserve such regions in the occasional national park, botanic garden or wildlife reserve – indispensable as these are. If we are to maintain the thin thread of these plants in the fabric of the future we have to weave it into our individual behaviour and our small day to day actions. This is where societies such as the SRGC play an important role: while pursuing our own love of plants in cultivation and in their natural habitats we are helping to preserve Nature's beauty and diversity.

I believe that members share these aspirations. In my short time I have been very impressed at the labours and enthusiasms of our authors. They are due the credit: the mistakes are mine. I hope that all members will continue to provide our stream of articles, of wonderful photographs, of personal whimsy, and that they will guide and stimulate me to serve them as they would wish.

Anton Edwards antonedwards@aol.com

West of Scotland Discussion Weekend

5-7 October 2007



Beardmore Hotel

The 2007 Discussion Weekend will take place in the Beardmore Hotel, Clydebank, to the North-West of Glasgow and adjacent to the River Clyde. The Beardmore is a spacious modern hotel with beautifully-appointed rooms and public areas, and a high standard of cuisine. The hotel was built as a conference venue and lectures are in a comfortably-seated tiered auditorium. The leisure facilities, including a heated pool, are available for the use of delegates. It is easily accessed by road and rail and there is ample parking in its grounds.

Glasgow, Scotland's largest city, has many attractions for the visitor. These include an impressive architectural heritage and lively social and cultural life. The newly refurbished Kelvingrove Museum and Kibble Palace glasshouse at the Botanical Garden are great attractions. The city centre, with the best shopping outside London, is 20 minutes away by train from nearby Dalmuir Station.



Auditorium

Accommodation is in double, twin or single rooms. There is no ground floor accommodation but there are lifts to all floors. If you wish to share a room please arrange this before booking and indicate on the booking form the name of the person you wish to share with, otherwise we will use our judgement. Extra nights accommodation for Thursday 4th and Sunday 7th are available at £40 per person sharing, £70 single. Please indicate on the reverse of the form if you need either.

It is important to note that no smoking is allowed anywhere in the hotel or its grounds.

A booking form is included in the Secretary's Pages; please ensure that the form and remittance reach the Registration Secretary not later than 15th September 2007:

The Registration Secretary, Anne M Chambers, Suilven, Drumore Road, Killearn, Glasgow G63 9NX.

If you require further information, write to Anne at the above address, e-mail <u>annechambers730@btinternet.com</u>, or telephone 01360 550537

RESIDENT Friday dinner – Sunday afternoon tea, double occupancy Friday dinner – Sunday afternoon tea, single occupancy Saturday morning – Sunday afternoon	£187 £210 £135
NON-RESIDENT Saturday – morning coffee, lunch, afternoon tea Saturday – morning coffee, lunch, afternoon tea, dinner Saturday dinner Sunday – morning coffee, lunch, afternoon tea	£45 £71 £26 £45

Programme

Friday 5th October

16.00 Registration 16.00-17.30 Plant staging

19.45 President's Welcome Address 20.00 The Bulb Group Lecture

Tony Goode -

'A Gardener's Guide to Crocus'

21.30 Small Bulb Exchange

Saturday 6th October

08.00-09.00 Plant staging 08.30 Registration 09.00 Optional activities

11.30 Jim Jermyn & Anne Chambers –

'Meconopsis and other Himalayan Treasures'

12.30 Plant Show opens 14.00 Alan Furness –

'The Crevice Bed, a way of succeeding with choice

alpines'

15.45 The Harold Esslemont Lecture

Panayoti Kelaidis -

'Exploring the World's Steppes for Alpines'

19.00 Dinner 21.00 Plant Auction

Sunday 7th October

08.30 Registration

09.30 The William Buchanan Lecture

Cyril Lafong –

'Growing Plants in the Alpine House'

11.30 Panayoti Kelaidis –

'A Comparison of South African & North American

Flora'

14.00 The John Duff Lecture

Roy Sexton –

'The Secret Lives of Our Native Orchids'

Pinewood Treasures

Brian & Maureen Wilson

HY IS IT that, of all the branches of natural history, plants are the 'poor relation'? This is extraordinary when you consider that almost every life form on Earth depends ultimately on plants for its survival. Take our native pinewoods for instance, where television narrators wax lyrical about red squirrel, Scottish wildcat and pine marten. Likewise, no cameraman is happy until he has bagged shots of capercaillie, crested tit, Scottish crossbill and - not forgetting - nesting ospreys. But plants? On the rare occasion the camera homes in on a plant, it is merely as background, and a name is rarely forthcoming. The only plants guaranteed a mention are the trees themselves, only because they form the backbone of the habitat. Just as the animal and bird life of our pinewoods is special, so too are some of the plants that grow in them. None is endemic to Britain and there is not a huge diversity compared with similar habitats in Scandinavia, Russia and other parts of northern Europe. However, some are rare within the British Isles, and many are found predominantly in the cooler regions of northern Britain and, in particular, north-east Scotland.

Pinus sylvestris is widely distributed across the northern hemisphere and as a result there are many variants. The indigenous Scots pine, Pinus sylvestris var. scotica is said to differ from other forms as its crown remains pyramidal in shape until late in life when it becomes more rounded. Between the end of the last glacial period about 10,000 years ago and the middle of the 17th century, the ancient Caledonian pine forest covered much of Scotland. It was not exclusively pine but included variable amounts of birch, juniper, rowan and willow. For the next two and a half centuries deforestation increased to such a degree that only isolated remnants remain today. They may be seen in areas such as Glen Affric in Inverness-shire, Rothiemurchus & Abernethy in Speyside, and Glen Tanar in Aberdeenshire. Alternative land use and overgrazing by sheep and deer have limited natural regeneration. Some programmed replanting of P. sylvestris forests over the years has used foreign seed. Efficient wind dispersal of pollen with consequent cross-pollination has meant that the indigenous Scots pine has become very much diluted by these introductions.

As far as our target plants are concerned, however, these genetically diverse man-made woodlands provide suitable habitat once they are more than forty to fifty years old. Indeed, although a two to three hundred year old Scots pine is a magnificent sight, it is often isolated and



Trientalis europaea, Aberdeenshire

unable to provide the continuity of habitat found in commercial woodland. The commercial tree canopy provides required shade, but the make-up of understorey vegetation is also important in deciding whether or not our special plants are present. If the canopy is too open, undesirable species such as bracken and grasses may dominate or, if too close, insufficient light penetrates and the plants are absent.

Typical ground flora of the drier eastern pinewoods includes ericaceous plants like *Calluna vulgaris* (ling), *Erica carnea* (bell heather), *Vaccinium myrtillus* (blaeberry), *V. vitis-idaea* (cowberry) and *Empetrum nigrum* (crowberry). Ideally, none of this ground cover should be too dense, but interspersed with mosses, the commonest of which is *Hylocomium splendens*. Wavy hair grass (*Deschampsia flexuosa*) may be present - a mixed blessing if it wafts in front of your camera lens, the resulting blur neither apparent until after the film is processed, nor noticed in your miniscule digital camera screen!

The Plants

Trientalis europaea

The first of our pinewood specialities to look forward to in late May/early June is *Trientalis europaea*. It goes under the intriguing common name of chickweed-wintergreen. Intriguing, because it is neither chickweed nor wintergreen but a member of the Primula family. It is commonly, though not exclusively, found in the North and East of Scotland and, while it prefers pinewood habitat, it is less frequently found in open heather moorland. It grows usually in moss and litter on the fringes of woods, penetrating further where the wood is open and lets through enough light.



It is a short, erect, rhizomatous plant with a single whorl of lanceolate leaves near the top of the stem. The shiny foliage is generally green, occasionally taking on red hues which become more apparent as the plant ages. The 7 to 9 petalled white flowers on short pedicels are solitary, sometimes up to three per plant, and usually flowering in succession.



When examined closely in sunlight, they have an iridescent quality. Although less than 2 cm in diameter, they make a conspicuous show during their rather short flowering period. By the end of June, the bulk of the display is over, the foliage remaining for a couple of months or so before dormancy. They are presumed to be crosspollinated by insects but little is known about whether they produce much seed.

Listera cordata

Also appearing in early to mid June, but flowering over a longer period than *Trientalis europaea*, is the lesser twayblade, *Listera cordata*. Another rhizomatous plant, this diminutive orchid ranges in height from 5 to 24 cm. A pair of glossy, opposite, heart-shaped leaves is found a third of the way up the stem, which becomes mahoganyred above the leaves. The 4 to 12 flowers take on this mahogany colour, alternating with green. The overall effect of the stripy red-green inflated

ovaries and deeply forked lip gives this plant a charming appeal, although some would class it as a BIO (Botanical Interest Only). We dispute this strongly, at the same time

4 - Trientalis europaea, Aberdeenshire 5 - Listera cordata, Glen Doll recognising that a hand lens is necessary to appreciate fully its beauty. Perhaps part of its charm is the challenge, in the first place, of finding it. Once you get your eye in, it is not a problem. Just as well, as plants may easily be trodden on.

Listera cordata is frequently found in pinewoods, often on moss-covered boulders or on the woodland floor itself. It may also be hidden amongst rank heather on the open moor. This is a habitat it shares with some of the other pinewood plants, presumably as a relic from the days when the moorland was covered with trees, and in the same way that bluebells have survived after deciduous woodlands have been removed. L. cordata is circumboreal in distribution: in Scotland it is found in all but one of the botanically grouped vice-counties (based roughly on old county boundaries). Although it may be found as far away as the South-West of England, its distribution in the rest of the UK is patchy and local.

Linnaea borealis

It comes as a surprise to the non-botanist to learn that *Linnaea borealis*, the twinflower, is a member of the honeysuckle family (Caprifoliaceae). Linnaeus himself recognised it was wrongly named as *Campanula serpyllifolia*. Despite rather disparaging remarks he is said to have made, this was one of his favourites and was named after him - at his own behest - by his friend Gronovius.

Linnaea borealis is an evergreen spreading sub-shrub. Where conditions are favourable, stolons bearing opposite pairs of orbicular, pubescent and toothed leaves, 5 to 15 mm across, form dense mats. In open well-lit areas of pinewood it romps over mossy boulders and through shrubs such as Vaccinium myrtillus, forming extensive clonal patches. It is very occasionally found in heather moorland and amongst shady rocks. Glandular hairy peduncles 3 to 7 cm long divide into a pair of 'V' shaped pedicels 1 to 3 mm long, each with a terminal bell-shaped flower about 8 mm across. The flowers are externally a delicate shade of pink. The hairy interiors are marked variably with a splash of raspberry ripple. Close encounter with a hand lens is not essential but does help to appreciate fully the intricate beauty of the



Linnaea borealis, Aberdeenshire

flowers while enjoying their vanilla fragrance. Mid-June is usually the time to find them at their best. Unfortunately, in Britain, this Arctic alpine rarely sets seed and despite vegetative reproduction has become scarce. It is no longer found further south than Northumberland, where it is extremely rare.



Linnaea borealis, Aberdeenshire

The twinflower is the only plant in this article that we grow in the garden. At least, we grow the



Goodyera repens, Aberdeenshire

American sub-species, *Linnaea borealis* ssp. *americana*, acquired from a nurseryman. It looks rather incongruous at the base of a shady patio trough and is quite a mini-thug. Periodically, neighbouring crevice plants in the patio have to be rescued from its clutches.

Goodyera repens

The second of the woodland orchids, Goodyera repens (creeping lady's tresses), produces its creamy-white fragrant flowers on stems 8 to 25 cm tall in mid-July. The erect stems arise from the side of a basal rosette of reticulate ovate leaves. Despite their creeping nature, plants are normally found dotted around the forest floor singly, in small numbers or, exceptionally, in large clumps growing in moss and pine litter on the top of drystane dykes (dry stone walls) within the woodland canopy. In 2002 we discovered one such clump with over 30 flowering spikes. We monitor this clump every year, but it has been a shadow of its former self since the hot dry summer of 2003.

Goodyera repens is one of the three British pinewood rarities described in the botanical literature, the other two being Linnaea borealis and Moneses uniflora. Certainly, G. repens is confined almost exclusively to Scotland and northern England. The colonies that occur in East Anglia are thought to have been introduced accidentally on forest machinery or with



Goodyeara repens, large clump on a drystane dyke, Aberdeenshire

as locally common. This is particularly true of Deeside where we have found it within 20 miles of our home in Aberdeen, extending the length of the valley wherever suitable pinewoods occur. In one woodland we were puzzled to find several uprooted rosettes. We concluded that the cloven hooves of deer behave like daisy grubbers, leaving upturned rosettes like discarded divots. A similar thing happens with sheep and *Primula scotica* on the short cliff pastures of the far north coast. Rather than regarding this as an excuse to take these otherwise doomed plants home where we could not emulate their specialised habitat - we replant them in the moss and hope that some at least will survive.

Corallorhiza trifida

The primary habitat for the saprophytic coral-root orchid, *Corallorhiza trifida*, is willow and alder carr (scrub). It also occurs in pinewoods and, more rarely, in dune slacks. It is a rather unexciting plant 6 to 25 cm tall with a lax inflorescence of 4 to 13 yellowish-green flowers tinged with red. The white lip is spotted red. Being a saprophyte, it has no green leaves. This, with its insignificant flowers, makes it rather difficult to track down. It is confined to northern Britain and is rather rare, although underrecording might partially account for this.

Another orchid which should be mentioned is *Dactylorhiza maculata*, the heath spotted

transplanted seedlings of Scottish-raised *Pinus sylvestris*. We find it less rare than books suggest, and have made a personal crusade to inspect likely-looking habitats when we are out and about. It helps that *G. repens* rosettes are evergreen, meaning we can do this at any time of the year. In woodlands where it does occur we would describe it



Pyrola minor, Balbair Wood, Sutherland



Pyrola rotundifolia, Dolomites



*Pyrola media,*Aberdeenshire

orchid. It does occur in open, damper pinewoods, but it is something of an outsider from its preferred habitat of acid heath, upland moorland, wet flushes, deciduous woodland and scrub. It is Scotland's most common orchid, and is represented in every vice-county.

The Wintergreens ...

... have nothing to do with embrocation but are evergreen members of the Pyrolaceae. Five species occur in our native pinewoods: three species of *Pyrola*, the monospecific *Orthilia secunda* and *Moneses uniflora*. All produce creeping rhizomes and have loose rosettes of shiny leaves, orbicular to ovate, with crenulate or serrate margins. Indeed, when not in flower it is a challenge to identify one from the other. Their flowering season is generally early summer. All are cross-pollinated but may also self-pollinate as a last resort. The seed is very fine.

Pyrola minor

Pyrola minor (common wintergreen) has dense racemes of white to pinkish bells on 10 to 30 cm scapes. The style does not protrude below the petals. In addition to its pinewood habitat, it may also be found on open moorland, damp rock ledges and - occasionally - in dunes, although we have found it more often in pinewoods.

Pyrola media

The racemes of *Pyrola media* (intermediate wintergreen) are more lax than those of *P. minor* and the white to pinkish flowers are slightly larger (about 10 mm as opposed to 6 mm). The style of *P. media* protrudes below the bells and this feature makes the two species easy to tell apart. It too is to be found on moorland as well as in pinewoods, and we have frequently come across it on the moors. What we do find, however, is a much larger proportion of non-flowering rosettes on the open moorland than in woodland.

Pyrola rotundifolia

The round-leaved wintergreen, *Pyrola rotundifolia*, has so far eluded us in Scotland, although we have come across it frequently in Europe. Unusually, for the plants in this article, we came across some on limestone rubble in the Dolomites. Unlike the other two pyrolas, the pure white flowers of *P. rotundifolia* are campanulate and the style is characteristically 'S'- shaped. In Scotland, it is most commonly found in pinewoods, though it also occurs in bogs, fens and on damp rock ledges. It has a distinct tendency towards the eastern part of the country.

