

THE ROCK GARDEN



THE JOURNAL OF THE SCOTTISH ROCK GARDEN CLUB

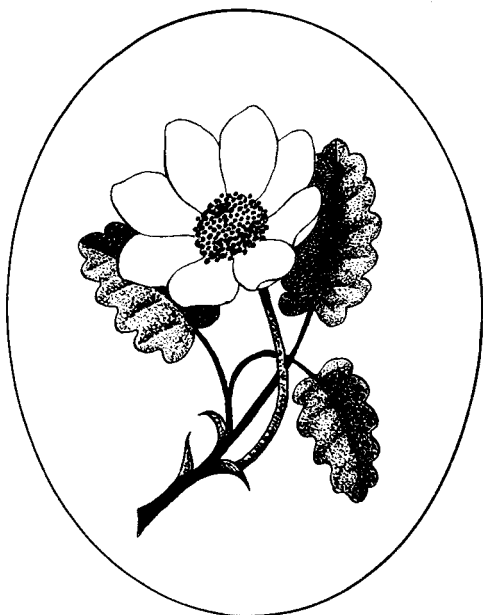
Volume XXIII Part 2 Number 91



Fig. 34.

This issue of The Rock Garden is dedicated to Harold Esslemont MBE, 1901-1992

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SCOTTISH ROCK GARDEN CLUB
Volume XXIII Part 2 Number 91**

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Front cover: *Primula amoena*. Mestia Pass, central Caucasus. Lynn Almond

Back cover: Below the Becho Pass, central Caucasus. Michael Almond

THE ROCK GARDEN

The Editors would greatly welcome contributions to **The Rock Garden** on any aspects of alpine and rock garden plants and their cultivation. Articles should follow the format of previous journals, with colour slides and line drawings if appropriate. They should preferably be typed, double spaced, or on a 5.25" floppy disk in Microsoft Word.

Pen and ink drawings and vignettes are also welcome, especially in a horizontal format to fit a part page. Articles and drawings should be sent to the Editors.

We also require cover photographs for **The Rock Garden**. Anyone with colour slides for consideration as cover plates should contact the Editors.

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The views expressed in this Journal do not necessarily reflect those of the Editors or of the Scottish Rock Garden Club.

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The illustrations on pp 117, 141, 212, 226 are by Duncan Lowe



Iris xiphioides

Lionel Bacon

Editorial

The Diamond Jubilee of the Scottish Rock Garden Club is here: a new logo of our favourite plant, *Dryas octopetala*, adorns this journal and our new merchandise, there are lots of events for you all to enjoy, and a bigger issue of **The Rock Garden**, with more articles and extra colour plates. The details of the Jubilee are in the separate insert with this issue; all the extra events this year should attract new interest from outside, and ensure that we increase our membership, in this, our Jubilee Year.

As we write we're in the depths of winter; it's snowing, blowing a gale, freezing cold and who wants to be a rock gardener anyway? The most attractive thought is to bring the pleiones inside to re-pot them in the warm, or dream of the seeds to come from the exchange. However, a glance around the alpine house shows that the bulbs are already beginning to show. *Narcissus mesatlanticus* is in flower, later than its usual November, and *Crocus crewei* is only a few days away from opening. Every other pot of bulbs seems to be showing its little green shoots; more reliable than the Chancellor of the Exchequer, several of these bulbs will flower for the first time this year, from seed sown up to five years ago!

The first of the flowering shrubs, *Viburnum x bodnantense* and *Hamamelis mollis*, are blooming despite the snow. This time of year it always seems inspired to have placed the latter directly in front of a big bush of *Hebe pauciflora*, whose evergreen dome offsets the delicious lemon-yellow of the strange *Hamamelis* flowers, when viewed from the warmth of the conservatory.

The new window in the workshop means we'll still be able to see the *Hamamelis* as we get on with the first of this year's gardening jobs; sowing the first of another hundred or so pots of seeds from all around the world. What would happen if they all germinated? We'd have to move to a bigger garden, and take extra holidays to cope! Still, five years on, and more new acquaintances might be just about to show us their flowers for the first time. Patience is obviously one of the virtues of the alpine gardener, so go on, sow a few more seeds this Jubilee year.

Carole and Ian Bainbridge

President's Review 1991–1992

The start of our year was the now increasingly successful Early Bulb Display at Dunblane. The benches were groaning with exhibits, large and small, a tribute to Sandy Leven's enthusiasm, and encouragement to all to come along and bring bulbs and plants. This is not a competition, it's a display, an opportunity for all of us to enjoy many bulbs which seldom appear on the benches at the later shows. Margaret and Henry Taylor delighted us with an informative short talk on "Narcissus and Other Spanish Specialities" as seen on their trips to the Eldorado of the plant world! The RHS Rock Garden Plant Committee met in the forenoon to consider recommendations for awards, a tribute indeed to the quality of bulbs and plants displayed at this venue. I wish to thank Sandy and his band of enthusiasts, and also the hardworking tea ladies for all their efforts on our behalf.

Our competitive shows again proved popular and well supported, with the high standard being maintained, and Section Two, on the whole, attracting many new exhibitors, which is healthy for the Club. The Shows are the Club's shop window and it is wonderful to experience the thrill of overhearing the public or fellow members discussing the merits or otherwise of the entries. Thanks are due for the painstaking efforts of the judges who often give us food for thought as a result of their decisions. A big thank you to all the Show Secretaries and their helpers, and to the trade stands for their support.

Congratulations to Margaret and Ian Young on receiving the AGS Salver for gaining the highest aggregate number of first prize points in Section One of our Shows during 1992.

Before I give the Membership update, sadly I must inform you that certain dear and respected members are no longer with us. Bob Brien, the popular kilted nurseryman from Pitcairngreen, Margaret Nicolson, much loved and respected lady from Bearsden, Reggie Kaye, the quiet but ebullient fem man from Silverdale, Ole Sønderhousen, from Denmark, who was to be the Diamond Jubilee Travelling Lecturer, and Harold Esslemont, the master plantsman and benefactor from Aberdeen. Before Harold died he donated a silver Quaich which Mrs Esslemont presented on his behalf at the Aberdeen Discussion Weekend. This trophy is for competition at the Aberdeen Show for three pans new, rare or difficult. Each of these members contributed a great deal to the Club, we were privileged to have them in our midst, and they will be greatly missed.

The Membership figures are recovering some of the lost ground, albeit slowly. The total membership now stands at 4366, made up of 1747 from Scotland, 1539 from the rest of the U.K., and 1080 from overseas. More emphasis will be made in the coming year to recruit new members, but please do not leave it all to the Publicity Manager and his Committee; they will produce the material for us to get on with the job. Our Treasurer has informed Council that he does not anticipate the membership fee being increased in the next two years, **if** our circumstances remain the same. That must be a plus point in our favour for the future recruitment campaign.

The opportunity to pay membership by Bankers' Order has been reinstated by the Club. If these are taken up by the U.K. membership at large, they will in time ease the work of our tireless Treasurer.

The Club received a handsome legacy of £15,000 from a former member, Mr Victor Cross, from Hampshire. Mr Cross also bequeathed a number of books to the Library and his vast collection of slides to the Davidson Slide Library. I wrote to Victor's sister Mary expressing our deep gratitude for this fantastic bequest.

Sandie Gallie, from Eire, donated a further £100 to the Exploration Fund, his fourth donation to this particular fund. Keith Douglas from Victoria, Australia, has further enhanced the Brookfield Prize Fund with another donation of £100, making his total contribution £290 since he initiated this fund in 1991, his aim being to make the fund self financing and to ensure that there is strong competition for it. The Edinburgh Group donated £1500 to the Exploration Fund, £250 to the Library and £100 towards the Diamond Jubilee Travelling Lecturer's expenses. There have been numerous smaller donations from members and Groups, and on your behalf I wish to thank them all for their generosity.

The Exploration Fund received four applications. Under the Chairmanship of John Main, the Fund Committee awarded a grant to William J. Baker to assist with his ecological study of orchids in Nepal, and to Sidney J. Clarke towards his photographic expedition to Lahouli in northern India. Hopefully the Club will benefit by way of an article and photographs from the two recipients. Last year's recipients Ron McBeath and David Rae presented the Club with a copy of their magnificently illustrated 1991 Makalu Expedition Report, which can now be obtained through the Club Library.

The Seed Exchange continues to grow in popularity particularly in respect of wild seeds, both with the donors and the applicants. It is a function which is highly commended by many for the quality of seed distributed and the efficient way it is handled by our three Managers.

I am certain that Joyce Halley would now have been convinced that computerisation was the answer to the management of this ever increasing function. I wish to express our appreciation to the Seed Exchange Managers and to their helpers in Stirling, Edinburgh and St Andrews.

The Annual Discussion Weekend this year moved north to Aberdeen University where Alastair McKelvie was responsible for the organisation. All those who were prepared to clock up the extra miles to sample northern hospitality were not disappointed. We had a wonderful, happy, friendly weekend. The lectures were first rate, the accommodation comfortable and the food superb, especially the Conference Dinner. Alastair's back-up band of helpers deserve a special thank you for all the work they put in to make us welcome and smooth out any small problems which arose. The Show was one of the best-supported at any Discussion Weekend thanks to Margaret and Ian Young cajoling us all to bring plants for the show bench. Well done Aberdeen Group, I am sure we will return.

Members and positions are ever-changing and this past year has had more than its fair share. We have three new Group Conveners. George Cheeseman has taken over Lanarkshire from Don Stead, John Lee has succeeded Joan Gillard in Glasgow and Dunbartonshire, and Andrew Fraser is now in charge in Inverness where Jim Sutherland had held the post with distinction for a record number of 27 years. Group Conveners are the backbone of our Club, they do a tremendous amount of work organising winter meetings and summer activities and I feel sure you would wish to express our appreciation to the retiring ones, and success to the new appointees.

The Davidson Slide Library is now in Doreen Golder's hands, Angus Small having done a great deal of reorganisation before he retired. Doreen has a monumental task ahead incorporating the Victor Cross Legacy slides into the system.

Glassford Sprunt handed over the reins of the Publications to Brian Hammond. Glassford retains the issuing of back numbers of the Journals and the binders.

Isobel Simpson gave up organising the Twice Yearly Art competition having initiated it in 1977. Richard Lilley from Caithness has taken over this function which is much enjoyed by the members, and helps our Editors find artists to contribute to The Rock Garden.

As we were having difficulty filling the Subscription Secretary's post held by Kirsteen Gibb for eight years, Council decided on the recommendation of the Finance Committee to divide the post into

Subscription Secretary and Membership Secretary as the Treasurer, Ian Aitchison, was prepared to take over the financial aspect **temporarily**. Jackie Thomlinson agreed to become the new Membership Secretary. Jackie's name and address will appear on all future publicity material issued by the Club.

Our Secretary, Evelyn Stevens, also decided to relinquish her post after keeping us and the records in order for eight years. Evelyn involved herself in many aspects of the Club's activities as well as being Secretary. How she found time to grow and exhibit her magnificent plants, judge shows and still produce the wealth of material and attention to detail she considered necessary to control the Secretarial side, amazed me. I am certain she will revel in her leisure time now that Jan Boyd has accepted the Secretary's post. We owe a tremendous debt to Evelyn for the capable and efficient way she handled her duties.

All the officials of the Club devote a great deal of their time and energy into working on our behalf to ensure the smooth management of the Club's affairs. It gave me great pleasure at the AGM to show our appreciation to Kirsteen, Glassford and Evelyn in presenting them with a parting gift as a small token of thanks for all the dedication shown by them over the years they have held office.

Having served their three year term, four Ordinary Members of Council retire this year, namely Fred Hunt, John Main, Roger Smyth and Ian Young. We thank them for their contributions to the Council Meetings and Committees.

As you are all aware next year the Club celebrates its Diamond Jubilee. Sandy Leven, our Publicity Manager, also took on board the Chairmanship of the sub-committee set up to deal with the coming celebrations. Sandy and his Committee have come up with a tremendous number of ideas and products for us to enjoy throughout 1993, all incorporating our new single flowered logo. Earlier this year the Jubilee Calendar went on sale, the illustrations beautifully done by Duncan Lowe. I trust you have all purchased a souvenir calendar. Now we can sport our new badge, a pullover or body warmer, or display a tastefully engraved piece of Caithness glass or even have a wee dram whilst admiring our new logo on the side of the crystal glass! It is all good publicity for the Club and good fun. Each exhibitor at the Show next year will receive a special diamond shaped souvenir Exhibitor's Badge. The Lom Group under Hilary Hill are hosting a "Gardeners Weekend" in Oban from 21st to 23rd May. Here is your opportunity to visit beautiful west coast gardens in a magnificent setting. The culmination of the year will be the Diamond Jubilee Discussion Weekend to be held in St Andrews. There's

lots more, but you will find out in due course what is in store for your participation. Sandy has put in a terrific amount of research and work and I want to give him an extra special vote of thanks for his enthusiasm and hard work. He asked us to get jubileeing – he has set the pace – so let's try and keep up with Mr Jubilee himself!

Sheila and John Maule upstaged us by celebrating their Diamond Wedding earlier this year. Congratulations to a wonderful couple. It gives me great pleasure to intimate that Sheila is being awarded the Golden Jubilee Salver for outstanding service to the Club since joining way back in 1948. Sheila served on Council many times, was Joint Show Secretary for the Edinburgh Show, Overseas Liaison Officer and a long serving member of the RHS Rock Garden Plant Committee. All this was achieved with the support of her husband John.

Congratulations to Alf Evans who has been honoured by the University of Newfoundland with an Honorary Doctorate of Law in appreciation of all the advice and assistance he had given in setting up the University Botanic Garden.

Congratulations also to John Main on being elected a Fellow of the Institute of Horticulture in recognition of the high standard of distinction he has achieved in the horticulture profession.

In conclusion, my first year as President has been exciting and I would like to take this opportunity of expressing my gratitude to all the officials who have supported me and guided me through the labyrinth.

Elizabeth Ivey
31st October 1992.



THE STONE COLUMN



Fate and the Big Tap in the Sky

It is one of the perils of being a regular contributor that all too often the Fates can take a hand and cut one down to size. I should have known better than to tempt them by asking the rhetorical question: "Who will stop the rain?", for no sooner had my last Column been delivered to the printers than the wind swung around to the south and suddenly, on May 14th, it was summer. The effect was as if someone had shut off the main valve controlling the sprinkler system over the Highlands; and apart from dripping a little now and again, it stayed closed for over two months. Then, towards the end of July, it was turned on again, and we scarcely had two fine days in a row, until a short dry interlude under an anticyclone in October.

It is not unusual to have wet and dry spells of weather, but it is for there to be such extremes, almost a case of all or nothing. It is not unusual to have snow in March, but it is for this to be the only substantial fall of the winter! These abrupt oscillations in the weather are apparently connected with the pattern of the high-level winds, called jet-streams, in the upper atmosphere. Climatologists may argue as to whether, and by how much, the Earth's climate is changing, but our plants know and show that the local weather certainly is!

I am always amazed at how well plants from all over the world cope with all that our Highland climate throws at them. While not a vintage year, for example our blue *Meconopsis* were relatively poor, it was by no means a total disaster, with many herbaceous plants making up for the lack of bloom on high alpiners after the mild winter. The Sibirica irises were generally good, including a newcomer of note: a re-introduction of

Iris bulleyana under SBLE 432. One seedling has flowers almost twice the size of the old pre-war clone we had been growing, with a vivid royal blue blotch and violet streaking on the falls. The other two seedlings we raised are not in the same league; they match the old original almost exactly. This does, however, appear to confirm that *Iris bulleyana* is a true wild species, and not a hybrid between *I. forrestii* and *I. chrysographes* as suggested by Brian Mathew in 'The Iris'. It is included as a species in the more recent 'Iris of China'. Another new Chinese 'border-plant' giving excellent value this year was *Aster* sp. CLD 494. The stems are again about 0.75m tall, and few-flowered, but the individual blooms are enormous, over 10cm across, and rather inula-like. The discs are dark brown in the centre, with a border of yellow fertile florets, then an unusual fringing of short green rays, and finally the main longer, slender ray-florets of a delightful cool lavender.

I can only hope that my mentioning the two raisings here will not lead to their demise. Over the years, I have lost count of the number of good plants that I have recorded in print, only to have Lachesis wield her shears and cut them off in their prime. This spring the abrupt change in the weather proved too much for our mature plants of *Meconopsis punicea*: it was almost as if they had had a dotted line at soil level marked: 'rot here'. Their foliage showed severe wilting and upon investigation they came in half as cleanly and irrevocably as if cut by a high-powered laser. Perhaps Themis' daughter has up-dated her equipment? Their death would not have mattered so much if we could readily raise replacements. Poll has repeatedly tried hand-pollination, but can find very little pollen on our plants, and most of our seed is not viable. We are told *Meconopsis punicea* does very well in the warmth and high humidity of a polytunnel: but there are limits beyond which we will not go in accommodating a plant. It is the overall look of the garden as a whole which comes first for us.

It was not in our borders, but in the grass areas between, where the lack of growth was most apparent. I only mowed five times during the whole growing season; conditions were either too wet or there was no appreciable regrowth from lack of water. First cut was on May 16th and the last coincidentally, on September 16th, Mexico's Independence Day. Our local paper recorded that a Dutch family, having purchased a home in the Highlands, arrived to take possession during the incessant August rains. The wife stuck it for two weeks before delivering an ultimatum: the estate or her. They returned to the Netherlands! I doubt if they found much respite at home, for a Dutch friend tells me he has had two and a half times the average rainfall this autumn.

Our plastic frame lights' primary purpose is to stop our pots becoming too wet at the wrong time, particularly in winter. Once growth is under way in the spring they are removed, and only replaced overnight if frost threatens. Some more sensitive plants are given a temporary covering of a lightweight 'fleece' material first. Once the danger of frost is past, say in early June, the lights are stored in the loft for the summer. This year we had to keep them on the frames in the daytime well into April, to stop the pots waterlogging. The troughs could not be protected from the excessive spring rain, so it would have been a waste of time giving them their usual liquid feeds. Instead I resorted to scattering a granular fertiliser, I.C.I. Growers 1-1-2, on all the troughs for their spring boost. Because this is an immediate fertiliser, not a controlled release, I was afraid that any granules lodging on cushions might scorch their foliage, but we saw no signs of any damage, and the plants responded immediately. We used the high potash formulation to encourage flower and seed production rather than high nitrogen which would give too much lush vegetative growth. Alpine soils are often relatively high in potash from rock breakdown.

At the other end of the season, the frame lights had to be brought back into use rather earlier than usual, at the beginning of September. We were afraid that many plants, especially our new arrivals from America, were getting too cold and wet. Apart from an occasional evening torchlight inspection for slugs, the frames were left alone until November 1st when they were watered gently. The pots, in capillary contact with the sand underneath, naturally get some moisture from below. So much for the oft-repeated suggestion that alpinists need constant attention!

In fact our pot plants have been sadly neglected this year, Poll being physically unable to carry out the usual round of repotting our larger pots. Because of the limited resources in a container, senescence shows far sooner and more evidently than in the open ground. With the troughs as a precedent, I resorted to desperate measures and simply scattered the same granular fertiliser lightly onto all the older pot plants, in situ in the frames. Once again response was excellent with no evident scorch. In one corner of a frame three cushions, originally in neighbouring 10cm long toms, grew into a solid interlocking carpet: *Saxifraga spruneri*, *Celmisia sessiliflora* and *Acantholimon lycopodioides*. They **must** be rescued next spring, candidates for a polystyrene mini-trough?

Full-Stop for Lilies

Probably the most important advance in the garden this year, from the

visual point of view, has been the completion of the raised lily bed at the end of the old dry-stone dyke dividing the lower garden (No. 18 on the plan in the last issue). This construction has at last eliminated a long-standing patch of neglect, which, because of its prominent position, was something of an eyesore. A large horse chestnut tree had stood on this site prior to the construction of our house in 1970. It was cut down because of its dangerous habit of shedding large limbs without warning, once just after the children had been playing underneath. We were left with a very solid stump well over a metre in diameter. Starting a garden from scratch, we did not relish the onerous task of its removal; we simply allowed ivy to cover it over, and waited for fungi to weaken its resistance.

In the early 1980s some attempts were made to remove it, both by visitors looking for a job, and by our own son, Sean, but the stump's defences were still too strong. The real breakthrough came in July 1984 when Frank Tindall and Geoff Rollinson stayed for a couple of days. It was a warm sunny evening and we paused for drinks sitting on the stones at the foot of the old azalea bed. Noticing the evidence of previous attacks, Frank and Geoff offered to dig it out, if they were allowed showers afterwards! Completing our tour around the frames first, it was 7 pm, in the cool of the evening, before they started. Defeat had to be finally admitted at around 9 pm. Poll called time by announcing that dinner could not be slowed any further. They had in fact broken the back of the problem, and after one more year of rotting, the remains were finally removed with Sean's help in July 1985. For this final battle a systematic approach was adopted: sapping its strength literally by excavating a trench all the way around the stump.

As we intended a raised bed on this open site to make a full stop in the end of the dry-stone dyke, we roughly levelled the soil and left it to settle. Because changing priorities that year led to our concentrating on further frames to secure our future here, this area was abandoned to its own devices for far longer than we had originally intended, occupied only by a bird-sown *Fuchsia magellanica*. Eventually in March and April 1990 I rebuilt the end of the dividing dry-stone dyke, including replacing the foundations disturbed by the campaigns against the stump. Soil recycled from Raised Bed I was then used to fill in the remaining hollows, and the excess piled up into the rough shape of the proposed bed. The dismantling of R.B.I. and the rescuing of some of its inhabitants was described two years ago in the Stone Column, January 1991 (Rock Garden no. 87 p.139).

In order to ensure that the area was thoroughly stable we waited for a further two years, until August 1992, before constructing the skirt of

retaining wall: two courses of stones totalling about 0.4m high. Almost an entire leaf-mould pit was spread cut inside and forked in. As this bed is 3m wide, a row of stepping stones was required down the centre, to subdivide it into our usual 1.5m weeding sections. Peter Cox records that the worst pests of rhododendrons are two legged: birds and humans. The latter walk on and compress the soil over their roots. Anyone walking on our soil gets 100 lines: "I must not reduce the air-filled porosity of the soil by compacting it unnecessarily". Incidentally, this same principle also applies when potting up alpiners, their roots prefer relatively high levels of oxygen. They are the trout and salmon of the plant world. Sometimes, however, compaction is desirable: before laying the stepping stones, I walked up and down the line heavily so that, as the bed settles again, these flat stones will tend to stand proud. There is then scope for top-dressing to be applied without burying this pathway.

I had no real choice of planting time, as Poll unboxes and sorts her bulbs in September and October. In addition I rescued and replanted in this new purpose-built bed several groups of lilies which had been set out temporarily in the rear rose border during the period 1987-89. Although they had grown here perfectly well, some of the colours clashed terribly with the roses: the semi-recurved brick-red of the Tennessean *Lilium grayii* with the bright magenta pink of *Rosa gallica officinalis*, for example. Much more important was the damage done to lily stems by the rose canes blowing in the wind. Since lilies have no basal leaves this can severely weaken the bulb, or at best prevent seed being set. Taller species replanted toward the centre of the new bed included the clear yellow *Lilium monadelphum*, from seed of garden origin grown as *L. szovitsianum*; the golden rayed *Lilium auratum* from wild seed of Japanese origin, which has done very well considering it is supposed to like a warm climate, and a dark wine-red form of *L. martagon*, labelled var *cattaniae* in the Club Seed Exchange. (All our lilies are grown from seed to avoid virus). To these were added the elegant soft tangerine flowered *Lilium canadense* and the more strongly recurved orange *L. columbianum*, both raised from A.R.G.S. seed. An English visitor once suggested, tongue in cheek, that we ought not to be growing *Lilium carnolicum*; but why not? It is often a plant of mountain meadows. Both the normal orange form of this, and a dwarfer yellow relation, *L. albanicum*, were removed from the clutches of suckering rugosa roses. The last is a more refined equivalent of the *L. pyrenaicum* we have relegated to the middle bed along with the excessively tall *L. superbum* which often tops 2.5m, rivalling our *Cardiocrinums*.

Three different representatives of the latter genus flowered this year, the normal white *Cardiocrinum giganteum* with a broad maroon stripe on each long petal; the lime green *C. g.* var *yunnanense*, and the rather smaller *C. cordatum* var *glehnii* from Japan, with slightly greenish white trumpets.

Around the edge of the bed were placed examples of all Poll's species, forms, and varieties of the *Lilium nanum/oxypetalum* group. They were separated by various erythroniums, mostly Californian species from seed and the odd small trillium, like the recently named *T. parviflorum* which we had grown from Siskiyou seed. Finally to add variety to the bed we inter-planted with several Sino-Himalayan *Arisaema* species such as *A. jacquemontii* and *A. wallichiana*.

Moving to the upper garden, readers may be wondering what has happened to the 'Haze' bed mentioned briefly in January 1991 and again a year later. The terracing here was completed as long ago as July 1991 and we were going to plant up this area that autumn, but fate had other ideas. The last part of the top terrace finally received its layer of leaf mould in December of last year, simply because I had to empty the pit, on our three-year cycle, before the new collection could begin. This year the lily bed described above used up the necessary leaf mould much earlier, and we were able to start on the leaves, as one should with a mechanical aid, immediately they fall. Raking by hand, one is tempted to wait until they are all down.

We rescheduled planting for the spring of 1992 and even went as far as buying in the necessary heathers. Once again it was not to be. The excessive number of wet days so extended the winter clearing that it extended into, and overlapped with, the onset of the weeding season. Before we could draw breath it was late June and we were about to leave for California. Quite a number of the plants we wished to put out into the Haze terraces were quite small, in 7.5 or 10cm pots. If these ericaceous plants with relatively small rootballs had been planted out into our light well-drained soil during the hot dry period from mid May onwards, they would have required assiduous aftercare. We decided to wait until autumn rather than burden our garden sitter with further responsibilities. Delaying this planting meant that I had to pot on the recently acquired heathers; Poll was not amused as they occupied two bays in her nursery frames.

To obtain these heathers we had gone first to a Highland Heather Centre. Although this was attractively landscaped using a wide collection of cultivars the labelling was poor, and there was no-one who took a real interest in helping us. As they had not yet bought in the bulk



Fig. 35 Mt Elbrus and *Rhododendron caucasicum*, Balkaria, Russian Federation (p138)

Michael J B Almond

Fig. 36 *Gentiana angulosa*, central Caucasus, Georgia (p138)

Michael J B Almond





Fig. 37 *Gentiana pyrenaica*, central Caucasus, Balkaria (p134)

Michael J B Almond

Fig. 38 *Campanula* sp. (aff. *tridentata*), Balkaria (p134)

Michael J B Almond





Fig. 39 *Daphne glomerata*, central Caucasus, Balkaria (p140)

Michael J B Almond

Fig. 40 *Corydalis conorhiza*, central Caucasus, Balkaria (p135)

Michael J B Almond





Fig. 41 *Corydalis alpestris*, central Caucasus, Balkaria (p138)

Michael J B Almond

of their spring stock, we left them to sell teas to tourists and went elsewhere.

