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THE SCOTTISH
ROCK GARDEN CLUB

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JANUARY 1982

Editor R. J. MITCHELL • University Botanic Garden • St. Andrews • KY16 8RT

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Obtainable from

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NOTICE

The ANNUAL GENERAL MEETING will be held at the British Medical Association House, 7 Drumsheugh Gardens, Edinburgh, on **Saturday 30th October 1982, at 2 p.m.**

In accordance with the Constitution and Rules amended in 1980, members are notified that nominations are required for President, and other Office-bearers, and for four Ordinary Members to serve on the Council. Nominations *in writing*, and seconded by another Club member or members, must be sent to the Honorary Secretary no later than **15th May 1982**, the nominator having ascertained that the nominee is willing to serve if elected.

Mrs. Joan Stead, who will have served as President for three years, is not eligible for re-election, but, as Past President, will serve automatically on the Council.

All other Office-bearers retire annually but are eligible for re-election. The following are not willing to stand for re-election: Honorary Publicity Manager—Mr. A. D. McKelvie; Honorary Editor—Mr. R. J. Mitchell.

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Looking for *Comperia* on Lesbos

by CHRIS and MARIE NORTH

LESBOS (sometimes called Lesvos, or Mytilene after the capital town) is one of the larger Aegean islands — roughly the same size as Rhodes. It lies close to the coast of Turkey, some forty miles north of Izmir. We went to Lesbos for three weeks in April 1981, primarily to look for Komper's orchid. This monotypic genus is sometimes called *Comperia taurica* C. Koch, but also *C. comperana* Asch. & Graeb. It has been described as one of the great rarities in the European orchids. As its name suggests, it is mainly found in the Taurus mountains of southern Turkey but is also known in parts of neighbouring Iran and in the Crimea. Some floras quote it as occurring on the Aegean islands of Lesbos and Samos. The most recent record for Lesbos seems to be by the French botanist Candargy in 1897. We wanted to know if it might still be found there, though we had little to guide us to its location except that it is usually found in conifer woods.

Our base was Mithimna on the north coast. This charming town, also known as Molyvos from the Turkish occupation which ended in 1912, is built on a hill dominated by a large and impressive Genoese castle. Like other Greek islands Lesbos is hilly, the two highest areas being the Lepetimnos in the north and the Olymbos mountains in the south — both rising to exactly 968 metres according to the map. We hired a Vespa scooter and travelled fairly extensively during the three weeks we were there. See map, Fig. 64.

Although the island is considered to be fertile, with cheese, olives, potatoes and several fruits, including pistacio nuts, as major products, most of the higher areas tend to be dry and treeless, often with a stony acid soil and a rather restricted flora. This applies to the Lepetimnos mountains which, like some of the other hills, show clear evidence of tertiary or quaternary volcanics with eroded lava flows and occasional hot springs as at Loutra Eftalous not far from Mithimna. The typical 'garrigue', or perhaps one should use the Greek equivalent 'phrygana', is dominated in most places by the 50 cm tall spiny burnet — *Sarcopoterium spinosum* which gives the hillsides a grey appearance in April before the new spring growths are formed. Dotted amongst the burnet are bushes of the slightly taller *Calicotome villosa*, a prickly broom with beautiful rich yellow and deliciously scented flowers.

Other shrubs include a few kermes oaks — *Quercus coccifera* and what seems to be a feature of the area, the wild willow-leaved pear — *Pyrus salicifolia* which does not have such silvery-grey leaves as the usual garden form. It makes a small stocky tree rather like a hawthorn and is completely covered with snow-white flowers so that it can be seen from a considerable distance.

In grazed areas between the bushes the ground is sometimes covered with the prostrate *Trifolium uniflorum*, a tiny clover with pale pink flowers that are not grouped together into heads as with typical clovers. Within this plant association grows *Asphodelus microcarpus*, occasional plants of the scarlet form of *Anemone pavonina*, *Ornithogalum nutans*, *Gynandris sisyrinchium* and *Muscari neglectum*. On the east side of Lepetimnos there are areas covered by bracken and one occasionally can see leaves of *Cyclamen* and the impressive giant fennel — *Ferula communis*.

Insect life was abundant with many humming-bird hawk moths amongst the phrygana and in lower valleys the beautiful eastern festoon butterfly — *Allancastris cerisyi* — rather like a two-tailed small swallowtail. Other butterflies included the orange tip, painted lady, clouded yellow, and occasionally the scarce swallowtail — *Iphiclides podalirius*. On the 21st of April we saw a spectacular migration of painted lady butterflies heading north. They congregated on the most northerly cliff tops and rose in clouds like a swarm of locusts as one walked on the carpets of aromatic *Anthemis cretica* — we never saw them fly out to sea. Tortoises were common and near streams there were terrapins and various frogs, tree frogs and lizards, including geckos.