Orthilia secunda

The serrated wintergreen, *Orthilia secunda,* is perhaps the least attractive of the wintergreens discussed here, but one of the easiest to identify because of its secund habit, *i.e.* with flowers all on one side of the stem. The 5 to 12 cm scapes carry racemes of narrow bell-shaped greenish-white flowers (5 mm) with protruding styles. The one-sided flowers result in the scapes appearing arched. In habitat, it may also be found on damp rock ledges in addition to the more common pinewood location.

The distribution of the pyrolas and *Orthilia* is predominantly northern, but they crop up in other isolated British localities.

Moneses uniflora

Of the pinewood plants discussed in this article, the gem is surely Moneses uniflora, the one-flowered wintergreen. In Norway, it goes under the less prosaic common name of St. Olaf's candlestick. Dainty nodding white flowers hang on scapes 5 to 15 cm high. Single, fragrant and wide-open, the flowers are about 15 mm in diameter and turn more upright with age. Their creeping rhizomes are associated with mycorrhizal fungi, on which they depend for their wellbeing. Other members of the family depend less on this mycorrhizal presence.

Because of its charm and exquisite beauty,



Pyrola media, Aberdeenshire



Orthilia secunda, Culbin Forest, Moray



Moneses uniflora, Balblair Wood, Sutherland



Moneses Uniflora, Balblair Wood, Sutherland

Moneses has been a target for plant collectors in the past, leading to disappearance from all but a few locations. Within Britain, it is now confined to Scotland and is known from only twelve recorded sites, all of which are in the North-East of the country. It normally unwise to pinpoint the exact location of such a rare plant but one of the sites is widely publicised by Scottish Natural Heritage, which manages the Loch Fleet nature reserve in Sutherland. Not only do Moneses uniflora, Linnaea borealis and *Goodyera* repens feature in brochure, but it highlights these 'rare wildflowers' at flowering time in our local

newspaper, 'The Press and Journal', which has the largest geographical circulation area of any regional daily in Britain. The 100-year-old plantation of Scots pine in Balblair Wood, part of the reserve, is indeed a magical place for the wildflower enthusiast, although local dog-walkers are completely oblivious to the treasures that lie at their feet. *Moneses* is readily visible in quantity from the main path. In mid-June, we found no fewer than five of the species in this article flowering simultaneously, with *Goodyera repens* in bud to follow on.

Another good hunting ground for our pinewood treasures is the Culbin forest in Moray. This 9-mile stretch of coastal forest lies between Nairn and Findhorn on the Moray Firth. It was planted in the 1920s to stabilise the shifting coastal sands. It is the only place that we have so far found *Orthilia secunda* and *Corallorhiza trifida*. Among other species in the Culbin are a few rather poor *Moneses* which struggle to survive - not surprising as they are growing in an uncharacteristically dark, wet, mosquito-ridden part of the forest.

The Tentsmuir forest on the Fife coast is another coastal strip planted at the same time as Culbin, but with a mixture of *Pinus sylvestris* and *P. corsica*. We do not know this area well, but we did find *Goodyera*

repens on one brief winter walk, so it is quite likely to contain other species. Corallorhiza trifida is known to grow there.

The area around Morlich Loch in the Cairngorms is also a good area to explore. Indeed, there is no shortage of potential sites anv woodland of the type described is worth These investigating. pinewood treasures are definitely plants to be enjoyed in their natural environment rather than grown in the garden, unless you happen to have a garden surrounded by their natural habitat! We do know one SRGC member with such a garden where pyrolas grow spontaneously. If you live within striking



Balblair Wood

distance, seeing the plants for yourself is far more exciting than reading about them. Don't delay - who knows what effect global warming and harvesting of commercial forests will have on these vulnerable plants? All you need is a map, notebook and pen, camera equipment, and sturdy footwear. Oh, and yes, don't forget the fine point tweezers for dealing with ticks. A gentle pull is the recommended method for removing them intact (see http://www.lyme.org/ticks/removal.html).

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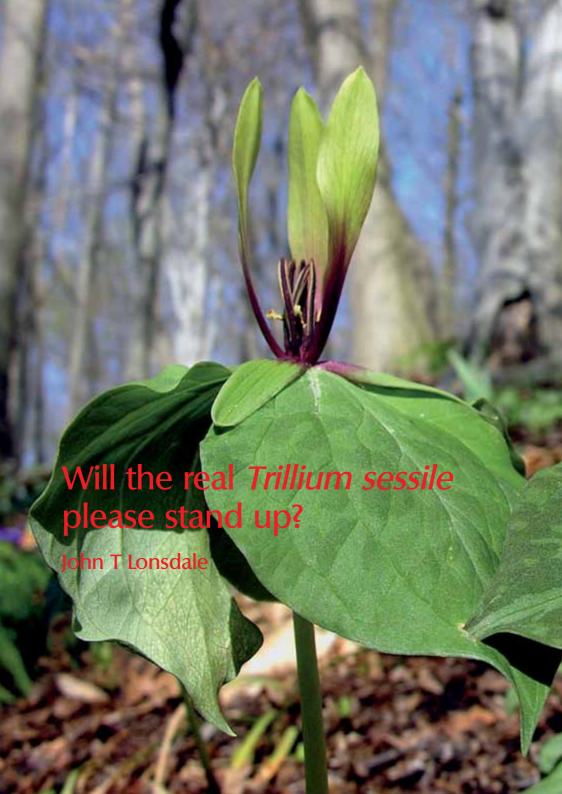
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Overleaf: Trillium viridescens. Above: Trillium stamineum (sessile)

oving to the USA in 1995 onto a property with over 1.5 acres of deciduous woodland provided the perfect opportunity to expand an interest in trilliums, particularly those of the southeastern states. These trilliums form the subject of this photo-essay.



Trillium erectum f. albiflorum (pedicellate)

All trilliums can be conveniently described as either sessile or pedicellate, i.e. the flower either sits directly on top of the leaves (sessile, Phyllsubgenus antherum) or has a pedicel (pedicellate, subgenus Trillium). In the latter, the flower can be erect or held below the leaves. The



21 - Trillium erectum

22 - *Trillium erectum* f. *luteum*

23 - Trillium erectum f. albiflorum

sessile and pedicellate trilliums are dissimilar in a number of ways pertaining to the leaf form, colouring and, especially, the flower structure. Both groups indispensable are elements of the woodland flora, providing superbly attractive foliage and flowers over several



24 - Trillium flexipes

months in the spring, the sessiles generally flowering earlier than the pedicellates, often starting in late February or early March, depending upon location.

Filled with enthusiasm but initially sceptical that the delineation of many of the described species was justified, after over 25,000 miles of travel in the Deep South I think I may now safely identify all of the accepted sessile-flowered species. Excitingly, at least a couple of populations of sessile trilliums that I have come across defy identification,





26 - Trillium vaseyi

even in the eyes of a confirmed 'lumper'. However, the pedicellate members of the 'erectum complex' (*T. cernuum, erectum, flexipes, rugelii, simile, sulcatum & vaseyi*) seem to be an unholy mess, defying definitive identification in any other than their purest forms. *Trillium pusillum* is easily recognized but suffers from a plethora of varieties, most of which are doubtfully distinguishable – at least in the absence of a DNA sequencer. *Trillium catesbaei* and *nivale* are well behaved and





Trillium underwoodii



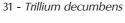
Trillium reliquum



Trillium underwoodii



Trillium decipiens





understand their role in the bigger picture.

Given these issues, and the fact that a number of the sessile species are barely in cultivation, it is understandable that many trilliums are misidentified. I hope this article goes some way towards clarifying the identities of members of this uniquely beautiful group of plants as well as highlighting some of the special forms that can be found.



32 - Trillium decumbens





Sessile Trilliums - subgenus Phyllantherum

T. decipiens, reliquum & underwoodii

With much common, these three should be species for grown their beautiful stunningly leaves alone, blotched in every shade of green and overlaid with streaks of cream and silver. The leaf markings remain fresh and bright from unfurling to dormancy, in sharp contrast to leaves of species such as Т. cuneatum which rapidly fade to muted and browns. Their flowers are also very similar, erect and generally coloured from a dark brown-maroon to rich red-maroon, although yellow-green forms may occasionally be found. As is the case with flowers of all sessile species, the colours fade with time but they are exceptionally long-lived. The major difference between them is one of



Trillium maculatum

stature of flowering plants, and the ratio of leaf length to stem height. In *T. underwoodii* the stems are 3" to 8" (8 to 20 cm) tall and 1 to 1.5 times the leaf length, whereas in *T. decipiens* the stem height is 15" to 18" (38 to 46 cm) and the ratio increases to over 3, the leaf size remaining similar. *T. underwoodii* from Alabama are much better garden plants than those from the Florida Panhandle, which like to rise in late January! *T. reliquum* is an almost decumbent plant, the leaves sitting on or just above the forest floor. It is quite different from *T. decumbens* in a number of



Trillium cuneatum

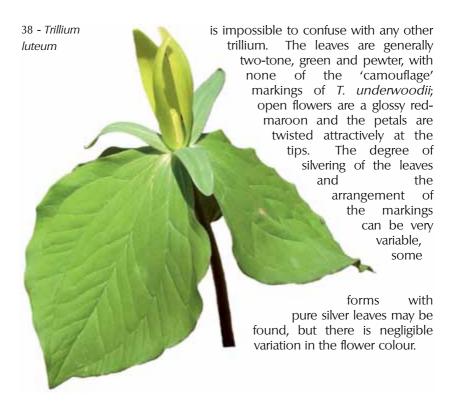
features, particularly its non-pubescent stem. An S-curve in the stem is quoted as being diagnostic but this characteristic is not reliable. Now to the problem - it is effectively impossible to distinguish between non-flowering plants of *T. decipiens, reliquum* and *underwoodii*.

T. decumbens

This gorgeous decumbent species has a diagnostic pubescent stem and



Trillium cuneatum leaf forms



T. maculatum

The 'maculatum' refers to the leaves, which can be strongly and darkly mottled. The flowers are tall, elegant and a clear redmaroon, lacking the brown overtones that flowers of many sessile species can have. The petal shape distinguishes this species from others superficially similar such as *T. cuneatum*. Pure lemon-yellow forms exist and, if you are incredibly lucky, you might find *T. maculatum* f. simulans with yellow and maroon bi-coloured petals.



Trillium discolor



Trillium foetidissimum



Trillium foetidissimum

T. cuneatum & luteum

T. cuneatum is easily the largest eastern sessile trillium and can be rather coarse but it is particularly spectacular when seen en masse. Petal colour varies from yellow through green to brown and deep maroon; leaves can be pure silver, green or strongly mottled. It is most similar to T. luteum, which is a large relatively invariant yellow-flowered species that is easily recognized.

T. foetidissimum, gracile & ludovicianum

foetidissimum T. relatively invariant in flower and leaf, although pure yellow forms can very occasionally be found. It seems to be more predisposed than most to throw forms with all-over silver leaves. In size and proportion it is similar to T. discolor and is quite charming. With dark red-maroon flowers, it has strongly mottled leaves and is true to name, the flowers emitting a fetid odour. It is the first to emerge in mid-March and can be damaged by late freezes. However. winter plants in more sheltered spots fine. been ludovicianum and T. gracile definitely fall into the category of hard-to-distinguish-between if you don't know their origin! T. ludovicianum complicates matters because it can co-exist with T. cuneatum with which it may intergrade. *T. gracile* & *ludovicianum* have a range of petal colours similar to that of *T. cuneatum* and the leaves are very attractively mottled; the plants are generally much smaller and more refined. *T. gracile* flowers in the wild in April, whereas *T. ludovicianum* and *T. foetidissimum* are in full flower in the first week of March. *T. gracile* is the last sessile species to flower in south-east Pennsylvania.

T. discolor

In comparison with the other normally yellow sessile trillium, T. luteum, this is a truly refined and quite distinct species. Although generally dwarfer in all proportions than luteum, verv robust individuals can be found. Unlike the acid yellow of T. luteum, the petals of T. discolor are a soft creamy to deeper yellow and, upon seeing large colonies, the effect is one of thousands of candles. The petal shape is uniquely spatulate, much broader at the tip than the base, and the stamens are purple. They are delightfully fragrant of lemons and particularly nice forms may have strong red flares extending up from the base of the petals. The leaves can be nicely marked but fade quickly.



Trillium gracile



Trillium discolor

44 - Trillium gracile (Background Image)



Trillium viride



Trillium viridescens

T. sessile

Т. sessile is most frequently misrepresented in cultivation; most of the plants bought or seen under this name actually correspond to T. cuneatum or one of the western sessiles, although the true plant is of much smaller stature than any of these. It can be a charming plant and very fine forms with excellent leaf mottling and petal colour can be found. In particular, I have seen vellow plants, and those with yellow flowers edged with purple, creating a very attractive picotee effect.

T. viride & viridescens

T. viride and *T. viridescens* are both large, green-flowered plants, sometimes with a purple base to the petals in the latter, and are frequently confused in cultivation. The leaf markings fade rapidly and are not particularly showy.



Trillium lancifolium





Trillium sessile



Trillium stamineum



Trillium recurvatum shayi



Trillium sessile

T. lancifolium, recurvatum & stamineum

Although these three species are related they are very easily distinguished from each other and from other species. None may be described as showy but each makes a unique contribution. They are also interesting because they have a propensity to form clumps, something that most trilliums will not normally do. T. stamineum is a medium sized species with small flowers, the fragrance of which can be rather However, the thin dark maroon petals are horizontally inclined and uniquely twisted along their length. T. lancifolium also has twisted petals in many forms, but these are long, thin and erect. It also has a unique appearance, taking its name from the lance-shaped leaves (which can in reality be much broader than lance-shaped). The stems can easily be up to 18" (46 cm) tall. Flower colour is variable, from dark red-maroon, through bi-colours almost to green. The rhizome is also unusual, being long, thin and very brittle. It tends to form tight clumps more frequently than most other trilliums. T. recurvatum is also easily identified with its petiolate leaves, recurved sepals and relatively short petals. It normally has a brownish-maroon to red-maroon flower and can be quite variable in size, petal colour and leaf marking. Plants with allover silver leaves can be seen and T. recurvatum f. shayi is a yellowflowered form.

Pedicellate Trilliums - subgenus Trillium



Trillium catesbaei



Trillium cernuum



Trillium rugelii

T. catesbaei

T. catesbaei is an exceptionally classy plant with distinctly petiolate plain green leaves, as is the case for all of the eastern pedicellate species. The flower is generally held below the leaves and is quite variable in size. The petals can be white to a stunning deep rose pink.