Friends had recommended that we try Angus Heathers, a suggestion which dovetailed very neatly with our spring visits to Plasbord Plastics in Montrose and Christie's Nurseries. Letham is not an easy village to find, lying off the main roads, but it is relatively high up, so any plants will be grown hard, an added attraction for us. I must declare an interest straight away in that Joyce and George Sturrock, who run the nursery, were at one time members of the Inverness Group. The contrast with our previous experience was marked, their excellent accessible display beds are clearly and comprehensively labelled. They do all their own propagating, give the clear impression that they care about the plants, and are able and willing to give advice. George told us that he considers there are far too many dubiously distinct named cultivars, especially of *Calluna vulgaris* and *Erica herbacea (carnea)* which will appeal only to the collector. At his recommendation we stuck to a representative collection of classic well-established cultivars. The heather bed is something of a cliché, but one which would not be so prevalent had it not its good points. Our proposed planting within the Haze bed is intended to act as a winter foil with the nearby Conifer Ghetto.

Poll did a trial forking in of the leafmould on the bottom two terraces in September, before returning to her bulbs. There were no physical repercussions so we could contemplate her tackling the Autumn Gentian Bed, in the centre of the upper garden grass, a year behind schedule. This is only the second time we have started a conventional island bed; the first was the Middle Bed, but that was just a case of joining up the tree-holes. We delineated the shape by laying out a hose-pipe; Poll disliked the first attempt saying it was too much like a 'wonky circle'. We ended up with an inflated triangle, one whose sides are bulging slightly under pressure, with rounded corners for mowing. The turf within the outline was cut into rectangles for lifting. Even this was difficult because of all the small stones; I used not a half-moon but a small border spade and often had to wiggle it in. The turves were prised up, battered with a fork to remove most of the valuable top-soil, and then stacked for eventual use as loam in potting compost.

This part of the upper garden had been ploughed up for vegetables during W.W.2., and since then used just as a sheep-walk. It was therefore much easier to work than the bottom of the lower garden which had been a pre-war rubbish tip for the Convent next door. Fortunately the nuns only dumped domestic refuse, mostly ashes, plus the odd bonus like old bottles and thick stoneware cream jars. Poll has a collection of

our finds in the front porch. In the lower garden we had to get a local crofter to harrow the ground and later sow grass seed; a pasture mix, not one for fine lawns. In between we 'employed' the first-formers (boys of this age will do anything for a good tea!) to pick up stones – lining them up across the garden with various buckets and containers. In the old days, the women did this job, their piles of collected stones can still be seen at field-edges around the local crofts.

In the upper garden we simply removed obstacles like gorse bushes and mowed down the existing turf. When removing these old turves I did not have to pick out broken glass and clinkers, but I did have to go over them fairly carefully to remove knobbly tubers of *Conopodium majus*, the pignut. This potential weed cannot be pulled out of beds, the stems and leaves simply break away; nor is it susceptible to most weedkillers. The best way to tackle it is careful digging as was once done by children to collect the tubers for eating. One of the monks remembers doing this when he was a boy in the Abbey School; now we have vending machines in the 'ref'.

As I worked at my turf-lifting, stags roared on the hillside opposite, across the River Tarf. The local Tourist Board hope to encourage more visitors at this time of year, to see the autumn colour and possibly witness something of the rut.

Some Maryfield Gentians

1992 was hardly an auspicious year for us to be starting on a new bed for autumn gentians, for this season they have hardly had the opportunity to open properly. Guy Fawkes' Day was very mild, in the warm sector between fronts, and many of the remaining flowers took full advantage. Perhaps the best surviving blooms were on the true *Gentiana* x 'Elizabeth'. Since there has been some confusion in the trade, with another clone being sold under this name, this might be an opportunity to set the record straight. 'Elizabeth' was one of three seedlings raised by Neil Lyle of Maryfield Nurseries, Fife, in 1953; the other two being named appropriately 'Edinburgh' and 'Coronation'. Their parentage was *G. hexa-farreri* 'Aberchalder', a fine plant we once had from the late Col. Stitt, crossed with *G. x* 'Devonhall'. Since *G. farreri* appears on both sides of this cross, all three have thin grassy foliage and long slender calyx lobes.

'Coronation' is the closest to 'Devonhall', with a somewhat tubby flower of a slightly darker blue, and having a very obvious white throat. This is emphasised because the tube is scarcely spotted, and the three lines down each corolla lobe are quite fine and clear. I believe it is this

clone which is sometimes sold as 'Elizabeth'. 'Coronation' was given an A.M. in 1959 under its own name; contrary to statements I have seen elsewhere 'Elizabeth' has as yet had no award. Possibly the confusion was caused by the A.M. given in 1967 to a quite different plant: 'Elizabeth Brand', a seedling raised by Col. Stitt, possibly from *G. x Inverleith*.

G. x Edinburgh, the consort, is only very slightly darker again than 'Coronation', but the general aspect of the flower is quite different, for it lacks the same contrasting throat. The striations on the tube are far broader, heavily spotted in between, and the blue bleeds down the plicae to a greater extent. Thus, from a distance, the centre of the flower appears pale blue, not the staring white 'eye' of 'Coronation'.

The true *G. x Elizabeth* of Neil Lyle; and I am quite sure of this point having asked him twice on two separate autumn visits here, is darker again – a royal blue. The corolla tube is longer and more slender, showing little of the influence of *G. ornata* in its shape. The lines down each lobe are thick and close, and the blue extends down the plicae without dilution. Thus, from a distance, the flowers are more or less a uniform blue, with no obvious paler centres. The foliage is also darker, and more glossy. This true 'Elizabeth' also blooms somewhat after her sister seedlings.

Neil has also worked on *G. x Devonhall* itself, raising several generations of the original *G. ornata x farreri* cross and reselecting. His 'Devonhall Selected' is a superb strain: a really brilliant azure blue, the huge tubby flowers facing upright above a dense compact mat of pale foliage. They bloom quite early in the autumn gentian season, just after *G. farreri* and most profusely, all in all one of the very best! There are a number of other strains of the same grex around, but I have yet to be convinced that any has quite the same brilliance and clarity of the one from Maryfield.

Birdstorm

No matter what kind of season we have, it always suits something, the heather for example has been exceptionally good this year. Driving through the Drumochter Pass in August, we cannot recall ever seeing such a fine display of *Calluna vulgaris*. On the less grand scale of the garden, seedling orchids have appeared everywhere, in beds, troughs, and even in pots of other plants. One past season must have been ideal for whatever fungus they need to reproduce from the dust-like seed blowing around the garden. On the negative side, we have had far more caterpillar damage, and on the positive side more butterflies and moths

around than for many years. We only spray if absolutely necessary, for example a dense colony of little black caterpillars which threatened to defoliate whole branches of our large 1.5m *Salix x boydii*. The synthetic pyrethroid insecticides are very effective, and safe to use.

As we were washing up one evening, the kitchen light illuminated our group of *Crinum x powellii* outside the window. A huge moth, suddenly appeared, hovering like a humming-bird and uncoiling a very, very long proboscis into the pink trumpets. Several times it approached the window, a light mushroom-brown blur, with huge dark eyes. We learnt later from the local paper that it was a *Convolvulus* Hawk Moth; others had been sighted around Inverness.

Above all however 1992 has been the year of the Rowan. Every specimen of our native *Sorbus aucuparia* around the village, from the largest veteran to young 2m seedlings, has been laden with fruit. In the garden it was the same story, every one of our exotic species fruited well this year. This exceptional display, however, was destined to be relatively short-lived, for the early onset of severe weather in Scandinavia led to an invasion of the Highlands by thousands of redwings, backed up by thrushes and fieldfares. For a ten-day period, whenever we went outside there was a constant waterfall of clamorous twittering as they stripped the rowans one after another. A large tree just across the road was totally denuded in less than a day. Each time a lorry passed, there was a snowstorm of displaced redwings, only for them to re-congregate minutes later. Within the garden they ate all the red fruits first, and the rich pink *Sorbus hupehensis*, then the golden *S.* 'Joseph Rock' seedling and finally the latter's pale canary sibling. The only crumbs left for our local blackbirds are the pink and white mixture on *S. vilmorinii* and the pure white fruits of *S. prattii*, now the singing trees are elsewhere!

Birds also provided one of the most memorable sights, as well as sounds of 1992. The hillside, across the Great Glen from the upper garden, faces north-west and so is illuminated obliquely by the setting sun. At this time of year, we have to work outside all the dry daylight hours available, and so I was still turf-lifting as the last low-angled rays fired the golden tones of the scattered birches on the opposite slope. My attention caught by a muted honking, I stood up just in time to see a skein of around a dozen whooper swans heading south for the winter, brilliant profiles of white against the russet of the dying bracken. A highlight both literally and figuratively, one to savour during the coming dark days of winter.

The Caucasus: Part I: Across the Caucasus

MICHAEL J. B. ALMOND

The great chain of the Caucasus extends in an east-southeasterly direction from the Black Sea to the Caspian. It is about 1100 km in length but is relatively narrow (usually only about 100-110 km across). Few great mountain chains have their boundaries so clearly marked: on the north its foothills rise abruptly from the vast plains and steppe of Russia; on the south it is bounded for a distance of nearly 400 km by the Black Sea, then for a further 100 km by the broad and level valley of the Rioni, and finally by the deep valley of the Kura as far as the Caspian Sea. The watershed between the Kura and the Rioni is of very low altitude compared with the snowy ridge of the Caucasus to the north. In its general character and arrangement the Caucasus is more like the Pyrenees than the Alps. Its general uniformity of direction, its comparatively small width and its well-defined limits, not to mention the fact that it subsides to the sea at each end, are features it shares with the Pyrenees. In addition, like the Pyrenees, the ridge of the Caucasus generally preserves a high elevation for long distances and is not intersected by those natural passes across the chain which occur so frequently in the Alps. Another resemblance is that two of the highest peaks of the Caucasus, Elbrus and Kazbek, are more or less detached from the main chain. Just as Mont Perdu and the Maladetta lie distinctly in Spain, south of the main chain, so Elbrus and Kazbek lie north of the main chain, and so are firmly in Europe – the Caucasus being generally considered to mark the boundary of the continent. The highest summits of the Caucasus exceed those of the Alps by a considerable measure and the high passes are much higher than anything one must cross in the Alps or the Pyrenees in order to get from A to B. Elbrus is some 1000m higher than Mont Blanc and so can justly claim the title of highest mountain in Europe.

The flora of the Caucasus is, in a great many respects, very similar to that with which we were already familiar from the Pontic Alps in north-east Turkey. The scenery, too, is similar in some respects, but on an even grander and more majestic scale. In our twelve days in the mountains, of course, we could only gain a small taste of the chain as whole, but there is no reason to believe that our experiences would not be representative of elsewhere in the central Caucasus. We saw many old friends among

the flowers, often in greater profusion than we had seen them before. Flowers that were new to us have sometimes been difficult to put a name to, as there is nothing nearly as helpful as the *Flora of Turkey* for the Caucasus, nor anything as simple as an alpine flower handbook. Many of the identifications that follow are, of necessity, either very tentative or else simply comparisons with similar species familiar to us from Turkey and described in the *Flora of Turkey*.

Our trek started at a height of 1500m above sea level, where the main Baksan Valley is joined by its tributary, the Adyrsu. The day consisted of a pleasant walk up through the woodland which carpets the floor of the narrow valley as far as the privately-owned Old Jaylik Hotel which is situated where the woodland begins to give way to alpine pasture, at a height of 2300m. At the lower end of the Adyrsu Valley, the woodland is mixed but it becomes predominantly coniferous as the altitude increases. In the woodland itself there were numerous plants of interest: wintergreens (*Pyrola minor*, *P. rotundifolia* and also *Moneses uniflora*), yellow broomrape (*Orobanche* sp.), *Aquilegia olympica*, a pink saxifrage (*Saxifraga kolenatiana*, one of the species into which the 'Flora of the USSR' splits *S. aizoon*), a white *Centaurea*, a tall white wild onion (*Allium victorialis*), greater butterfly orchid (*Platanthera chlorantha*), grass of Pamassus (*Pamassia palustris*) and herb Paris (*Paris quadrifolia*). In the more open spaces between the woodland we found an abundance of the fragrant orchid (*Gymnadenia conopsea*) and also a *Campanula* with large dark-blue (but sometimes white) bells, a large purple aconite (*Aconitum napellum*?) and the large pinky-purple *Stachys macrantha*. In the woods by Old Jaylik Hotel itself were lots of *Pyrola* and *Moneses* and some dark purple broomrape. On the scree above the hotel we found the prophet flower (*Arnebia pulchra*), campanulas (a *C. tridentata*-type and others), *Berberis vulgaris*, the tall white *Aconitum vulpare*, *Allium victorialis*, *Aquilegia olympica* and the pink *Potentilla oweriniana* (the Caucasian equivalent of *P. nitida*, but with more sparsely petalled pink flowers), before we were driven inside by the rain. The trees round about were full of squirrels: darker and somewhat larger than our own red squirrel and as bold as the grey squirrel in their antics. The hotel looks like an old wooden Swiss chalet and is fairly basic (although it does boast a sauna and effective showers). It does not, however, suffer from the malaise afflicting state-owned enterprises and the party was well entertained by the proprietor, Igor, and his wife and pretty daughter. The entertainment included an extensive sample of Igor's repertoire of Russian and Ukrainian folk-songs accompanied by himself on the guitar, together with the attentions of the hotel cat.

Next morning we set off to climb up to the Mestia Hut, which was to be

our jumping off point for crossing the main watershed ridge via the Mestia Pass. Above the hotel, the alpine meadows covering the valley floor beneath the majestic mass of Ullu Tau (Turkish for 'the Great Mountain'), were a mass of colour – largely the purple of vetches, together with *Campanula* and *Anthemis* (*A. rudolfiana?*). As we climbed higher, on old moraine below the snout of the glacier, we encountered spring gentians (*Gentiana verna* ssp. *pontica*), primulas (*Primula algida* and *P. bayerni* gone over), saxifrages (*Saxifraga flagellaris*, and *S. cotyledon* in various colours), *Potentilla oweriniana*, *Campanula tridentata* (–type), (Fig. 38, p.125), *Cerastium undulatifolium*, *Erigeron* sp., *Myosotis* sp., and mats of *Arenaria* sp. After negotiating some more recent moraine, on which nothing appeared to be growing, and crossing the glacier itself, we arrived at the Mestia Hut, perched on a rocky bluff overlooking the valley at a height of 3150m.

The Mestia Hut is an unmanned hut with room for our party of 17 only at a squeeze. We had been scheduled to remain there only one night but, because of problems with the arrangements for crossing the pass, we remained a second night and thus had ample opportunity to explore the small area around the hut, between the cliffs and the glacier. The only bulbous plant in flower was *Lloydia serotina*. There were masses of primula, mainly *Primula amoena* (also known as *P. elatior* ssp. *meyeri*); also some *P. algida*, the local Pyrenean gentian (*Gentiana pyrenaica* – in the 'Flora of the USSR' called *G. djimilensis*) (Fig.37, p.125), two types of *Campanula* (larger pale-blue flowers and smaller reddy-purple, both probably *C. tridentata* or *C. aucheri* or related species), *Androsace barbulate* (a subdivision of *A. villosa*), *A. albana*, *Draba bryoides* (?) (tight cushions on rocks, with little yellow flowers), *Viola caucasica* (like *V. biflora*), *Saxifraga moschata*, *S. cernua* or similar, *Arenaria*, dwarf forget-me-not (*Myosotis* sp.) and the pale-blue *Eritrichium caucasicum* (related to the 'King of the Alps' but infinitely paler in colour). We were also entertained by the antics of the emine and enchanted by the flock (herd?) of wild goats/wild sheep (known locally as Tur) the members of which were foraging in the area and allowed one to approach as near to them as any flock of domestic sheep would do.

Crossing the Mestia Pass, which is extensively glaciated on both north and south sides, involved rising at 4.15 am to get the best snow conditions and roping the party together in case anyone slipped on the steep slope or came unawares upon a crevasse. The views down the Adyrsu Valley and across to Elbrus were very fine as we trudged up the final slopes. The pass is 3860m high and, because of the extensive snowfields and the difficulty of getting off them on to rock, we saw little of interest in the way of plant life during our crossing. There was a small saxifrage (*Saxifraga juniperifolia* or similar) on an exposed bluff half way up, but the only other flowers we

noted were *Arenaria* sp. and a large-flowered chickweed (*Cerastium undulatifolium*) on cliffs above the snowfield at the top of the pass. The views south into Georgia from the top of the pass and from the snowfields as we descended were stupendous: the vast upper basin of the Leksyr Glacier with the soaring, saw-toothed ridge of Svetgar as a backdrop. We eventually worked our way down to the glacier, along which we walked for some kilometers before reaching our camp, at a height of 2500m, which was pitched actually on top of the glacier at a place where the ice is overlaid with rubble.

The valley sides to the north of the camp looked very inviting but completely inaccessible (perhaps this is where *Gentiana oschtenica* grows!); the slopes to the south looked inviting enough and far more accessible. In the event both estimates were not entirely accurate. The valley sides were steeper and looser than they appeared from a distance and extremely difficult, if not dangerous, to negotiate. Although there were flowers of interest up there, there was not as much as might have been expected. We found *Rhododendron caucasicum* (mostly not yet in flower), *Pulsatilla aurea*, *Primula amoena*, *Corydalis conorhiza* (Fig.40, p.126), a very attractive yellow buttercup with frilly petals, spring gentian, a large-flowered *Erigeron* and a mass of dwarf willow (with catkins).

It had been a hard slog over the pass and down the glacier and the next day was billed in the programme as 'an easier day'. Unfortunately, however, we were the first trekking group to walk this route, this part of which had only been reconnoitred by helicopter and was not familiar even to our Russian guides. We rose again at 4.15 am and started off down the glacier. Next we had to negotiate a very extensive and unstable new moraine, composed of large boulders, every other one of which rocked as one walked over it, and there was no path. The only plants we noted on this stretch of the journey (growing in occasional patches of sandy sediment) were a dwarf willow-herb (*Epilobium*) and a white saxifrage (*Saxifraga cernua?*). After what seemed like an eternity, we eventually passed the icefall at the bottom of the glacier and got off the unstable moraine on to older, more stable moraine. Our troubles were not over, however, as the path was frequently obliterated by recent landslides and the whole moraine was overgrown with a fairly impenetrable birch scrub; added to this, it was cold and raining quite heavily. In view of this, it is perhaps surprising that we managed to note *Pyrola* in the scrub and the tall handsome pink *Tanacetum coccineum* in the clearings. We were quite relieved that we saw nothing on this stage of the journey that demanded to be photographed.

When we eventually reached a real path – a drovers' path up to high pastures of the Tuibri Valley – the slopes above and below it were dotted with yellow lilies (possibly the same as the *Lilium monadelphum* on the

northern slopes, but they appeared to be more slender and less free-flowering). Along the way down the valley (in spite of increasing fatigue) we also noticed the tall *Campanula latifolia*, marsh orchids (*Dactylorhiza* spp.), fragrant orchid (*Gymnadenia conopsea*), a pink *Astrantia* and a tall pink *Silene* with a multiple-flowered head (possibly *S. asterias*). When eventually the path merged with a track along which it was (with great care and with great discomfort to any passengers) just possible to drive a lorry, luck had it that there was an empty lorry about to set off down the track. After a short conversation between our Russian guide and the driver, we piled our packs and ourselves on to the back of the lorry and held tight. The drive was extremely uncomfortable but must have saved us a good two hours walk down to our hotel in Mestia. As it was, we arrived there nine and a half hours after leaving our camp on the Leksyr Glacier.

Mestia is a small town of about three and a half thousand inhabitants and is the main centre of Svanetia, the remote upper valley of the Inguri River in the north of the Republic of Georgia. It lies at a height of 1500m and is surrounded on both north and south by peaks rising to over 4000m in height. In Mestia and in the other villages of Upper Svanetia there are preserved many traditional tower houses, which served as both dwellings and strongholds in more lawless times (which lasted until only a little over one hundred years ago). The lush green landscape and the villages dotted over it, framed by the soaring snow-capped mountains, form a picture of unforgettable beauty. Mestia's only functioning hotel, the Tetnuldi Hotel, occupies a commanding position with a fine view both of the town and up the valley to Tetnuldi, the mountain after which it is named. The food was appetising and plentiful and the sanitary arrangements indescribable.

We spent a rest day at Mestia and had the opportunity to wander round the town and visit the ethnographical museum and a restored tower house. At 1500m, we were too low for anything of much interest to be still in flower. The whole of the town seemed to be surrounded with yellow azalea (*Rhododendron luteum*) which had finished flowering a couple of weeks or so earlier; just a few of the yellow flowers were left, but if it all flowers at once it must be an astounding sight. It will make any honey produced in the area at that time unsafe for visitors to eat: compare the problems experienced by Xenophon and the Ten Thousand in the Pontic Alps and see Hills, D.: *My Travels in Turkey* (London 1964), for an account of its effects. In scrub and woodland east of the hotel we also found wild strawberries, wild gooseberries, yellow *Potentilla*, red helleborine (*Cephalanthera rubra*), the tall pink *Silene*

with multi-flowered heads, and a large yellow loosetrife (*Lysimachia punctata*). Down by river and around the hotel there was white *Digitalis*, henbane (*Hyoscyamus niger?*), a dwarf white *Datura* and tall *Alcea* (hollyhocks). The whole town was alive with foraging pigs and their piglets – not the large white variety to which we are accustomed but something much closer to a wild boar in appearance. Its human inhabitants, however, were by and large conspicuous by their absence and the whole town seemed ‘dead’ compared with a Turkish town of similar size (which it very much resembled in appearance, except for the stone tower houses).

Mestia does not appear to function very efficiently, but at least the long wait for our bus was made in fine weather with a superb view to admire. Eventually the bus came and whisked us down the main valley past several small villages with their picturesque tower houses and small churches, and then north again up a side valley until we reached a height of about 1300m, above the village of Mazeri and beneath the western walls of Ushba. Ushba is variously referred to as the most beautiful mountain in the Caucasus and as the Matterhorn of the Caucasus, but unfortunately – due both to cloud and to the impatience of the bus driver – we did not get a good view of its majestic twin peaks.

We walked up through dense woodland, with spectacular views of waterfalls glimpsed through the trees, and up a precipitous gorge until we reached the alpine pastures of the upper valley. Along the way we noticed the shrub *Vaccinium arctostaphylos*, a marsh orchid (*Dactylorhiza fuchsii?*), white saxifrage (*S. cernua?*), the tall pink campion (*Silene*), pink *Astrantia*, broomrapes, *Swertia iberica* (a tall relative of the gentians with starry grey-blue flowers) and *Pyrola rotundifolia*. The alpine meadow had been overgrazed and contained a lot of rank vegetation such as dock; in spite of this it presented a colourful picture, with masses of the tall dark *Pedicularis atropurpurea*, tall asters and yellow dog-daisies (*Inula* sp.). We camped at a height of 2300m, at the confluence of the main torrent with the side torrent whose valley we were to follow the next day. Nearby was the steading of some herdsmen who provided us with delicious cheese and milk to supplement our camp rations.

Next morning we were up at 4.30 am for our re-crossing of the main ridge, out of the Republic of Georgia and back into the Kabardo-Balkarian ASSR (part of the Russian Federation), via the Betcho Pass. The meadows above the camp were much the same as those below, with the addition of *Aquilegia olympica* and fritillaries (which had already gone over). As we progressed further up the valley on to old moraine we

met a mass of marsh orchids (*Dactylorhiza* spp.) and the occasional clump of spring gentian (*Gentiana angulosa?*) (Fig.36, p.124) and some *Anemone impexa* (a subdivision of *Anemone narcissiflora*). When we halted for a while at the upper edge of the moraine and below some snow banks, the stream banks and the valley sides were carpeted with *Primula auriculata*, prophet flower (*Arnica pulchra*), anemones (*Anemone impexa*, *Pulsatilla aurea*) and *Trollius ranunculinus* (the same genus as the globe flower from Europe, but more the shape of a big buttercup).

On high scree below (to the south of) the Betcho Pass, at a height of about 3000m, we noted *Arenaria*, *Cerastium undulatifolium*, prostrate speedwell (*Veronica* sp.) *Primula amoena*, *Lloydia serotina*, *Potentilla oweriniana*, *Draba bryoides* (?) and corydalis (*Corydalis alpestris* – much bluer than *C. conorhiza* and growing at high altitude in scree rather than silt) (Fig.41, p.127). We were very pleased to find *Primula bayerni* in flower on the cliffs above the small glacier on the south side of the pass; it is a white nivalid primula, similar in many respects (though not in colour of flower) to *Primula longipes* with which we were familiar from Turkey, and grows only in the Caucasus. It and *P. longipes* are the two most westerly examples of the nivalid group, the members of which are usually found in the Himalayas.

After pausing for lunch at the top of the pass (3375m) and admiring the spectacular views of Dongusorun and Elbrus, we were roped up again for the long, steep descent of the glacier on the north side. The scree below the glacier was very steep and, if anything, even more difficult to negotiate. In spite of fatigue and the need to concentrate intently, we did notice *Corydalis alpestris*, *Campanula aucheri* (?), *Anemone speciosa* (another subdivision of *A. narcissiflora*, but this time quite distinct, as it has lemon-yellow flowers) and a saxifrage (*Saxifraga cotyledon?*) in passing. When we got down to the old moraine and the lower valley sides they were covered with *Rhododendron caucasicum* (Fig.35, p.124) and there were masses of *Gentiana pyrenaica*. At 5.35 pm, exactly eleven and three quarter hours after setting out for the day and at almost exactly the same height above sea level, we tottered into camp exhausted. The local herdsmen provided a yoghurt drink like the Turkish ayran and also some delicious cheesecake flavoured with wild strawberries, but not all of the party were in a fit state to appreciate these delicacies.

Next morning we set off for our final hike down the Juzengi Valley to its confluence with the main Baksan Valley below. We had been promised 'black tulips' (*Fritillaria latifolia*) in this valley but saw no sign of them. The valley was well grazed but there were still ample stocks of

Rhododendron caucasicum, *Primula auriculata* and *P. algida*. On the lower slopes, and in particular in the woodland of the lower valley, we encountered *Aquilegia olympica*, *Lilium monadelphum*, *Allium victorialis*, white cranesbill (*Geranium*), monkshood (*Aconitum*), wintergreen (*Pyrola*) and the tall *Campanula latifolia*. We arrived at the road (1850m) after two and a quarter hours and were grateful for the bus ride to the Itkol Hotel, hot water and rest. While the more intrepid members of the party made an attempt on the summit of Elbrus we would now have two days in which to explore the area around the hotel.

The Itkol Hotel stands in woodland beside the Baksan River at about 2,000m above sea level. The hotel is only about five miles or so below the headwaters of the Baksan and the valley is narrow and steep-sided. In the woodland on the valley floor around the hotel there is a considerable amount of disturbance from building and other work; in spite of this we found greater butterfly orchid (*Platanthera chlorantha*), *Pyrola media*, *P. rotundifolia*, *Orthilia secunda*, *Dianthus barbatus*, *Viola kuppferi*, *Campanula*, and yellow rattle (*Rhinanthus* sp.) The meadows immediately above the hotel are a riot of colour; as well as the more usual meadow flowers we also found a lot of *Astrantia*, purple scabious, pansies and *Asyneuma campanuloides* (a relative of the *Campanula* with a tall, narrow spike of smallish, dark-blue flowers).