In areas around the coast towards Petra the phrygana was dominated in places by *Cistus monspeliensis* with some *C. salviifolius*, *Lavandula stoechas* and the small *Legousia speculum-veneris*. On a moist grassy slope near the sea we found six strong plants of *Ophrys sphegodes* subsp. *mammosa* and noted that none of the twelve open flowers had been pollinated. Other orchids in this damper area included many *Serapias vomeracea* and a small colony of *Ophrys lutea* subsp. *minor*. Right by the sea shore there were spectacular masses of *Malcomia maritima*, *Mathiola sinuata* and on rocks near Skoutaros we saw *Campanula rupestris* (Fig. 65) in full flower.

The road from Mithimna to Kalloni passed through woods of Aleppo pine and here we found *Orchis provincialis* and the strange leafless *Limodorum abortivum*. By the roadside were the curiously bent

spikes of the dark purple *Lysimachia atropurpurea* and in a dry stony area large quantities of the pink dandelion *Crepis incana*. Kalloni was a good centre for birds; storks nested in the town and at salt pans to the south we regularly saw over 250 flamingos, very large flocks of avocets and glossy ibis as well as egrets, herons, little bitterns, ducks and bright coloured red-legged falcons hunting like kestrels. In a marshy area inhabited by herons and ibis there were many plants of the tall showy *Orchis laxiflora*.

Travelling south-east on the road from Kalloni to Mytilene one passes through extensive pine forests and here were large quantities of *Orchis provincialis* (some with nearly white flowers), *Orchis morio* ssp. *picta*, *Limodorum abortivum* and scattered plants of *Orchis tridentata*, *O. papilionacea*, *Ophrys fusca* ssp. *omegaifera* and *Neotinea intacta*. There were remnants of the typical phrygana as undergrowth and including *Cistus salvifolius*, *Pistacia lentiscus*, a *Fumana* and an *Erica* species, possibly *E. verticillata*. Other plants found under the pines were *Cyclamen*, and a yellow *Gagea*. Most of the orchids here were more successful than the *Ophrys sphegodes* ssp. *mammosa* in finding pollinators as 48, 43 and 19% respectively of the open flowers of *O. fusca*, *Orchis provincialis* and *O. morio* had pollinia removed.

From the plant hunting aspect the most interesting route we travelled was that from Lambou Mili to Ayiaassos and on up Mount Olymbos. As one climbed to Ayiaassos the ground vegetation became lush and exceedingly colourful. There were fields of scarlet *Anemone pavonina*, white *Anthemis chia* and some plants of a mauve form of *Anemone coronaria*, though the flowers on these were mostly over. Amongst the anemones grew thousands of *Serapias*, *Orchis italica*, *O. morio*, *O. papilionacea* and interesting hybrids between the last two species.

Continuing along the unsurfaced road above Ayiaassos we came to delightful forests of very old Aleppo pines (*Pinus halepensis*), many of which had been tapped for resin to produce retsina wine. The undergrowth included *Cistus*, *Phillyrea latifolia*, *Euphorbia rigida* and *Orchis quadripunctata* in large numbers. We saw one plant of *Ophrys ferrum-equinum* but, much more exciting, we discovered *Comperia*. The plants were considerably more robust than those of other orchid species we had seen on Lesbos and, as none were quite in flower, we felt justified in opening two buds and were then sure of their identity. *Comperia* thin has a short broad lip with the lobes developed into four 3-10 cm long filiform appendages crumpled up in the bud like the disordered proboscis of a butterfly. In German *Comperia* is called "Bartorchis" or beard

orchid, the beard being rather like the sparse one of a mandarin. We estimated that there was a colony of some 21 plants in an area of about 10 square metres; some had been severely eaten by browsing animals. Although we searched systematically we found no other colonies close by. Later we heard that the local name for *Comperia* is 'TIPHARIFI' — apparently the Greek version of a Turkish word; no doubt the occupying Turks were familiar with this plant. We were impressed by the befitting ambience of the site where we found this almost mythical orchid and ate our packed lunch. It was pleasantly cool in the light shade of the gnarled old pines and quiet, except for the simultaneous call of the cuckoo and song of the nightingale.

Further up the road, past the sanatorium, the pine forests give way to sweet chestnut woods. Here grew a *Doronicum* and a tall *Fritillaria* not yet in flower and possibly *F. pontica* but all this seemed somewhat of an anticlimax after finding the *Comperia*. However, we could not but be impressed by the large patches of anemones which here were of all colours — scarlet, mauve, pink and pure white — and liberally sprinkled with orchids and *Ornithogalum montanum*.

Looking back on our visit to Lesbos we are, of course, glad to be able to report that *Comperia* still grows there in quiet seclusion. Apart from this the flora is not as varied and interesting as that of some of the other Greek islands of comparable size such as Corfu or Rhodes, though the bird watching potential in the salt pans was better than we have seen anywhere in similar sites in the Mediterranean. Nevertheless, Lesbos has a particular charm, and being off the normal tourist routes and with few classical sites, it attracts holiday makers who want something different from an idle time in a resort with plenty of entertainment. We came away having made many new and interesting friends, including our charming Greek landlady and others from Australia, Holland, Sweden and Switzerland. We collected these friends mainly in the local tavernas where one could sit eating sword-fish steaks, listening to a real expert on the bouzouki, or look out over the scented wisteria-clad street to hear the 'skip-skop' of the little scops owls calling to one another, and the croak of the frogs in the marsh below.