T. erectum complex (cernuum, erectum, flexipes, rugelii, sulcatum & vaseyi)

This is the section that could get me into real trouble! I'm probably on safe ground starting with the descriptions of the 'pure' plants, but you'll soon get the message that you may have more chance of winning the lottery than identifying correctly your pedicellate trillium from this group. All of the species have large plain green leaves. *T. cernuum* has



Trillium rugelii (detail)





Trillium sulcatum



Trillium sulcatum



Trillium sulcatum



Trillium sulcatum



Trillium sulcatum

white, strongly recurved petals in a flower held tightly below the leaves. Its habit of hiding its flowers beneath a large leafy canopy makes it not particularly showy. The stamens and ovary of T. cernuum are white whereas the anthers of *T. rugelii* are purple and the ovary is purple-streaked or maroon. The flowers of *T. rugelii* can be much larger than those of T. cernuum. T. erectum can be anything from 8" to 24" (20 to 61 cm) tall with flowers, flat and wide-spreading in profile, of white, red, maroon, yellowgreen or red-brown, the petals frequently tending to lanceolate. The flowers can be erect, straight out sideways or declining. T. flexipes is usually 15" to 18" (38 to 46 cm) tall. traditionally white with broader petals on erect flowers with a creamy-white ovary. where T. flexipes begins and ends is a mystery because forms with every imaginable ovary colour can be found and it becomes impossible to tell what is a white T. sulcatum, T. erectum f. album or T. simile. The latter is a very attractive large species, often forming clumps, with erect creamywhite flowers with a purple ovary. The overall impression of the flower is of a candle snuffer - broadly funnelshaped the ends of the petals flaring sideways. However, apart from the flower shape of this 'classical' form, it is no different



Trillium nivale

from *T. erectum* f. *album*. *T. sulcatum* is of similar stature and equally showy but has dark red-maroon to purple flowers with sulcate sepals and broad petals that are slightly flatter than those of *T. simile*. Occasional white, pink, cream and yellow forms can be found together with beautiful bi-colours and picotees. Last - but not least - is *T. vaseyi*, a spectacular species with huge deep red-maroon flowers up to 3" (8 cm) across nodding below the leaves. White-flowered forms are known and it is the last species to flower in south-east Pennsylvania. All of these subjects make superb garden specimens and it is important not to get too hung up on nomenclature.

65 - Trillium nivale leaf form (Background Image)



Trillium pusillum var. pusillum



Trillium pusillum var. ozarkanum

T. nivale

The Snow Trillium is by far the earliest flowering here in early to mid-March, long before most trilliums are even through the ground. The flowers are pure white to creamy-white, of heavy texture, prominently veined, and replete with beautiful golden yellow anthers. Although its leaves are unmarked, the best forms are a wonderful shade of blue-green, overlaid with a pewter caste, and often with the veins picked out with silver speckles.

T. pusillum

T. pusillum is a beautiful species but a rather confused little fellow, or at least it has managed to confuse a large number of botanists. There are currently 6 or 7 published varieties, but the distinctions between many are blurred. Suffice to say it is always very charming, dwarf (3" to 12", 8 to 30 cm) and has an upwards facing white flower. The flower often has ruffled margins and, in the manner of *Trillium grandiflorum*, fades to rose pink as it ages. The foliage of some forms is almost purple until it matures to a deeper green.

Of the eastern pedicellate species, only *T. grandiflorum*, *persistens* and *T. undulatum* have not been included. *T. grandiflorum* is universally grown and well understood. *T. persistens* is nationally endangered in the USA and is the least showy of all the pedicellate species. *T. undulatum* is instantly recognizable but is sadly the most difficult trillium to grow outside of its native range.

This article is not intended to cover aspects such as the distribution, cultivation or propagation of trilliums, much of which may be found in the two excellent books referenced below. I hope it encourages members to try more trilliums and to understand better those that they grow currently. Many more pictures of all of these species and forms can be found on my web site:

http://www.edgewoodgardens.net/Plants_album/Trilliaceae/Trillium/index

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chain of events made me go to Uzbekistan and Tajikistan. I had bought Phillips' and Rix's lavishly illustrated "Perennials" and their equally enticing "Bulbs" in the mid 90s. Often paging through them, I had practically drooled over Ferula kuhistanica on the slopes near Samarkand. Eremurus lactiflorus in the Chimgan Valley was also a strong motivator. In the fall of 2004 some friends and I came across Ostrowskia magnifica in Jim & Jenny Archibald's catalogue; everyone raved over it after seeing its picture in Phillips and Rix. And where was the picture taken? ...Tashkent Botanical Garden in Uzbekistan.

Uzbekistan is a landlocked country roughly the size of Sweden. Three fifths is steppe, desert, semi-desert and mountains; the rest is fertile valleys between the rivers Amu Darya in the South and Syr Darya in the North. In the East and South-East the country borders Kyrgyzstan and Tajikistan, in the North Kazakhstan, and in the South Turkmenistan and Afghanistan. The climate is sharply continental: most precipitation falls in spring, followed by a hot and dry period until October. The humidity is very low so the heat is not so bad even at 40°C. Winter temperatures fall to 30°C. The flora is rich and varied: more than 4000 vascular species grow here, a quarter of them endemic. Species are numerous: there are 110 wild *Allium*, 400 *Astragalus*, 90 *Artemisia* and about 40 *Tulipa*. In the 20th century thousands of the most decorative tulips were taken out of Uzbekistan to be used by the Dutch in their tulip hybridizations.

A good English friend, a specialist in the genus *Ferula* and umbellifers, was very encouraging and, as this genus is most concentrated in Central Asia, I looked forward to bringing him back some seeds. After three previous solo trips to Turkey I felt confident that I could handle Central Asia, but quickly realized that I would not be able to rent or drive a car: I would need an experienced guide and transport. I found a number of internet tour operators but stuck with Taskent's Elena-Tour, whose staff served me excellently.

Much of spring was spent in preparation - travel guides, trekking gear and a sleeping bag for temperatures down to freezing. With the Bishkek uprising at the end of March 2005, I was glad I hadn't chosen to go to Kyrgyzstan. Little did I know that in neighbouring Uzbekistan's Ferghana Valley on May 13, some 700 people would be massacred in Andijan. Elena-Tour reassured me that the protests had not spread to Tashkent ... but did they know? I spent crucial days debating whether to go, but at last went ahead. Tajikistan had been calm so far and in Chimgan, north-east of Tashkent, I would be out of harm's way. I planned no protests or political activities of any kind but would be in the mountains looking at the flowers. The foreign ministry advised against all trips but those absolutely necessary, so insurance was difficult to obtain. I finally found a Danish company to insure me but to not evacuate me in case of war. I checked daily with the ministry of foreign affairs; about two weeks before

leaving, it dropped the ban against the whole of Uzbekistan and just kept it for the eastern parts around Andijan, so I was clear to go.

Friday, July 22: I fly to Tashkent and arrive early on July 23rd. Passport control is chaotic and people have no concept of queuing. I pay an increased \$80 charge for a visa both to visit Tajikistan and return to Uzbekistan. Customs is easy and I soon spot my driver, holding a big sign with my name.

Saturday, July 23: Today I go to Elena-Tour to meet the manager Boris Karpov and my interpreter guide Vyacheslav Yurjev (Slava). We decide to leave for Samarkand tomorrow with my other guide/porter/cook Nikolaj (Kola). In the afternoon I visit the Tashkent Botanical Garden with my local guide Galina. The public part is a 22 acre arboretum divided into geographical regions. Many interesting species grow here and I find common language with Galina - who has no English - in the scientific names of plants. The decay of this place is heart-breaking; since the Soviet Union crumbled not much support has been given to scientific institutions, at least not in the botanical field. A handful of people, most of them past retirement, take care of this once magnificent botanical garden and I am certain it is a far cry from what it used to be.

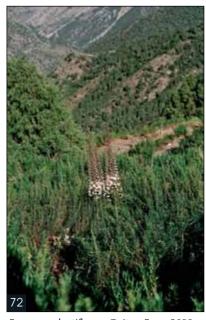
After lunch, Galina takes me to buy dried fruits and nuts for my forthcoming trek. They are ridiculously cheap by western standards as is the replacement for my broken watch at only \$6! I walk the city centre by myself, not stopped once by the policemen the travel guides had warned about. After dinner I hail a cab. In Tashkent everyone is out to make an extra buck so every car is a potential taxi but it's wise to negotiate the price first. In the evening I think about the adventure that lies ahead and I dream of new and exciting flowers.

Sunday, July 24: The road to Samarkand is by no means golden but is bumpy, ill kept and dotted with police checkpoints. For about four hours it is a monotonous stretch of factories and cotton fields along a flat dry landscape.

Monday, July 25: We buy a heap of fresh non-bread (flat pitta-like bread) before we leave Samarkand. After a change of driver at the border with Tajikistan we stop at Penjikent where we stock up on fruit and vegetables for the hike. On the horizon, I can see the Fan Mountains. They are part of the huge spur jutting westward from the Pamirs, tucked between the Zeravshan range to the North and the Gissar range to the South. Their main ridges are metamorphosed limestone with secondaries of shale. The rounded shale slopes are covered by turf; extensive screes are found in the upper reaches of rivers, at the foot of ridges and on the lower passes; limestone walls tower above the valleys. Glaciers and permanent snow fields lie above about 3400m, particularly on northern slopes. The annual precipitation is about 260 mm - half that of Stockholm. Valley climate is moderately warm from 15-20°C in July. Winters are mild



Eremostachys, Guitan Pass



Eremurus lactiflorus, Guitan Pass, 2600m

but long and the coldest month, January, is -5°C to - 7°C. Above 3000m, temperatures rarely exceed 1-10°C.

Bad Uzbek roads are as nothing compared to Tajik roads, all in dire need of repair. After a bumpy ride we arrive at the hamlet of Zimtut next to the Archamaidan river at 1920m. Heavy rains have flushed away part of the road to Artuch, so we have to hike across the Guitan pass at 2600m. I'm very excited. After lunch at a local home we set off with a hired mule and mule driver, Karim.

I see my first Ferula plants, about 50-70 cm tall and very stout where they grow on the rocky slopes. They are full of seeds with a distinctive smell, and the whole plant has a wine-red colour. Perovskia bloom with their beautiful bluepurple sprays of flowers and Crambe kotschvana is another common denizen. We pass the village of Guitan, where the houses are made of clay and rocks which blend very well into the surroundings. Local farmers seem to favour Ferula as winter fodder and, in small pastures above the village, grass and other herbs are also harvested. We rest for a while on top of the pass where Eremurus lactiflorus towers over low bushes. I will never forget the sight of these white spires, 120 cm tall against the peak-bestrewn landscape. These are the Fan mountains - dreamt about for six months - and now I'm here!

The hike into the Urech river valley is through shrubbery and open juniper forest. I see many waist-high *Ligularia* on the east of the ridge, and

in all sorts of habitats among the Fans. Once at the river I am bushed and have to check my blood sugar: I've been living with diabetes since I was four, and know the necessary drill. At the trekking base camp at Artuch there has been a power failure so we have dinner by candle light.

Tuesday, July 26: At breakfast Slava tells me the first day is usually the toughest, and then it gets better. Perhaps he is right, because the 600m rise along the trek from Artuch to the Kulikalon Lakes feels easier and of course the scenery gets more and more dramatic.

We ascend the narrowing Urech river valley, crossing screes where vegetation is very sparse. At the crest the river cascades down a waterfall. Opposite are great stands of *Heracleum* and right on the bank grow *Aquilegia* about 30 cm tall with light-blue sepals & spurs and white petals. Here also are stands of snow-white *Parnassia cabulica*, as well as the creeping *Codonopsis clematidea*. As we mount the next ridge, some of the 14 Kulikalon lakes come into view and their turquoise surfaces, framed in jagged ridges with four peaks from 4700m – 5120m (the Kulikalon wall), are stunningly beautiful.

At the camp we have plenty of time to wash, fish in the icy water and enjoy the scenery. Minute intensely blue gentians grow right on the edge of the small lakes. Shepherds live here during the summer so the area is heavily grazed, but one plant grows close to the ground and

seems missed by the sheep. It is *Inula rhizocephala*, with ground-hugging flat rosettes and one to four 3 cm yellow flowers.

Wednesday, July 27: We start early, cross an unusually swollen stream and head up the pass. The hike is very steep and extremely exhausting and I keep going by sheer will-power but I'm not about to complain. Slava and Kola carry heavy rucksacks while mine is a fairly light daypack and the mule carries the rest. We stop under a juniper tree to eat some old, Russian chocolate but it tastes great. Near the saddle of the pass I notice some very nice steelblue foot-high delphiniums with black filaments. A cream coloured Trollius species grows in the grass. There are odd patches of snow. On the pass we stop to admire the Alaudin Lakes deep below us and the



Inula rhizocephala, Kulikalon Lakes, 2900m



Dracocephalum, Alaudin Pass, 3860m

imposing Mount Chapdara behind at 5050 m. The pass is predominantly scree and I notice a small brassica, *Chorispora*, as well as purplecoloured and very hairy tufts of *Astragalus*. On the way down into the Chapdara River Valley are a lot of peculiar looking rhubarb plants and Karim tells me the stems are edible. I lag behind the others to look at plants: a pink *Dracocephalum*, creeping over the rocks; white flowered *Nepeta*; a small onion which could be *Allium rubellum*; and many more.

We lunch by a small stream, and it's beautiful. Food never tastes so good as outdoors in good company. Kola is humorous, Karim is informative, Slava tries to translate, but when shifting between languages the point gets lost. More of the cream *Trollius* - perhaps *lilacinus* -

grow here by the stream, and most plants have ripe seeds. This is also prime habitat for a light-pink *Primula*, 20 cm tall with a tight rosette of narrow leaves. A very blue *Veronica* with fleshy, almost succulent, leaves creeps in the moss and in seepage areas.

We camp south of the lakes at about 3000m. On their western side I find very interesting species. Yesterday's *Aquilegia* grows here but on a cliff wall it is only about 20 cm tall whereas by the lakeshore it is three times as high. The flowers are identical; it must be a variable and adaptable species. On the same wall is a charming little sprawling *Campanula* with white hanging bells which have dark red stripes. There is also a tuftforming *Campanula* with very small narrow-petalled flowers *en masse*. On a nearby stony slope is a pale yellow *Centaurea*, about 70 cm tall, together with grand *Scabiosa spectabilis*, with 6 cm wide pink-purple flowers. I soon encounter my first tulip, a 5 cm mini version. Only the dry seed capsule and a few seeds remain. I end the day with Kola's great borsch (beetroot and potato soup) over the open fire.

Thursday, July 28: We hike 7 km up the Kaznok valley to Mutnoye Lake at 3550m. Ice-blue delphiniums stick up between the rocks and *Allium carolinianum* grows abundantly in this stony landscape. *Lindelofia stylosa* is in bloom, a very handsome plant with burgundy flowers, and yellow stamens sticking out beyond the petals. There are mats of

Chorispora with white flowers in the centres of rosettes of parted leaves. At the pass at 3800m we see the lake beneath us and Kola says "Welcome to the rock box!"

The description fits - rocks of all sizes surround the dark waters of the lake and now we see Chimtarga, at 5489m the tallest peak in the Fan Mountains. At about noon we say goodbye to Karim and the mule; for the rest of the trek we are alone.

There are new plants along the lake: *Pterocephalus* with pink flowers; a blue *Nepeta*; a little daisy with greytomentose leaves and a dark ring around the central yellow disk flowers. I find pink-flowered *Chorispora* and nice stands of *Papaver croceum*. On the flat gravel banks around the lake, which probably varies in size from year to



Allium carolinianum, Lake Mutnoye, 3600m



Lindelofia stylosa, Lake Mutnoye



Pterocephalus on the banks of Lake Mutnoye



Parrya or Chorispora, Lake Mutnoye

year, I see a peculiar little brassica which has inflated seed capsules and looks like a dropped cluster of grapes. The only sounds are the lake's small waves and a distant stream descending from the glacier below Chimtarga.

Friday, July 29: It's the toughest day, when we walk up to 4600m to spend the night before crossing the Chimtarga pass tomorrow morning. Kola carries his own rucksack and mine - certainly one strong guy. Not far above the lake is my first Corydalis fedtschenkoana. It is in seed, in large inflated capsules a little yesterday's species but much bigger. The attractive hard stiff grey-green to purple foliage is much dissected. The flowers are in big, tightly packed clusters and are pink-white with darker markings. Slava and Kola just smile; they probably think me crazy but who wouldn't be when encountering a species like this?