Elbrus itself is an extinct volcano about 5650m high, and resembles nothing so much as a giant slag tip. Above about 3500m it was completely covered in snow and ice, but on the rocky outcrops around the top cable car station (at 3500m, and beyond which we ourselves did not venture) there was a little botanical interest: various saxifrages (including *Saxifraga moschata*), *Draba bryoides* (?), a prostrate, sky-blue *Veronica* and a small ragwort (*Senecio* sp.) with felted leaves. At the middle station (3000m) in contrast, in spite of the lunar appearance of the landscape, there was a great deal of interest. In the course of an hour's exploration within a few hundred yards of the cable car station we found three types of *Campanula*, *Aster alpinus*, *Draba bryoides* (?), saxifrages (*Saxifraga juniperifolia* or similar, *S. cotyledon*, *S. flagellaris* and another white saxifrage), dwarf pink *Centaurea* (similar to *C. achtarovii*), *Jurinella moschus* (a prostrate, thistle-like flower), the yellow *Viola caucasica*, *Daphne glomerata*, and *Senecio*, *Anthemis*, *Antennaria* and *Arenaria* spp.

In the woods at the top of the Baksan Valley, between Terskol and the bottom cable-car station, we found more wild pansies, a tall, pink *Silene* with a multiple head (the same as we had seen at Mestia), creamy-white scabious (*Scabiosa ochroleuca*), tall, pink *Centaurea* and *Campanula*

of about 30cm in height.

The most rewarding excursion from Itkol, however, both in terms of flowers and scenery, was a trip up the chairlift on Mount Cheget and a walk up the valley between Cheget and Dongusorun, towards the Dongusorun Pass. In the steep meadows near the bottom of the chairlift there were masses of yellow lilies (*Lilium monadelphum*), pink *Astrantia*, cornflowers, scabious, the white *Silene viscosa* and the tall (up to 1m or more) purple *Campanula latifolia*, as well as a host of other colourful meadow flowers. There were more lilies under the chairlift itself, as well as masses of bistort (*Polygonum bistorta*), clumps of fragrant orchid (*Gymnadenia conopsea*) and house leek (*Sempervivum* sp.).

From the top of the chairlift (3000m) there is a superb view on the one hand of Elbrus, across the Baksan Valley, and on the other hand of Dongusorun. Although not nearly as high (4468m to Elbrus' 5633m), Dongusorun is much more impressive scenically, and we were rewarded with displays of massive icefalls on its great north face. The flanks of Cheget which face Dongusorun harbour a wealth of plant life on their rocky slopes: gentians (*Gentiana pyrenaica*, *G. verna* ssp. *pontica* (given the specific name *G. pontica* in the 'Flora of the USSR'), *G. septemfida* (only one or two flowers of this: it usually flowers later), *Arenaria*, *Draba bryoides* (?) (including one albino plant), yellow buttercups in the damp flushes, various saxifrages, various campanulas, *Aster alpinus*, *Erigeron*, *Veronica* (both prostrate and erect), dwarf maroon figwort (*Scrophularia*), *Scutellaria*, *Myosotis*, *Centaurea* (white and pink as seen on Elbrus), *Cerastium undulatifolium*, *Lamium tomentosum* (a dwarf, woolly pinky-white deadnettle), yellow buttercups in wet patches, *Corydalis conorhiza*, *Primula amoena*, *P. algida*, and *Daphne glomerata* (Fig.39, p.126). Here too the pink *Potentilla oweriniana*, which we have searched for in vain in Turkey, where it is confined to a small number of remote locations, grows in superabundance – being even more widespread than it was during the rest of our trek.

The path up the valley from the mid station of the chairlift is equally fruitful. Within striking distance of the path we found daphne (*Daphne glomerata* and *D. oleoides*?), gentians (*Gentiana verna*, *G. pyrenaica*, leaves of *G. septemfida*), *Potentilla oweriniana* (pink), *P. ruprechtii* (yellow), campanulas of various shapes, sizes and colours, *Centaurea*, white *Helichrysum*, *Antennaria dioica*(?), *Corydalis conorhiza*, primulas (*Primula amoena* and *P. auriculata*), marsh orchids (*Dactylorhiza*), anemones (the lemon-yellow *Anemone speciosa* and the rich golden yellow *Pulsatilla aurea*), *Rhododendron caucasicum*, *Aster alpinus*, dark purple monkshood, *Erigeron*, fritillaries (*Fritillaria latifolia*, mostly

finished flowering), cranesbills (*Geranium*), saxifrages (*S. cotyledon* type) and bearberry (*Arctostaphylos uva-ursi*). Because of low cloud and rain we were unable to go further up this path than the old wrecked hut at about 3000m.

The central Caucasus is a marvellous area for the photographer and botanist, whether wishing to stay on the well-trodden valley-bottom tracks or be more adventurous. At present it is only practicable to go as part of an organised group, but it was worth sacrificing our independence to gain some small taste of the area and what it has to offer. We look forward to the time when we shall be able to explore the area as we wish and at our own pace, as we can do in any normal country.

This article is based on a two-week trek in the central Caucasus, organised by *Exodus Expeditions*, which Lynn and I went on in July 1991. Our thanks are due to the other members of the party and in particular to the leader, Campbell McDermid, for their support and encouragement during a trip which turned out to be rather more strenuous than we had expected.

Further reading

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Plant Portraits

Leptinella atrata

Ian and Margaret Young

Leptinella atrata, previously known as *Cotula atrata*, is one of the many fascinating plants from the family Compositae found in New Zealand. It has a wide distribution in South Island, from Malborough to north Otago. It may be one of those plants that you either love or hate but we find it irresistible. From its creeping stems rise purple branches with pin-natifid leaves, glaucous above and purple below. The solitary flower, which appears at the ends of these branches, is a boss of almost black florets up to 2 cm across which, when it matures, is dotted by stamens carrying bright golden yellow pollen (Fig.48, p.164).

L. atrata ssp. *luteola* is identical in all parts except it has a creamy-yellow flower. *L. dendyi* is very similar to this subspecies but can be easily distinguished because the bracts below the head extend to hold the flower as if in a cup.

Seed of all these plants is sometimes available from the S.R.G.C. seed exchange and regularly appears in the N.Z.A.G.S. list. It germinates readily if treated in the standard way; we prick it out into 7cm pots when the plants are about 2 cm across, using a compost of 2 parts grit, 1 part peat and 1 part loam, plus some slow release fertiliser. The plants grow on well and if repotted again as soon as the roots fill the pot they should produce a flower in the first season. As these plants grow in the drier regions of New Zealand they do not appreciate being too wet but should not dry out either. Our plants in pots grow unprotected in a sand plunge for most of the year, only getting covered during the worst of the winter wet. With their delicate fern-like leaves and black button flowers they make delightful subjects for a trough, raised bed or any site in the garden given good light, a rich humus soil and a good layer of gravel to run along.

Calanthe tricarinata

Ian and Margaret Young

There are about 200 species of *Calanthe*, which are found over a very wide geographical area, with representatives in the tropical Americas, Australia, the Pacific Islands, Madagascar, Africa, south-eastern and

eastern Asia. One of the best of this genus of terrestrial orchids is *Calanthe tricarinata* which can be found in the Himalayas, Taiwan and Japan (Fig.42, p.144).

For a time this plant was mistakenly called *C. alpina*, and may still be found so called. It is, however, easily distinguished as the smaller flowers of *C. alpina* are lilac coloured with an orangish lip in contrast to the large yellow flowers with a brick red lip of *C. tricarinata*. *C. alpina* has a spur behind the flower which is absent in *C. tricarinata*.

The form we have experience of was originally introduced from an altitude of 3050m in Sikkim and is one of many plants given to us by Harold Esslemont, who originally acquired it in 1959. We have found it to be completely hardy growing unprotected in the open garden, although the pleated evergreen leaves do get a bit tattered by the wind, particularly during the winter months. It enjoys similar conditions to *Trillium* and does very well in a soil high in humus that does not either dry out or become waterlogged. We grow it in various sites, between rhododendrons and in peat beds and it thrives in full exposure to the Aberdeen sun. It is also amenable to pot cultivation in a well drained humus mix, repotted every two to three years with regular liquid feeds during the growing period.

Propagation is by dividing the rhizome, making sure each part has a growth point, and is best carried out either in early autumn or in spring just as the new growth is beginning. However, established plants show little objection to being split or moved at any time, even when in full flower. This beautiful hardy orchid flowers over a long period in June and with each 35cm spike producing up to a dozen flowers it would be a welcome addition to any garden.



Fig. 42 *Calanthe tricarinata* (p142)



Fig. 43 *Narcissus quatrecasasii segimonensis*, Cabanās, Spain (p150)

M & H Taylor

Fig. 44 *Narcissus bulbocodium citrinus*, Sierra de Gredos, Spain (p154)

M & H Taylor





Fig. 45 *Narcissus nobilis leonensis*, Picos de Europa, Spain (p155)

M & H Taylor

Fig. 46 *Narcissus asturiensis*, Picos de Europa, Spain (p155)

M & H Taylor





Fig. 47 *Narcissus alpestris*, Sahun, Spain (p155)

M & H Taylor

April in Spain, a Daffodil Diversion

MARGARET AND HENRY TAYLOR

In early April, Dundee (care of our excellent parks department) is a sea of daffodils, giving us itchy feet to search out their wild origins. So come with us on a journey.

It all really starts in Italy

Travelling by car and camping gives freedom to explore widely, so in true Farrer fashion when we reach the bottom end of France we turn left for a little detour. We are off to look for a high-altitude site of *Primula allionii*. On 4 April it is a clear frosty spring morning in the beautiful Bousset valley in Italy. Snow-covered mountains are all around, paradise for an alpine enthusiast. The grey-brown grass is starred with *Crocus vernus albiflorus* in white shading through to deep purple, a lovely sight. *Leucojum vernum*, green-tipped and yellow-tipped ones, prefer the damp shade of still leafless alder trees. Golden *Anemone ranunculoides* makes a splash of contrasting colour. I wonder why it is not seen more frequently in gardens?

According to Rasetti's 'I Fiore delle Alpi', *Primula allionii* grows around here between 1400 and 1900m, so we scramble up through the steep beech wood to reach the cliff. The hard grey limestone is sprinkled with pink patches of varying shades, on closer inspection clumps of *Primula allionii* in full flower. Perhaps this late flowering high altitude race might spread the season for *P. allionii* in the alpine house? On the April of our visit all flowers had already faded in the lower altitude standard site in France.

Hardships for a hobby

Back to serious daffodil hunting. Many years ago on a July holiday we had noticed narcissus leaves growing near the summit of the Pic de l'Aigle north of the town of Grasse. At this point spring leaves us and an April winter descends on the south of France. The heater of our old car starts to spray water on our feet, so we have to blank it off. From now on it is old-style motoring in double jerseys, double everything plus travelling rug to try to keep warm. Park the car and set off through the trees in mist and silently falling wet snow to look for the summit, lose the track, steer by compass, persevere and eventually here is the grassy

clearing around the top. Our reward? Drifts of 10cm narcissus with flowers just above the thin snowcover – *Narcissus provincialis* we think. The flowers are normal daffodil shaped with a slim trumpet, some bicoloured, others all plain yellow. Our first narcissus, very satisfactory.

Descending south now in pouring rain, flashes of royal purple at the roadside catch the eye. This is *Iris lutescens* growing luxuriantly en masse among limestone boulders below the road. Impressive purple, blue, or white flowers have petals sparkling with gem – like blobs of rain. Good job we stop, as the roadside ditch is lined with the less conspicuous *Fritillaria involucreta*, the first time we have seen such quantities of this rather elegant subdued green flower. Also in this area there are pyramidal spikes of the blue *Hyacinthoides italica*, though these are only half the size of the '*Scilla*' *italica* which we grow in the garden.

During breakfast, while camping in the hills near Les Baux, we see yellow blobs on the hillside. There is a break in the rain, so abandoning food, the hunt is on. The yellow turns out to be a remarkably dwarf 10cm form of *Iris lutescens*. But amongst the iris grows the sweetly-scented tiny *Narcissus assoanus* with small-cupped yellow flowers. This plant has had botanist problems! Years ago when we first found it in the Pyrenees it was called *N. juncifolius*, a reasonable name as it has thin rush-like leaves. Then it became *N. requienii* in 'Flora Europaea' to be changed more recently by Spanish botanists to *N. assoanus*. This is progress?

These bulbs grow in very well-drained limestone rubble which we can kneel on without getting wet shortly after the thunderstorm. Another good bulb enjoys this well-drained site, the white usually three-flowered *Narcissus dubius*. This member of the Tazetta section has long blue-green leaves, is attractive, but not common in cultivation.

Following Blanchard's book

So to Spain. The diary reads, "red road to Teruel, very slow up and down, snow falling". Luckily for us 'Narcissus, A Guide to Wild Daffodils', by John Blanchard, was published just before we set off on our tour. In it we had read of narcissus species completely new to us. Hence a search near the village of Valdelinares for the recently described *N. eugeniae*. Possibly the weather dampens our enthusiasm but it looks rather like a stumpy garden daffodil, one of the Pseudonarcissus group. It grows in clumps of grassy meadows among granite boulders around the 1500m zone and is 15cm tall with large uniformly yellow flowers and short broad blue-green leaves.

Passing promising-looking cliffs, the thought occurs, "a likely site for *Sarcocapnos*". We stop and there they are. It makes you feel good when

sometimes expectations are fulfilled. *Sarcocapnos enneaphylla* is a cliff dweller, a small white and yellow fumitory-like plant. It is an easy and free-flowering perennial in a pot in the alpine house, though outdoors it self-sows and behaves more like an annual.

Back to the wild, to Bronchales, following our list of carefully researched notes. Beneath the pines are masses of tiny *Narcissus bulbocodium nivalis*, their stems only 4cm bearing flaring yellow petticoats trimmed with snow crystals. Brave flowers, though fragile looking, they have petals which can stand up to hard frost. Braver than us, it is so cold at breakfast that our cheap cigarette lighter fuel refuses to vaporise, making a long delay in lighting our Primus. Our plates of muesli are too cold to hold, where are our accustomed luxuries of hot coffee and toast? Snow falling steadily, "who'd be a plant hunter?"

But we warm up scrambling around in the weirdly-weathered limestone of the Ciudad Encantada (Enchanted City). This area is a tourist attraction with the rock formations given fantasy names like 'Fight of Elephant and Crocodile'. Later in the year this place is famous for orchids, but in April we are delighted to see cream coloured nodding flowers of *Narcissus triandrus cernuus*. Most of the stems are single flowered with only the odd plant two flowered. This is a narrow-leaved southern form and, unusually for *N. triandrus*, grows here on limestone. On the cliffs there is a poor straggly *Draba dedeana*. Where does Eric Watson's superb compact strain of the *Draba* come from?

On top of Cabañas

Thronging crowds of cars on Easter Friday head for the Nacimiento del Rio Guadalquivir in the Sierra Cazorla. We sympathise with suicidal queues of Processional Moth caterpillars, the wrong day to be on this road! Not far above the Nacimiento, in damp red mud we find lots of *Narcissus cuatrecasii segimonensis* (of the Sierra de Segura). This has a deep yellow rupicola-type flower with a deflexed 1cm pedicel on a 15cm stalk (Fig.43, p.145). Cabañas, one of the highest mountains in this limestone range, is quite a landmark with its natural arch near the summit. Around the archway in June there are flowers of the very special endemic *Viola cazorlensis*. But here in April in wet snowmelt hollows a close inspection reveals the rare tiny *Narcissus hedraeanthus*. This is a peculiar cream bulbocodium type with a 3cm stem emerging from the ground at an acute angle. A perfect specimen for a photo is hard to find as these blooms seem susceptible to weather damage.

All classes of ghetto-blaster

The highest mountains in southern Spain are in the Sierra Nevada. Before we motor up the hill from Granada, we must visit the Alhambra with its palaces and gardens. This is romantic Spain, all elegant archways, fountains and shades of Segovia on the guitar. What is it about Moorish filigree marble and slim columns that fills the senses with cheerfulness? Our dour Scots architecture fails to have this effect.

But the Moors are long gone, replaced by a less-imaginative folk. Since the Christian reconquest Easter has become a major fiesta. When we motor up the tarmac road on the Veleta mountain the hills are alive with the sound of music. Where our road is blocked by snow we are surrounded by sledgers and hot dog vans – all blasting out ghastly pop. Not too many flowers as the ground is carpeted with rubbish and broken bottles, cheerful and grotty.

Since the building of the Sol y Nieve ski resort the flora of the Veleta has been devastated, probably because many of the streams have been piped into the hotels. One surviving stream has attractive golden flowers of *Gagea polymorpha*, an endemic according to the 'Flora de la Tundra de Sierra Nevada', by Pablo Prieto. *Crocus nevadensis* apparently extends beyond these mountains. It has white or pale lilac flowers delicately veined in deeper lilac or brown, with petals which spread out widely in the sun. Apparently, in cultivation, wet weather at flowering time can start up botrytis in the petals, so it is recommended that fading flowers are best picked off to avoid disease extending down into the corn.

In April *Convolvulus boissieri* is just starting to push up the tarmac of the old roadside. Luckily the new road to the ski resort bypasses the limestone outcrop at 2000m which is the home of this convolvulus. Later in the year the silver cushions are covered with stemless pink or white cups. Though many of the choice high alpiners are now missing on the Veleta, most can still be seen on the more remote peak of Mulhacen.

The warm south

Now for soft living. We are travelling in the general direction of Gibraltar. Lulled by warm sunshine, we mosey along orchid-lined byways noticing fat seedpods of *Iris planifolia*.

We scramble up El Torcal, a peculiar limestone hill, to see flowers of the purple *Iris subbiflora*, a slightly taller white bearded form related to *Iris lutescens*. Here also are massive blue pyramids of *Scilla peruviana* (an ancient botanist got his geography slightly muddled as the plant is wild here, it never saw Peru).

While eating lunch one day, we spot purple buds of *Gynandris sisyrinchium* and have the brainwave of blowing up a polythene bag and placing it over the plant to induce it to open its flowers. No joy. We leave with a half-hearted half-open flower photo. Whereas later around 2 pm fortune smiles, open flowers are everywhere. The blooms are short lived, withering by the following morning. Orchids are all around, we run through reels of film hypnotised by their incredible variety, it is easy to become obsessed by orchids. *Ophrys lutea* by the thousand pushes up the tarmac of the road edge. Among limestone rocks near Zafarraya there are large exotic pink flowers of *Orchis papilionacea*. On muddy cliffs of the Desfiladero de los Gaitanes we find a stray from across the Mediterranean, the pink *Rupicapnos africana*. In ditches near Grazalema, *Narcissus cordubensis* has long finished flowering and we also find seedpods of a dwarf two-flowered narcissus on the cliffs above the village. But enough of this easy living, duty calls us north.

Something fierce in the shrubbery (a Quixotic boar hunt)

We don't actually plan to be on a small mountain road west of Córdoba, put it down to imaginative navigation by the co-pilot. As we round a bend a solid dark hairy animal pirouettes in mid-air and vanishes into a leafy ditch. Could it be wild boar? We park and, cameras at the ready, creep along with shaking knees, trying bravely to hide behind each other. Ahead there are contented grunts, then a beast emerges onto the road and, head down, glares at us. Terror! Continued happy grunts in the wet ditch divert his attention and we breathe again. It is a family of five, and with some determination we get good photos. On proudly showing the pictures to a friend who is an expert on pigs, he pronounces instant deflation. "These are not wild boar, they are feral pigs"!

Next we drool over a photo in Blanchard's book, which draws us to the Puerto de Mestanza, north of Córdoba. Here, among cistus bushes in red mud on the ridge, are tiny white *Narcissus cantabricus* by the thousand, unfortunately in April mostly into seed. Growing alongside, *N. triandrus* still has a few creamy yellow flowers. Inspection of seedpods reveals some intermediate between the two species, which just might be the delectable snow-white *N. munozii-garmandiae* of Blanchard's photo.

Araldite and obras

Roads in Spain are relatively quiet and pleasant to drive on, but beware of obras (roadworks). In Britain it is customary to repair one side

of the road at a time. Whereas in Spain they make a proper job of it, tearing up everything for 20 miles at a stretch. So we rattle over the rubble, covered in dust, shaking surplus pieces off our old car. Ahead is the ancient cobbled road constructed by the Romans over the Puerto del Pico in the Sierra de Gredos, somewhat steep, but still not in need of repair after 2000 years! We must write to the Araldite company to complain of difficulties gluing a vehicle together in below-zero snowstorms. The wind strings great trails of glue all over the car.

A five-narcissus day

The Gredos are rolling granite mountains reminiscent of Scottish scenery. After a night of blizzards we awake to a bright spring sky. Beside our tent at 1200m there are rock ledges with pale yellow *Narcissus triandrus* and deeper yellow *N. rupicola*. The latter is 15cm tall with upright leaves, very different in appearance from the dwarf *N. rupicola* which we had seen flowering at the 2592m summit of Moro Almanzor on a previous visit. The summit plant is half the height with short leaves that lie flat on the ground. Botanists tell us that high-altitude plants flowering at a separate time from their lower cousins can develop a different genetic content with a physiology to suit the environment. So though superficially the same species, the high-altitude race is inherently quite distinct.

Narcissus rupicola is most attractive with single flowers on a stem and a very flat corona showing no sign of stamens. The latter are included within the tube of the flower. The high-altitude form can be found in our seed exchange under the name *N. rupicola* 'Moro Dwarf'.

Back to April at 1200m. Beside a wide stream in rich meadowland there is the beautiful pale cream *Narcissus bulbocodium citrinus*. This is quite different from the deep yellow 3cm *N. bulbocodium nivalis* with flowers awash with water in snowmelt runnels farther up the road at 1800m. Here also just above the car park where the road finishes there is a remarkable buttercup, *Ranunculus abnormis*. Is it called abnormis because it has 10 petals rather than the more usual five? Anyway, it has a large shining gold flower on a small grassy-leaved plant. Unfortunately a large proportion of the wild plants seem to be flowerless.

Onwards, up to the edge of the large snowfields, to find *Crocus carpetanus*, a small lilac crocus with a white cauliflower-like stigma. Most of the flowers are damaged by the previous night's blizzard. It is not as tough as the tiny narcissus which seems remarkably resistant to bad weather.

On our way back down towards the car park, a detour to explore wet shady cliffs uncovers narcissus number five. This is a big showy plant

with blue-green erect leaves and a large deep yellow flower with a widely-flared trumpet. As far as we can determine this is *Narcissus hispanicus*, one of the parents of our garden daffodils.

On the north side of Puerta de la Peña Negra again there are thousands of the deep yellow *Narcissus bulbocodium nivalis* above 1909m, whereas well down the road towards Piedrahita there is a complete change to the much larger wide-flaring trumpets of the pale cream *N. b. citrinus* (Fig.44, p.145).

Goldfish under the ice

North now towards the Picos de Europa, a region with a reputation for high rainfall. Still in the lowlands a wayside thermometer registers -2°C . Undaunted we head for the slopes of Mampodre where narcissus leaves had been sighted on a summer visit. It was not to be. Following a snowplough through 2m banks of snow, our resolution falters and we retreat to a lower level. A steep heather-covered slope above the Embalse del Porma has the beautiful white *Narcissus triandrus triandrus* formerly known as *N. triandrus albus*. This has much broader leaves (3.5m) than the *N. triandrus* seen in central and southern Spain where the leaves are only 1.5mm wide.

Just above Covadonga there is a field of a very large showy pale cream *Narcissus bulbocodium*, but by now the rain is coming down so heavily that photography is abandoned. We camp in a muddy quarry, the deluge and cracking thunderstorm make for a miserable night. There are ominous rumbles of rock and half our bed is soaking wet. Narcissus hunting can be uncomfortable, but in the sopping Picos the locals have an answer.

Land of clogs

Books mention narcissus by the thousand in the Puerto San Glorio water meadows. This is no exaggeration, there must be hundreds of thousands in the fields adjacent to the river around Portilla de la Reina. Squelching around taking photos of the huge-flowered *Narcissus nobilis leonensis* our climbing boots are soon awash with water. On scrambling back on to a side road deep in wet slush, we meet an old shepherd who points to his clogs saying "Bueno" whilst shaking his head in disgust at our useless sodden boots. The sole of his clog has three solid 8cm posts, one at the heel and two towards the toe, keeping the whole clog above the wettest ground. Result, warm dry feet. Later we see village women on their way to the shops wearing similar stilted clogs.

Narcissus nobilis leonensis, a bicoloured member of the

Pseudonarcissus group with broad blue-green leaves, is flowering here amid the snow on 23 April around 1231m (Fig.45, p.146). Whereas a few years ago we had seen the last flowers on 26 June at 1800m on a drier slope between juniper bushes. In April we motor for miles past these water meadows, the millions of flowers could be quite a sight if the heads were not weighed down with snow and rain!

The tiny 5-8cm *Narcissus asturiensis* is another species found around the Puerto San Glorio (Fig.46, p.146). It also has a long flowering span extending to 26 June when we have seen it growing in short turf on acid rock at 2200m. A distinguishing feature is the peculiar bulbous corona swelling part way along its length then constricted before flaring at the mouth.

We've done it

Before heading off on holiday we had consulted friends and books for a possible sighting of *Narcissus alpestris*, one of the gems of the genus. In the event, late April proves ideal for on a fleeting visit to the Pyrenees we find the narcissus in four sites. Site number one is easy of access, number two requires four hours of stiff scramble, number three elicited a degree of grumbling from a party reluctantly tramping through deep snow over the Collado de Sahun. But number four was a revelation. Heading for the Viella tunnel and our exit from the Pyrenees, a shout halts the car at a roadside meadow with thousands of *N. alpestris*, and we thought it was rare!

Narcissus alpestris has a sharply deflexed pedicel pointing the flower downwards. The flowers vary from creamy yellow to white, some with a straight corona, others flared (Fig.47, p.147). Plant height varies from 10cm, where the plants grow among limestone rocks and small shrubs, to 20cm with plants growing in woodland or in deep grassy meadow. Where *N. alpestris* meets *N. assoanus* we came across a solitary plant of the hybrid *N. x pugsleyi* but so rain battered as to be hardly photogenic. Maybe we just hit the right time on the right season. *N. alpestris* is in flower in late April from 1100 to 1900m, it has an air of class, the highlight of our holiday, so justifies stocking up with a crate of Carineña Tinto.

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Beyond the Great Basin – California and Oregon 1992: Part I

MIKE AND POLLY STONE

At the recent S.R.G.C. Discussion Weekend in Aberdeen we were asked, as is usual at such gatherings, where we had been this year. When we replied that we had returned to the Sierra-Cascade region, we were slightly taken aback by the reaction: why go to America, what's wrong with the European Alps? I am quite certain, of course, that we were being teased, but the question has a serious side and does require an answer. In a nutshell it is: too much and too many! Too much is already known about the flora of the Alps, and it has all been well tried in cultivation; the real sense of discovery is lacking. There are too many roads, paths and huts, too many ski-runs, and above all far too many people and cars in the Alps. So much for the negative side; the positive reasons for returning to the mountains of the American West we have recorded before (Stone Column January '91, no. 87 p. 140).

In the end it comes down to the plants. One must go with an open mind and not expect the same range of classic alpinines found in Europe. Instead of a large variety of saxifrages one finds phlox and eriogonum cushions, polemoniums augment the gentians and the ubiquitous low silver lupins go a long way to make up for the small number of campanulas. Above all, although dodecatheons are some compensation, the Western mountains lack the range of primulas found in Europe. However, an analogous diversity of form can be found among the penstemons. There are close parallels, especially between the *Dasanthera* section of the genus *Penstemon*, and the *Auriculastrum* primulas, both tend to look their best in the wild, and to be a little recalcitrant, especially over flowering, in the garden. They also have their problems, primulas suffer from root-rot, the penstemons from die-back. Finally, whenever two species meet, either in the wild or cultivation they tend to cross; and so both groups appeal to collectors and hybridisers alike. In addition, there is a much larger range of composites in the West; to take but one example, many dwarf erigerons superior to *E. uniflorus* in the Alps. Yet others are quite distinct from their European equivalents, the genus *Hulsea* occupies the same ecological niche in rough high-alpine scree as *Doronicum* but is less leafy, and tap-

rooted as befits a drier environment. Above all one must go with an open mind, and wide open eyes, for records are few.