The air gets thinner, and it is more and more strenuous to walk. We have to jump over a glacier crack; although only about 60cm wide it is very deep. We see Siberian ibex up by the mountain wall. They are expert at speeding over scree-slopes, which can't be said for ourselves, but we slowly ascend. Lunch of tinned herring, chicken hot dogs, bread, onion, nuts and dried fruits washed down with some vodka gives us energy and it feels easier as we approach our goal. At 4200m, I start to see new plants once more: a member of the Brassicaceae with hairy leaves and purple-white flowers in tight clusters; and a yellowflowered Alyssum here and there in



Gone to seed, Lake Mutnoye



Corydalis fedtschenkoana, on the way to Chimtarga Pass



Seed capsules, Corydalis fedtschenkoana

the scree. This must be what the ibex eat because there are no other plants here whatsoever.

Saturday, July 30: After a night of thunder, lightning, cold and snow we breakfast. Water boils at about 80°C here, so it's difficult to boil the eggs. Then we start up to Chimtarga pass. It is extremely exhausting. I walk about 10m at a time, catch my breath, focus on the next rock, walk to it, and so on. It takes an hour to reach the pass and it's an amazing feeling to be there at 4740m. It's the highest I have ever been and, on the opposite side, Chimtarga rises majestically.

We eventually reach the bottom of the valley without any major injuries. We have lunch near some really big and impressive cushions of *Potentilla* with small, light-yellow flowers, next to a member of the Crassulaceae with blood-red flowers. Along the upper Zindon river are more *Corydalis fedtschenkoana* and yellow-orange *Papaver* which might be *P. croceum*. Further down, the stream enters an open gravelly basin where Kola finds edelweiss, *Leontopodium*, not very attractive but with exquisite scent. Close by in a moist grassy area I find beautiful knee-high stands of *Swertia lactiflora*. As we move lower more plants emerge. A plant I haven't seen before is the rose-look-alike bush *Comarum salesovianum* (*Potentilla salesoviana*), which has shiny dark-green leaves and beautiful white - quite large - flowers. The trail leads through a valley with huge rocks left from a game played by the Gods. Here I find the most hairy and charming *Phlomis* I have ever seen, with large pink flowers, and nearby is a pale lilac *Saussurea* about 10 cm tall.

The Bolshoi Allo lake at 3150m is the most beautiful I have seen so far. It was formed in 1916 by a landslide and the water is really turquoise, contrasting sharply with the dark surrounding cliffs. There are beautiful dark blue *Campanula* and tall stands of grey-blue *Delphinium* here with plenty of junipers and trees, so we make a fire for tea and a dinner of buckwheat, tough meat of uncertain origin and some old bread.

Sunday, July 31: We spend the whole day at the lake, and Slava and I will go to Vierkhnyi Allo Lake, which is smaller and to the South-East. Slava believes the water level is about 10m above normal this year and the trail along the shore has submerged, so we climb up the cliff to find a complicated traverse. We manage to descend via the scree on the other side of the cliff. Some nice *Phlomis* are in bloom and by the shore there is more of the blue–grey *Delphinium* emerging from the water, unfazed by saturated growing conditions.

Up here on the stony slopes are interesting *Erigeron* species, a large-flowered, low-growing *Geranium*, and a small *Allium* about 5-10 cm high – perhaps *Allium oreophilum*. Another *Allium* is quite tall, approximately 50 cm, with round, rather thick hollow stems. In flat grassy areas by the stream are hundreds of *Geranium* species in bloom, probably *G. collinum*. There are also several *Leontopodium* here on fairly moist ground, as well



Papaver croceum, Chimtarga Pass



Delphinium in Bolshoi Allo Lake, 3180m



Rosa species at Bolshoi Allo Lake, 3180m



Campanula, cliff ledges, Bolshoi Allo Lake

as a beautiful white *Pedicularis*. I am very happy to find a ripe seed capsule of the orange–yellow *Papaver* species I have previously seen in bloom.

I climb a little higher on the way back to camp, instead of walking on the jutting out ledges. It feels safer and I hope to see some new plants. Sure enough, there are some really choice ones. In the rock crevices I see small tufts of *Semiaquilegia* - with neither flowers nor seed - and several specimens of a *Campanula*, forming small tufts of hard leaves topped with light-blue bells. A cushion-forming *Silene* such as I saw at the Alaudin lakes also grows in the crevices but here it is still in bloom. In moist shady places along the base of the cliff wall I find some serrated leaves - it's a *Primula* with stalks about 30 cm tall and, judging from its withered flowers, they were pink-purple.

Monday, August 1: It's the last day in the Fan Mountains. We leave Bolshoi Allo through the jumble of rocks on the northern side of the lake and descend through the Zindon river valley. This day proves to be very versatile botanically and I encounter more specimens than on any day before. In an opening against some big rocks there are dozens of waisthigh *Comarum salesovianum* bushes. Along the way are 3-5m tall *Lonicera* with orange berries, *Prunus* with small sweet-tasting cherries, and woody *Ephedra* about two metres tall. Their thin grey-green branches are studded with orange berries. I also encounter some *Atraphaxis*, possibly *A. pyrifolia*.

The herbaceous species are innumerable. Among the highlights are 50 cm *Cortusa* growing in rocks and along the edges of the rushing stream, and *Allium* 1m tall with seed heads about 15 cm wide. *Thalictrum* occurs in dappled shade but also in more open habitats. I find a *Campanula* some 50 cm tall with a clustered seed head like *C. glomerata*. The *Delphinium* that was in flower up by the lake is both in flower and in seed at this lower altitude. Later on I run across *Ferula* again, about 70 cm tall with purple colouring to both stem & seeds and with a strong, faintly unpleasant odour. Slava says that many clients complain about a skin rash from *Ferula* but I am certain it comes from large streamside stands of *Heracleum*, whose sap causes phytophotodermatitis. As we get lower I see tall white flowers growing up on a slope, and my heart starts racing. I think it might be *Ostrowskia magnifica*, run up the slope, get half way up within minutes, but then see disappointedly that it's not *Ostrowskia* but is *Alcea nudiflora*.

A bushy and upright white-flowered *Clematis* grows on the scree slope next to the trail. Its roots are probably deeply buried to reach water. As the trail winds lower I notice big rosettes of some member of the Boraginaceae. They are about 70 cm in diameter with a flowering stalk about 1m long. Eventually, the Zindon river runs into the Amshut, and we put up camp soon after their confluence.



Potentilla or Sibbaldia, Chimtarga Pass, 4000m

Tuesday, August 2: A car collects us and the drive back to Penjikent goes without problems.

Thursday, August 4: After a short stay in Samarkand I am picked up in the morning by the driver and we set off for Tashkent. Elena-Tour has arranged for me to visit the Department for Plant Systematics at the Botanical Garden of Tashkent. There, we discuss the local flora and that of Chimgan, where I am headed tomorrow.

Friday, August 5: Chimgan lies 60 km north-east of Tashkent, part of the Chatkal Range, a spur of the western Tien Shan. We head up the Beldersay river valley. Almost instantly I stumble upon several rather slender 150 cm tall *Ferula*. I also find a praying mantis. There are many new plants, and I am fascinated by a *Dipsacus*-looking plant with tall stems and big globular purplish-blue flower heads the size of a plum. A *Cousinia* some 120 cm tall has yellow flowers with nicely contrasting purple stamens. On a little island in the stream I encounter an *Angelica*

170 cm tall, and there is also a peculiar tropical looking plant somewhat resembling *Cannabis*. It is much later that I learn the true identity of this plant: *Datisca cannabina* - it grows in thick stands, reaching 3m.

We lunch under a huge cherry tree with lots of seeds underneath, discarded by feasting birds. The area here consists of pink granite gravel. I find several *Arum* in the vicinity with their red clusters of berries. A tall *Ligularia* catches my attention with huge leaves and an elongated raceme, maybe 50 cm long, leading me to think that it could be *L. macrophylla*. Approaching the camp we see several flowering *Ungernia sewerzowii*, a plant shunned by grazing animals. A member of the Amaryllidaceae, its narrow trumpet -



Ligularia macrophylla, Big Chimgan



Verbascum species, Beldersay ridge



Eremostachys, Big Chimgan

shaped flowers on foot-high stems are brick red. In the vicinity, I find Verbascum well above two metres high. This genus is scarce here compared to Turkey where there are mulleins along every road; the genus Salvia also has fewer representatives here but I find a purple-flowered specimen. The only other species I have encountered has been Salvia sclarea. I realize that a small woolly species seen on my first day in the Fan Mountains and growing here on rocky exposed ground Eremostachys, perhaps E. speciosa. A taller species of the same genus also grows here, approximately 1m tall, with white to pale-pink flowers.

Saturday, August 6: Today we walk along the Beldersay Ridge on a steady strenuous ascent. The leaves of some Rheum have shrivelled up but the tall flowering stalks with big rust-red seeds are very ornamental in the morning sun. I pass several tulips and more of the woolly Eremostachys speciosa. A blueflowered Aster some 40 cm tall is in flower and seed. Soon after this find. we reach some 3000 year old petroglyphs of hunters with bows, arrows and spears. Slava finds a fossil shell, evidence that this area was covered by the sea millions of years ago.

Sunday, August 7: I am woken early by baaing sheep running right through our camp. Their shepherd is on a horse gathering them. He has some breakfast with us before he resumes hollering and shouting to keep the sheep moving. We cross the steep Tahta Pass in sunny weather but it is cool at this altitude

even in August. The trail then leads between rocks and the vegetation becomes more varied and interesting. There are plenty of the *Rheum* with their beautiful flowering stalks and ruby red seeds, and a *Polygonum* with sprays of white flowers.

Further down are many seeded Tulipa about 30 cm tall, together with more Fritillaria and Astragalus with its cool-red flowers and seed pods expanded into little redspeckled balloons. Allium oreophilum is another stunner in full bloom with cerise flowers on a short stalk, contrasting against the rocks. A little further away next to a mountain see some fantastic specimens of *Eremurus cristatus*. The plants are a little over a metre tall, and some are still in flower. The flowers are white, each petal has a reddish brown line in the middle, and the stamens are also reddish brown. Each flower is a work of art feeling like the biggest treasure imaginable.

A cool and moist slope with some snow still left is full of buttercups with hairy leaves, together with a large-flowered *Gagea*. I find some blooming *Solenanthus*, a fascinating and very beautiful species of the Borage family, which in my opinion deserves better recognition among gardeners.

Monday August 8: We are again woken by baaing sheep moving down into the valley. The hike up to the Komsomolets pass (2700m) only takes 15 minutes and the view into the valley of the river Mazarsay is very beautiful. Here on the northern side



Eremurus cristatus, Big Chimgan



Anemone species, Komsomolets Pass

it's very green but there is a steep decline into the valley and this place stays very cool even in the height of summer. Around the pass I find white-flowered *Ranunculus* from 20 cm up to almost 50 cm. It is somewhat like *Ranunculus aconitifolius* and grows all the way down to the headwaters. It's really tricky to descend on the wet grass but I notice some new plants: one a very beautiful *Dianthus* with large frilly, white flowers, similar to *Dianthus superbus*; and later I almost land on an interesting tall Apiaceae representative. When we get down to the snow field, which is like a lid over the stream, I notice a minute *Gagea* in the clay by the side of the snow. It is about 4 cm tall and has a tiny yellow flower.

Crossing the snow field and heading up the ridge over to the Gulkam valley, one of the first flowers I notice is *Delphinium semibarbatum*, flowering and forming green seed capsules. To my delight I find this yellow flowered larkspur growing abundantly in open clearings and at lower levels the plants have plenty of dry seed capsules. The landscape changes quite dramatically during today's trek. from barren alpine slopes to bushes and small trees. We seem to have walked through three seasons in a single day.

Passing a cliff, I notice some big, green, compact and hard cushions: it could be *Dionysia* or *Androsace*. I collect a small amount of seed from a few remaining flowering stalks. On the same cliff is a low cushion-forming *Campanula*. The rock is quite porous and looks similar to tufa. Further along I encounter one of the highlights of the day: several 60-70 cm tall specimens of *Paeonia* are growing in grass between bushes on a slope and the black seeds shine like pearls. It is possibly the species *Paeonia anomala*. The *Dipsacus*-like plants from my first day at Chimgan are returning and, in flower, they now look wonderful. We lunch late by some large birch trees, as well as pines, oaks and maples. Around this camp site I encounter a new *Fritillaria* which is a statuesque plant rising 50 cm tall and almost always growing in proximity to *Salix* bushes. The seed capsule is 5 cm tall and at least 3 cm wide with the wings.

Before reaching the Gulkam canyon with its rushing river, the rocks change to a pink granite and there is a lot of coarse granite sand. An enormous root of *Ferula* has been partially exposed where it grows in the dry gravelly soil next to the path. These plants must take many years, perhaps even decades, to build up a root stock like this and then to be able to flower. There are some very imposing stands of *Datisca cannabina* at the mouth of the canyon in the stony river bed, and very tall *Alcea nudiflora* plants with lots of seed higher up the slopes. Another nice and very ornamental plant here is a robust, 1.5 m tall *Achillea* with corymbs at least 15 cm wide and a warm yellow colour, like an *Achillea filipendula* on steroids.

This is the last night in the wilderness and I feel a little sad that my adventure is ending. We three have got to know each other a little and it

has been a great experience. The frogs start croaking as night falls and a couple of owls accompany them in their nightly serenade.

Tuesday, August 9: The next morning we hike up the stony valley to the Pesochny pass at 1830m. "Pesochny" means sandy, an apt description as there is plenty of pinkish sand. At the top I see a small *Stipa* and collect a few seeds. It is about 30 cm tall and the awns are not at all as long as they can be in some species of this genus. The trail down to Chimgan village leads us to the car. We load up and say our goodbyes.

By noon I am back at Tashkent Botanical Garden and the lady I met there before has had permission to give me some seeds. I end up with a few bags: *Salvia deserta, Stachys lavandulifolia, Agrimonia asiatica, Linum mesostylum* and a bulb of *Sternbergia lutea*. She is very interested in my experiences at Chimgan and asks me if I found any seeds. Once again I wish I spoke Russian.

I leave with a head full of vivid memories: plants, mountains, people and places; and my heart is full of associated feelings. I have tried to describe some of these memories to you but to describe the grandeur of Nature is an almost impossible task.

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Editor's note: A complementary perspective on Paul's expedition is published in the NAGS Rock Garden Quarterly 65(1), winter 2007.



Meconopsis x *Cookei* 'Old Rose'

Meconopsis x cookei 'Old Rose'

Ian Christie

n my recent visit to China to an area where *Meconopsis quintuplinervia* and *M. punicea* occur together in large numbers I was lucky enough to find the long-reported naturally-occurring hybrid between them. *M. quintuplinervia* is a stoloniferous perennial with nodding blue bells: *M. punicea* is usually monocarpic with bright red, silken, pendant petals. In the wild, the flower colour of the hybrids ranges from muddy purple to faded pink, none of which would inspire or attract the attentions of a discerning gardener.

Randle Blair Cooke of Kilbryde, Corbridge, who died aged 93 on 13th Oct 1973, was the first to make the deliberate cross between Meconopsis punicea and M. quintuplinervia that now bears his name. In his words (from James Cobb): "Meconopsis punicea with scarlet flowers has usually died after flowering in this garden, though in some other gardens it may live longer". To try to get a good perennial meconopsis with scarlet flowers, M. punicea was crossed with M. quintuplinervia, the idea being to cross the hybrids with themselves, but this could not be done because they are sterile. However, this F1 hybrid proved to be a good perennial and some people like its ruby colour. It has been named Meconopsis x cookei: it is now doubtful if the original is still in cultivation.

In his book, James Cobb refers to *Meconopsis* x *cookei* as being a muddy purple-red. He believed at the time of writing that the plant was almost lost to cultivation. Similarly, Christopher Grey-Wilson describes

Meconopsis x cookei as "a rare plant of little merit, with muddy purple flowers borne on lanky scapes."

Several years ago I met Leslie and Avril Drummond, who had moved to Forfar. They have been members of the Scottish Rock Garden Club since 1964 and are avid gardeners. Whilst on a visit to their garden - full of interesting plants - it became apparent that Leslie is especially keen on raising Asiatic primulas. He went to great lengths to propagate them by division and by raising these difficult plants from seed.

Leslie has been very supportive of the work of the Meconopsis Group and has addressed it several times about his hybridising experiments and methods of cultivation. I have also benefited from many discussions with Leslie, who is always willing to share information and donate seed and plants. Leslie began hybridising Meconopsis in 1996 when he transferred pollen from *M. quintuplinervia* (Kaye's compact form) to the style of a M. punicea flower whose petals and immature stamens had been removed. The resulting pod contained several fat seeds which were sown in a pot in November and placed outside. They germinated in February 1997, the resulting plants being planted out later that year. Several of these plants flowered in May 1998 and, as expected, different sizes and colours emerged within the group. All were in attractive shades, with the colour and shape being intermediate between the two species. The young plants were left to grow in the garden for observation, and during subsequent years the rosettes of leaves multiplied readily. It was found that plants could easily be propagated by division and Leslie distributed





Meconopsis punicea 7/8 Hybrid

some to friends, including Dr Evelyn Stevens and me. Evelyn noted that one of the clones she had received possessed large, rich rose-pink, pendant bells, had great vigour and was easy to propagate by division. Since then, this clone has multiplied and been divided a number of times, proving reliably perennial. Several of the *Meconopsis* Group members - including myself - received young plants to try.

My plants flowered the following June, coinciding with a visit from Meconopsis Group members and a RHS event at my nursery. The plants provoked much interest, admiration and discussion from everyone who attended. Indeed, the plants were so vigorous that, after flowering had finished, they were divided again and replanted. I was able to purchase several more young plants from Evelyn and lined them out in stock beds for future propagation and sales. After several years, this particular clone has proved so reliable that in 2005 it was agreed to be worthy of naming. The name Meconopsis x cookei 'Old Rose' suggested by Leslie and Avril - was deservedly adopted.

Evelyn has been responsible for raising many plants successfully, dividing them during summer when conditions happen to be cool and damp, and through to September, October or even later. Evelyn divides plants, then immediately re-plants in a nursery bed, which she finds most successful.



Meconopsis punicea 7/8 Hybrid

For myself, I divide and pot up the small crowns in June and July, replanting the larger divisions into a stock area.

I consider that this cross, made by Leslie and promoted by Evelyn, will prove to be one of the best new *Meconopsis* introductions made in this century. *Meconopsis* x *cookei* 'Old Rose' is a most garden-worthy perennial and R B Cooke certainly would have approved. I have exhibited it at "Gardening Scotland" where it attracted the attention of the media and many garden enthusiasts. This wonderful plant with rose-pink pendant bells adds a touch of elegance to our garden and is a credit to the producer.

Over the past few years Leslie has continued his efforts to create better hybrids. In 1998, in a bid to develop a perennial closer in colour and shape to *M. punicea*, *Meconopsis* x *cookei* was back-crossed to a pure *M. punicea* flower. Good seed was set and duly sown. One selected seedling of this "3/4 *M. punicea*" hybrid appeared very promising, inheriting a good red shade, approaching that of *M. punicea*. After flowering in 2000, divisions were made but they seemed less robust than the original plant, so Leslie again back-crossed his new plant to pure



Meconopsis punicea New

M. punicea. The resulting seedlings flowered in May 2002. Two of these "7/8 M. punicea" hybrid plants turned out identical to true M. punicea in flower size, shape and colour. These two clones were cross-pollinated by hand, and yielded fertile seed. Plants raised from this seed were distributed for trials. Some had poor muddy flowers in 2004 and were discarded. Others looked exactly like pure M. punicea but, unfortunately, neither divided easily nor survived the winter after flowering, thus following the pattern of M. punicea. However, one of these plants in Evelyn Stevens' garden did not flower in 2004 but survived the winter and developed numerous crowns. The plant flowered the following spring, producing many very beautiful double flowers in a rich satin red. It also shows promise of a perennial habit, forming offsets which will root slowly in open ground. Only time will tell if this plant will continue to do so.

I am pleased to say this is not the end of our story: we received some seed of *Meconopsis punicea* in 2003 from a collected wild source in China. Chris Grey-Wilson has mentioned a perennial *M. punicea* in his book but I do not think anyone has grown one from wild seed other than Evelyn Stephens, Leslie Drummond and I. Leslie and I have plants that

produce offsets after flowering, again suggesting a possible perennial habit. One very interesting plant here in Kirriemuir has a flower colour, so far unique among these plants, which is very difficult to describe - a sandy red, fading to salmon pink.

I particularly like this plant and have divided the small rosettes - which are growing well. We were also given slides taken by John Mitchell on a recent trip to China, showing interesting variations within wild hybrids of *Meconopsis* x *cookei*, so perhaps we will have the opportunity to add yet another chapter.

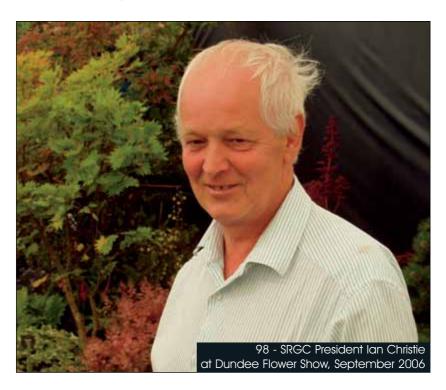
I take great pleasure in highlighting in this article the painstaking work in crossing *M. quintuplinervia* and *M. punicea* by hand and in describing the exciting results. I am indebted to Leslie & Avril, Evelyn Stevens, James Cobb, John Mitchell, and my wife Ann for their assistance with this article.

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SRGC JOINT ROCK GARDEN PLANT COMMITTEE

The following recommendations were made at SRGC shows in 2006.

DUNBLANE - 18th February

Awards to Plants

Certificate of Preliminary Commendation

(as a hardy flowering plant for exhibition)
To *Helleborus purpurascens* exhibited by A J Richards,
Hexham.

EDINBURGH - 8th April

Awards to Plants

Award of Merit

(as hardy flowering plants for exhibition)

To Saxifraga dinnikii (dark form) exhibited by C Lafong, Glenrothes.

To Fritillaria kotschyana 'Craigton Max' exhibited by F Hunt, Invergowrie.

Awards to Exhibitors

Certificate of Cultural Commendation

To B Davidson, Gatehouse of Fleet, for a pan of *Androsace* nivalis var. nivalis

GLASGOW - 6th May

Awards to Plants

First Class Certificate

(as a hardy flowering plant for exhibition)

To *Androsace studiosorum* 'Doksa' exhibited by C Lafong, Glenrothes.

Certificate of Preliminary Commendation

(as hardy flowering plants for exhibition)

To Gentiana acaulis f. alba exhibited by S & D Rankin, Lasswade.

To *Primula* 'Kusum Krishna' exhibited by G Butler, Rumbling Bridge.

Awards to Exhibitors

Certificate of Cultural Commendation

To C Lafong, Glenrothes, for a pan of *Androsace* studiosorum 'Doksa'.

ABERDEEN - 20th May

Awards to Plants

Award of Merit

(as a hardy flowering plant for exhibition)

To Lewisia leeana 'Alba' exhibited by C Lafong, Glenrothes.

Certificate of Preliminary Commendation

(as hardy flowering plants for exhibition)

To *Meconopsis* x *cookie* 'Old Rose' exhibited by I Christie, Kirriemuir.

To *Phacelia sericea* exhibited by P Maguire, Newcastle upon Tyne.

Awards to Exhibitors

Certificate of Cultural Commendation

To C Lafong, Glenrothes, for a pan of *Lewisia leeana* 'Alba'. To A Newton, Ponteland, for a pan of *Haastia pulvinaris*.

EDINBURGH, Royal Botanic Garden - 10th June

Awards to Plants

Award of Merit

(as hardy flowering plants for exhibition)

To *Meconopsis* (Infertile Blue Group) 'Mrs Jebb' exhibited by E Stevens, Sheriffmuir.

To *Meconopsis* (Infertile Blue Group) 'Crewdson Hybrid' exhibited by I Christie, Kirriemuir.

To *Therorhodion camtschaticum* exhibited by I Christie, Kirriemuir.

Certificate of Preliminary Commendation

(as a hardy flowering plant for exhibition)

To Meconopsis betonicifolia 'Hensol Violet' exhibited by I Christie, Kirriemuir.

Recommendation for AGM Assessment

To *Meconopsis* (Infertile Blue Group) 'Mrs Jebb', exhibited by E Stevens, Sheriffmuir.

PITLOCHRY, Discussion Weekend - 7th October

Awards to Plants

Certificate of Preliminary Commendation

(as hardy flowering plants for exhibition)

To *Athyrium distentifolium* var. 'flexile' exhibited by H Shepherd, Bolton.

To Gentiana 'Saltire' exhibited by I Christie, Kirriemuir.

Awards to Exhibitors

Certificate of Cultural Commendation

To T Rymer, Wormald Green, for a pan of *Sternbergia lutea* ssp. *sicula*.

GLASGOW SHOW, 6th May

fter a long cold winter and a week when Milngavie was exposed to one of the most violent electric storms of recent years, the day of the Glasgow show dawned bright and sunny. The fine weather outside was matched by the many fine plants which graced the show benches. Overall, entries were not as plentiful as in some years but quality remained high and good numbers in both Section II and the rhododendron classes ensured another successful and very attractive show.

Four competitors contested Class A for six small pans, with Carol & lan Bainbridge edging out Cyril Lafong to gain the Jubilee Award. Amongst the plants in the winning entry were excellent examples of *Primula rusbyi*, *P. pedemontana* and the beautiful little *Clematis columbiana* var. *tenuiloba* 'Ylva'. Stella & David Rankin achieved a triple success, winning the Crawford Silver Challenge Cup for most points in Section I, the Don Stead Prize for highest aggregate points in the bulb classes and the Joan Stead Prize for Best Primula, with a beautiful plant of *Primula auricula* 'Astolat'. The Rankins also received Certificates of Preliminary Commendation for *Gentiana acaulis* f. *alba* and *Primula bracteata* from the RHS loint Rock Garden Plant Committee.

The Forrest Medal was contested by five outstanding pans, two of which contained plants introduced to cultivation by Margaret & Henry Taylor. This must surely be a rare if not unique occurrence and stands as a reminder of the debt we owe to these two great plantspersons. The two plants in question were *Androsace studiosorum* 'Doksa' shown by Cyril Lafong, and *Clematis* x *cartmanii* 'Joe' shown by Brian Davidson, with





Cyril finally winning the top award. The "Joint Rock" also awarded the plant a First Class Certificate and Cyril a Certificate of Cultural Commendation. Brian's plant received a Certificate of Merit as did Fritillaria liliaceae, Cassiope wardii and a deep-pink and exceptionally floriferous plant of Lewisia 'Ashwood Strain' all shown by Fred Hunt.

Graeme Butler won the lan Donald Memorial Trophy for a plant native to Scotland, with a smooth cushion of Silene acaulis 'Frances'. Graeme received a Certificate of Preliminary Commendation for the very dark Primula 'Kusum Krishna'. Cyril also gained this award for a plant of Daphne calcicola 'Gang-ho-ba'. This clone of the yellow-flowered daphne is more compact and seems to be reasonably hardy. It was with a different clone of this plant - 'Sichuan Gold' - along with the small but large-flowered scopulorum and Aquilegia Penstemon uintahensis that Cyril won the William C Buchanan Cup. Mike Hopkins won class 2 and the Henry Archibald Challenge Rose Bowl with pans of Tulipa aucheriana. Lathvrus vernus 'Alboroseus' and Fritillaria hermonis - all in perfect condition. The Charles M Simpson Memorial Trophy for the best plant in Orchidaceae was won by a large pan of *Pleione formosana* shown by Jamie Taggart.

Section II was well contested with good plants from John Di Paola, Kate & Bob Blackie and





Frazer Henderson, who was the eventual winner of the James A Wilson Trophy: we look forward to seeing much more from him in the future. Peggy Anderson won the prize for the best entry from a new exhibitor with a good pan of *Anemone nemorosa* 'Allenii'.

The rhododendron classes were full of wonderful blooms shown by last year's winner, Jamie Taggart from Cove, and by Mike & Sue Thornley of Glenarn. This year Mike and Sue triumphed, winning both the *Rhododendron* Challenge Trophy and the Urie Trophy.

Steven McFarlane





ABERDEEN SHOW, 20th May

In spite of a cold wet spring there was a remarkable display of plants at the Aberdeen show. Contrary to many shows this year, the entries in Section II were prolific and impressive. Every show seems to come up with its own range of plants. At Aberdeen, cypripediums, cyclamen and lewisias were prominent while fritillaries and cushion plants were not so abundant.

Cyril Lafong won the Forrest Medal with an immaculate *Cypripedium* parviflorum var. pubescens, a lovely primrose colour with yellow pouches. This variety was also shown by Alan Newton who won the Portlethen







Trophy for most points in Section I with a display that included *C. segawae, C. tibeticum,* and *C. calceolus* together with four white and red forms of *C. x ventricosum.*

Lewisias were in abundance with 25 entries in their classes and several in other classes. Bob Maxwell showed a splendid salmon-coloured *Lewisia cotyledon*, a colour which, along with deep reds as shown by Fred Hunt in a three pan class, is taking over from the more usual pinks. Among other show-stoppers were: Ian Christie's 'Amber Wave', a deep apricot-flowered dwarf; Cyril Lafong's *L. leana alba*, smothered in small white flowers; and Nick Boss' splendid *L. stebbinsii* that he keeps in a moist plunge bed during the summer. Nick also











showed his unusual range of plants, complete with annotated details of growing requirements. He scours seed catalogues for unusual plants which will give him a challenge. A good example was his *Helichrysum arwae* from the mountains of SW Yemen.

David Boyd in various classes showed an excellent range of cyclamen with immaculate plants of *Cyclamen persicum, C. peloponnesiacum* and *C. repandum.*

There was an interesting range of gesneriads on the benches. Prominent exhibitors were Brian & Maureen Wilson with their own cross of Ramonda myconi x Jankaea heldreichii, 7 cm (3") tall with deep lilac flowers, and Briggsia speciosa x B. aurantiaca, a deep apricot-cream. The Wilsons had a lovely Haberlea ferdinandicoburgii 'Connie Davidson' smothered in lilac flowers. Alan Newton's superb Iankaea heldreichii in a large block of tufa was also most impressive.

Fritillaries were rather sparse but a Certificate of Merit was rightly awarded to Mike Hopkins' magnificent Fritillaria pontica. Other outstanding bulbous plants were the Pleione aurita shown by Alan Newton and the unusual Stenomesson miniatum, 30 cm (12") tall with deep-orange hanging lanterns, shown by Henry & Margaret Taylor.