We were actually in two minds whether to go to California this year. As it is advisable to book flights in January the decision had to be made before we had any real idea of what Poll's fitness would be. We opted to take the slight risk and go anyway, even if only for a reconnaissance. As it happened things turned out better than we could ever have dared to hope.

When we flew into San Francisco at the end of June, we may not have had flowers in our hair, but they were certainly on our minds. I had thought about this romantic gesture, but Poll, practical as ever, had said better not, they will spend ages taking our luggage apart, looking for a different kind of weed. We did however, as the song says, meet some gentle people, not only there, but also up in Southern Oregon. When you reach baggage reclaim, Wayne Roderick had said, look up and your angel will be there! And he was, easing our way into a strange city. Apart from jet-lag, it takes a while to start thinking American again. Just as we are Scottish nationalists by adoption, so Wayne is a Californian nationalist, or should it be statist? We spent the next week travelling in his delightful company, learning much of history, geography and politics of the Golden State, as well as sampling its flora.

It is evident immediately one leaves the city why California has the above nickname. Wayne kept showing us patches of golden brown grass; under here, he would say, is the rare brodiaea this, calochortus that or fritillaria the other. We responded as best we could, trying to look enthusiastic while metaphorically scanning the horizon for the nearest mountain. Since Wayne is the authority on Californian monocots, he is used to having along company more appreciative of his favourite dry-ground species – bulb-baking, corm-cooking and tuber-toasting gardeners from the South. When we were travelling with Fred and Boots Case back in 1988, on our first trip to the West, it took us a while to get them trained, head up as high as possible and always park in the shade. Hence the joke about sagebrush at the Warwick Conference; Fred included a slide of it at the start of his presentation, knowing how much we love this vegetation zone! The National Collection of *Artemisia* shown on T.V. had one rather tatty specimen of *A. tridentata*. In view of the ubiquity of this sage, all over the West, encouraged by overgrazing, one wonders why bother? It is just collecting taken to extremes. A recent book on the Great Basin is entitled, "The Sagebrush Ocean": the mountains therein islands of tundra, fringed with forest.

It did not take Wayne long to pick up on our real interests; truth to tell

he knew them already having been to stay with us at Askival. Accommodating one another is a two-way process, so we had to learn Wayne's camping procedures. Guests can get to put up their own tent, but Wayne does all the cooking. He also makes sure they are awake before 6 am by clattering the dishes as he washes up, Californian-style, using a minimum of water. (Water conservation must be taken seriously after 8 years of drought). On the hill all day, one is ready for sleep as it goes dark, much earlier in the evening than the long gloaming of Highland summers. This is definitely the way to do it out West: walk up high before it gets hot and descend prior to afternoon thunderstorms. Coming from Europe with body-clocks ahead of local time, it is very easy to fall into this routine.

We went first to the Coast Range north of San Francisco. Wayne wanted to check out some fritillarias and erythroniums for seed, and we wished to see *Penstemon purpusii*, a worthy companion in the Saccanthera section to the superb *P. leonardii* of Utah. It forms compact mats of grey hoary foliage, with spraying reddish-purple flowers. This had been an early season with little snowpack, but there were just about enough flowers left to satisfy the photographer. Later on Poll got rather fed up with trying to get decent record shots of penstemons with only a few flowers left on the ends of their stems. One mountain-top hereabouts posed a moral conundrum for the non-collector: run-off from storms had created a multitude of channels down an earthy scree, washing out dozens of bulbs of *Allium falcifolium* and leaving them lying around to die in the sun. They were a particularly good form, with virtually sessile heads of rich burgundy flowers and short greyish sickle-shaped foliage.

These mountains are heavily forested right up to the ridge-tops, so the 'alpiners' are confined to rock outcrops on a few summits, and the occasional patch of steep scree. The dirt road winding its way along the crest of this range is known to the U.S. Forest Service as the M.1.! One potential hazard, not generally encountered in Europe, is the logging truck. Although the roads, even when gravel, are generally wide enough to pass, the truck drivers are paid by the trip and so inclined to travel fast! Uphill, with the trailer wheels mounted up on the rear of the tractor, they can outclimb most cars; downhill, heavily laden with huge logs one is well advised to pull out and let them pass. On the back of one such truck in Oregon, we saw the legend: "Save a Logger, eat an Owl", a reference to the protected status of the Spotted Owl and its forest habitat.

Still in pursuit of *Erythronium* seed we headed south, past the old goldfields on Route 49, to the foothills of the southern Sierra Nevada.

Here on a sparsely forested granite ridge at about 2,400m was identified a new species, *E. pluriflorum*. This is quite a difficult place to reach, picking one's way through the brush, low dense patches of the Pinemat Manzanita, *Arctostaphylos nevadensis*, but we were rewarded with many capsules just starting to split. Judging by Wayne's herbarium specimens this is one of the finest species, with multiple heads of golden yellow, smaller but far richer than those of *E. grandiflorum* or *E. tuolumnense*. We can only hope it will take easily to cultivation. Also here, growing in the shade, was *Leucothoe davisiae*, taller and flowering less freely than it does at Askival. At home it runs about in full sun reaching about 30cm when producing its upright racemes of typical white ericaceous bells. The form of *Penstemon newberryi* found on these granite outcrops was a light red, rather paler than those we found later further north. Next day we crossed the Sierra through Yosemite National Park, the only time on the entire trip when we experienced any appreciable traffic delay. Wayne stopped briefly to allow Poll to take the traditional tourist shots of Yosemite Valley, but neither of us wished to stay long. Sooner or later the Park authorities will have to grasp the nettle and build a through route bypassing the valley itself, perhaps combined with a permit system for private cars. We left Yosemite via Tioga Pass, pausing momentarily to prospect Mt. Dana, one of our planned later objectives. Dropping down we had our first view of the shrinking Mono Lake, its weird tufa outcrops left high and dry by Los Angeles' greed for water. The excellent main road down the east side of the sierra, Route 395, destined to become very familiar over the next few weeks, took us first to Bishop for food, fuel and a vital key, and then on to Big Pine, access point for the White Mountains.

It was well into the evening of July 3rd, before we reached the border kiosk for Inyo National Forest, to discover a notice from the Ranger stating that the campsite was full, but we could use any side-road. We had no trouble finding a sheltered isolated spot a couple of hundred metres or so from the tarmac. "You know that blue-leaved penstemon you people are interested in", said Wayne, referring to *Penstemon scapoides*, "I've just put my tent on two of them!" Rivalling the best blue hostas for colour, but with much smaller harder foliage adapted for the dry environment, this White Mountains endemic was in seed. To be more precise, those few stems which had been left by the local 'critturs' were still in seed.

Most visitors to these mountains are attracted by the ancient bristlecone pine forest, if not quite the oldest known living things, at least the oldest known trees. Here in the rainshadow of the Sierra, even at

3000m the annual precipitation is only around 300mm and most of that is winter snow. The bristlecones grow extremely slowly (we measured just under 40cm in 10 years on a healthy youngster already a centenarian) and economise by retaining their mid-green needles for 20 or 30 years. This population is now referred to as *Pinus longaeva*, distinct from the Rocky Mountain bristlecone *P. aristata*, which has darker twisted needles flecked with droplets of resin. The latter species is far more common in cultivation in the U.K.

The real veterans, some over 4000 years old, are extremely picturesque, Poll spent the whole of our second morning photographing them. Most have just one or two living branches, linked to the roots by narrow strips of bark. The bulk of the tree is exposed dead wood, which being highly resinous does not rot on these arid limestone ridges. Instead they are polished and sculpted by wind-blown ice crystals into indescribable, and beautiful shapes. Data from tree-boring studies on living and dead bristlecones has been instrumental in producing correction graphs for radio-carbon dating.

Undeniably attractive as they are, it was not the famous groves of ancient trees (Fig.49, p.164), nor the limestone screes just above with their patchwork of tightly cushioned eriogonums, phlox and astragalus which were our primary objectives. For us the siren call wafted down clearly from the greener grass up around White Mountain Peak. And so on the early morning of the Fourth of July, we drove up to the Barcroft Laboratory, run by the University of California, Berkley, at 3800m. From here it is another 9 km and 500m on foot to the highest summit. Not far you might think, but ponder the altitude; most Scots live at or near sea level.

In the Alps, most alpine plants are to be found between 2000 and 3000m; it is generally unnecessary to venture above 2500m. Many of the Western American mountains are deceptive, they do not look as high as the jagged peaks of the Alps, but they arise from a much higher basement level; Mono Lake for example is at 1950m. Timberline, as the Americans say, is often at or above 3500m, and it was precisely at this altitude in Nepal where an experienced pilot collapsed and died while investigating an air crash this summer. Having been hit by the frying-pan on previous trips, by going too high too fast, we are now more wary, hence our preliminary visits to the Coast Range and Sierra foothills to at least partially acclimatise. Being at altitude for a minimum of four hours a day stimulates a hormone erythropoietin. This in turn increases production of erythrocytes, the red blood cells which carry oxygen; the beneficial effects lasting for two to three weeks.

Wayne elected to remain behind at the Barcroft, helping a student

with her work on the social interaction within a mixed colony of marmots and golden-mantled ground squirrels. Poll and I set off on the old jeep-track, now impassable for vehicles, leading across the broad gale-swept ridge. The sparse grass, and especially the disturbed areas, at the track-side were jewelled with cushions of a yellow *Draba*, probably *D. crassifolia* and white *Phlox pulvinata* (Fig.50, p.165). This colour scheme is the enduring impression of the day, the theme continuing with white eriogonum mats, several species of yellow potentilla, and, higher up, *Ivesia lycopodioides* and *Hulsea algida*. The genus *Ivesia*, in the Rosaceae, is quite widespread in the Western mountains, the species most often encountered being *I. gordonii*. This looks superficially like a cross between *Geum rossii* and an eriogonum; the finely divided compound foliage is often described as ferny but the leaflets lie at right angles to the rachis, so the leaf is three-dimensional rather than flat. With heads of dull brassy yellow on 20cm stems, *I. gordonii* is far from the first rank of alpinists; *I. lycopodioides* is much superior (Fig.51, p.165). Less than half the size, its foliage is so congested as to resemble sprays of bright mid-green pipe cleaners. There are less flowers per head, but they are individually much larger, and a cleaner golden yellow. I feel this species would make a quite individual contribution to tundra or scree.

In and around a nivation hollow we encountered clumps of an even more brilliant yellow than any mentioned so far. *Ranunculus eschscholtzii* var *oxynotis*, (Fig.52, p.166), completed our tally of the varieties of this fine alpine buttercup. (For an account of these see The Rock Garden no. 86 p. 92). Everything on these summits is smaller and more congested than elsewhere, the local *Penstemon heterodoxus*, for example, has the same dark violet flowers as its Sierra cousins, but on stems of only 5cm; and this *Ranunculus* was no exception. The thick glossy foliage may be smaller, but there was nothing reduced about the flowers with their full rounded petals. I am not entirely sure why I am so fond of buttercups, perhaps because their relatively primitive flower has all the appeal of a simple basic design. It's the highly evolved asymmetric flowers such as many orchids which I do not really care for. The intricacies of the various *Ophrys* may appeal to collectors, but to my mind are overly ornate, as if designed for a Hapsburg Palace. The imposing red and black talus slopes of White Mountain Peak, piebald with snowbanks, drew us onwards, but we measured our tread carefully mindful of that frying pan. Zig-zagging slowly up the final cone, our efforts were rewarded by a flash of blue nestling in the dark block scree from the screaming wind. It was mid-summer, a day of brilliant sunshine, yet here at 4200m we were wearing sweaters, windproofs, hats, gloves

and sun-block! Clearly closely related to *Polemonium viscosum* of the Rockies, the White Mountain Sky Pilot, *Polemonium chartaceum* is nevertheless to my mind a good species. As expected the foliage is tighter, the individual leaflets closer together and somewhat greyish. The corollas are a little paler than typical *P. viscosum*, approaching *P. confertum* in colour if not in shape. The clear distinguishing feature lies in the exerted stamens, the protruding anthers are white here, yellow in the northern population near Shasta. Unfortunately we were about a fortnight too early, and the lowest plants were only just starting into colour (Fig.33, p.166). Another first for us in this dark talus was *Erigeron vagus*. Plants have been around under this name, thanks to an error in a well-known seedlist, but all the ones we have seen in cultivation were *E. compositus*, albeit a nice lavender form. The real *E. vagus* has broader leaves with only three rounded lobes, and larger almost stemless flowers. When I first saw it I thought we had found a white *Townsendia*! The growth habit distinguishes it clearly from *E. compositus*; it is tap-rooted, but from this centre, stems creep between and under the stones, the foliage threading the crevices.

Having achieved our goal, and mindful of Wayne awaiting our return back at the Barcroft, we did not continue up to the 4341m summit; it will still be there next time. Even the wind was pleased with our achievements and relented somewhat during our return. After a second night at our secluded campsite on Cedar Flat (Utah Juniper, *J. osteosperma*, is locally called 'cedar') we were tourists for the morning amid the bristlecones, before returning to Route 395 and heading north. Our last night under canvas was to be by a river near Markleeville, the tiny county seat of Alpine County. Tall shade trees, real grass and running water made for a cool oasis after the harsh light and dust of the White Mountains.

Our week with Wayne was almost over, it was time to return to San Francisco and pick up our own hire-car. We recrossed the Sierra Nevada via the pass described by, and named for, the famous guide Kit Carson. From the top of the pass it is a fairly easy walk to one of Wayne's favourite places, the very well-known Winnemucca Lake. Here were two further polemoniums, *P. californicum*, a species of shady, mossy woods distinguished by the three fused terminal leaflets; and a nice dwarf alpine *P. pulcherrimum* growing beside a larger, slightly paler, form of *Ranunculus eschscholtzii*. The star plant on this scree is normally *Primula suffrutescens*; it can be quite stunning, as is shown by the colour plate in A.R.G.S. Bulletin vol. 48, p.37. After several years of drought, and a poor winter for snowpack, the large mats in the open were as sparing with their flowers as our plants are at home; but there were reasonable specimens higher among the rocks (Fig.54, p.167).

Back in San Francisco, we had a last briefing that night over a Chinese

meal together with John Andrews, before heading out on our own. Poll had not realised the length of the walk at Carson Pass and had run out of film, so we back-tracked up Route 88 to spend a cool night in a ski-motel at 2300m. The kind lady proprietor let Poll use her washing machine, much needed after a week's dusty camping. Leaving at 6 am, long before anyone was awake, we were back at Winnemucca Lake well before the hikers and back-packers. This time we went up higher, right off the trail, to be rewarded by no less than four species of dwarf erigeron. Two of these were quite distinct, the local version of *Erigeron compositus* var *glabratus*, with less divided foliage than the type; and the mat-forming violet-flowered *E. barbellulatus*, its simple leaves stained with purple at the base. The remaining two species, *EE. petiolaris* and *pygmaeus*, are also simple-leaved, but form smaller tufts. The key distinctions were less clear-cut in the wild than in the Flora, but I am fairly sure both were present. Why go to America? Well, here are four reasons, each one rather nicer than *E. uniflorus* of the Alps! Also near here we happened across another incentive: the finest tiny form of *Eriogonum ovalifolium* var *nivale* we have ever seen, tight, tight, scabs of white dotted with deep maroon buds! (Fig.55, p.167).

Heading down as usual just after lunch, the afternoon was available for driving to the next mountain. On our way we passed a back-packer, his two labradors carrying their own rations in red panniers. The road up the west side of Lake Tahoe is narrow and twisting but provides splendid tourist-type views. Our objective was a 3100m ridge just north of the Lake where A. T. and T. have a microwave tower. The associated track provides relatively easy access on foot; vehicles are excluded by a locked gate right at the junction with the public road. As we swung along the track in the cool of early morning, a black-tailed hawk circled below against the blue of the Lake, seeking its breakfast. It was Poll who quoted from a song, "Wild thing, you make my heart sing!"

A couple of hours and several million mats of silver lupin later, just as we reached the foot of the final switch-backs up to the ridge-crest, a pale yellow pickup came up behind. Three young post-graduates, from the University of Nevada, Reno, on their way to change the filters in an atmospheric aerosol experiment, stopped and offered us a lift. As it was by now mid morning this south-east facing slope was heating up nicely, so we accepted very gratefully. We could walk back down, and so avoid missing anything. Before heading off along "Relay Station Ridge" we were shown their apparatus on the roof of the A.T. and T. building. They had been able to detect smoke particles from the oil fires following the Gulf War. No mountain is a safe haven away from the polluting hands of man! "Make sure you plan your trips around Thursday" they said as we took our leave, "that's the day we always come up".

To be continued . . .



Fig. 48 *Leptinella atrata* (p142)

Ian Young

Fig. 49 *Pinus longaeva*, White Mountains, California (p160)

Polly Stone





Fig. 50 *Phlox pulvinata*, California (p161)

Polly Stone

Fig. 51 *Ivesia lycopodioides*, White Mountains, California (p161)

Polly Stone





Fig. 52 *Ranunculus eschscholtzii oxynotis*, White Mountains, California (p161) Polly Stone

Fig. 53 *Polemonium chartaceum*, White Mountains, California (p162)

Polly Stone





Fig. 54 *Primula suffrutescens*, Winnemucca Lake, California (p163)

Polly Stone

Fig. 55 *Eriogonum ovalifolium nivale*, Winnemucca Lake, California (p163)

Polly Stone



Primula tyrolensis on the Rolle Pass

JOEL SMITH

Above the 'dull green Alps', the mighty Cimon della Pala soared skywards in a single unbroken upthrust of rock, jagged and unforgiving like a shard of glass. The peak, embracing a few wispy clouds, seemed to compel strings of photographs almost as a tribute to its sheer dominance of the pass, despite being relegated to second-in-command by the slightly higher Cima Vezzana.

After an hour's journeying from Predazzo, the coach reached the Rolle Pass at 1970m. As the sun blazed, the coach had wound its way past the lower meadows decked with the purple drifts of *Salvia pratensis* and the mighty pines Farrer so extolled. A chair-lift lifts the visitors easily to the Baita Segantini at 2200m, just beneath this awe-inspiring peak.

I skirted the rich upper meadows in preference for the limestone scree that appeared to well from the summit of the Cimon and spill over like huge tears down its flank. On the Dolomitic stone the evergreen mats of *Dryas octopetala* and the congested hummocks of *Saxifraga squarrosa* dotted the ground. Sweeping down this arid scree, the single white blooms of *Ranunculus seguieri* swayed in the light breezes, whilst higher up on a grassy plateau, the turf was paved with the pink-studded cushions of *Silene acaulis*, besides the occasional mat of *Petrocallis pyrenaica*. On the boulders *Eritrichium nanum* was content to sink its roots deep into this porous limestone, surviving because of the naturally low concentrations of free calcium. Although paler than its Swiss counterpart, the blooms still proved an easy rival in hue to the turquoise sky. The base of the rocks were thronged by carpets of *Gentiana acaulis* and *G. brachyphylla*.

My quest for *Primula tyrolensis*, a close relation of the Maritime Alps' *P. allionii*, and an endemic of the Dolomites, was only rewarded by the lines of dentate rosettes and spent blooms in the shaded crevices of the boulders. I must return in June to view "the little Tyrolean Primrose, thickly jewelled with its big round flowers of a rather squalling aniline pink" in its most western locality on the Rolle Pass.

On the exposed ridge itself, *Doronicum grandiflorum* beamed happily alongside a lone specimen of *Primula auricula*.

As I descended the scree, I was unmoved by the spiny regiments of *Cirsium spinosissimum* and the speckled yellow stands of *Gentiana punctata*, as my heart was lost to the high alpiners above the mighty giant basking in the sun's rays, a rare feat according to Dolomitic weather patterns.

A Fritillaria Anthology: Part II

KIT TAN AND OLE SØNDERHOUSEN

Ole Sønderhausen, the renowned expert on Fritillaria, passed away on 11 August 1992. An obituary appears on p. 179. At the request of his wife Gitte, and from previous discussions with Ole on Turkish Fritillaria, I have compiled the second part of his Fritillaria Anthology for publication; this is based mainly on his notes in Danish. For help in the translation to English, I am indebted to Gert Vold from the Copenhagen Botanic Garden. I am writing this article in the first person, Ole Sønderhausen being the narrator. For me, it was a privilege to have known such an innovative and remarkable man.

Kit Tan

As Kit Tan is continuing this article for me and because after the *Flora of Turkey* she began work on the flora of Greece, it seems logical to deal first with some yellow-flowered Greek *Fritillaria*. One species has indeed been in cultivation for many years; this is *F. conica* from the south Peloponnese. The plant is 10-25cm tall with shiny green lanceolate leaves. The flowers are a warm yellow, and as the name implies, conical, not campanulate as in *F. pyrenaica* (Fig.56, p.184). This species grows in *Quercus coccifera* macchie, often in very stony terrain. The flowering period is far earlier than for any other *Fritillaria* from the Peloponnese, from late February to early March. In mid-March, the seed capsules are already ripe and swollen. Despite growing at relatively low altitudes in the wild (100-200m), it thrives in my Danish garden. Unfortunately, as some of you may remember, we had three very severe winters in the years 1985, '86 and '87. These took their toll. However, a little group of plants which had stood in the same well-drained corner since 1974 was untouched. I now grow this species indoors under glass as well as outdoors. If the winters continue mild I shall be able to list a beautiful, perfectly proportioned *Fritillaria* in my catalogue within a few years. I obtained much seed in 1988 and 1989. It takes at least five years to produce suitably sized bulbs for sale so you can work out when this would be. (*Note: this article was written in 1992 so Ole envisaged 1995*).

Several small fritillarias have been misidentified as *F. sibthorpiana*. One of these is *F. euboica* (Fig.57, p.184). M. Rix named it after the Greek island Evvia (Euboea) and was concerned about its fate as he found only 40 four to five year-old individuals in flowering and vegetative state but no two to three year-old seedlings. He thought its

survival was at risk if fritillaria enthusiasts like me were to come and dig up a few specimens. My wife and I came to Evvia and found thousands of flowering plants and numerous seedlings, so we felt it was all right to take some home to propagate. When we arrived in Evvia, snow still lay under *Pinus* and even in the lee of rocks; thus this species would surely be hardy and survive in Denmark. However, the bulbs would not get the same hot dry 'baking' as they would during the summer in the mountains of Evvia.

Later, we returned to the same locality. It was strange but there were hardly any plants in sight! After much searching we found five, all with seed capsules. It was not I who had previously taken too many plants nor had sheep and goats consumed the lot. I now realise that in hot dry weather, few plants come up; this was probably what had happened in the year M. Rix made his observations on their rarity. The perianth in *F. euboica* is similar to *F. conica* but may be slightly flared. It is also more cylindrical and a deeper yellowish-green. Plants are smaller and this low stature of 5-12cm persists in cultivation. It will be several years before this species comes on my list as it does not exactly produce seed by the kilogram.

Several years ago I saw a herbarium specimen of an unfamiliar golden fritillaria from Evvia but no precise locality was given. A Greek botanist from the University of Thessaloniki, Eugenia Zacharof by name, was studying *Fritillaria* in Greece and she found a similar plant on Evvia which she described as *F. rixii*, after M. Rix who had long worked on the genus in the Mediterranean. Eugenia spent some time at the University of Copenhagen and as accommodation was relatively scarce she, together with another student, stayed with us for three weeks. Thus I quickly acquired her new species which is a slender, 15-25cm tall plant with a narrowly campanulate flower. It was, however, not winter-hardy and I soon lost it. It was good that over the years I had taken the precaution of giving bulbs of my more tender species to a friend, Niels Sørensen, in Holbæk. After the construction of my new alpine house, I was in a position to request the return of some of my gifts. This included *F. rixii*, thus I had it in cultivation once more.

F. rixii grows at a much lower altitude than *F. euboica* and surely our three cold winters had contributed to its demise. When Eugenia completed her degree at Thessaloniki, she sent me a shoebox filled with all the bulbs she had worked on. This included more *F. rixii* and they were also from different localities in Evvia. Intermediate forms of *F. euboica* and *F. rixii* collected in the wild were also available but these have not yet flowered so I wait in pleasant anticipation.

Now we will deal with the dark blackish-violet fritillarias from Greece

– *F. obliqua*, *F. tuntasia* and *F. ehrhartii*.

F. obliqua has been known since 1805; it grows in scrub near Athens. Perhaps this proximity to urbanisation caused its numbers to decline as the city spreads rapidly day by day and summer houses and villas now crowd the area where once *F. obliqua* lived. I made a long search myself for this species and only succeeded in 1983. Since then, I have seen it in several other localities, both in flowering and fruiting state. The plants always grow on limestone, together with *Juniperus phoenicea*. They are 15-30cm tall with many narrow, slightly twisted, spirally arranged leaves. The flowers hang pendent, two to five are usual. The perianth is conical-campanulate and a deep blackish-violet (Fig.58, p.184). It is quite hardy but has the unfortunate habit of producing its leaves too early in the season. It has survived our Danish winters protected by a blanket of cut *Picea*; I put these branches over all my tender species.

F. tuntasia was described from the island of Kithnos. I consider this conspecific with *F. obliqua* as no clear-cut differences exist. The style in *F. obliqua* is said to be trifid to 2-3mm and only divided for 1-1.25mm in *F. tuntasia*, i.e. almost entire. *F. tuntasia* is reputedly more robust, taller, with more flowers and leaves. These criteria do not hold at all in my plants grown side by side. The two cross easily and produce viable seed. I discard all seed from such crosses and never list them in my catalogues as I dislike hybrids. I am by nature a 'purist' and it distresses me to even consider hybridising *Fritillaria* as others do for lilies, tulips and rhododendrons. Without any discipline, sense of order and diligent note-taking (common failures I have observed in my fellow men!) we will have chaos when people write in for 'species' and obtain hybrid seed instead. It is also not so easy to find which parents are involved if crossing is uncontrolled.

Apart from Kithnos, *F. tuntasia* is reported from the island of Seriphos. I went there one summer and was fortunate to find two plants with seed capsules. From these I raised more plants and confined them to my alpine house. *F. tuntasia* from Seriphos appears to have larger flowers but I have insufficient material to generalise.

On Evvia and several islands south, also on Seriphos, there occurs a third, dark brownish-violet *Fritillaria*; it is *F. ehrhartii*. This has fewer but broader leaves than *F. conica* and larger flowers. The perianth bears a yellow nail-shaped mark at the apex (Fig.59, p.184). I have seen this species growing at 150-600m in several localities. In Denmark it does well but again the severe winters of 1985, '86 and '87 had adverse effects. I prize this pretty little *Fritillaria* very highly and it is once more available from my catalogue.

F. sporadum, described in 1984, also belongs to this group. In April 1986, Eugenia Zacharof's husband sent me bulbs of this from the northernmost Sporades; he went there to collect plants for his wife's studies. They have flowered in my alpine house during the last two years. It is a small *Fritillaria*, only 5-10cm tall. In the wild it was described as growing to 8-20 (-30)cm. The perianth is broadly spreading, dark reddish-violet and tessellated, I was pleased to obtain viable seed of this rather rare species for two years but have, as yet, not risked growing it outdoors, preferring to wait till the material is a little more plentiful.