Ericaceous plants were scarce. Sandy Leven won the



Simpson Salver with a well-flowered *Rhododendron* 'Swift'. In a six pan class, Rosemary Lupton showed delightful small pots of ericaceous plants including *Andromeda* and *Leiophyllum buxifolium*. Alan Newton also had a magnificent large pan of the *Leiophyllum* in another class. The pretty *Cassiope selaginoides* 'L&S Form' was neatly shown by Ian Christie, as was *Ledum groenlandicum* by Roma Fiddes.

Shade plants included a stunning pot of *Trillium grandiflorum* 'Flore Pleno' which won Bob Maxwell a Certificate of Merit - the plant originally coming from Harold Esslemont. Fraser Beaton showed a lovely plant of the difficult-to-exhibit Japanese woodlander *Hylomecon japonicum*. Fred Hunt exhibited the unusual Chinese slug-pollinated *Asarum maximum*

with huge dark leaves hiding the large brown smelly flowers.

The Craig Cup for Best Primula went to Brian & Maureen Wilson with Primula forrestii while the Esslemont Quaich for three "rare or difficult" plants went to Cyril Lafong. Iohn Graham received the Bronze Medal for most points in Section II and the prize for Best Plant in Primula Section with yuparensis.

Alastair McKelvie





Discussion Weekend, Pitlochry

he discussion weekend show took place on 6-8 September 2006 in the Atholl Palace Hotel, situated in the beautiful surroundings of Pitlochry. The autumn show in some years has been disappointing but this one was superb - all credit to the exhibitors and to Julia Corden who, with her team, organised the excellent weekend. On entering the show one could be mistaken in thinking this was a Cyclamen Society show - such

was the number, variety, colour, leaf form and fragrance of these wonderful autumn flowering plants.

The Forrest Medal was once again won by Sandy Leven (Dunblane) for a large well-flowered *Cyclamen graecum* that also won him the Jim Lever Memorial Trophy for Best Cyclamen and, along with *C. africanum & C. hederifolium*, won him Class I – three rock plants distinct – carrying the East Lothian Trophy. Class A - six pans distinct - included *Cyclamen mirabile, africanum, cilicium, Crocus goulimyi* and two alliums, one being *Allium callimischon*, not often seen but a welcome addition as a very late flowering onion of doubtful hardiness this far north. These helped Sandy to win the Mary Bowe Trophy for most points in section I. Jean Wylie (Dunblane) was close second with three *Cyclamen: cilicium*;









album - pink & pale pink forms; and three forms of *graecum* with handsome striking patterned finely toothed foliage.

Jean was first in the "new, rare or difficult" class with *Cyclamen colchicum* from the Okum Gorge in the South-West of Ossetia. This plant had very dentate pale green-patterned leaves – at one time it was thought to be a subspecies of *Cyclamen purpurascens* but is now given species status.





Discussion Weekend Pitlochry





foliage Silver-grey was represented with well-presented pans of Cyclamen graecum ssp. candicum and C. coum in the two pan class, Cyclamen graecum 'Glyfada' in the one pan class. Crocus & Colchicum brought added colour for Jean with Crocus banaticus, C. goulimyi and C. kotschyanus but Crocus hadriaticus var. Chrysobelonicus won for Tony Rymer (Harrogate) who also won with an excellent pan of Sternbergia lutea ssp. sicula that was awarded a Certificate of Cultural Commendation by the Joint Rock Garden Plant Committee.

A well-flowered pan of *Colchicum* atropurpureum in first class condition was a winner for Anne & Viv Chambers (Killearn). I was also impressed with the dainty *Colchicum cupanii* exhibited by Glassford Sprunt (Bridge of Allan). This was the first colchicum I saw growing in the wild in Greece.

A beautiful well-flowered, well-grown and in-character *Cyclamen rohlfsianum* with no visible leaves brought honours to Roma Fiddes (Inverurie). Other plants shown by Roma included *Cyclamen hederifolium* which was awarded first prize for a cyclamen grown for foliage effect – a



difficult decision for the judges in such a stiff competition. Roma also won in class for "foliage effect" with a not-often-seen member of Crassulaceae, Aeonium tabuliforme. Some day she may reveal more of her cultural secrets for the Cyclamen! Carol and David Shaw exhibited, and won with, an excellent Cyclamen hederifolium. Glassford Sprunt was a worthy winner with Cyclamen graecum with beautiful neat well-patterned foliage – a superb plant in the class for C. graecum.

Autumn colour tints were not much in evidence but a large pan of *Shortia soldanelloides* var. *ilicifolius* was also a worthy winner for Glassford.

Ferns are popular again and Harvey Shepherd (Bolton) brought his prize plants which included Atherium distentifolium var. flexile - a rare Scottish native, Cystopteris dickiena and Gymnocarpium dryopteris 'Plumosum'. Harvey was also a winner with his pans of Sempervivum arenarium and S. giuseppii. Carole & Ian Bainbridge (Edinburgh) were worthy winners in the one pan class with Asplenium scolopendrium laceratum 'Kaye's Form'.





Plants in fruit were scarce but Sandy Leven was again successful with a well-berried *Gaultheria procumbens*.

Conifers were represented by some excellent specimens. *Microcachrys tetragona*, teamed with *Podocarpus nivalis* 'Ruapehu' and shown by Frazer Henderson (Stoneyburn) in the two pan class, was awarded the J L Mowat trophy for the best conifer in show. In the one pan class, Carol & David Shaw (Dyke) won with *Abies balsamea*



'Hudsonia'. In the section II conifer class Frazer Henderson achieved another first with *Tsuga Canadensis* 'Minuta'. He also succeeded in the section II six pan class B with a good display of ferns *Polystichum setiferum* 'Plumoso-multilobum' & *Asplenium trichomanes,* conifers *Chamaecyparis pisifera pygmaea* 'Tsukomo' & *Cryptomeria japonica* 'Ten San', *Rhodiola dumolosa* and *Sempervivum arachnoideum*. In section V, Frazer had a wonderful 10 cm x 50 cm (4" x 20") mosaic pattern of *Hylotelephium* (Crassulaceae) flowers inspired by a Kilim or Turkish prayer rug - an imaginative display which secured him the Wellstanlaw Trophy for best floral decoration. Frazer also won the East Lothian cup for the best plant in section II and was awarded most points in this section.



Gentians were superb this year. Carol and David Shaw showed an excellent well flowered Gentiana ternifolia. lan Christie (Kirriemuir) was awarded the Peel Trophy for three pans with Gentiana 'Shot Silk', G. eugenes 'Allerbester' and G. 'Angus Beauty'. Ian also exhibited and won in the one pan class with G. 'Saltire', a superb plant that awarded a Certificate of

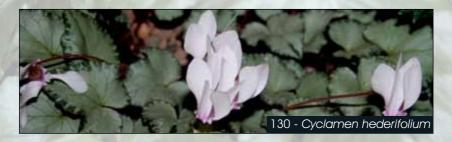


Merit by the JRGP Committee. Ian was pursued closely by Ian McNaughton (Pencaitland - Tynebank) with some of his new hybrids, *G.* 'Braemar and two not as yet named hybrids. Ian has been breeding gentians that flower earlier and have compact foliage with upward facing flowers: plants that are suitable for growing in containers - watch this space!

Pictures from the holiday photographic competition were on view, all of a very high standard. Anne Chambers won with superb photos from a visit to Arunachal Pradesh in north-east India. Pictures included Rhododendron anthopogon, R. fragariflorum, a pink form of R. flinkii formerly 'lanatum', Primula calderiana ssp. strumosa and P. gambeliana. Not plants one sees very often on holiday in the wild! Second was Gill Lee (Hazelrigg, Cumbria) with pictures of a visit to the Vercors in France; plants and views that caught my eye were: Cypripedium calceolus, Soldanella alpina, Androsace villosa and Erythronium dens-canis. Sam Sutherland (Kincardine on Forth) was third with beautiful pictures of Wengen and Saas Fee in Switzerland.

This was a superb show that brought home the skill and dedication of all our exhibitors.

Harley Milne



NEWCASTLE SHOW, 14th October

Show secretaries, Mike and Pearl Dale, had the usual worries of low exhibitor entries by early Wednesday evening but they must have been heartened by the final count of 45 exhibitors, staging a total of 381 plants. This provided a colourful display on the benches when viewed from the door of the hall.

This year colchicums and sternbergias were in short supply but there were many other bulbous plants on show. *Nerine humilis* ssp. *humilis* with vibrant rosy pink flowers on 30 cm stems was a particularly bright colour for this time of year. A rare natural hybrid, *Narcissus viridiformis x serotinus*, with green flowers from southern Spain was unusual. *Crocus serotinus salzmannii alba* 'El Torcal' with pure white flowers set off by yellow anthers and stamens was a beauty to look out for, even if its name takes up a lot of space on the label!

The class for autumn leaf colour did not seem to be as well represented this year - perhaps the season was still too early. *Shortia soldanelloides ilicifolia* with glossy plum-coloured leaves led in this class of four entries.

The main colour in the hall was provided by gentians, cyclamen and crocus, the latter being more abundant than at last year's show. *Crocus goulimyi* was noticeably present, with a total of 9 pots on the benches; a





Certificate of Merit was awarded to Jim McGregor for his pot, which must have had 70-80 flowers looking at their best. Other Certificates of Merit were awarded to Jim Watson (who also took the Newcastle Trophy for his *Cyclamen mirabile*) and to Keith & Rachel Lever for their stunning seedling from *Gentiana farreri* selected from their Aberconwy nursery. They also won the 3 pan *gentian* class with *G. sino-ornata* 'Purity', *G.* 'Silken Skies' & *G.* 'Amethyst', knocking lan Christie's exhibit of *G.* 'Saltire', *G.* 'Limelight' & *G.* 'Blue Streak' into second place. Consolation came in the form of the Farrer Medal for lan with *G.* 'Limelight' which opens its white flowers from



lime green buds. Ian Leslie of Bangor took third place. The standard of presentation was excellent in this class and the plants were greatly admired.

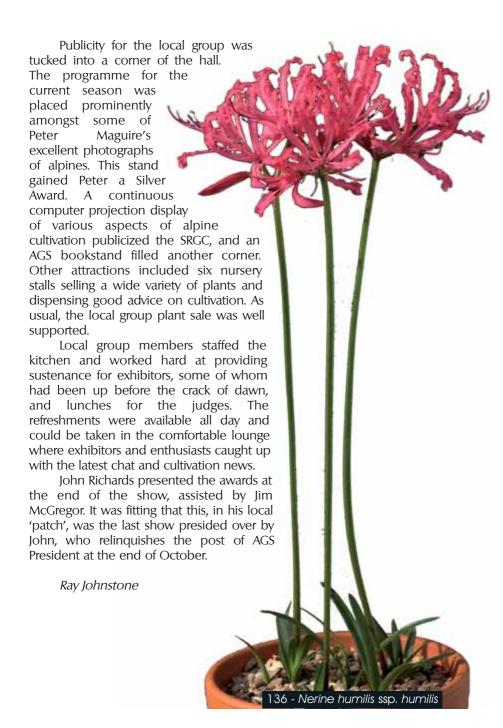
A few feet away, *Cyclamen rohlfsianum* won the Millennium Trophy (best foliage plant) for Ivor Betteridge. The beautifully marked leaves of this cyclamen were admired at last year's show; this time the plant was bigger and better with considerably more flowers, a very impressive display.

Cyclamen rohlfsianum, exhibited with approximately 80 flowers, won the Ewesley Salver for Bob & Rannveig Wallis who also carried the E B Anderson Prize back to Wales for their 6 pan rock plant entry. They demonstrated their usual high standard of presentation with their 3 Pan Cyclamen staging of graecum subspecies - graecum, candicum & anatolicum. In another class, one of their plants that drew a lot of interest was Massonia pustulata, a South African bulb displaying two ovate bristly leaves lying flat on the surface, enclosing a powder puff of white petals and stamens, each stamen with a deep-purple tip.

Local member David Boyd took control of 7 of the 3 pan classes and won another 3 first prizes, to win The Ponteland Bowl. In the process, he provided most of the cyclamen in the show.

Frazer Henderson of Stoneyburn, Lothian, gained most first prize points in Section B so was awarded the Inner Eye Trophy. The Newcastle Vase for Section C gave Stan da Prato, Tranent, Lothian a welcome entrée to the show.





Latvia - where the bulbs come from!

Sandy Leven



cross the sea there is a northern land that traded with Scotland for hundreds of years until the middle of the twentieth century. Russian occupation then broke the commercial links to Latvia. Still, the bond lingered in memory and imagination. Perhaps surprisingly, many garden plants which thrive in Scotland do equally well in Latvia, some even better.

I knew Janis Ruksans had travelled in the former USSR, had introduced many excellent plants into cultivation, and grew many of these rare bulbs in his nursery in Latvia. I first heard Janis lecture at the AGS Birmingham Bulb Day several years ago. This prompted me to send for his plant catalogue from which I chose lots of treasures. The bulbs arrived in superb condition, individually packed and labelled. Janis subsequently gave two lectures to our SRGC Discussion Weekend at Stirling.



Ancient Hanseatic Seas (courtesy of James Ford Bell Library, University of Minnesota)



Fred snaps our group

Anticipation

In 2004, word filtered out of a visit to Janis' nursery at the end of April 2005. Jean and Susan Band intended to go, Fred Hunt was interested and we agreed this was a chance not to be missed. The other 'Scot' was Dave King now from Alyth. We assembled at Riga airport, where Janis and his wife Guna welcomed us; this was the start of an unforgettable weekend of plants, bulbs, history, architecture, culture, education, lectures, superb food, fine beer, hospitality and friendship. We were treated as family by Janis, his family and friends.

History

Latvia is one of the Baltic States, with Estonia and Lithuania. It lies south of Finland and across the Baltic from Sweden. Since 1940 these states were occupied first by Soviet then by German and again in 1944 by Soviet troops. Only in 1991 was the Independent Republic of Latvia redeclared. Latvia is now a member of the EU. Latvians of my age have seen great changes. They have triumphed over occupation and repression and are at last free. Riga is a Hanseatic port with historic links to Hamburg, Bremen and Danzig. Traditional private houses, many built of wood, remain in the suburbs and are being restored, and buildings here are beautiful once more. The architecture is similar to Denmark, Sweden or



Cesis Castle

northern Germany. You would be hard pressed to find a more attractive city, as long as you ignore the inevitable Russian legacy of the peripheral apartment blocks. Riga is a fine place for a holiday, with traditional as well as modern chain hotels. However, we were staying one hour's drive to the East in Cesis. The road there was flanked by mixed deciduous and coniferous woodlands, occasionally opened up to rolling farmland.

I have dwelt more on the past than I might have but a country is defined by its history. Think of Scotland with its castles and mountains: we regale our visitors with tales of kings and heroes long dead. Latvians, like Scots, were and are traders and travellers. Both are small countries. Both are proud of their traditions and national identity.

Perversely, it was probably because of Russian occupation and Latvia's membership of the USSR that Janis was able to travel to parts of the former Soviet empire for years out of bounds to western visitors. He and his friends have botanised in the old southern Soviet republics, collecting and introducing new plants and good forms of already introduced species. Because he is an expert grower, these introductions have thrived and are now offered to us to grow in our gardens.

Riga has road and rail links to Moscow, which are probably not used as much nowadays as before. In Soviet times Latvia was the 'Holland' of the USSR, growing millions of tulips and daffodils for sale there. Janis grew both daffodils and tulips. His expertise with these led to his interest in other bulbs.

Cesis

Cesis is much smaller than Riga, like a big village or small town. It describes itself as "the town of medieval romance" and celebrated its 800th anniversary in 2006. Cesis Castle, the biggest in Latvia, dates from the 13th century and was the stronghold of the Knights of the Livonian Order. Unfortunately it is a ruin since Ivan the Terrible besieged it in 1577. It



The Daugava Tower

is a tribute to its builders that so much remains today. A huge statue of Lenin lies in a big wooden box in the castle grounds. It used to dominate one of the town squares but was replaced by the Victory Monument, itself demolished by the Soviet authorities in 1951 and only restored in November 1998. Keeping Lenin just out of sight is probably a good idea: he no longer dominates the town rule but can be visited in his box to remind everyone, Latvian or stranger, of the suffering wrought on the country.

We stayed in the modernised and comfortable Hotel Katrina in the town centre. I was delighted to find standard European electricity sockets for my digital camera batteries' adaptor. The English-speaking staff could not have been friendlier. The food from the Latvian, English and sometimes - Russian menus was good and well prepared. On our first evening we managed to consume all the beer in the hotel with our first fine meal! On the Saturday evening we visited a Bierkeller and joined a buy-two-get-one-free promotion. The extra bottles caused confusion as we had to take them into consideration when ordering our next rounds. We always seemed to get too much beer and after paying for one round I was given a packet of chewing gum as change because the bar had run out of some coins!

While the staff sought to replenish the bar, we Scots went out to explore. The streets were mainly cobbled and many houses looked like they must have looked in 1940. The Russians didn't do much restoration but houses are now being restored and in a few years the town may be completely renewed. There is much to admire, with the town dominated by the 80-metre high steeple of St John's Church, consecrated in 1284, 30 years before Bannockburn.

The first plant I noticed was *Scilla siberica* beside the hotel and close by was a solitary double snowdrop. They were not truly wild and were growing in the garden of a house long since disappeared. The stone here is dolomitic limestone and it has been used in many buildings. In the grounds of Cesis Castle and on steep banks under lime trees we were both delighted and surprised to find swathes of *Eranthis hyemalis*, *Corydalis solida*, *Anemone ranunculoides*, and tiny Gagea *minima* - new







Scilla siberica form at nursery



Anemone ranunculoides within the woodland floor

to me. I had never seen so many 'wild' Corydalis. The colour varied from quite blue to pink - a foretaste of finer things to come. The anemone had small rich yellow flowers and grew individually and in clumps which I had seen by the main road to Cesis, and now I realised what they were. The yellow Gagea, as its name implies, has very small flowers, grouped three or four to a loose umbel beneath which are two, opposite, stem leaves. It has a single basal leaf. By itself it is not worth crossing the ocean for but there were hundreds, lit up by the evening sun. When seen with the other yellow flowers, the effect was magical.

On Saturday morning, Guna gave us a tour of the town and castle and we visited the workshop of Daumans Kalnins, a jeweller and applied artist. He has researched and studied the archaeology of Latvian jewellery and ornaments, and sells replicas to visitors. Most of us bought one or more brooches or trinkets to assuage the guilt of travelling without spouse! Janis felt us now ready to get to the plants and sent the bus to collect us from the castle. The journey to his nursery at Rozula took us along the River Gauja valley and into the countryside.



Polytunnels and Corydalis rows



Janis and Oxalis 'Purple Heart'

Nursery

Janis Ruksans' bulb nursery with its own pond and woodland covers several acres of undulating land. He has three high polytunnels and a huge packing shed beside a lovely modernised house. It was warm, still, and sunny but Janis told us that winter frost can penetrate more than 1.6 m into the ground - hence the polytunnels to protect some *Fritillaria*, *Iris* and selected tulips. All the *Corydalis*, the plants I most wanted to see,

were planted outside in rows like potatoes. Over winter they are protected with a thick laver of peat. True to form, our visit started with our choice of home-made apple juice, coffee and biscuits. Ianis and his friend Dr Arnis Seisums then delivered lectures. Ianis, a Doctor of Biology. chose 'Crocus' as his subject as he felt we had missed many of them as they flowered earlier in the year. Janis' 2005 catalogue lists 78 different species and forms of Crocus. He grows many more that are not offered each year. Arnis talked on 'Juno Irises', many of which grow superbly in his garden in Riga. Lunch followed with a delicious selection of cold meats. salmon, wine and apple juice. As



Handling *Erythronium* seedlings



Erythronium sibiricum

they say "It was just like being at your Auntie's".

After lunch we wandered freely through the meticulously tidy and organised nursery. The various aspects offer ideal situations for any bulb, from polytunnel cover to south-facing or north-facing, depending on frost-resistance. Janis guided us and smiled as we enthused over the wonderful bulbs. He is very modest but obviously knows more than most about his plants. Everything is labelled, though the labels are buried and always at the same place beside the bulbs for finding them quickly.



Erythronium sibiricum 'Altai Snow'

On leaving the bus we spied pink flowers near the gable end. Being typical rock gardeners, we wandered away from the treasure-filled polytunnels to see what was growing in this north-facing bed. To our delight the pink flowers were *Erythronium sibiricum* with huge flowers and fully reflexed petals. Beside them were rows of the white form of *E. sibiricum* 'Altai Snow' with others lined out near the *Corydalis*.

The first plants in the tunnels comprised a series of *Fritillaria*. I am used to seeing special fritillaries in pots and was interested to see them



Muscari muscarimi 'Society's Cream'

thriving here in raised beds. These were edged with board anchored with angle iron to give a planting depth of 20 cm above ground level. The compost looked very open with a lot of peat and sand and the bulbs were planted quite deeply. The tunnel was divided by a central pathway and further subdivided into side beds separated by paths. Everything could be seen without stepping on the beds. Water, pumped from the nursery's wee loch, flows to the plants via surface trickle pipes about 25 cm apart.



Tulipa humilis alba caerulea

fritillaries Many were past but we could admire fine forms of Fritillaria whittallii, from a collection made Akseki in southern Turkey, and what I took to be F. nigra. We all stopped to appreciate a clump large of F. verticillata with large white greenish-tinged flowers. This was the clone 'Kara-Sumbe'. called after a southern

Altai Mountains valley in Kazakhstan. Next to the fritillaries was an anemone I did not recognise. Mind you, there was nothing unusual about finding a plant new to me or whose name I had forgotten. I felt better when I realised that Fred Hunt and two of the extended group, Chris Brickell and Joy Bishop, also found plants new to them. This first unknown was a yellow flowered *Anemone eranthoides*. The amount of red on the reverse of the petals seemed variable: the flowers resembled tiny tulips before they opened and had nice very divided leaves.

Close by was a fascinating bed of *Muscari muscarimi*. This is a fine plant with strong stems supporting large heavy heads of about 50 tiny pale cream or muted grey-blue flowers, each with a puckered mouth. The mouth colour seems pale blue on unopened flowers and changes to brown as they mature. This changes the appearance as the flowers age



Fritillaria whittallii

and makes variously aged clumps interesting. I particularly liked the clones 'Creamy White' and 'Honaz Dag' - both with cream flowers but those of the latter starting smoky grey. Another fine form bore the name of Rod Leeds. Chairman of Rock Garden Plant the loint Committee. Another attractive plant was a particularly fine-foliaged form of Oxalis adenophylla 'Purple Heart'. It is more dwarfed than the usual form of O. adenophylla, with an exquisite purple base to each glaucous leaf.

lanis raises untold numbers of and has seedlings his technique. Where we might sow small amounts of seed in pots or larger amounts in polystyrene boxes Janis uses deep plastic Dutch bulb boxes lined with black polythene, filled with compost and lined out in polytunnel. Janis says one advantage is that boxes are uniform in size and it is easy to move them around when re-shuffling the entire tunnel. Seedling bulbs stay in their box until they are big enough to plant out. They are less likely to suffer from frost as they can go deep down.

The next tunnel was much more colourful as it was devoted to tulips and irises. Across it were 10 or 12 rows raised like potato drills. Dark peat rich soil suited these treasures. There is a lot of peat in Latvia and Russia and Janis uses it to protect from vicious frosts. Winter lasts a lot longer in Latvia than in Scotland! Janis sells nearly 50 different tulips. He had a breeding programme in the 1970's using



Iris graeberiana 'Yellow Fall'

Tulipa wedenskyi, colourful plants with big flowers on stocky stems. One of my all-time favourite flowers is the blue-centred tulip, Tulipa humilis alba caerulea. Although often seen at shows, a row of them in full flower was special. Combining white petals and a dark blue basal blotch, the flowers have jet black anthers and a pink stigma.

I think of Junos as difficult plants but Janis had them lined out like leeks in his polytunnels in the same type of beds as for the tulips. He grows an enormous range of species and types, only some of which I recognised. As Junos flower over quite a long period, we saw only some of them in flower. One fine row was *Iris graeberiana* 'Yellow Fall' which won a Forrest Medal for Cyril Lafong at a Stirling show a few years ago. These plants would have had to be entered for a class of '1 Row Iris distinct'! Another row was of *Iris nusariensis* with which Lionel Clarkson won a Forrest Medal at Blackpool in 2005. I mention these successes to show that these fabulous *Iris* can be grown successfully here at home.

A Rainbow of Corydalis

On leaving the last tunnel and turning to look at the beds outside we hardly believed our eyes: row upon row of brightly coloured *Corydalis solida* forms resembled a rainbow fallen to the ground. On close examination, the varieties were kept together in their own bit of a row and each was identified with a buried label. Janis lifts them in summer, grades them, sells some and replants the remainder in autumn. During winter the rows are covered with very thick peat. Nevertheless, they must



A rainbow of Corydalis

be very hardy to survive the deeply penetrating frost. In Scotland, frost penetration may be be about 75 cm (30 inches) - about half the Latvian depth. Buried labels meant it was difficult to identify varieties. Janis pointed out some of his favourites and we asked about all the others! Janis has a continually evolving breeding and selection programme. He raises many seedlings every year and selects special plants to grow on. Susan Band and I really liked some new bicoloured red and pink flowered forms.

In his recent list Janis has named his best new plants from 'The Lord of the Rings'. You have both 'Frodo' - white with purple lips - and 'Gandalf' - white with a blue rim. 'Falls of Nimrodel', he says, is "slightly orange toned, reddish pink spur and almost pure white lower and upper petals". It sounds unique. 'Mordorland', aptly, is one his darkest Corydalis. I ordered a mixed lot of 'Penza Strain' corms and received Corydalis in several shades of pinky lilac but amongst them was a white seedling. The Penza bulbs have the advantage of being cheap so, if you order, it is worth asking for some. We were shown the new 'Penza Strain' seedlings and some looked very fine. All these colours and combinations result from cross breeding and selecting plants in cultivation. Many would look out of place growing wild where the muted colours seem more appropriate but as garden or pot grown plants for early spring flowering they are hard to beat. Only Crocus comes close to them for variety and combination of flower colours.

Only curiosity dragged me from the rows of fabulous *Corydalis*. A nursery on several fields required a bit of walking. While on my travels I met a Japanese gardener who like us had travelled specially to visit Janis. He also knew a lot about Scotland, had been to Edinburgh to the RBGE,

and to Inverness to see Jim Sutherland. Had he asked me 'How old Jim Sutherland?' I could have replied 'Old Jim Sutherland is as well as ever!'

Outside, Fritillaria eduardii, F. raddeana and several different F. imperialis grew in long rows in a field - and you never saw finer specimens. In another area a fine clone of F. aurea had large eggsized golden flowers while close by and slightly frost damaged were strong plants of F. alburyana. A short row of F. latifolia nobilis caused an intake of breath. The flowers open at soil level and over a week or so



Fritillaria latifolia nobilis



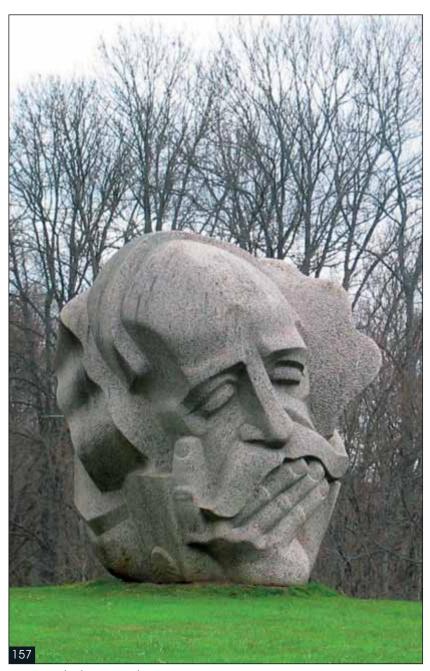
Corydalis schanginii ssp. ainae

the stems lengthen to lift the flowers clear of the foliage. *Fritillaria alburyana*, *F. aurea* and *F. latifolia nobilis* are among the most fabulous of all bulbs and here they were - thriving in a drill on a south-facing field at Rozula.

Before we left Rozula we made sure we had seen all there was to see. This is how we discovered another pond. It was intended as a drainage ditch but a beaver had managed to dam the ditch, forming the long thin pond. Travelling around, Janis pointed out areas of water in the woodlands. These too, were areas flooded by beaver dams. He told us the trees would die and that the beavers could be quite a pest. Around four in the afternoon we left the nursery and headed for 'lunch' - as it had been programmed. 'Lunch' turned out to be a banquet at a fine lake-side restaurant. You would go far to find a better meal or better company. We started with platters of cold meat & fish, salads & bread, beer & wine, while the chef prepared our main courses. Salmon, beef, veal or pork were prepared to traditional Latvian recipes. After a splendid day, it was back to Hotel Katrina and thence to the Bierkeller in Cesis where we



Fritillaria aurea



Latvian Rock: The Song Father

became as confused by the buy-one-get-one free as we had been the previous night...

Turaida and its Rose

Sunday was different. We were to explore Riga in the afternoon but were lucky to be able to visit Arnis Seisums' garden. We first had another castle to see – Turaida Castle at Sigulda sits atop a tree-covered ridge above the river Gauja. It is built in red brick and, although it was ruined, much has been and is being restored.

Entry to the castle is via the Song Park. Folk Song Hill has many granite sculptures representing aspects of folklore and history. Our guide told us the poignant story of The Rose of Turaida. It is Latvia's 'Romeo and Juliet' but the baddies were Polish. The Rose of Turaida was an honest and loving girl who chose to die for love instead of losing her dignity. The villain committed suicide and went to the devil. It is not a happy tale! Newly married couples come here to support the notion that love is stronger than death.

Every year there is a rose festival at Turaida but it was neither roses nor lovers that caught my eye that Sunday morning. With dew still on the ground, lawns were pink with the multitudinous flowers of *Corydalis solida*. They grew as daisies in the short turf. Once again, I was on my hands and knees photographing these wee beauties. They were mainly purple or rose and varied in shade from light to dark. At only a few centimetres tall they were quite magical. Amongst them were a few cowslips, *Primula veris*. By this time I had missed most of the story of the



Fritillaria eduardii



Turaida Castle

Rose of Turaida. Still, we all met up in the wee church, where I bought a book about the story.

Several other plants in flower distracted us from the sculptures. Down a steep slope a patch of chrome yellow beckoned: *Chrysosplenium alternifolium* was growing in a bog. *Anemone nemorosa* grew in drier ground and the little *Gagea* reappeared. Robert Burns wrote of the 'Wee, modest crimson-tipped flow'r' but Turaida daisies were the reddest I had seen, other than the bedding plants favoured by local authorities.

The photographers caught up the party at the sculpture park. The sculptures were carved by local artists from granite, glacial, erratic boulders. They are set on the ridges of the park and surrounded by grass. Each sculpture takes its shape from its boulder. On those I found most distinctive, the carvings on each side folded into each other. A Latvian favourite is that of an old man deep in thought, called 'The Song Father'. Across the Song Park a steep, twisting, narrow path led into a dark precipitous valley and finally up to the Turaida castle. Most of the time we were in the valley, the castle hidden by trees.