We have until now dealt only with *Fritillaria* from Turkey and Greece. We shall make a small detour westwards to south-east France and northwest Italy; eventually we will land again in north-east Turkey and the Caucasus. The *Fritillaria* I am going to discuss differ very much from those mentioned in the first article. These all have large nodding flowers some of which are borne very close to the ground.

It all began when we, in our own car, drove from Italy into south-east France, that corner north of Nice referred to as the Alpes Maritimes. It was mid-July and we were on our summer holidays. The hot late season, however, did not prevent us from looking for bulbous plants during our numerous mountain forays, especially for *Fritillaria*. Four species of this genus are known to occur in the area – *F. involucrata*, *F. moggridgei*, *F. montana* and *F. tubiformis* (Figs.60-63, p.185).

We did not find much, only five seed capsules, the seeds of which we sowed, first in a seedbox and later the seedlings were planted out. After several years they turned out to be the rare *F. moggridgei*! It was a huge stroke of luck, rather similar to finding the proverbial needle in a haystack, as I knew nothing more about the locality for this species than for the other three, and this was what anyone could glean from publications in the AGS and SRGC Bulletins, and also from Lionel Bacon's work "Mountain Flower Holidays in Europe".

I had numerous seedlings; in 1984 there were at least 20 plants in full flower in my garden. I obtained seed capsules from these too. Unfortunately the following two severe winters caused many of my large bulbs and seedlings to perish. In the third of these severe winters I had already designed and constructed my new fully automated alpine house and so managed to keep a pot of *F. moggridgei* alive. In the succession of very mild winters (post 1988), I managed to grow bulbs outside as well as indoors.

What does *F. moggridgei* look like? Well, as I have already mentioned, the flowers are very large. They are wide nodding bells 3-4cm long and c. 2cm across. The perianth is yellow with brick-red tessellations; the

latter impart an orange tinge. The flower is conspicuously shouldered, with an angular and lop-sided appearance. Plants are 12-30 cm tall with five to eight leaves which are nearly 1 cm wide and mostly U-shaped in cross-section (Fig.61, p.185).

F. moggridgei had for a long time been referred to as a variant or subspecies of *F. tubiformis* (syn. *F. delphinensis*). Because I had not seen *F. moggridgei* flowering in the wild and thus did not know if it did so together with *F. tubiformis*, also because we had not found any of the other three species reported to be in the area, at the very first opportunity, in May 1991, my wife and I went again to the Alpes Maritimes.

It was fantastic! *F. moggridgei* was growing not only in the same spot where we had located our five capsules but also 50-100m further up the mountain. The first locality only represented the lowermost altitude. The plants grew in stony but loamy earth, mostly under larch. We were fortunate to find it in another part of the same valley, here again in small glades and under conifer. We were very happy to discover *F. moggridgei* in such huge quantities as it is listed as a protected species and some authorities are indeed of the opinion it was endangered. It seems that this protection has been achieved in time! On several occasions during our mountain walks we met the 'forest police'. They patrol the area and ensure that rules and regulations are kept. They were often extremely kind and helpful and took great pains to give us the whereabouts of the large and beautiful mountain goat. We succeeded in finding five adult males with enormous elegantly curved horns; in truth, we glimpsed only their shadows . . . However, half an hour later, we had better luck as we came upon a group of eleven animals and from a near distance watched, for at least twenty minutes, the group which consisted of females and their one year-old kids. I obtained some fine shots with my 500mm telephoto lens.

We also tried to find *F. tubiformis*. The host from our Alberg thought it was still far too early and it could not possibly be in flower. According to his local knowledge, it grew 400-500m higher up the mountain than *F. moggridgei*. We went to the area he described but confronted heavy snow, rain and sleet. So it still remains for us to find this species in the wild. Naturally enough, we were slightly disappointed. However, by way of compensation, just as we left for the Alpes Maritimes, I had about 25 plants of *F. tubiformis* coming into flower in my garden. This gave me some degree of comfort and consolation.

The plants of *F. tubiformis* which I grow originate from the Copenhagen Botanic Garden. The flowers of this species are even larger

than those of *F. moggridgei*, often more than 5cm long and 2-2.5cm across. The perianth is glaucous, dark reddish-violet, tessellated without, and a shiny reddish-violet within (Fig.63, p.185). The flowers are borne closer to the ground than in *F. moggridgei* and the plants not as tall. The leaves are broader, more flat, not as U-shaped and also slightly spiral. I find the leaves of my cultivated material more glaucous and dewy. Bulbs can achieve quite a size, 4cm diameter is not unusual. Although in 1991 I had great quantities of this species in flower, I hesitate to label it as one of my easy or stable 'frits'. It is often capricious, temperamental and when I thought I had it under full control, I suddenly lost several plants, surely by overwatering and rot.

Both *Fritillaria* species mentioned occur on the French as well as the Italian side of the border. A little to the east, in the northwest corner of north Italy, there is a third species (or subspecies) which resembles them. It has undergone nomenclatural change several times; I believe it is now called *F. meleagris* ssp. *burnatii* (Fig.64, p.186). Until recently you could still find it in catalogues under *F. tubiformis* ssp. *burnatii*. This plant differs from the other two in several respects: from *F. moggridgei* by the flower colour, from *F. tubiformis* by its much narrower leaves which are also more U-shaped. The perianth is tessellated and a clear reddish-violet, not as glaucous as in *F. tubiformis*. Flower size is approximately similar to *F. moggridgei*, the flower is borne a little higher above ground level than in *F. tubiformis*. If all this seems complex, well, it is only what I have noted as they are growing!

In Lionel Bacon's book *F. meleagris* ssp. *burnatii* was named *F. tubiformis*. In that work it is stated that the plant occurs in the area between the lakes in north Italy. Many years ago, in the same area, I found *F. meleagris* ssp. *burnatii*, but as I discovered it well past flowering, I too listed it as *F. tubiformis*. However, next year when it flowered, it was undoubtedly *F. meleagris* ssp. *burnatii*. This plant grows in high alpine grassy meadows together with *Lilium bulbiferum*. In cultivation, at least with me, it has endured successfully to some extent.

I have read an article in which the author mentioned he found a few *F. moggridgei* growing amidst masses of dark-coloured *F. meleagris* ssp. *burnatii* (the latter, he named *F. tubiformis*). I doubt the accuracy of this statement as very frequently people mistake a yellow or white (albino) form for a distinct species. Few have seen *F. moggridgei* in the wild; it grows as a pure species, never together with other fritillarias. Conversely, a yellow-flowered taxon from south and central Turkey, *F. aurea*, was mistaken to be *F. latifolia* ssp./var. *aurea*. *F. aurea* is a distinct species and more of this later. It is very interesting for me to find and grow colour variants of *F. tubiformis*,

F. meleagris ssp. *burnatii* and *F. latifolia*. Colour variants occur in nearly all fritillarias. I myself have found pure yellow-flowered plants of *F. michailovskyi* and *F. rhodocanakis*; I also have available yellow-flowered plants of *F. camschatcensis*, *F. imperialis* and *F. pyrenaica*. Many years ago I kept going, from a wild collection, a yellow *F. crassifolia* ssp. *kurdica*, but I am sorry to say it has now died.

There is one more *Fritillaria* in this group; it is *F. macedonica*. I regret to say I have never seen it myself and I am afraid there are very few people alive (if any), who have. But there should be hope in the future some day when Albania throws its doors open to tourism. When that happens perhaps the problem could be whether it is advisable to go there to find this rare species. *F. macedonica* is probably not rare in the Albanian mountains (it just extends into southwest Yugoslavia). It is unknown in cultivation. The handful of people who thought they had this species confessed that when it flowered, it turned out to be the wrong plant.

F. macedonica is described in *Flora Europaea* as resembling *F. tubiformis*, differing by the upper three leaves arranged in a whorl and by the inner perianth toothed at the margin. The third character mentioned is that the two lowermost leaves are opposite or subopposite, but alternate in *F. tubiformis*. Here I have to report that in my plants of *F. tubiformis*, the leaves are opposite to subopposite so this character is clearly not diagnostic. Should any reader by accident or design pass Mt. M. I. Dejës c. 60 km northeast of Tirana in Albania, please ascend the northeast slope to c. 1900 m and see if it is there for me!

We once more make a long hop, this time from the Mediterranean eastwards to central and east Anatolia. Here I describe two other species which have affinities with those just mentioned. They are *F. aurea* and *F. latifolia*. *F. aurea* I have touched on briefly three paragraphs back. It was, as for *F. moggridgei*, for a long time considered only as a colour variant of *F. latifolia*. Later it was accepted as a subspecies and now as a perfectly good species in its own right. Kit Tan tells me that the two species are never found together in Turkey; *F. aurea* is from south and central Anatolia and *F. latifolia* in the northeast extending to north Iran and the Caucasus. I myself have only found *F. aurea* once.

The place where I (well, as usual it was my wife Gitte) found *F. aurea* was amongst large limestone rocks where they were growing together with *Hyacinthus orientalis*. We found pure albinos of the latter too! The discovery of *F. aurea* was a stroke of luck, similar to the finding of *F. moggridgei*. I was occupied by *Crocus kotschyanus* ssp. *cappadocicus*, which an autumn-flowering species and so stood in leaf and with unripe seed capsules. My wife wandered around to see if there

was anything of interest in the area. Here I have to admit that my wife is absolutely without any scientific botanical knowledge of plants but she is wonderful at finding the rare, unusual and desirable. I only have to describe or make an illustration . . . And now, after so many years with me in the field, she is of course an expert in knowing what two to four year-old seedlings or capsules of *Fritillaria* look like, even those belonging to new taxa . . . A few minutes later she returned with a small bunch of yellow flowers and asked if they were of any interest. They were indeed as they were the flowers of *F. aurea*! The flowering season had only just begun, many plants were still in bud. The date was June 2nd and the altitude c. 2000m. We found it only on the north-east slope by snow patches. Most of the localities in *Flora of Turkey* list much higher altitudes, between 2500-3000m, thus I had not expected it at 2000m.

F. latifolia as already stated, does not occur in central Anatolia. Its distribution is only in the north-east especially from Erzurum to 'old' Russia – in Georgia, Armenia and Azerbaijan. I have received good material across the Turkish border from Danes who went there on holiday and also from an East German who had the opportunity to go plant-hunting east of Turkey within the borders of its great neighbour. *F. latifolia* grows in the most unbelievably wonderful high alpine meadows, by melting snow, often at altitudes of 2300 to 2600m. They come into flower together with *Scilla rosenii*, *Bellevalia paradoxa*, *Colchicum raddeanum* and other such delights . . .

F. aurea is smaller than *F. moggridgei* in flower size and height of plant, it is only 5-15cm tall. Its leaves are glaucous and broader. The flowers are 3-4cm and 1.5-2cm across and borne often a few cm above ground. I know there are larger forms in cultivation but this is the average size in my plants. The perianth is lemon yellow with orange or brick-red tessellations (Fig.65, p.186). It is indeed a lovely little thing and much easier to propagate than *F. moggridgei* since it produces many bulblets. Thus it has been available commercially for some time, whereas *F. moggridgei* is seldom listed even in the best catalogues.

Plants of *F. latifolia* are as tall as *F. tubiformis*. A distinct difference for these two species is that the leaves are always glaucous in *F. tubiformis* but shiny green in *F. latifolia*. This glaucosity continues in the flowers with *F. tubiformis* having a greyish bloom whereas the perianth in *F. latifolia* is bright and clear with dark brownish-violet tessellations (Fig.66, p.186). In 1990 when we were again in north-east Turkey we tried hard to find yellow-flowered plants, i.e., an 'aurea' form. We must have investigated at least three different localities which held several thousand plants in flower! As

usual, my wife of course succeeded in finding a plant with the withered remains of a blossom very much paler than commonly encountered. This we took home and, although it did not flower in 1991, surely would have been a white (albino) form as revealed by a dissection of the aborted bud. We often found such albinos in populations of *F. meleagris*.

In bulb literature and plant catalogues you may often see *F. latifolia* ssp. *nobilis* listed. This is only a dwarf variant, and I have encountered every gradation in diminishing size.

Two more fritillarias from the Caucasus deserve mention before I close. These are *F. collina*, for a long time named *F. lutea*, and *F. lagodechiana*. *F. collina* is said to be closely related to *F. latifolia*. I do not know the taxonomic status of *F. lagodechiana*, in fact I have never seen a description of it. I have also never collected *F. collina* in the wild or read a description of it either so the comments which follow are based solely from notes sketched from my few flowering plants. Various East European friends have from time to time sent me material of *F. collina*. The plants have flowered sporadically in my garden and in my alpine house but, like many other species, it is not stable. In nature it grows in high alpine meadows. The plants are 10-25cm tall and with the three upper leaves arranged in a whorl as in *F. pontica* and *F. involucrata*. The leaves are much narrower and more acute than those of any of the fritillarias so far discussed. The flower is 3-4cm long and 2-2.5cm across, yellow to greenish-yellow, with reddish tessellations and borne high, quite at the top of the plant (Fig.67, p.186).

Well, I shall end here and thank you readers very much for your patience in following my Fritillaria Anthology.

Obituaries

It is not uncommon for the pages of *The Rock Garden* to hold an obituary for a well-known member of the Scottish Rock Garden Club. Unfortunately, however, the last six months has seen the deaths of a number of our friends and colleagues.

The President's Review (pp. 113-118) pays tribute to Bob Brien; as she puts it "the popular kilted nurseryman from Pitcairngreen", a stalwart of the Perth Group.

We shall also miss Reggie Kaye, whose Silverdale Nursery has supplied rock garden plants to members for generations, and whose ability to part with his money at Discussion Weekend plant auctions was much loved.

Ole Sønnerhusen was well-known in bulb circles, and his articles on fritillaries brought him closer to us all. Ole was to have been our Diamond Jubilee travelling speaker; sadly, this will not be so. A tribute to him, by Jimmy Persson and Henrik Zetterlund appears below, and his portrait appears on p. 187. (Fig. 68).

Finally, the Club has lost one of its father figures and great characters in Harold Esslemont. Harold's skill in cultivating rare and difficult plants to superb standards, and his generosity and sage advice encouraged many members of the club to grow and show their plants, as he had done for very many years, often vying for the Forrest Medal with Jack Crosland. Surely no-one will ever match Harold's show achievements. Harold continued to encourage others to show right up to his death, donating silver Forrest Medals to the club for those who reach the heights of ten Forrests; we know he wanted to see Fred Hunt reach that target, and was so pleased to see his proteges, Ian and Margaret Young, receive their first last year. His last donation was of the Esslemont Quaich for the Aberdeen Show, fittingly for three pans new, rare and difficult.

Jack Crosland, Harold's travelling companion to years of shows, and his greatest competitor at them, has written the personal tribute which follows, and we reproduce a portrait of Harold, in his beloved alpine house, as a frontispiece to this issue, which is dedicated to him.

Eds.

HAROLD ESSLEMONT, MBE, 1901 – 1992

Harold Esslemont, a long-term and very good friend to many of us in The Scottish Rock Garden Club, died on 23rd October, 1992, aged 91 years.

By exhibiting regularly at our shows, and demonstrating superbly grown plants, Harold Esslemont set new standards of cultivation which so many of us admired and have endeavoured to emulate.

Many of us were encouraged by him to follow the examples set in his alpine house, frames and garden. He found the challenge of “the new, rare and difficult”, irresistible and successfully grew a wide range.

The George Forrest Memorial Medal for the plant adjudged to be the best in the show was awarded to him on forty three occasions!

How long will it be, I wonder, before such a standard is repeated?

Particularly fine cushions of *Androsace imbricata* – now *Androsace vandelli*, were a forte of Harold's.

The Esslemont Lecture, funded by him, remains a living tribute to his memory.

Jack D. Crosland

OLE SØNDERHOUSEN

It is our sad task to inform you that Ole Sønderhausen has left us. He died on the 11th of August 1992 after a short period of illness. For those of us who knew him this was a hard blow and for the members of the SRGC who have had the privilege to read his articles and listen to his lectures it is a great loss.

Ole was born on the 15th of June 1926 and inherited his interest in nature and horticulture from his father who was a keen amateur rose-grower. From the age of twelve he was an active member of the “Danish Ornithological Society”. Within this society he met his beloved life-partner and wife, Gitte, who according to Ole was “the only bird he ever intended to band”. After an MSc and a PhD in plant-breeding he started working in a Biochemical corporation in which he advanced to become a director. In 1991 he retired in order to dedicate his life entirely to his main interests.

In the mid 1960s Ole and Gitte started to travel regularly in the

Mediterranean countries, at first primarily for birdwatching. Soon the love of plants took over, and from 1967 the latter was the prime object. From 1970 he formally numbered his plant-collections, O.S.#1 was *Colchicum macrophyllum*, collected on Rhodes.

The countries they appreciated the most were Greece and Turkey which they visited so frequently that Gitte felt obliged to learn the languages. This facilitated their travel and helped Gitte understand more of the folklore and the traditional music that were and remain her main interests.

Ole's favourite genera were *Cyclamen*, *Galanthus*, *Crocus* and *Fritillaria* and those were always what he set out to find. He made other collections as well but only upon requests from botanists who were in need of authentic material. During his travels he encountered many new localities for rare bulbs. He also found new species of *Colchicum*, *Bellevia* and a new species of fritillary – *Fritillaria serpenticola* – the find he treasured the most (see Fig.68, p.187). His last trip was to south west Turkey in the spring of 1992 and his last collection was a *Fritillaria* O.S.#1333. His travels certainly contributed important information to the "Flora of Turkey" and other scientific publications.

Ole was a lover of nature and therefore a sensible, careful collector, strongly against any trade with wild-collected bulbs. The few specimens that he brought back were cultivated with great skill in his Copenhagen garden. Being a born entrepreneur he soon set up a hobby nursery with a large-scale production of rare bulbs raised from hand-pollinated, home-saved seed. It grew into a wholesale business that supplied many retail dealers all over the world with unusual bulbs and tubers. It is our decided view that Ole's undertaking has been a factor that has helped preserve natural populations of bulbs by making them available "the right way". A concept worthy of imitation!

Ole always enjoyed exchanging information, ideas and plants with other bulb-growers of the world. In time his reputation grew and he was frequently asked to lecture and contribute articles concerning bulbs in the wild and in cultivation. In the winter of 1992 he was scheduled to be the travelling lecturer for the SRGC, an event he looked forward to with much pride.

Ole was an outspoken, determined, generous and warm-hearted man, a born optimist who always gave one-hundred percent. No one could fill the emptiness he has left behind. We will miss him and we will never forget him. Ole, may you walk the sacred meadows filled with *Cyclamen somalense* and *Fritillaria viridiflora*!

J. Persson & H. Zetterlund

Time for Snowdrops

LYN BEZZANT

The best known snowdrop, *Galanthus nivalis*, is one of the earliest flowers of the year and one of the most beloved. Even non-gardeners will recognise the single white bell-shaped flowers, gracefully hanging from a slender stalk. The three inner segments are smaller than the three outer ones. The inners each have a wide notch at the lower end, and above this is a variable green marking. This snowdrop is usually about 7 - 12 cm. in height. The leaves are grey-green and strap shaped. The plant is widespread in European woodlands and is believed to have been brought to Britain by the Romans. There are very fine masses of naturalised snowdrops in some Scottish gardens. A number of these are open under Scotland's Garden Scheme during February and March.

Here in Central Scotland, I have planted drifts of *Galanthus nivalis* in the open spaces alongside the paths and on the banks of the stream in the old woodland. The bulbs revel in the deep moist oak leafmould, and are increasing year by year. In the strengthening sunlight of late February and early March the flowers open their petals wide in the warmth and a faint honey perfume is carried on the air.

The double form, *G. nivalis* flore pleno (Fig.69, p.204), does well in the open meadow at the edge of the old croft garden. The little frilly ballerina skirt flowers make a fine show. They were here when we arrived, and over the years they have spread and made themselves at home in the coarse grass and rather stiff damp loam. They are a week or so later to flower than the single form. Another very welcome find here was a large flowered, January blooming, sweetly scented *G. nivalis* growing out of the lower stones of the field dyke near the bothy. It has beautifully formed elegant flowers.

Then, there are the many garden forms of *G. nivalis*. I grow these in informal drifts in the main garden, in the spaces near and around shrubs. They look well contrasted with *Eranthis hyemalis*, *Hepatica nobilis* and *Narcissus nanus*. I try to keep the snowdrops well away from *Leucojum vernum*. The two whites are so different, they do not complement one another. One successful planting under an old birch tree consists of a big drift of *Cyclamen hederifolium* interplanted with *G. n. 'Atkinsii'*. The very decorative cyclamen leaves are still in good order in January when the flowers of *G. n. 'Atkinsii'* appear. This is a lovely tall graceful snowdrop.

The flowers are slender, with long pointed outer segments. Early, vigorous and easy, it does well in full sun.

G. n. 'S. Arnott' is a strong grower with perfectly formed rounded flowers, and it is scented. *G. n.* 'Magnet' has big flowers held well away from the stem on long curved pedicels. The slightest breeze makes the flowers dance and sway. *G. n.* 'Viridapicis' is a big snowdrop. The outer segments as well as the inner ones have a green mark at the tips. In *G. n.* 'Virescens' the inners are almost entirely green and the outers are shaded green. It is a fascinating late flowering snowdrop. *G. n.* 'Lutescens' has the ovary and the 'V' marking on the inner segments a beautiful soft yellow. Although not very strong growing, it responds well enough and increases gently in a mixture of grit and fortified leafmould.

Of the other species, *G. elwesii*, a late flowerer, is one of the finest, with wide grey-green leaves and large flowers of solid texture. Each inner segment has a distinct green mark at the base and at the apex. I have seen it flowering in the mountains of south-west Turkey in early April. It was growing under pine trees in company with *Cyclamen trochopentanthum* and *Crocus fleischeri*. The *G. elwesii* hybrid called *G.* 'Fred's Giant' was noticed in 1949 growing under a hedge in the Cruikshank Botanic Garden, Aberdeen, by Mr Fred Sutherland, the Head Gardener there at the time. He rescued it and planted it in a more suitable place in the garden where it has increased and flourished. It opens in January and goes on flowering for about a month. An excellent, robust garden plant (Fig. 70, p.204), it was seen on the show bench at our Early Bulb Display in February 1992. It was given a Certificate of Preliminary Commendation by the Rock Garden Plant Committee. I hope that we will see a lot more of this superb snowdrop.

Galanthus ikariae var. *latifolius* (syn. *G. platyphyllus*) has wide, dark green leaves. *G. ikariae* var. *ikariae* has glossy green leaves. These two have pretty little rounded flowers which appear in March. They are native to the Greek islands and north-east Turkey. *G. plicatus* ssp. *byzantinus* is a strong growing plant. It has deep green leaves with a central silver stripe, and green marks at the apex and base of the inner segments. This one is from north-west Turkey.

Here in our cool moist climate, snowdrops are growing in a moderately acid soil derived from loam, bracken litter and leaf mould. I lift and divide the clumps while in growth every few years, and transplant immediately. A dusting of bone meal and crushed chalk is forked into the new planting place, and a surface dressing of the same is given in early autumn.

These are a few of the snowdrops that we enjoy here every spring in

our garden. There are many more to choose from. Too many named forms, some may say. But they are all lovely and very welcome.

If you have some special snowdrops, whether they are named forms or chance seedlings, it would be interesting to see them. At the Early Bulb Display in 1993 at Dunblane (see the Show Schedules for details) there will be space provided for Galanthus enthusiasts to show some cut blooms – even one stem will suffice and a leaf if you can spare it. A small glass jar will do as a vase, and please label your exhibit. We look forward to seeing you there along with ‘Tiny Tim’, ‘Mighty Atom’, ‘Lady Elphinstone’ and all the rest!

Two specialist suppliers of snowdrops are:

John Morley, North Green Only, Stoven, Beccles, Suffolk, NR34 8DG, and Louise Vockins, Foxgrove Plants, Foxgrove Farm, Enborne, Newbury, Berks, RG14 6RE. There are more listed in ‘The Plant Finder’, by Chris Philip.



Leucojum trichophyllum

Lionel Bacon



Fig. 56 *Fritillaria conica* (p169) Ole Sønderhausen



Fig. 57 *Fritillaria euboica* (p169)
Ole Sønderhausen

Fig. 58 *Fritillaria obliqua* (p171)
Ole Sønderhausen

Fig. 59 *Fritillaria ehrhartii* (p171)
Ole Sønderhausen





Fig. 60 *Fritillaria involucrata*
(p172)

Ole Sønderhousen



Fig. 61 *Fritillaria moggridgei*
(p172)

Ole Sønderhousen

Fig. 62 *Fritillaria montana*
(p172)

Ole Sønderhousen

Fig. 63 *Fritillaria tubiformis*
(p172)

Ole Sønderhousen





Fig. 64 *Fritillaria meleagris* Ole Sønderhousen
burnatii (p174)



Fig. 65 *Fritillaria aurea* (p176) Ole Sønderhousen

Fig. 66 *Fritillaria latifolia* (p176) Ole Sønderhousen



Fig. 67 *Fritillaria collina* (p177) Ole Sønderhousen





Fig. 68 Ole Sønderhousen with *Fritillaria serpenticola* (p180)

The Challenge of Fort Courage: Alpine Gardening in North Carolina

EV WHITTEMORE

Let me introduce you to my part of North Carolina in the foothills of the southern Appalachian Mountains. Penrose is near the entrance to the Pisgah National Forest in Transylvania County which boasts 26,000 full-time residents. In summer the population is considerably swelled by many 'Flatlanders' who come from Florida, Georgia and South Carolina to escape their humidity and heat.

Our weather is normal which means there are frequent surprises and one cannot depend on repetition from year to year. Generally, average precipitation is 1600mm per year. The average high temperature is 69.8°F and the low is 42.9°F with 208 average clear days per year. Having said this, I will tell you that the winter of 1991/92 gave us two days with lows of 17°F and on May 7, 1992 we were treated to 75mm of snow. The beginning of July boasted nine days of around 95°F, without rain. Previous to this we had 25 days where rain descended some part of each day raising the ground water level considerably. 'Gully washers' visit us and dump 60-75mm of rain in an hour. Our standard remark then is, "There goes the driveway". Yes, gardening here is a challenge.

Fort Courage was wrested from a heavily wooded forest of *Acer*, *Tsuga* and *Quercus* species. *Ilex opaca* grows on the property and is used for winter decoration and food for the birds. *Pinus strobus*, *Liriodendron tulipifera* and *Oxydendron arboreum* seedlings are still constantly being weeded out. Understorey trees are *Magnolia grandiflora* and *Cornus florida*. *Kalmia latifolia* and *Rhododendron maximum* grow to 10m. Various yellow and orange shades of *Rhododendron calendulaceum* decorate the woods. From the above you can deduct we have an acid soil. It is thin. Much of the subsoil is clay and rocks are present in great number as we are located some distance below an old rock quarry. We have a gentle beautiful meandering stream which issues from an underground spring with native rhododendron and kalmia along its banks.

There are a number of choice wildflowers native to the area. *Tipularia discolor* appears in surprising spots like the orchard and heather beds. *Goodyera pubescens* seedlings pop up in alpine seed pots. I know of

two natural colonies of the goodyera which each have fifteen flower spikes. *Cypripedium acaule* occurs throughout and we make a point of transplanting these to the cliff area previous to thinning or clearing land. *Epigaea repens* delights us by appearing in huge patches with seedlings nearby. Last year I spread a bit of dried cow manure around two of the patches and was rewarded this spring by larger flower clusters and leaves. *Galax urceolata* is an evergreen ground cover near the driveway and I admire the hundreds of flower spikes. The plants in full sun develop much brighter leaves in winter and I find these more attractive. When I locate any of the above mentioned plants in the garden area I mulch with our inexhaustible supply of chopped leaves. Much of our chopped leaf mulch is sprinkled with pine needles for a neater appearance and it does help to keep the tiny bits stabilised in the wind.

The original rock garden areas were built on truck loads of coarse creek sand dumped over cleared land then raked and shovelled into different levels. Very little humus was added. Three years ago I took a thorough look at the garden and was appalled by the amount of *Phlox subulata* and *Dianthus* forms and rampant *Viola pedata*. Here the standard reply to such abundance of the above is, "Well, that shows how poor your soil is". I realised it was time for a change and started renovating.

The process was difficult, time consuming and eventually boring. All the plants and rock mulch were removed and filed for later use. Six truck loads of top soil were mixed in by shovel and more rocks were added where necessary. The larger rocks were set for stability rather than beauty to fit the safety requirements of a sixty-two year old rock gardener. The garden was replanted and remulched. After that I knew the meaning of the phrase, "It's a great life (if you don't weaken)". I have noticed that my plants are now dying with less frequency.

The editors have requested me to mention some of the plants I grow. I will do this with reluctance as I firmly believe there is 'someone up there' who is listening and will think me bragging. We all know what happens then – the plants die!

In a shadier part of the garden I have a magnificent stand of *Lygodium palmatum* climbing into a *Kalmia latifolia*. This was brought down from the Massachusetts garden and loves North Carolina. We have found it native in the northern part of Tennessee near Stinking Creek. *Trillium grandiflorum* fl. pl. also resides here. Both are treated yearly to a sprinkling of dried cow manure and a mulch of chopped leaves is added each fall.

We have an island of *Cornus florida*, *Rhododendron maximum* and azaleas near the oldest-rock garden. Here *Dicentra eximia* and *D. eximia*

'Alba' grow rampantly and are forever being weeded out. They delight in the woodland soil and spread out into the path to grow in the 10cm rock mulch covering. Clearly, this plant is not choosy as to growing conditions. When it is thinned one must be careful not to let the seeds escape while on the way to the compost gully. And yes, the gully also grows this plant to perfection.



Viola pedata

Ron Cole

One of my favourite plants is *Lithodora diffusa* 'Grace Ward'. Every winter I go through the trouble of protecting the largest plant with an insulated box every cold night. However, the two other unprotected plants sail through the cold and ice. I do find the plants have a time limit of five to six years and then reluctantly must make the final trip to the compost gully. Since new ones are easy to start from cuttings my supply is constant. This year I planted *Genista* 'Lydia' near 'Grace' and look forward to an interesting colour combination. They are backed by the greyest lavender plants I could find, *Lavendula x intermedia* 'Fred Boutin'.

Since we can have a brutal summer sun the thymus grow extremely well in a hot spot. Reluctantly I must confine myself to only a few choice ones like *Thymus serpyllum* 'Elfin' and *T. serpyllum minus*. The abundant flowers attract bees, which attract the small poodle, which can end with a very unhappy pet! The *Oxydendron arboreum* prove an additional problem this way as the bees use their flowers to make sourwood honey.

Acantholimon grows very well here in four different areas and flower to perfection. I love the form and colour of the plants but haven't learned to put the label at a safe distance from the prickly bun. On the south side of the house I constructed a raised bed with mostly sand as a growing medium. *Acantholimon hohenackeri*, *A. venustum*, *A. araxanum*, *A. glumaceum*, *A. korolkowii* and *A. caryophyllaceum* love it here and show no effects from the weeks of rain earlier this year. An alpine frame with controlled watering has *A. ulicinum*, *A. ercias*, *A. ulicinum* ssp. *ulicinum*, *A. armenus*, *A. diapensioides* and *A. ulicinum lycaonianum* growing equally well. The alpine house has *Acantholimon creticum* and *A. androsaceum*. The other four plants have labels buried under the buns. One self sown seedling has appeared. The last area of acantholimon is a miscellaneous collection on a southeast facing scree slope. Surely this must be one of the easier plants here.

Daphnes are concentrated in two garden areas and the ground bed in the alpine house. Those outside appreciate a constantly renewed mulch of chopped leaves. The oldest bed has plants of 1.3-1.6m with the labels lost in the mulch. One day I decided to search for my labels and on pulling away a bit of mulch found so many roots growing in the chopped leaves I decided to leave well enough alone. Happy plants are more important than labels. The second collection of daphnes is on a south slope with larger labels and heavily mulched. *Daphne tangutica* *D. x napolitana*, *D. burkwoodii* 'Somerset', *D.* 'Carol Mackie' and *D. x mantensiana* have settled in well. I expect this year's additions to do as

well. The daphnes aren't fed but derive their nourishment from a constant additional mulch of chopped leaves from the woods, mainly *Quercus*. I keep the *D. petraea* forms, *D. thauma*, *D. jasminea* and *D. cneorum pygmaea* forms in the alpine house ground bed. These are fed with whatever I happen to be using during the moment.

One of the joys of my garden is a woman-made bog. Dug out by hand 45cm deep, lined with layers of plastic, then a layer of sand, one of sand/peat and then straight peat. This has been so successful I have had to separate plants and make several other bogs. It grows magnificent sarracenias in huge clumps. This year I found hundreds of one half to one inch *Sarracenia* seedlings near the larger plants. Since this bog is in full sun the babies are well protected close to the foliage of the adults. *Dionaea muscipula* wintered there but I took no chances and mulched it well with chopped leaves before the cold. Occasionally I would turn and mix the leaves a bit so the plants wouldn't rot. This summer I am rewarded with a tall stem of beautiful white blossoms. Flowering the same time is *Drosera filiformis* in contrasting pink. Early May is spectacular with flowering stems of red and yellow from the sarracenias.

Liking carnivorous plants so much and wanting to be successful with *Darlingtonia californica*, I built a bog moraine at the edge of the stream. In nature they appreciate running water and this could be provided with a bit of work.

Like every gardener I find it difficult to say "no" to almost any plant except a rampant spreader. Therefore the area contains much miscellaneous material. Easy doers are the *Iris cristata*, *I. pumila*, *I. verna* and the Pacific Coast Hybrids. *Salix moorei*, *S. lindleyana* and *S. yesoalpina* are favourites. This spring I transplanted a *Salix yesoalpina* from a scree area and found two roots over three feet long. Genistas love our growing conditions. *Genista* 'Lydia' and *Genista* 'Vancouver Gold' making huge yellow spots in the spring. I am now trying genistas in shadier areas to see if I can have them brighten the hillside over the stream.

Primula jesoana and its beautiful white form are becoming a nuisance by spreading rapidly. One day I found myself short of top soil so bought several bags of a commercial mix. Six plants went into this medium and really 'took off' growing and reseeding. The other six plants were placed near the stream – a damper spot – and while doing well haven't reproduced as abundantly. Both groups are in shade but the commercial mix is a lighter composition.

That sweet little *Thalictrum kiusianum* is a cutie and another plant willing to spread itself about. I have tucked it into shady crevices where it knows just what to do to be charming. It also grows in our sun which surprised me.

Perhaps having a rock mulch helps.

Shortia galacifolia is easy here. I have several old plants along the stream which give me self-sown seedlings. Wanting a display on the drier slope in the cliff area, I broke one patch into many sections and planted them into the woods soil. Mulched with chopped leaves and sprinkled with pine needles and watered until established, the plants all took. I ended up with a few unrooted sections which were tucked into one of the shady peat bogs, eventually rooted and then planted out. There seems to be no secret to its likes – acid woods soil and semi-shade. Other shortias growing in the woods and moraines are *S. ilicifolia*, *S. soldanelloides* f. *alpina*, *S. soldanelloides* vars. *kantoense* and *magna*.

Conandron ramondioides nana is delighting me, widely spreading into the moss on the cliff. One plant was used as a start, flowered and decided it liked the spot. We are still trying to figure out how it spread two and a half feet in two different directions. Occasionally during dry spells I will mist the moss with a spray bottle before it dries brown. The straight *Conandron ramondioides* growing in a moraine near the stream isn't as vigorous in growth.

There is a large patch of *Pyxidantha barbulata* at least twelve years old in the woods near the stream. For years I watched this plant and wanted to move it into a moraine with more sun. I remembered the difficulty in relocating other pyxidanthas – they died – so left it alone. This year I was delighted to see several glistening white flowers. A triumph in gardening!!

For years I struggled to naturalise *Papaver alpinum* somewhere – **anywhere** – in the garden. I must have ordered seeds from every society each time a list arrived. Finally 1990 was the turning point and now plants of this charmer are seeding down a south scree slope. Now I work at getting the plant established back at the top of the slope since that section of the garden ends in a mass of *Kalmia latifolia*.

Vaccinium macrocarpon is a lovely plant for the larger garden. We enjoy our 2 x 1m patch and are encouraging it to grow larger. This started as a rooted cutting in sphagnum and now has spread into straight top soil. It is a pleasure year round. Green throughout the winter, covered with dodecatheon-like flowers in the spring, and green berries in summer turning into red edible fruit in the fall. The raw berries are an acquired taste but who can resist cranberry muffins? The upright form *V.m.* 'Hamilton', equally charming, is growing here at bog edge. *V. vitis-idaea minus* is beginning to spread itself in crevices among rocks.

Generally speaking campanulas are not the easiest plants here although I may be able to change my mind about this since the garden renovation. *Campanula persicifolia* v. *planiflora* 'Alba' has been flowering for several

months. I notice other campanulas are looking as if they mean to survive. I automatically use a systemic on these as 'something' thinks they are delicious.

We have recently constructed Mt. Courage; elevation seven feet one inch. Eighteen and a half tons of rock were used and two truck loads of topsoil. This took us exactly three weeks and I must confess we hired our neighbour with his front end loader for three and a half hours to move some soil and set the biggest rocks. When the rocks were dumped in the yard my husband looked at me and said, "Well Ev, I think you finally bit off more than we can chew". However, it is done, planted and mulched, a small pool constructed, another bog, a small pine forest and an alpine lawn. I look forward to watching this mature and finding new plants that like the growing conditions of Mt. Courage.



Epigaea repens

Ron Cole

Twelve Seeded High-Alpines

CHRIS CHADWELL

“Intelligent anticipation is as useful in horticulture as in other human activities. To forecast the best new plants, before you have seen them flowering in this country, from the garden point of view, is not easy”. So wrote Kingdon Ward in 1936, when he felt readers of the AGS Bulletin would like to hear his opinion as to the merits of a personal selection of introductions from his 1933 expedition into Tibet. He thought others might have chosen a different dozen, but he was certain that there was nothing much wrong with those he preferred, “So long as they grow as nicely as I have seen them growing on the wind-swept roof of the world”. His collections provoked widely differing reactions; *Dracocephalum heterophyllum* received high praise from one leading grower, albeit not for the characteristic which Kingdon Ward felt made it outstanding, whilst others threatened to dig it up and throw it at his head with the words: “Take the thing back to Tibet, where you got it!”

Having myself undertaken two seed collecting expeditions into the borderlands of Western Tibet during 1986 and 1987, I would like to offer my own dozen. Being a little further down the road in terms of establishment in cultivation than Kingdon Ward’s plants were when he wrote, my introductions can be more fully assessed in terms of garden-worth. I, too, have received some criticism, but the way it has been expressed suggests that some growers do not fully appreciate the inherent variability in seedlings from a wild population. But more on this later.

Let us begin with the plants themselves. The selection is designed to highlight the full range of material introduced by modern-day expeditions. Thus we have some which can vie with the very best on the show bench and others suited as general rockery subjects. Most are not difficult to grow and keep in cultivation, whilst a few challenge the skills and dedication of our most able growers. There is something for all tastes and abilities.

Considerable publicity can be given to a particular expedition prior to departure and sometimes much self-congratulation trumpeted immediately upon return but how often is a meaningful long-term assessment made? This cannot take place for several years. You will certainly hear plenty of talk about the suitability or not of a particular

region as a source for introductions and growers can be found waxing lyrical or dismissing out of court a particular species. Most of this is pure conjecture and thus misleading for other growers. This is not a scientific society but we do need to be objective. The days of Farrer's 'purple prose' have thankfully long gone.

I would like to thank those shareholders who have taken the trouble to report on progress of my introductions, both in terms of initial germination and subsequent performance. These efforts are invaluable in assessing performance. Combined with visits to gardens around the country, I am in a position to gain a better impression of how plants fare. The results are never identical.

Meconopsis aculeata CHAD 250 (Figs.71, 72, p.205)

The 'West Himalayan Blue-Poppy' was first introduced by H. F. C. Cleghorn, MD Edinburgh, Conservator of Forests for India, 1867-69 and President of the Botanical Society of Edinburgh; it flowered at Kew in 1864. The species is proving far more variable than previously thought. Plants given this name in cultivation often turn out to be crosses (and presumably back-crosses) with either *M. horridula* or *M. latifolia*. The true species can be separated by its deeply and irregularly pinnately-lobed leaves and an ovate to oblong capsule.

Martin Carter flowered this collection at Kinlochard in 1990 and I have many healthy seedlings in my Slough garden, which came from seed collected by Martin in 1991, though they are looking suspiciously like hybrids to me! This form has deep to sky-blue flowers on 45cm stems. Collections from bordering Himachal Pradesh by George Kirkpatrick and Ron McBeath are proving to be more purple or pinkish.

Primula minutissima CHAD 283

This member of the Minutissimae section has long attracted attention and presented a challenge to skilled growers. Most shareholders raised only a few rosettes from a generous packet of seed. We have my trusty Kashmiri collecting assistant Gulam Rasool Beigh to thank for spending hours crawling on his hands and knees in freezing conditions along the 'peaty' stream-sides of the Pensi La, locating enough full capsules. This form probably comes within *P. heydei*, once separated from *P. minutissima* by the presence of flower stalks and greater numbers of flowers. Ludlow, who held teaching and administrative posts in Kashmir and Ladakh during the 1930s and 1940s, concluded that the distinction was not valid, upon examining material from the nearby Taglang La.

Martin has flowered plants since 1990, though usually only as single

purply-blue blooms; the farina (mealy covering) on the undersides of the leaves is lime coloured, not white which is more typical. His plants are grown within a pot containing a gritty mix and placed in an outdoor plunge bench.

There appears to be some confusion between *P. minutissima* and *P. reptans*. Within 'Flowers of the Himalaya', Polunin and Stainton have wrongly included a picture of the former marked as the latter. *P. reptans* has no farina and deeply toothed leaves with a recurved margin. *P. minutissima* has almost fleshy leaves with distant tothing. Lynn Bezzant's photo in *The Rock Garden*, Vol. XIX is correct.

Potentilla salesoviana CHAD 261

An extensive patch of this now grows on the Kew rockery and David White has a healthy clump developing on a raised bed in Buckinghamshire. The species has performed well as a foliage plant; the dark green upper surface contrasting well with white undersides. Flowering has been a disappointment, with at best a few poor blooms. The author had a similar experience with a collection made during the 1983 Swedish Expedition to Pakistan (SEP). A well grown pan would not be out of place on the show bench when judged for foliage effect. Judges should note when examining it closely that a local medicinal use in Ladakh is for worms in the nose!

Minuartia kashmirica CHAD 44

Whilst certainly not show bench material, this is proving a straightforward rockery plant for many, reliably setting seed and finding its way into the seed exchanges. Farrer reckoned that this species (then known as *Arenaria foliosa*) deserved a place in one's garden for having the capacity to flower three times a year – with suitable trimming back. Clumps are formed with copious numbers of largish pure white flowers, thriving in a sunny position.

Eritrichium canum CHAD 43

I cannot resist deflating Farrer's description of "celestial" concerning the flower colour but it does have appealing blue flowers in branched clusters above erect stems with many linear, silky-white leaves. A touch more attention is needed than with the previous species but both have performed well amongst gravel beside one of David White's raised beds.

Saxifraga stenophylla CHAD 298

This Saxifrage, previously included under the *S. flagellaris* complex, showed outstanding growth habit on the high passes in Zanskar. For

some growers only an untidy, leggy mass was the uninspiring outcome. Others did better and I understand that a prize was awarded at the Glasgow Garden Festival, when the rich yellow flowers were displayed at their best. Success was too much for the plant concerned, which promptly died.

Acantholimon lycopodioides CHAD 124 (Fig.74, p.206)

Ludlow and Sherriff, the only famous plant hunters to have explored a little in the borderlands of Western Tibet, whilst holding administrative positions in Leh during the 1940s, were greatly impressed with the potential of this as a rockery subject. Many growers have struggled to keep a couple of rosettes alive. In 1991, Hazel Kaye, a leading grower of perennials, visited my garden with a fine plant sporting several healthy rosettes, hoping to swap it for something more to her taste! Her magic formula seemed to be nothing more than controlled neglect. The most impressive specimens of this species I have seen (from a 1989 Chadwell & Ramsay collection) are thriving in the sandy soil of a garden not far from Doncaster; regular breezes from the coast are probably beneficial, given the high salt concentrations of soils for much of Ladakh. This member of the Plumbaginaceae (Sea Lavender Family) has a very deep tap-root, like many species from 'rain-shadow' regions, an important consideration when potting-on and planting out. From a distance it appears like a giant thrift (*Armeria maritima*), though spine-tipped leaves makes a pair of tweezers vital for seed collection. Ladakhis use the pretty pink and white papery funnel-shaped calyx as kindling.

Ephedra cf. intermedia CHAD 224

The 'Joint-Pines', primitive conifers, are not to everyone's taste, provoking incredulity at wanting to grow such a peculiar plant. I like oddities (being one myself) but feel their bad press is due in part to being placed in the wrong location in some gardens. They are resilient and can survive drought conditions but lack of water will produce an unsightly mess with no ornamental merit whatsoever. There is a sizeable expanse of an introduction of the closely-related and more often seen *E. gerardiana* at Edinburgh Botanics, gathered by the late Len Beer in the 1970s. I wonder how often the attractive fruits are formed, which consist of seeds enclosed in fleshy red succulent bracts. In Ladakh the stems are used as a toothbrush and can be ground up with a local mineral to make snuff. And should you have any Tibetan yaks passing next January, the branches are an important winter feed!

Draba aff. *oreades* CHAD 290

In March 1992 I was treated to a fine cushion topped by a dense cluster of bright yellow flowers, far superior to the drabas seen on the show bench at the Early Spring AGS Show. The plant stemmed, once again, from Martin's seed. The naming of drabas is difficult, hence the caution with my identification.

Potentilla fruticosa var. *pumila* CHAD 312, 321

Most readers will be familiar with the species from its numerous cultivars available at garden centres. Here, instead, we have a delightful mat-forming variety, displaying large rich yellow flowers amongst branches of many silvery-hairy leaves. David White maintained a compact specimen on a raised bed for several years. I had initially been concerned that without the benefit of cooling breezes, straight off Tibetan glaciers, plants in cultivation would regress back to something much larger but the compactness has been maintained so far. This collection was made from a population growing in almost pure sand at the edge of a rocky slope en route to our camp-site on the Pensi La (4400m). Having spent the day crossing the Durung Drung glacier searching for plants, I was exhausted and practically had to crawl back to my tent. My energy was restored by sampling the local chang (a barley beer) which is best described as a cross between scrumpy cider and porridge – best sieved first!

Geranium himalayense CHAD 269

How did you spend your honeymoon? My wife accompanied me on the 1987 expedition into the Buddhist Kingdom of Zanskar. The B.B.C. 'World About Us' Series in 1980 entitled 'The Last Place on Earth' followed the travels of the French anthropologist, Michel Peissel, when the region was re-opened to foreign visitors. Dorothy felt this was an apt description of the place, as she sat shivering inside my down sleeping bag – in between washing my socks in nearby icy glacial lakes and gathering seed of this cranesbill. This species is quite widely grown and its hardiness confirmed by a strong representation in Scandinavian rock gardens. Incidentally, we are still married, though no thanks to me and Dorothy has no plans to accompany me on any more expeditions.

Waldheimia tomentosa/stoliczkai CHAD 253; 310; 320 (Fig.73, p.206)

This genus epitomises the beauty of high-altitude desert plants. They are not 'impossible' to grow or flower, as some would have us believe but there has been much anguish and disappointment. Getting them to

'perform' as they do on the windswept roof of the world continues to elude us. The true *W. tomentosa* does have lovely foliage, the leaves cut into narrow segments, covered with dense soft white-woolly hairs. Some botanical authorities consider *W. stoliczkai* to be just a glabrous form of *W. tomentosa*. I could not place 310 firmly within either species.

A considerable amount of seed of these collections was allocated, allowing experimentation. Germination was rapid, as is often the case in the Daisy family (Asteraceae). Many have succeeded in flowering them but with universal disappointment. The white flower-heads appear on elongated, flattened stalks, not a patch on the 'miniatures' within slides and pictures which caused so much eager anticipation . . . (Fig.73, p.206)

To further confuse the matter, Kew and Wisley grow a plant as *Allardia tomentosa*. *Allardia*, named in honour of a French soldier of fortune in the army of the Sikh ruler of Kashmir during the last century, is now a synonym for *Waldheimia*. Their plants do not match mine but they do look suspiciously like the plant given an Award of Merit as a foliage plant, under the same name. Their plant is not *W. tomentosa*!

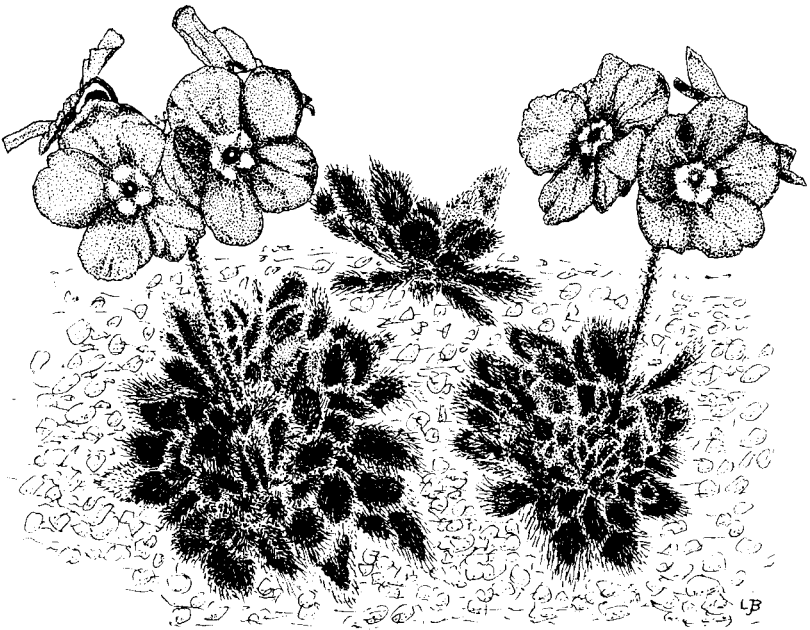
To complete the article, I shall present some thoughts as to why it is unwise to be too judgemental about a particular species from a single flowering from one collection. Peter Cox, writing on 'Variation in Rhododendron Species' in the Bulletin of the Rhododendron Society of Canada, 1985, states, "Whenever species enthusiasts visit my collection, I show them a group of fourteen plants of *R. pseudochrysanthum* all out of one seed packet collected on top of Yushan (Jade Mountain), Taiwan's highest peak. Their variation is astonishing. They differ from upright plants with large leaves (for the species) over 60cm high to tight little cushions of only 15cm with tiny leaves in comparison. One has much narrower leaves than the others, while some have dark and others pale foliage. Only two have flowered so far. One is pure white, the other pale pink."

The variation described does not surprise me. Such differences are probably not that uncommon within populations of wild species. Indeed, even when a colony appears to have 'identical' plants, this is merely because a quick glance does not reveal differences. The variation is not limited to morphological features we can see. Physiological characteristics will vary too and they can influence how well an individual plant copes with our garden or alpine-house.

Returning to my own gatherings, I was recently sent slides by Martin Carter of various flowering specimens of *Meconopsis aculeata* raised from Chadwell and Ramsay (C&R) 410. These varied in stature, flower

colour and shape of flower. The best example to our eyes would be the real miniature, some 8cm high, with a deep pinkish flower; at the other extreme there was an untidy, leggy plant with poorly developed purply-blue flowers. The former could readily have won a prize on the show bench; the latter would probably be dispatched to the compost heap! So is *Meconopsis aculeata* an outstanding introduction or a 'Himalayan road-side weed' which brings the competence of the collectors into question?

I am not suggesting that gardeners should not voice an opinion about the merits of particular species, but they must take into account the inherent variation within a plant species, and that is long before the plants are subjected to a myriad of gardens and growers. And a final word of caution; far more plants are grown in our gardens under the wrong names (i.e. as impostors) than we realise but that is really another story.



Androsace muscoidea longiscapa

Lionel Bacon

Ephemeral Friends

DOREEN GOLDER

No – I don't mean the bottles you have emptied toasting your successes or commiserating with your failures – I mean that bundle of labels of plants long since dead and gone that you have tucked away in the greenhouse, the potting shed or even just stuck away in a drawer. We all have them – be honest now!

Why can I, a long-term member of the Scottish Rock Garden Club; not succeed with our emblem – *Dryas octopetala*. Each time I try, it starts to shrivel and finally disappears altogether. A similar fate befalls *Ourisia* 'Snowflake' (and all its colleagues), – the gradual diminution of its foliage and then curtains! *Erythronium dens-canis* or *E. pagoda* don't get a chance to shrivel – their nice juicy leaves are an aphrodisiac for the rabbit population, coming as they do early on with such lush foliage – and why is it that the rabbits demolish all the more special *Dianthus* but ignore completely *Dianthus deltoides* which seeds around at an alarming rate?

Clematis marmoraria does not like me either, and it was not grown outside so I cannot blame the weather, the soil, rabbits, moles, snails or slugs! I won't get started on my least favourite creature – slugs – suffice to say that they have been responsible for the demise of many varieties of viola, campanula, cheiranthus, arabis, corydalis – I could weep over *Corydalis cashmiriana* (it was growing so well) – and, yet, I know it is partly my fault for not getting the slug bait down in time but with a big garden it is difficult to remember the exact spot of a particular plant that is herbaceous when my friends – the birds – have pulled out and scattered the label.

I do what I think are all the right things with *Primula marginata* but it refuses to bloom and gradually turns up its toes. The lewisia family suffer the same fate. Can I use another excuse here and blame the perpetual rain of the West of Scotland?

Raised beds work wonders over my heavy soil but I doubt if I now have the energy to build raised beds all over my garden. In any case, I do not suppose it would make much difference. We will always have caps off! As A. G. Street wrote in a farming journal many years ago "Where there is livestock there will always be dead stock." This I understand; there is a time to live and a time to die, but why oh why do so many things that I want to grow have to die so young?

In case you are all now thoroughly depressed, let me say that I am looking out on a lovely scene of emerging leaves, masses of snowdrops and crocuses; both species and the larger ones that make such a vulgar show, daffodils pushing through the ground and soon to be in all their glory. Close to the bulbs, tiny rock plants are awakening after their winter sleep to tell us that spring is truly here and another wonderful year is ahead.

Who cares about those 'ephemeral friends'? Maybe we should just forget them and enjoy the promises to come.