Springtime in a deciduous wood is magical. The trees are still bare but plants are bursting out of the ground, flowers are everywhere (if you choose the right wood!) Turaida woods are part of the wider woodland of the Gauja river valley. Most of the trees are deciduous and have a rich carpet in April. The entrance was guarded by a big patch of *Anemone ranunculoides*, and new spears of mare's tail, *Equisetum palustre*, poking

through them. The *E. palustre* likes damp ground so these woods are probably moist all year round. *Asarum europaeum* is a low evergreen plant widespread in Scandinavia and Holland and maybe native to Scotland. In the wood litter its straggling stems with their shiny kidney-shaped leaves wandered through other plants and sometimes made quite big patches. The hairy brown flowers are borne on even hairier stems. White *Anemone nemorosa* were just opening, reminding me of home, but here they were accompanied by *Corydalis solida*. In the deepest part of the valley, growing through rotting wood, was a parasitic *Orobanche*. Its dark purple stems were just emerging and it looked quite sinister.

Eventually we climbed out of the 'gorge' and up to the castle. We learned more of the Livonians but the star attraction for me was the discovery of two coats of arms for Graf von Lieven and Baron Lieven. I intend to pursue this - especially the Russian line - and if necessary I will change the spelling of my surname. A coat of arms featuring red shield with seven golden stars and three golden fleur-de-lys topped by a black double-headed eagle would look well above our fireplace.

Arnis Seisums' Garden

After a superb lunch costing £5 per head with beer we returned to our hotel to dress in our good clothes. Arnis had told us to bring dressy clothes because we were going to the opera house in Riga. We were very well turned out for rock gardeners on a garden weekend. The ladies took more than one pair of shoes each! Arnis lives in the suburbs in a large garden compared to the average Scottish garden but we were not prepared for his huge range of rare bulbs. He had talked to us about Juno irises but had not prepared us for the sight of them growing in rows.



Arnis among the tulips



Arnis' multi-headed tulips

Some were protected by a poly tunnel but most grew outside. His fritillaries and Corvdalis are grown in raised beds and he protects them with peat over winter. On his travels in the USSR he has collected several fabulous forms of Tulipa kaufmanniana which give a bright splash of colour near the entrance. Behind them were the fritillaries. A row of more than forty Fritillaria eduardii in flower dominated the bulbs. Strong plants almost a metre tall, their colour varied from light to dark orange. Beside them the most fantastic clump of Fritillaria gibbosa radiated health, sturdy stems holding ten or more pink flowers each with large nectaries. Fritillaria bucharica was just as impressive. Members of the Fritillaria Group drooled over the short row of tiny yellow Fritillaria minuta from Turkey. In England, where it is grown in pots it is a shy flowerer but now I know what it should really look like.

Arnis and Janis both like Pushkinia. I had not thought much about them but on getting down and really looking at the flowers they are beautiful; I think I had better order some, in case they become the next 'must have' plant. All the wild Anemone ranunculoides we had seen had plain green leaves but Arnis has a form with deep red colouration at the leaf bases, adding considerably to its beauty. Before we left, more tulips attracted me, this time the multi-headed species, Tulipa bifloriformis. It starts to flower near the ground and as it ages the stems come up to reveal an inflorescence of several tiny flowers.



Corydalis popovii



Eminium lehmanii



It was time for the cultural highlight. Unknown to us, our visit coincided with the first anniversary of Latvia's and the other Balkan countries' joining the EU. We were delighted when Janis told us that he had bought tickets to attend the 10th International Baltic Ballet Festival Gala in the Opera House in Riga. This was the official celebration of the First Anniversary. Along with the other celebrities, we were welcomed in English and Latvian by the President of the Latvian Republic, Vaira Vike-Freiberga. The mayor, Aivars Aksenoks, then welcomed us to Riga, praising it as a "European cultural metropolis".

The National Opera House is a big white building with a façade resembling a Greek temple. Everyone was dressed in their best, just like theatre here used to be. Fred and I refreshed ourselves with cognac, coffee and a slice of gateau. No beer at the Opera House! The dancers came from Spain, Austria, the USA, Korea and Japan as well as Latvia. They were outstanding.

By now we had all become much 'better acquainted' and on the bus back to Cesis we chatted about all the wonderful plants (and dancers) we had seen. We were welcomed back to our hotel by our receptionist who had stayed specially to serve us a light supper. Once again we enjoyed Latvian cheese, salad and bread with a glass of Cesis beer. The next morning we drove to Riga to catch the plane home. Fred and I had only a short time to see part of the old city. Red and green roofs, stone and brick towers, houses with ornate painted facades, beautiful old churches – all are packed together in the compact old town, between the River Daugava and a large park. Street traders selling all sorts of amber necklaces. bracelets and brooches stand politely as you wonder which to buy. Latvia has always been famous for its amber: for me it is synonymous with friendliness, hospitality, fine food, wonderful castles, ballet and especially wonderful plants.

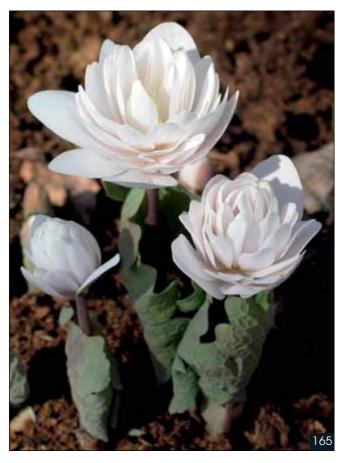
Our weekend was arranged by Janis and Guna. They packed so much in for us. They never hurried us. They were perfect hosts. Although there only for a long weekend we felt we had had at least a week's holiday. I am glad I was a good tourist and that I brought home some souvenirs. I now have to order some more bulbs

from Janis. I don't know where they are going to grow but he has so many treasures in his list that I can't resist.

Thanks

On behalf of us all I record our thanks to Janis and Guna for organising an outstanding weekend. Who else could get the President to address rock gardeners?

Janis Ruksans' bulb list is illustrated in colour with lots of photographs and written descriptions of all the plants. If you send for a list you will be hooked: Janis Ruksans, Bulb Nursery, ROZULA, Cesis distr., LV - 4150 LATVIA



164 & 166 - Amber Necklaces, 165 - *Sanguinaria canadense* 'Multiplex'



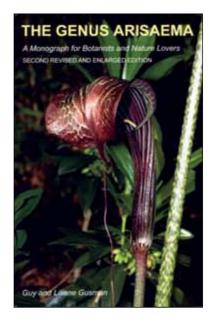
Book Review

THE GENUS ARISAEMA

A Monograph for Botanists and Plant Lovers Guy and Liliane Gusman

2nd edition 474pp, 420 colour photos, 200 line drawings, 20 tables ISBN 3-906166-37-6

Koeltz Scientific Books EURO 86.00 (Timber Press in North America)



Recent introductions of *Arisaema* from China and Japan resulted in a rapid upsurge of interest among gardeners in this fascinating genus. Until the first edition of this book was published in 2002, no comprehensive monograph was available to supply the demand for information about these poorly known plants. Although some may question the need for a second edition after only four years and balk at buying this not inexpensive book, it has been fully revised and updated and contains much new material.

The original publication stimulated *Arisaema* enthusiasts across the world to respond to the Gusmans with information and photographs from their travels and experience. As a result, many of the previous illustrations have been replaced and their number increased, as has their quality - which is very good considering that they may have been taken under difficult conditions in the wild. Where no photograph was available, a copy of the type specimen sheet or botanical illustration has been included for completeness. The work to resolve the problem of synonyms and naming errors continues in this volume. The 10 new species of *Arisaema* described since 2002 have been added: in all, almost 200 species, subspecies and forms are described. A previously unknown species found in southern Tibet just before the book went to press and discussed under the name 'Tsangpo' has now been described as *Arisaema tsangpoense*. The original format and general layout of the book have been retained. Fortunately, the authors assume little

knowledge on the reader's part and give a detailed morphology of the genus, necessary because its structure is SO different from that of other flowering plants, and this is followed by chapter on growing conditions in the wild in cultivation, including propagation. The main text is with the taken up classification and descriptions of the plants. Any classification is rarely without controversy and

probably this will be no exception, but such niceties are best left to taxonomists. The authors have classified the species into 15 sections, each with a table listing the contained species alongside the characters used in their classification. Also provided at the start of every section

are line drawings of the leaf and

inflorescence of each species, which



may help less experienced readers to narrow the possible identification choices before proceeding to check in detail. The book concludes with a glossary, extensive bibliography and index.

From the Sino-Japanese species now commonly available to gardeners, to the rarities of Africa's Mountains of the Moon and Mexico's Sierra Madre, we can only marvel at their range and diversity. The wealth of information and images contained in this volume, representing as it does our current state of knowledge of this remarkable genus, must make it invaluable to the enthusiast.

Anne M Chambers

The Art of Setting Stones

Francis Ferns

s a warning to would-be rock-garden designers, I write to remind them of a scroll which tells among other



168 - Japanese Bronze, Compton Acres

secret things that, if they do not set their stones aright, dire happenings will occur to them and the master of the household. These sanctions are recorded in the Sakuteiki scrolls, an 11th century Japanese treatise, probably the oldest written work on garden-making in the world.

The ancient Chinese thought that rock - in particular, intricately shaped stones - had animate powers and forces which could influence the decisions of their gods: not surprising really when related to their discovery of the properties of the lodestone and the invention of gunpowder ... all magic!

However, logical testing and experimental scientific proof that might reveal the cause and effect of phenomena did not occur. Consequently the search for truth was lost in a maze of mystic divination and geomancy until, by the Heian period (AD 794-1184), rigid rules had developed. It was a period when Japan began to break away from Chinese influence and during which the Sakuteiki texts were written.

The rules were enforced by taboos that had the same purpose and effect as present day regulations - enforced by heavy fines and other restrictions. Many of the private and confidential memoranda, the "secret texts", contain much sensible advice. For example, when setting stones, "first bring a number of different stones, both large and small, to the garden site and set them out temporarily on the ground". When correctly positioned according to rule and taste, "pack soil all around the bottom of the stone, so that there is no room for even a speck of dust, otherwise the stone will topple. Use a slim pole and ram the soil from the bottom up, choose a particularly splendid stone as the Main Stone" ... and so on.

Then comes the crunch: taboos, called "kinki" in Japanese, litter the ground like autumn leaves. Most relate to positioning; some are quite inconsistent ... "Do not set a white stone bigger than those around it in an easterly direction or harm will come to the master of the house", says one note, because this would breach the Five Phase Control Theory of

geomancy. I wonder in which quadrant the Harlow Carr Matterhorn lies. Another refers to Buddhism but is not expressly stated in Buddhist texts. It says "Do not arrange a Buddhist Trinity facing the main residence, have it face slightly to one side. Violating this taboo is terribly unlucky." Translation can be difficult: "setting stones should not be done thoughtlessly" may also be translated as "Do not set a stone in a way that invokes a desolation or dreariness".

Looking for more practical advice, we find "It is considered common sense that Buddhist Trinity arrangements shall be made with standing stones, while arrangements in the shape of piled boxes shall use horizontal stones, accented with low plantings". Nevertheless, the caveats crowd in: "Using a stone that once stood upright, in a reclining manner ... that is, against the natural run of the strata, will cause the stone to become a Phantom Stone and be cursed ... Do not set a stone so that it falls directly in line with the columns of buildings ... violate this taboo and even one's descendants will suffer, evil occurrences will abound and all one's wealth and possessions be lost ... If a stone is set in a reclining position near the veranda of the home facing west or north, the master will surely die within a season."

However, all may be well according to a man from the Chinese Sung dynasty (AD 960-1279) which overlaps the Heian period. On his authority, "if the stones have tumbled to the base of the mountain to the valley floor and become weathered naturally and covered in moss they can be set out in the garden as found in Nature without incurring the impediment."

According to the translators, these extracts come from the Tanimurabon, the only known existing copy of the Sakuteiki. It carries no signature but carries these final words:

"On the 27th day of the 6th month in 1289, Bored with the world I read through this. An Old Fool - Gu Ro ... This volume is the property of Gokyogokudono. Precious - It must be secret,"

If you too feel bored with the world you may read further in "Sakuteiki", 2001, by Jiro Takei and Marc P Keane, Tuttle Publishing, Boston, Massachusetts. A slim volume, full of information and folk lore, it is no coffee table book.

Francis Ferns

http://web-japan.org/nipponia/nipponia8/sp01.html http://gallerysjsu.edu/oldworld/asiangate/gardens/rocks.html

David Lane & Crosland Prizes

he Crosland Prize 2006 was won by Ian Young for his Photo Essay, *Erythronium* Species for the Garden. Ger van den Beuken won the 2006 David Lane Prize for the best photograph with his remarkable picture of *Azorella compacta*. Ger's article prompted this tribute:

y brain went into top gear when I saw the picture of Azorella compacta in the July 2006 issue of 'The Rock Garden'. Excitement really reigned when I saw Pycnophyllum bryoides on the next page. Here were two



unrelated plants that have adapted to climatic conditions by adopting the same shape. Even more interesting is their remarkable resemblance to plants in Tasmania and New **Zealand** belonging to genera that are different again and conditions grow in superficially unlike those South America. Although the desert dwelling Azorella is in carrot family, Pycnophyllum is in the same family carnations. Growing in wet areas, Tasmanian Dracophyllum is in the same family as heathers. New Zealand's Raoulia is in the daisy family; it too grows in areas of high humidity, though with excellent drainage.

Botanists regard such similar looking plants as examples of "convergent evolution". All the plants mentioned here have adopted a smooth shape as protection against sharp wind-blown particles: sand in the Chilean cases and ice crystals for the Australian and New Zealand species. The abrasive particles blow over the smooth surface without damaging the delicate leaves.

These plants even change their climatic conditions! All have their leaves in tightly packed rosettes. The sun's rays are focussed into the centre of the rosette, which as a consequence can be as much as 5°C above the temperature of the surrounding air. This helps their flowering in the prevailing cold. The dead tissue inside the cushion holds water, so helping the plant to survive the dehydrating effect of the powerful sun shining through the clear mountain air.

Thank you, Ger van den Beuken, for such a stimulating article!



Abrotanella forsterioides, Tasmania

... And news from Norway

In 1954 The Rock Garden

Tasmania published a letter about the alpine garden adjacent to Kongsvoll railway station in Norway. Readers may like to know that the garden is still in the area, though it has now moved about a mile down the line next to the Kongsvoll Mountain Lodge. Kongsvoll is the highest point on the line from Trondheim to Oslo and the garden, which is open from about mid June to mid August, is now part of Trondheim University's Museum of Natural History and Archaeology.

http://www.ntnu.no/vmuseet/hager/kongseng/





Visitors to Trondheim may also like to know that there is a botanic garden at Ringve, forming the grounds around the National Music Museum, which in itself is well worth a visit.

http://www.ringve.com/english/botanical.html

Jeff Irons

The Aitchison Fund

The Diana Aitchison Fund is intended to help young gardeners further their knowledge of rock and alpine plants and their cultivation. The Scottish Rock Garden Club has been able to launch the fund thanks to a very generous sum made available from the estate of the late Diana Aitchison.

The fund's administrator is Julia Corden: <u>julia.corden@pitlochry.org.uk</u>

For full details please see: http://www.srgc.org.uk/fund/fund.html

Applications are now invited for support.

The deadline for receipt of completed applications is March 31st 2007.



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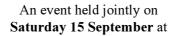
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Arisaema asperatum



Cypripedium formosanum



Asarum splendens



Nomocharis meleagrina



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