Corydalis wilsonii

Joyce Johnson



Fig. 69 *Galanthus nivalis* 'flore pleno' (p181)

R J Bezzant

Fig. 70 *Galanthus elwesii* 'Fred's Giant' (p182)

R J Bezzant



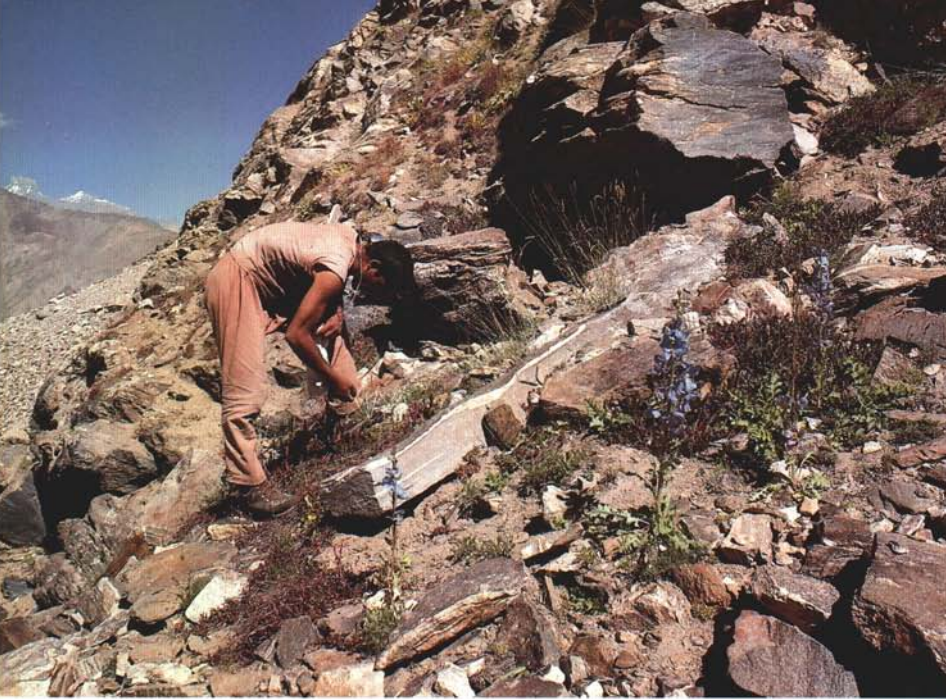


Fig. 71 Plant collecting in Tibet, with *Meconopsis aculeata* (p196)

C Chadwell

Fig. 72 *Meconopsis aculeata*, Tibet (p196)

C Chadwell





Fig. 73 *Waldheimia tomentosa/stoliczkai*, in Tibet (p199)

C Chadwell

Fig. 74 *Acantholimon lycopodioides*, Tibet (p198)

C Chadwell





Fig. 75 *Townsendia hookeri*, exhibited by D Wiseman, Newcastle 1992 (p220) Alan Porrett

Fig. 76 *Androsace vandellii*, exhibited by D Deans
Forrest Medal Winner, Newcastle 1992 (p220)

Alan Porrett



Flatworms: Leave No Stone Unturned

DR JAN BOYD

“Wanted, dead or alive!” the poster said on the Royal Botanic Garden’s notice board. What was this about, I thought – had someone been digging up Bill’s herbaceous border? No, the miscreant in this case was a WORM; but a very unusual one, commonly called the New Zealand flatworm, *Artiosthia triangulata*. It was first discovered in the UK in 1963 near Belfast and then recorded in Edinburgh’s RBG in 1965, presumably introduced from its native New Zealand as eggs or worms contaminating plant collections. Today, this flatworm is common throughout Ireland and now appears to be spreading within Scotland. The poster referred to was part of a survey to determine just how far it has gone.

General Biology

What makes this particular worm of interest is that it preys on earthworms and can greatly reduce the earthworm population of a field or garden, which may be harmful to soil structure and fertility. The New Zealand flatworm has a flattened shape, with a slimy surface, brown with a lighter margin down each side (see p210) and quite distinct from the earthworm’s rounded, segmented shape. In size it ranges from about 3cm when newly emerged from the egg, up to 18cm in the adult. It is most active at night and during the day is often found coiled under large stones or sacks, particularly in cool damp places. The resting area may be marked by the flattened body shape outlined in mucous. When uncovered, the flatworm rapidly moves away from the light, elongating into a narrow form that enables it to squeeze through spaces in the soil and down earthworms’ holes, although it cannot itself burrow. During the hours of darkness it roams on the soil surface, or enters holes in search of food. On locating an earthworm, it curls itself around its prey and secretes digestive juices, presumably from the mouth centrally placed on the under-surface. This liquid digest is then absorbed. An adult normally eats one earthworm a week but can survive without food for up to a year by absorbing its own body tissue.

Once a week from about March to November, depending on the temperature, a mature flatworm will lay an egg-capsule. This looks like a shiny blackcurrant and contains several eggs. About a month later,

from three to seven young emerge, quickly growing to adult size. Thus under ideal conditions, the population expands rapidly, consuming many earthworms in the process. During the winter months and warm, dry periods in summer, they disappear from the surface presumably to lie dormant deep in the soil.

Current Research

Much of the biology of this species of flatworm is unknown; until now British Government funding has concentrated on monitoring its current spread. In New Zealand it is not a problem to horticulture as it is confined to undisturbed forests. However, in Scotland there has been a rapid dissemination into cultivated areas during the last few years and it is imperative that we prevent its establishment in our natural woodlands. In March 1992, the New Zealand flatworm was added to Part 1 of Schedule 9 of the Wildlife and Countryside Act 1981 thus making it illegal to release or allow it to escape into the wild. In future, nurseries should be taking precautions to ensure that they do not disperse it.

The Gardener's Contribution

Another major source of distribution is the gardener's legendary generosity in providing friends and relatives with "wee bits" of plants. All of us must now accept responsibility to prevent the further spread of these flatworms. If you suspect their presence in your garden then do not supply Club plant sales, for example, with plants dug up from the open ground; the soil around the roots may contain eggs or young worms. This does not, of course, apply to seeds, dried bulbs or fresh cuttings.

You can easily check for flatworms in your garden by placing large, flat stones, bricks or polythene sacks filled with earth or stones on the soil in damp places. Inspect beneath these traps once a week. If you do find a flatworm or something suspicious, then contact BRISC (Biological Recording in Scotland Campaign) who are co-ordinating the present survey. They can identify specimens for you and provide further information. Using genetic fingerprinting methods on the samples sent, it is hoped to be able to determine whether there have been one or several introductions of flatworm into this country.

Control Measures

It is particularly important to delay the spread of flatworms to gardens and especially organic farms and those market gardens that rely on earthworms to maintain soil fertility, but until recently there has been no research on control measures. Fortunately, preliminary results indicate

that flatworms are susceptible to several commonly-available insecticides, though the persistence of their action and the consequences for other wildlife are still under study. For further advice contact your local Scottish Agricultural College office.

At present, the only recommended means of control is to trap the flatworms under stones or polythene bags and destroy them. So please, act responsibly; check for flatworms in your garden and prevent them spreading. In fact, leave no stone unturned!

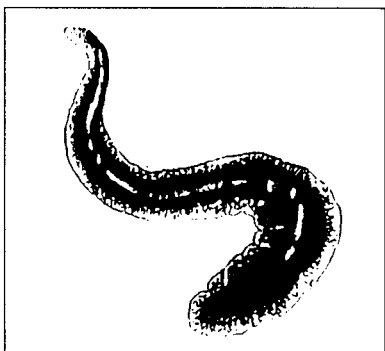
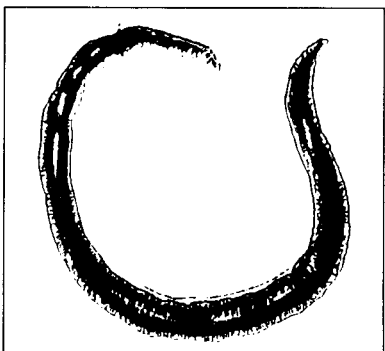
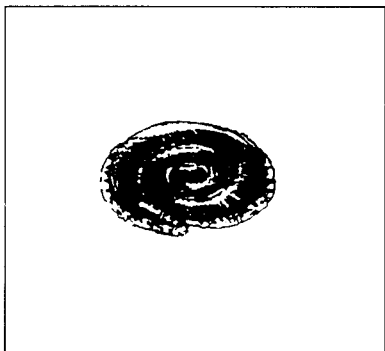
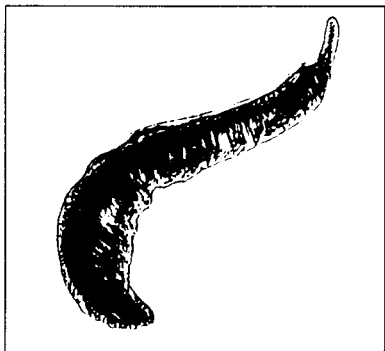
Acknowledgement I am very grateful to Dr Brian Gerard, Scottish Agricultural College, Edinburgh, for his advice and for the opportunity to contribute to his research.

References

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New Zealand Flatworms

Courtesy of BRISC

The Royal Horticultural Society's Rock Garden Plant Committee

Recommendations made at Scottish Rock Garden Club Shows.

DUNBLANE, 22nd February 1992

AWARDS TO PLANTS

Certificate of Preliminary Commendation

To *Galanthus* 'Fred's Giant' as a hardy flowering plant for exhibition, shown by Cruikshank Botanic Garden, Aberdeen.

To *Crocus veluchensis* as a hardy flowering plant for exhibition, shown by D. F. Mowle, 16 Peacock Lane, Hest Bank, Lancaster.

To *Gentianella hirculus* as a hardy flowering plant for exhibition, shown by H. & M. Taylor, 32 Morris Place, Invergowrie, Dundee.

AWARDS TO EXHIBITORS

Certificate of Cultural Commendation

To F. Hunt, 34 Morris Place, Invergowrie, Dundee, for a plant of *Corydalis popovii*.

To I. & M. Young, 63 Craigton Road, Aberdeen, for a plant of *Cyclamen coum*.

To The Regius Keeper, Royal Botanic Garden, Edinburgh, for a plant of *Dionysia curviflora*.

GLASGOW, 2nd May 1992

AWARDS TO PLANTS

First Class Certificate

To *Trillium grandiflorum* f. *roseum* as a hardy flowering plant for exhibition, shown by I. & M. Young.

Certificate of Preliminary Commendation

To *Dianthus microlepis* 'Rivendell' as a hardy flowering plant for exhibition, shown by F. Hunt.

AWARD TO EXHIBITOR

Certificate of Cultural Commendation

To I. & M. Young for a plant of *Helichrysum arwae*.

RECOMMENDED FOR FURTHER ASSESSMENT

as candidates for the AWARD OF GARDEN MERIT

Lewisia cotyledon 'John's Special' shown by F. Hunt.

Dactylorhiza elata and *Trillium grandiflorum* f. *roseum* shown by I. & M. Young.

ABERDEEN, 5th September 1992

AWARDS TO PLANTS

Award of Merit

To *Celmisia sessiliflora* (Mount Potts form) as a hardy foliage plant for exhibition, shown by I. & M. Young.

AWARDS TO EXHIBITORS

Certificate of Cultural Commendation

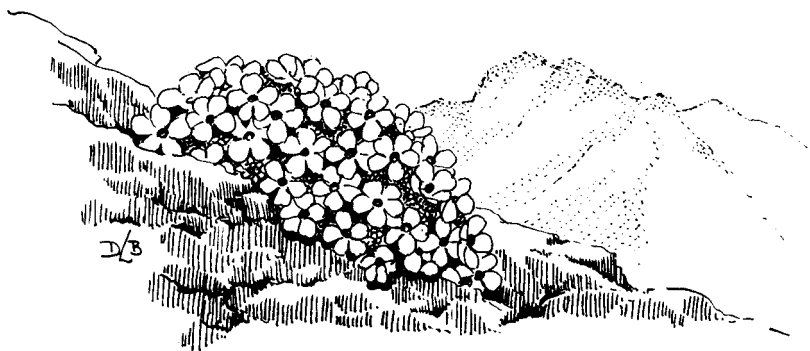
To R. Robinson, Seahaven, Sandside, Milnthorpe, Cumbria, for a plant of *Coprosma petriei* x *C. brunnea*.

To I. & M. Young for a plant of *Haastia pulvinaris* and of *Raoulia parkii*.

RECOMMENDED FOR FURTHER ASSESSMENT

as a candidate for the AWARD OF GARDEN MERIT

Coprosma petriei x *C. brunnea* shown by R. Robinson.



Show Reports 1992

Morecambe Show – 21st March 1992

The early risers on the morning of the show (and many of the competitors prove their mettle by a five hour drive in order to stage their plants before 9 a.m.) were greeted by strong winds and rain. Luck had not deserted Lionel Clarkson, the show secretary, for the rain clouds rolled away to reveal bright sunshine. Perhaps too many offerings had been made to passify the Gods since curtains had to be drawn later in the day to prevent some of the delicate primulas frying in the heat.

The high standard of exhibits was remarked upon by all who attended but there were perhaps a few less entries than the previous year.

A.G.S. rules were in operation and so the outstanding plant of the day was awarded the Farrer medal. The *Androsace robusta breviscapa* shown by Geoff Mawson (Dronfield) was a mat of silken rosettes topped with stemless white flowers. The slivers of dark rock which give the mind's eye a hint of habitat are more pleasing than the ubiquitous pink grit which is normally scattered at the feet of most exhibits. This Farrer medal plant was part of a six pan group which was awarded an A.G.S. Medal. One other noteworthy member of this group was *Primula allionii* 'Alexina' whose startling red blooms defied the observer to spot green leaves between the flowers. Other exhibits which were close contenders for best in show were *Callianthemum anemonoides* shown by Bob Maxwell (Banchory) and Fred Hunt's *Tecophilaea cyanocrocus*, both of which gained Awards of Merit. The *Callianthemum*, a member of Ranunculaceae, formed a perfect dome of flowers which made it impossible to see the foliage below. Whether this habit is due to the effects of cultivation or natural form is unclear but most others seen send their flowers to straggle across the pot in a much less pleasing manner. The *Tecophilaea* is sadly rare in the wild but its future is assured with skilled growers like Fred Hunt to preserve it. Inches away from this magnificent specimen of 30 odd blooms and from the same 'stable' was the other form, *T. c. leichtlinii*, which is not such a startling blue but has a white-pencilled throat to the flower.

A wealth of huge yellow domes of *Dionysia aretioides* vied for the attention of the spectators with the finest being the cultivar 'Paul Furse' which gained a first prize for Glassford Sprunt. It is perhaps due to climatic conditions that these plants have now become regular and prolific flowerers at the Morecambe show.

It is fascinating to be able to make comparisons between plants of the same species and note the rich diversity which exists in nature. There were a number of specimens of *Douglasia laevigata* but the 'Gothenburg Form' exhibited by G. Rollinson (Holmfirth) had much larger pink flowers which were held virtually on the foliage. Two *Androsace pyrenaica* x *camea laggeri* hybrids showed the random nature of gene inheritance. Both had pink flowers inherited from *A. c. laggeri* but one had much larger flowers with the less compact habit also associated with this species, whilst the other had smaller flowers on a more dome shaped bun reminiscent of *A. pyrenaica*. The Kirby Cup for the best foliage plant in show was strongly contested between a handsome 30cm pan of a shining, hairy, silver *Celmisia allanii* and the winner, a 19cm pan of *Haastia pulvinaris* grown by G. Rollinson. The decision was one which the general public may find puzzling but they would, perhaps, not realise that the much smaller plant was raised from seed sown in 1987 and is more demanding in cultivation. Another plant raised from seed was an exquisite *Primula irregularis* with large sugar pink flowers with a white annulus centred by a yellow eye. The abundant flowers nestled on farinose leaves set off perfectly by a top dressing of living sphagnum moss. Originally seed was collected by that intrepid and much revered plant hunter George Smith at 2400m on the slopes of Kanchenjunga. Crossing of the best pin and thrum resulted in seed, sown by J. Dennis (Doncaster) in 1990. An Award of Merit was given to another of Mr Dennis's primulas, a pan of five plants of *P. magellanica*, like a diminutive, very farinose, white drumstick primula unique in its distribution at the southern tip of South America.

Many of the newer breed of saxifrages were evident and their 'hybrid vigour' was demonstrated by growth rate and undoubted health. *S. x* 'Lismore Pink' shown by F. P. Grimshaw (Harrogate) in a 20 cm pan was smothered in flowers with pools of nectar glistening in each centre. This particular hybrid is one of nine clones resulting from the marriage of *S. georgei* and *S. 'Winifred'*.

Curious and unfamiliar 'beasts' lurk in the new and rare sections and evidence of collections in the Americas is now more frequent. Margaret and Henry Taylor showed *Gentianella hirculus* sown from seed collected by Robert Rolfe at 4000m. in Ecuador. Straggling stems were surmounted by bright yellow flowers with each petal edged in red. Most disappointing was the fact that the flowers remain firmly closed even in full sun, a natural safeguard to prevent the upturned flowers filling with rainwater. From 4000m. in the Pryor Mountains of Montana, U.S.A., came a tiny *Townsendia* sp. shown by G. Nicholls (Timsbury). A ring of woolly spatulate leaves surrounded a composite flower with delicate pink ray

florets; the whole plant being no more than 2cm across reminds the visitor the value of carrying a hand lens for closer examination of exhibits. A rare sight on the showbench is *Saxifraga florulenta*, 'The Ancient King', from the Maritime Alps but three of the geometrically fascinating rosettes in one pan was the result of sowing collected seed in 1986 by A. Furness (Hexham). In section B, from a sowing in 1989, P. Freeman (Low Worsall) produced a plant of *Pulsatilla vernalis* with 12 small but charming grey/blue backed flowers issuing amazingly from a 10cm pan.

Once rare fritillarias, such as *F. stenantha*, *F. gibbosa* and *F. alboryana*, now feature on a regular basis. This does not, however, detract from the great skill demonstrated by the few growers who have found the 'knack'. In the Liliaceae class a charming pan of *F. carica*, ex Baba Dag, west Turkey, was shown by R. Rolfe. The pale yellow, nodding bells with much reflexed outer petals were held on 10cm stems. First prize, however, went to *Scoliopus bigelovii* shown by B. Maxwell (Banbury). Above the spotted orchid-like leaves were small delicate, chocolate pencilled, greenish white three petalled flowers. Closer inspection unfortunately rewarded the curious with an odour which can best be described as a wet dog wearing unwashed socks.

At last the call goes out to 'clear the hall' and a strange procession of mobile plants begins, a sight which always puts me in mind of a scene from Disney's 'Sorcerer's Apprentice'. Finally precious cargos are wedged between crumpled newspaper and then begins the long trek home.

John Forrest

Stirling – 28th March 1992

In 1992 the Stirling Group staged its 12th annual Alpine Plant Show in the Albert Hall. In spite of yet another difficult winter, the plants were again on the show benches in splendid profusion.

The George Forrest Memorial Medal for the best plant in the show went to Evelyn Stevens for a well flowered pan of *Kelseya uniflora*. This plant also won the Institute of Quarrying Quaich for the best non-European plant in the Show. The Carnegie Dunfermline Trust Trophy for the most points in Section I was won by Ian and Margaret Young as was the Ben Ledi Plants Trophy for the best European plant in the show with *Hermodactylus tuberosus*.

The Spiller Trophy for the best Primula in the Show was won by a large pan of *P. 'Beatrice Wooster'* which was shown by Evelyn Stevens. The Fife County Trophy which is awarded for the most points in Section II was won by Mrs M. Mitchell, who also won the Bronze Medal. Certificates of Merit were awarded to Ian and Margaret Young for a large well-flowered pan of *Cyclamen coum* and to Fred Hunt for a large and well-flowered pan of

Tecophilaea cyanocrocus.

The three-pan Class in Section I was won by Ian and Margaret Young showing *Shortia uniflora kantoensis*, *Trillium rivale* and *Cyclamen coum*. Class 2 for new, rare or difficult plants attracted an unusual number of entries. First equal were Margaret & Henry Taylor with *Gentianella hirculus* and Fred Hunt with *Fritillaria hermonis amana* 'Sunglow'. Third place went to M. & B. Wilson's *Briggsia aurantiaca*. Also on show in this Class were Ian and Margaret Young's *Fritillaria alburyana*, Sandy Leven's *Pleione* 'Rakata' and *Pleione pinkepankii*, a new species from China, which was shown by Glassford Sprunt.

Class 8 for three pans of different genera from Amaryllidaceae, Iridaceae and Liliaceae was won by the pans of *Trillium hibbersonii*, *Fritillaria michailovskyi* and *Narcissus jonquilla henriquesii* which were shown by Ian and Margaret Young. The second place was awarded to the pans shown by Richard Lilley which included a good pan of *Iris willmottiana*. Fairly uncommon on the Show benches was the entry of Ian and Margaret Young in Class 9 of two superb pans of *Scoliopus bigelovii* and *Hermodactylus tuberosus*. In the two-pan Class for narcissi were two pans of *N. rupicola marvieri* shown by Bob Maxwell and Ian and Margaret Young. Also in this Class was a pan of *Narcissus alpestris* shown in Margaret & Henry Taylor's entry. This flowered on an 18cm stem with a drooping flower-head with a long white corolla and deflexed petals which were also white with a hint of green and a faint green stripe down the centre of the outer surface of the petal.

The fritillarias were well represented. Fred Hunt produced two beautiful pans. Firstly in the two-pan Class there was *Fritillaria latifolia nobilis* and then in the one-pan Class there was *Fritillaria moggridgei*. First in this Class was Jean Wyllie's *Fritillaria ruthenica*, a tall and graceful species. The Genus *Corydalis* is becoming increasingly popular and was represented by some beautiful plants at this Show. Of special note were *Corydalis solida solida* grown by Mike Dale and *Corydalis solida incisa* grown by Margaret and Henry Taylor. The white form of *Corydalis caucasica* caught my eye and this was grown by our President, Bette Ivey.

In Class 23, a good pan of *Tropaeolum tricolorum* grown by David Atkinson was first, second was *Muscarimia ambrosiacum*, whose unusual colour was most striking, was grown by Ian and Margaret Young. Fred Hunt's pan of *Tecophilaea cyanocrocus leichtlinii* was third. This is a striking tecophilaea with much more white in the petal than the main species.

The Primulaceae are the mainstay of this show and with so many good pans of Primulas and Primulaceae on the bench it is very difficult to pick out a special favourite without being unfair to many other magnificent exhibits.

Primula allionii was less in evidence than in other years and probably reflects the earliness of the season. This year as in other years, however, Evelyn Steven's 30cm pan of *P. allionii* 'Hartside No. 12' stood head and shoulders above its competitors. Ian and Margaret Young had a three-pan spectacular of *Dionysia aretioides*, *Douglasia nivalis* and *Primula marginata* in Class 35.

Doreen Fraser won Class 43 with a fine specimen of *Paraquilegia anemonoides* and was followed closely by a pan of *Callianthemum anemonoides* shown by Bob Maxwell.

The two-pan Pleione Class was not well represented but Sandy Leven had a well-deserved first for his pans of *P. 'Shantung'* and *P. speciosa*. The class for plants native to the Himalaya had a beautiful entry of *Pleione humilis* shown by Ian and Margaret Young.

It was marvellous to see so many good plants entered in Section II and this augurs well for the future of entries to Section I. The Twice Yearly Art Competition was staged at the Stirling Show. A bigger entry to this competition is still required. First prizes were awarded to Ronald Cole of Messingham for a Pencil Drawing of *Primula drummondiana* and a further first prize for a Water Colour of *Primula japonica*. A first prize was awarded to Richard Barr for a Colour Photograph of *Primula whitei*.

Our thanks are once again due to Sandy Leven for his hard work in organising and running the Show and to his various helpers and also to our judges, Lyn Bezzant, Ron Bezzant, Betty Craig, Fred Hunt, Peter Foley and Glassford Sprunt.

Glassford Sprunt.

Edinburgh – 4th April 1992

The George Forrest Memorial Medal, for the best plant in the show, was awarded to Mr B. Graham of Cranlington, Newcastle, with a fine plant of *Pulsatilla vernalis*. This plant also won the Midlothian Bowl for the best plant in Section II. It is surely a rare event for a Section II entry to win a Forrest Medal! It is also of some interest to note that a plant of *P. vernalis* was awarded the Forrest Medal at the Edinburgh Show in 1989, on that occasion exhibited by Sandy Leven, indicative of the showing quality of this species.

Mr Graham must have considered his visit north of the border well worthwhile since he was also a comprehensive winner of The Bronze Medal, awarded for the highest points total in Section II, and gained a Certificate of Merit for a neat, grey, cushion-forming *Helichrysum pagophyllum*. *Trollius laxus albiflorus*, submitted by Mr W. Holmes, Banchory, was also awarded a Certificate of Merit.

The Reid Rose Bowl, for the most points in Section I, was won by Ian and Margaret Young, Aberdeen, the fourth year in succession they have won this prestigious trophy! When do they get to keep it? The R.E. Cooper Bhutan Drinking Cup, for the best Asiatic primula, was awarded to Evelyn Stevens for *P. sonchifolia*. The best primula in the American or European group was *Primula ellisiae* shown by Mr W. Carr, Newcastle; Dr J. Richards, Hexham, was another trophy winner being awarded the Midlothian Vase for the best rhododendron in Sections I & II with *R. pemakoense*. The Elsie Harvey Memorial Trophy for three pans of plants, new, rare or difficult in cultivation, was won by Ian and Margaret Young with a skilfully arranged exhibit of *Raoulia eximia*, *Haastia pulvinaris* and *Xerodraba* sp. P & W 6210.

The A. O. Curle Memorial Trophy for three plants of distinct genera, grown from seed by the competitor, was awarded jointly to the Youngs (with an interesting South American trio; *Mulinum* sp. P & W 6495, *Trechonaetes laciniata* P & W 6637 and *Perezia sessiliflora* P & W 6567) and the Taylors, Margaret and Henry (who showed nicely flowered plants of *Trillium rivale*, *Viola diversifolia* and *Paraquilegia anemonoides*).

The two-pan class for European or American primula hybrids was won by Dr Evelyn Stevens, Sheriffmuir, with *P.* 'Beatrice Wooster' and the rarely seen *P.* 'Herbert Beresford'. The one-pan class was well contested with ten entries *P. x loiseleuri* (*P. allionii* x *P. auricula*) 'Lismore Yellow', exhibited by Mr D. Martin of Scotlandwell, was a worthy winner.

The two-pan class, for *P. allionii* forms and hybrids, was won by Sandy Leven with the very pale pink *P. x miniera* (*P. allionii* x *P. marginata*) 'Sunrise' and the striking hybrid *P. allionii* x *P. pubescens* 'Boothmans Variety'. The one-pan class was won by Fred Hunt's *P.* 'Fairy Rose', a hybrid between *P. allionii* and *P. pubescens* 'Linda Pope', a combination which has produced several other good cultivars. The entries for these classes were indicative of the increasing and deserved popularity of the *P. allionii* hybrids which, with their glabrous foliage, are much more versatile and amenable to open growing conditions than the pubescent leaved, straight *P. allionii* forms, which are best confined to the alpine house or frames.

The several plants of *P.* 'Beatrice Wooster' on show were all noted to be virus infected. Other show worthy cultivars are also known to be infected; the danger of cross infection between plants is obvious, collectors beware! This increasing problem, leading to loss of vigour and detracting from appearance, could probably be rectified by micropropagation techniques.

The class for Primulaceae, excluding *Primula*, *Androsace*, *Dionysia* and *Cyclamen*, contained four different species of *Soldanella* and was won by Mrs D. Fraser, Dundee with a plant of *S. hungarica* with fairly large,

attractively fringed, pendant bells.

In the *Dionysia* Class the only species represented was *D. aretioides*, reputedly the easiest cultivated of a notoriously difficult group to cultivate. The four plants shown varied in flower size and form, indicative of having been seed raised. The winning plant, compact and well flowered, was shown by Drs Carole and Ian Bainbridge, Edinburgh.

In the category for plants with silver-grey foliage the winner was a neat woolly, silver foliated, plant of *Helichrysum confertum*, a South African species, shown by Margaret and Henry Taylor. Two plants of the excellent *Celmisia allanii* were second and third for Fred Hunt and Mr B. Maxwell respectively.

Margaret and Ian Young won the class for a plant new, rare or difficult in cultivation with *Haastia pulvinaris*, a cushion forming 'vegetable sheep', grown from seed collected on Mt. Terako, New Zealand.

Fritillarias were particularly well represented, with nine entries, covering eight species, for the single pan class; *FF. graeca*, *crassifolia* (the Lebanon form), *graeca*, *hermonis* ssp. *amana*, *michailovskyi*, *rhodokanakis*, *tubiformis* and *verticillata*, emphasising the high present interest in this genus. The class was won by Fred Hunt with a fine pan of the large flowered, short stemmed *F. tubiformis*. Fred also won the two-pan class with *F. michailovskyi* and *F. crassifolia* ssp. *crassifolia*. The latter plant, with pale yellow-green flowers, attractively speckled with purple, was considered the best bulb or tuber in Section I for the Henry Tod Camethy Quaich.

A plant of the unusual *Gagea lutea* (Liliaceae) 'Yellow Star of Bethlehem' with diminutive, starry yellow-green flowers, won the class for plants native to Scotland for Evelyn Stevens. Evelyn also won the two-pan class for *Saxifraga* with a particularly fine specimen of *S. retusa* and the spectacular *S. federici-augusti* ssp. *grisebachii*.

We are grateful to all those who helped to make a pleasant and successful day. Thanks are also due to the judges; Marisa Main, Margaret Taylor, Margaret Young, Denis Graham, David Mowle and Henry Taylor.

Ian McNaughton

Newcastle upon Tyne – 11th April 1992

With three different venues in as many years, the Show Secretary must have been wondering whether a permanent home would be found. The Wentworth Leisure Centre in Hexham is very spacious, with good supporting facilities, but the yellow hue cast by the artificial lighting took a while to get used to. A slightly later show date next year will allow use of another well lit hall at the same venue.

Although not exceeding previous entry records, seasoned observers

indicated that the standards were high. Success of future shows largely depends on a very competitive Section C and Newcastle has recently proved highly successful. It was thus a little disappointing that entries in Section C were low compared with previous years. The Cecil Barnes trophy, for maximum points, was won by Mrs L. Walker (Bardon Mill); a promising start as this was only her second show! The Gordon Harrison Cup (Section B aggregate) was won by Mr D. Millward. Among his entries, a very compact and floriferous *Polygala chamaebuxus* which had been awarded a Certificate of Merit at the Nottingham AGS show the previous week.

Abundant fritillarias graced the benches. *F. crassifolia* ssp. *kurdica*, *F. tubiformis* and *F. graeca* made a fine three-pan entry (Mr F. Hunt, Invergowrie). From the same grower came *F. bithynica* and *F. bucharica*, providing delicate contrast in his large six-pan class entry to *Trillium nivale*, *Cyclamen pseudibericum*, *Corydalis flexuosa* and the brilliant blue *Tecophilaea cyanacrocus* (AGS Medal). The AGS Medal for the smaller six-pan class, the Roger Smith Cup (Class 44: 6 pans raised from seed) and the R. B. Cooke Plate (Section A aggregate) were awarded to Mr J. Mullaney (Wakefield).

The E. G. Watson Trophy (Class 43: 1 pan, new or rare in cultivation) was awarded for *Primula pulchra* (Mr T. Wiseman, Rotherham). This class was, as always, competitive. The grey foliage and white, woolly bracts of *Leontopodium hayachinense* from seed collected on the AGS Expedition to Japan (S. Daniels, Durham) contrasted with the bright green foliage and glossy, plastic-like yellow flowers of *Ranunculus nivicola*, from Mt Tongariro in New Zealand (Mr A. Furness, Hexham). Mr D. Wiseman of Doncaster won class 47 with a fine and photogenic *Townsendia hookeri* (Fig.75, p.207).

Rhododendron 'Patty Bee' (Mrs C. Collar, Norwich) provided a splash of colour in the Open Section, Ericaceae. The delicate grey foliage with sky-blue flowers of the eastern Mediterranean *Veronica caespitosa* (Mr D. King, Sheffield), although surely unlucky not to be awarded a first, received a Certificate of Merit, as did *Douglasia laevigata* (Mr G. Rollinson, Holmfirth).

Well flowered androsaces were much in evidence. G. P. Mawson's (Dronfield) *Androsace villosa* won him a Certificate of Merit. Mr D. Deans (Rossington), a reluctant competitor who had competed only on one previous occasion, had stunning specimens of *A. vandellii*, and won classes in each Section. His eight year-old plant, 18 cm across, was totally covered in flowers, and justly won him the Forrest Medal (Fig.76, p.207).

For many years Robin Brown (Sandhoe) has dominated the trough class at shows, often with innovative ideas. His skills and artistry were cleverly illustrated with a range of troughs utilising tufa, slate, a scree mix or peat: his

pan garden based on black (coal) and white/silver theme had raised more than an eyebrow at last year's show. The Large Gold Award was justly given and the exhibit attracted much public discussion and admiration.

Perth – 18th April 1992

The high quality of the display at Rodney Pavilion reflected the enthusiasm and dedication of exhibitors from far and near. Those practised in the art of showing always appear to have plenty of plants in reserve and, despite another mild winter and an unpredictable spring, managed to produce an astonishing range at the peak of perfection for the show date.

The George Forrest Memorial Medal was awarded to *Trillium erectum* forma *albiflorum*, the striking white form of the species, exhibited by Ian and Margaret Young. Forming part of their faultless three-pan exhibit along with *Muscarrimia macrocarpum* and *Pleione* 'Shantung' it helped them gain the Dundas Quaich and also the Bulb Trophy, being the best bulbous plant in the show. Several more excellent exhibits gained Ian and Margaret the highest number of points from first prizes in Section I, and the L. C. Middleton Challenge Trophy. These included a magnificent 30cm pan of *Helichrysum arwae*, covered in pink buds, in the silver foliage class, which received a deserved Certificate of Merit and a stunning clematis hybrid of their own raising, representing a back-cross of *Clematis x cartmanii* 'Joe' with *Clematis marmoraria*. The latter was awarded the Joyce Halley Award for the best plant in the show grown from seed.

The Alexander Caird Trophy was won for the third consecutive year by Fred Hunt, his six-pan exhibit consisting of *Narcissus rupicola* 'Moro dwarf', *Fritillaria pallidiflora*, *Fritillaria bithynica*, *Trillium hibbersonii*, *Cyclamen pseudibericum* and *Corydalis flexuosa*. The corydalis is a relatively recent and garden-worthy introduction from China. Fred's plant was a particularly striking form and electric-blue flowers held above contrasting dark foliage gaining a Certificate of Merit and the Major-General Murray-Lyon Trophy for the best plant exhibited by a Tayside member.

This year's Perth Trophy went to David Martin, and his fine plant of *Rhododendron racemosum* 'Forrest's Form' won him the E. H. M. Cox Trophy for the best dwarf rhododendron. Despite the several good entries of dwarf rhododendron it is nevertheless a pity that there were not more, as there are so many to choose from at this time of year.

European primulas and their hybrids were well represented and Evelyn Stevens' now familiar plant of *Primula* 'Linda Pope', 35cm across and smothered in bloom, gained a Certificate of Merit. Asiatic primulas were, by contrast, very thin on the ground, due largely to the early season, and the R. S. Masterton Memorial Trophy was awarded to R. J. Lilley for his *Primula edelbergii* type.

The Perth Salver and Bronze medal for the most points in Section II went to John Denny and Pamela Howat took the Junior Prize with *Sanguinaria canadensis* flore pleno.

Many other outstanding exhibits provided variety and interest. In the new rare and difficult class Henry and Margaret Taylor showed a well-flowered *Gentianella hirculus* from the mountains of Ecuador with many curious globular flowers with bright yellow petals edged with red. In the raised from seed class they displayed a delightful exhibit of the rarely seen *Ourisia fragrans* from the Chilean Andes and a pan of *Viola diversifolia*, with flowers held well above the hairy foliage, which they had collected in the Pyrenees.

The genus *Fritillaria* continues to be popular and there were several fine entries. The two-pan class was won by Fred Hunt with well-flowered pans of *F. crassifolia* ssp. *crassifolia* and the greenish white *F. bucharica*, while Bob Maxwell's *F. caucasica* made a beautiful show of its remarkably plum-like flowers and glaucous foliage.

Certificates of Merit were awarded to Lawrence Greenwood for his fine paintings of alpine plants and to Michael Almond for his display of photographs of plants in Turkey.

The difficult task of judging was carried out by Jim Jermyn, Peter Foley, Margaret Young, Lyn Bezzant, Jean Wyllie and Carole Bainbridge.

David Tattersfield

Glasgow – 2nd May 1992

In the more familiar surroundings of Milngavie there were a good number of plants and some eccentric judging. The immaculate pan of *Iris sari* which won the Forrest for John Lee only managed second in its class to a single stemmed *Trillium decumbens*. The explanation that different criteria apply in a new, rare or difficult class was not immediately understood by local worthies. East coast exhibitors dominated the major classes with some vivid colours in the six- and three-pan entries. The alpine credentials of the striking *Ranunculus asiaticus* in Fred Hunt's winning six pan exhibit must be doubtful but the more subtle North African composite *Leucanthemum catananche* with many red-eyed beige daisies was an effective foil to the adjacent eye-hurting magenta of *Lewisia* 'Christies Magnificent', part of the winning trio for the Taylors.

West of Scotland pride was restored by the Chambers with well-flowered rhododendrons including the yellow Berg hybrids, *R.* 'Patty Bee' and *R.* 'Wee Bee': pity about the names! The Youngs had immaculate silver helichrysums with *HH. arvae*, *apendiculatum* and *plumeum* in fine condition. The small dark *Meconopsis delavayi* (Taylors) seems to have

reappeared in cultivation; I hadn't seen it for over twenty years, when it was grown at Inshriach.

Don Stead usually has a winner with the clear yellow pendent globes of *Calochortus amabilis* but was narrowly defeated by Jean Wyllie's *Trillium rivale* in one of its pinker forms. The gesneriad hybrid *X Brigandra calliantha* was a winner for the Wilsons in Class 45, even if the flesh-pink flower colour did not appeal to all. The great alpine shrub *Daphne cneorum* is always a delight in the garden and the Taylors had a small and more delicate white form in the shrub class under the name *D. cneorum pygmaea alba*, a form that deserves to be widely propagated.

The show was complemented by a new series of translucent botanical paintings by Lawrence Greenwood and Rodger Smyth must have been well satisfied with the result of all his efforts.

Peter Semple

Aberdeen – 16th May 1992

The sudden inland heatwave and drying coastal winds did nothing to boost the confidence of exhibitors in the days leading up to the Aberdeen Show. On the day itself, however, all fears proved to be groundless when the tables were filled with a wonderful display for the pleasure of members and public alike.

Top honour went to Fred Hunt who won the Forrest medal with a faultless pan of *Edraianthus serpyllifolium* 'Major'. This plant was one of Fred's entries in the six-pan class which he not only won, but collected another accolade in the form of a Certificate of Merit for *Cypripedium japonicum formosanum*. Furthermore, he won the three-pan class which included *Primula reidii williamsii* which was awarded the Craig Cup for the best Primula. So many excellent plants in the six- and three-pan classes make it difficult to single out individuals to mention. Ian and Margaret Young's much admired *Calanthe tricarinata* was one such plant. This Himalayan orchid, literally translated as "beautiful three-spiked flower" was one of the many plants contributing to the Youngs' winning the Walker of Portlethen Trophy for the most points in Section 1. Jack Crosland's 17 year old *Haastia pulvinaris* earned him a Certificate of Merit for this notoriously difficult and slow growing plant which had reached a diameter of over 20cm.

Sedum rosea took first prize for Heather Salzen in the "Native to Scotland" class. One cannot deny the attractiveness of this West Coast cliff dweller in a genus of plants which is not everyone's favourite. In the "grown from seed" classes Margaret and Henry Taylor won the double pan class with *Silene hookeri* and *Gentianella hirculus*. Typical of the gentianellas,

the flowers remain in a closed position, but this in no way detracts from the orange, goblet-shaped blooms. Unplaced, but worthy of mention in the "new, rare or difficult" class was *Pleione aurita*, first recorded in Yunnan in 1988 and exhibited by Glassford Sprunt.

A large entry of plants grown for foliage effect offered a fascinating range of contrasts in colour, shape and texture from the needle sharp *Aciphylla simplex* to the felted rosettes of *Helichrysum appendiculatum*. First place went to Roma Fiddes for *Athyrium nipponicum pictum* while in the silver foliage class the Youngs' *Helichrysum arwae* in full flower won the day. Mike Hopkins was awarded the Simpson Salver for the best rhododendron with *R. 'Sarled'* which was smothered in tiny white daphne-like flowers. The popularity of *Tulipa batalinii* was evident by five entries in a class of seven. Had the delightful *T. clusiana* been a little more advanced, who knows – it might have taken the honours. Any *Calochortus* is eye-catching and *C. caeruleus* gracing the Liliaceae class was no exception, though unplaced.

Daphne petrea and *D.p. 'Grandiflora'* are more often seen in earlier shows than Aberdeen, but the late season brought four of these gems to the showbench. Sandy Leven's entry was the outstanding one, the flowers being so uniform and dense that no foliage was visible. *Erigeron 'Canary Bird'* with over sixty blooms and *Anemone trullifolia* filling a 30cm pan earned well deserved 'firsts' for their respective owners, Jean Wyllie and the Machins. A Certificate of Merit was awarded to the Taylors for a superbly grown *Ramonda myconii*. Gesneriads featured prominently in the Cruickshank Botanic Garden's display alongside colourful rhodohypoxis, lewisias and roscoeas. Centrepiece was the gracefully arching *Ixia viridiflora* with its dyed-looking (but real enough!) green flowers.

The standard of plants and presentation in Section 2 was high reflecting the useful ideas and hints given at a 'Showing workshop' held earlier in the year. Best plant by a first time exhibitor was the charming *Rhododendron 'Wagtail'* entered by Elizabeth and Ron Smart who also won most points in Section 2 and a Bronze medal. Fraser Beaton won the special prize for the two-pan class with *Ourisia 'Snowflake'* and *Gentiana acaulis* and the best overall plant in Section 2 was Ian Brooker's *Gentiana clusii* with over twenty blooms. Junior member Rosie Jones won four classes and gained a special prize for *Cotula atrata luteola*. The judges were Wilfred Holmes, Bette Ivey, Sandy Leven, Ron McBeath, Glassford Sprunt and Jean Wyllie. Our thanks go to them and all who helped to make a memorable show.

Maureen Wilson

Discussion Weekend Aberdeen – 4th-6th September 1992

The Discussion weekend was this year held for the first time in Aberdeen. Despite the extra distance to travel the show was well supported by exhibitors both from Scotland and south of the border.

The Forrest Medal was awarded to a magnificent plant of *Cyclamen africanum* shown by Mrs Jean Wyllie of Dunblane who also won the East Lothian Trophy (three plants of different genera) with *Campanula cashmiriana*, *Erigeron aureus* 'Canary Bird' and another *Cyclamen africanum*.

Plants from New Zealand were well represented in several classes. Ian and Margaret Young of Aberdeen won the two-pan silver-grey foliage class with *Raoulia x logani* and *Argyroxiphium sandwichense* ssp. *macrocephalum* (this is the Silver-sword from Hawaii) and the new/rare class with *Raoulia eximea* grown from seed. The Logan Hume Trophy was awarded to David Sharp from Lhanbryde for a miniature garden planted with ten different New Zealand plants of the genera *Celmisia*, *Aciphylla*, *Raoulia*, *Pygmaea*, *Leucogenes* and *Hebe*. Other New Zealand plants on the bench included *Celmisia argentea* and *C. sessiliflora*; *Aciphylla simplex* and *A. spedenii* and *Raoulia parkii*. *Haastia pulvinaris* shown by the Youngs and Jack Crosland of Torphins also fuelled the debate, raised by Dr John Richards lecture on New Zealand alpine plants, on the plants' true wild character.

Roger Robinson of Milnthorpe again showed three different *Coprosma* plants. *Coprosma petriei x brunnea*, with translucent pale smoke purple berries, appropriately named 'Cairngorm Jewel', received a Certificate of Merit and a Cultural Commendation from the R.H.S. Rock Garden Plant Committee. Equally admired, or even coveted, were *Coprosma* 'Indigo Lustre' and *Coprosma* 'Red Mack'.

The Peel Trophy for the best three-pan entry of *Gentiana* was awarded to Mike Hopkins of Kemnay who showed *Gentiana saxosa*, *G.* 'Drake's Strain' and *G.* 'Kingfisher'.

Crocuses were more in evidence this year, a nice pan of a dark early flowering clone of *Crocus banaticus* winning the one-pan class for Glassford Sprunt from Bridge of Allan. *Crocus boissieri*, *C. scardicus* and *C. serotinus salzmännii* were also on the bench with some fine pans of hybrid colchicums. An unusual autumn flowering tuber, *Biarum tenuifolium*, was shown by Sandy Leven from Dunblane.

In addition to the Forrest Medal plant, many other plants of *Cyclamen* were on show. Mrs Kath Rimmer of Ormskirk won the single pan *Cyclamen* class with a beautiful *Cyclamen hederifolium* with at least a

hundred flowers. Other fine plants of species cyclamen shown were *C. rohlfsianum* (Mrs Roma Fiddes, Kintore), *C. graecum* (David Mowle, Lancaster), and *C. mirabile* (David King, Sheffield).

The Mary Bowe Trophy for the most points in Section I was awarded to Ian and Margaret Young, who also won the J. L. Mowat Trophy for the best conifer in the show with *Pinus strobus* 'Reinshaus'. They were also awarded an A.M. by the Rock Garden Plant Committee for a plant of *Celmisia sessiliflora* 'Mt. Potts' form!

Amongst many other fine entries were *Campanula zoysii* and *Lewisia serrata* shown by Margaret and Henry Taylor of Invergowrie.

The East Lothian Cup for the best plant in Section II was won by David Sharp with *Pinus leucodermis* 'Schmidtii' and the Wellstanlaw Cup for an arrangement of flowers and foliage by Stella and David Rankin from Lasswade.

The good show of plants was complemented by entries in the holiday photographic competition showing the Croce Dominic and Tremalzo region near Lake Garda and the Bernese Oberland. Messrs Chris Chadwell and Alastair McKelvie put on a very interesting display of Himalayan plants and the expected superlative display of watercolour paintings by Lawrence Greenwood was much admired.

The judges were Mrs Val Lee and Messrs J. Brownless, F. F. Hunt, A. J. Leven, R. J. Lilley and H. C. A. MacBride.

Richard Lilley



Book Reviews

Alliums. The Ornamental Onions

by Dilys Davies

Published by B. T. Batsford

168 pages, 48 colour plates, 45 line drawings

Price £17.99

The last monograph on onions, or at least the ornamental ones, says the dust jacket, was published in 1875. For a genus so popular in gardens, with representatives from tiny alpine house plants to giants for the back of the herbaceous border (some of which are certainly still alpine plants), it seems a long time to wait for the up-to-date comprehensive treatment. Has it been worth the wait?

This volume is one of the 'Hardy Plant' series published by Batsford in association with the Hardy Plant Society. Most readers will be familiar with Jim Cobb's book on *Meconopsis*: this is in the same style and format, but with the excellent illustrations scattered around the text, rather than in blocks. Jim's book also didn't have a chapter entitled 'Edible *Meconopsis*', but this has one on edible *Alliums*, complete with a section on recipes. So if times get really hard for the onion enthusiast, they can go out and eat their hobby, and even know how to cook them, thanks to this book! Understandably, the book begins with a chapter on Alliums in History, as their culinary values mean that man's interest in the genus dates back a long way. Having dispensed with this peculiarity, the book reverts to a more normal layout: short chapters on the botanical classification – are there really 500-700 species of onions? – their distribution, collection and a useful bibliography, a little on conservation, and a cultivation chapter, with a section on pests and diseases which reassures us that alliums are remarkably trouble-free.

'Alliums in the Garden' is another useful short chapter, and shows the author to be a refreshingly honest 'alliophile': there is a section called 'Alliums to Avoid' which starts "Any *Allium* with bulbils in the head should be viewed with suspicion." I think we know what she's talking about! Don't expect too much on alliums for the rock garden though; rock garden, pots and bulb frame are covered in two pages.

The main body of the text is given over to descriptions of some 200 alliums; their morphology, habits and habitats, locations, and suggestions for their place in the garden. There is also a useful reference

to other works on each species, for those who wish to dig deeper. The illustrations are certainly going to be useful for me; somehow, many of the onions I grow are masquerading under assumed names; this book should help to sort them out.

I. P. B.

The Gardener's Guide to Growing Hellebores

by Graham Rice and Elizabeth Strangman

Photography by Roger Phillips

Published by David and Charles

160 pages, 40 colour plates, 20 line drawings

Price £16.99

When first hearing of this book I wasn't sure if there was a need for another book on Hellebores as we already have Brian Mathew's excellent monograph on the genus. However, on reading a proof copy of this new publication it was obvious that this was far from being just another book on Hellebores. Elizabeth Strangman's addiction to the plants from early childhood is evident from the short introduction entitled "The Lure and Magic of Hellebores".

The reader is then treated to a short chapter on Ecology and Botany of the genus. The book is designed mainly for the Gardener and anyone wishing to delve further into the realms of botany is recommended to consult Brian Mathew's monograph. The next chapter is concerned with cultivation and offers extensive advice on how to treat these plants to get the best from them. It includes a section on pests and diseases in which the authors almost apologise to the reader for the section being very short as Hellebores don't suffer with many problems. This surely must be "music to the ear" for most gardeners.

The following chapter is unusual in that it deals in some depth with plant associations, both to enhance the Hellebores flowers in spring and to blend with their foliage later in the season. Another extensive chapter follows dealing with propagation. The centre section of the book describes the various species and cultivars with clear line drawings showing leaf shape. There are a number of short chapters concerned with hybrids both in the garden and the wild, breeding new forms and case histories of some of the more well known hybrids.

The book ends with a novel chapter entitled "People and Their Plants" in which the authors have handed over their pens to other Hellebore addicts including Brian Mathew, Jim Archibald and Helen Ballard to further entice the reader to become addicted to this fascinating genus. The bulk of the photographs (40 in all) which will grace the pages of the

final edition were not available with the proof copy. However, the few I have seen, plus the dust cover, suggest that these will be of the excellent standard we have all come to expect from Roger Phillips.

If I have one criticism of this book it is that if you are not a Hellebore addict before you read it you will be afterwards. It is an excellent well written book with lots of information and hints, and is good value for money at £16.99. I particularly enjoyed the section on plant associations which gives the gardener lots of ideas for planting schemes.

B.H.

Pre Publication Offer

£15.99 post and packing free.

If ordered from SRGC Publications before publication date, 25th February, see Book List for details.

Good Gardens Guide 1993

Edited by Graham Rose and Peter King

Published by Vermilion

592 pages

Price £12.99

A useful book for those who enjoy searching out new gardens, not only in Scotland but also in the rest of Britain and Ireland. 500 pages are devoted to gardens which are open to the public, giving for each a brief description of the garden, opening details, entrance fees and location. Over 90 Scottish gardens are listed.

The book also provides useful location maps, a list of gardens of special merit, a floral calendar of plants to look out for each month and a short selection of brief biographies of great gardeners. A book to refer to when planning trips away from home.

C. A. B.

Annual General Meeting

**The Annual General Meeting
will be held at the
Battleby Conference Centre
Redgorton, Perth
on
Saturday 16 October 1993
at 2 pm**

Nominations are required for President and Executive Office-Bearers and for four members of Council to serve for three years. All Executive Office-Bearers retire annually but are eligible for re-election.

Nominations in writing and seconded by another club member or members should be lodged with the Secretary not later than 15 May 1993. The nominator must ascertain that the nominee is willing to serve if elected.

The following having served for three years as Ordinary Members are not eligible for re-election to Council for one year: Mr D. M. Atkinson, Mr. V. Chambers, Dr R. M. Edge and Mr A. M. Wilson.

Secretary
Dr Jan Boyd
Groom's Cottage
Kirklands
Ancrum
Jedburgh
TD8 6UJ

Diamond Jubilee Discussion Weekend

ST ANDREWS, 24th – 26th SEPTEMBER 1993

It is a number of years since the East Fife Group last hosted the Discussion Weekend, and things have moved on somewhat in the interim. The number of members expected to attend the **Diamond Jubilee Discussion Weekend** in this special year has precluded the use of St Salvator's Hall in St Andrews University. We will, however, be using University Hall, which is of the same vintage and has even better accommodation. The lectures will be held in an up-to-date lecture theatre in the Physics Building, and the show, trade stands and book stall will all be housed in one large hall adjacent to this.

The programme of lectures promises to be interesting and varied. Though the team is not yet complete, it includes the following speakers: Dr Gwen Black, Mr Harold McBride, Mr John Mattingley, Mr Jimmy Persson (Gothenburg Botanic Garden) and Dr George Smith.

Since this is the Jubilee Year, there will be two special prizes awarded at the plant show, one donated by the East Fife Group, and the other by the Seed Exchange, as well as the Diamond Jubilee Class prizes of Duncan Lowe drawings. It is hoped that as many members as possible will endeavour to bring even a few plants to make the show the success that the occasion demands.

The Saturday morning will include a visit to St Andrews Botanic Garden. Much has happened here since the last SRGC visit. The University, like many such institutions, was short of money, and had been cutting staff numbers and dispensing with collections over a number of years. It was on the point of closing when North-East Fife District Council agreed to take over the garden. It is gratifying that this, together with much help from the Friends of the Garden has improved the position enormously. One example is the new landscaped alpine house – much of the planting was done by local group members – which was opened in May 1992 and should provide much interest.

Prices

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Friday dinner – Sunday afternoon tea	£106
Saturday lunch – Sunday afternoon tea	£76
Sunday dinner – Monday breakfast	£24

Non-Residents

Saturday or Sunday: morning coffee, lunch, afternoon tea and all lectures	£20
Saturday evening conference dinner	£23

Bookings should be made on the form enclosed with this issue of **The Rock Garden**.

The booking, together with the appropriate remittance, payable to the Scottish Rock Garden Club, should be sent to:

Mrs Elizabeth Field
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Anyone requiring further information about the weekend should contact Elizabeth at the above address, enclosing a stamped addressed envelope.



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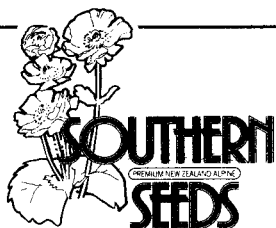
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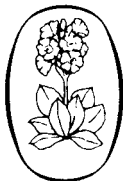
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