Fig. 61—*Fritillaria ariana*
(See page 282)
Photo—P. Furze



Fig. 62—*Fritillaria bucharica*
(See page 283)
Photo—P. Furze

Fig. 63—*Fritillaria gibbosa* (See page 281)

Photo—H. Esslemont



Fritillaria-The Rhinopetalum Group

by BRIAN MATHEW

FORTUNATELY it is possible to divide the large genus *Fritillaria* into several reasonably distinct groups based mainly on the type of inflorescence, the overall flower shape (conical or campanulate), the features of the nectaries, and on the degree of division of the style which may be anything from entire to 3-lobed.

The small group to be discussed here, called *Rhinopetalum*, has flowers which are usually rather widely bell-shaped or even flat, with deeply impressed nectaries appearing as humps on the backs of the perianth segments — hence the name which comes from rhino, a nose. The inflorescence consists of a raceme of flowers with a bract and bracteole subtending each flower. Thus the group of species as a whole is rather distinctive, but within this group there are problems in deciding exactly how many species there are. Some of those which have been described are seldom collected and little-known, so that it is difficult to assess the reliability of their distinguishing features.

Two species are however relatively familiar plants, for although they are in the hands of only a few specialist growers they are often to be seen at early spring shows for all to admire. The species usually causing most interest is *F. gibbosa*, while the easiest one in the group to grow is *F. bucharica*. Apart from these there are a few others which are rarely seen in cultivation.

F. gibbosa Boiss (Fig. 63). Bulbs of this species have been brought into cultivation many times, especially during the last two decades by Paul and Polly Furse during their expeditions to the Middle East, and by several other collectors operating in the same region.

It is a fairly common plant in Iran and southern Transcaucasia east to the Kopet Dagh region of north-eastern Iran and the adjacent part of Transcaspian USSR. The usual habitat is on rocky slopes amid spiny steppe vegetation, but it also sometimes grows on flat areas in clay soils which are very wet and sticky in the early spring but which become sunbaked in summer. The winters are very hard, but often there is a good cover of snow which keeps the bulbs protected and dormant until spring arrives. It is not surprising, therefore, that in cultivation *F. gibbosa* needs to be given the protection of an alpine house or bulb frame, to provide cover in winter and early spring and to facilitate drying out in the dormant period. My own experience is

that in Surrey the young shoots emerge too early in the year — often in February — and are liable to be frosted.

F. gibbosa is an extremely variable plant in stature and flower colour, from single-flowered dwarfs to vigorous specimens with up to ten flowers, and from very pale dull pink to rich pink, brick-red or salmon. There is also a variable degree of tessellation on the perianth segments which can be most attractive in the more strongly marked forms. The most striking forms I have seen were those collected by Paul Furse in the eastern Elburz with flowers in brick-red, apricot and crimson shades. The leaves of *F. gibbosa* are greyish-green and normally the two lowest ones are much broader than the rest. In fruit, the capsules are prominently winged on the angles and it is this character which is said to distinguish the species from the very closely related *F. karelinei* (Fisch. ex D. Don) Baker. The latter species was described from farther north, in the southern Ural region, and is said to have capsules which are unwinged. Other than this there appears to be little difference between the two. Although the name *F. karelinei* is frequently encountered in recent literature and is often attached to cultivated plants, it is probable that in almost all cases it is *F. gibbosa* which is represented. *F. karelinei* has a more northern distribution from the northern Caucasus, around the north of the Caspian Sea to central Asia.

F. pterocarpa Stocks, described from the Baluchistan region of Pakistan, is probably a straightforward synonym of *F. gibbosa* since it has tessellated flowers and winged capsules. A plant which was described from Russian central Asia as *Rhinopetalum arianum* A. Los. & Vved. may be separable from *F. gibbosa* and *F. karelinei*, but it is rather poorly known and probably not in cultivation. Its flowers are without tessellation and it is said to be a robust plant with glabrous leaves. Some of the Furse collections from eastern Iran (e.g. PF 5329) might well belong to *F. ariana* rather than to *F. gibbosa* for they had crimson-pink flowers lacking any tessellations. *F. ariana* (Fig. 61) occurs in the border areas of north-east Iran, northern Afghanistan and southern Turkmenistan.

All the plants mentioned above under the general heading of *F. gibbosa* have flowers with unequal nectaries, the upper one being much more deeply pitted than the rest. Thus there is a more prominent 'horn' on the back of the upper segment. The remaining two species in the *Rhinopetalum* group have all six nectaries more or less equal. They are *F. bucharica* Regel and *F. stenantha* (Regel) Regel.

F. bucharica Regel (Fig. 62). This most attractive fritillary is certainly the easiest of its group in cultivation and is indeed a very easy and satisfactory plant for an alpine house or bulb frame. Although it is still uncommon in cultivation there is no apparent reason for this and I have found it comparatively simple to propagate by breaking the bulbs into separate scales at repotting time in early autumn. These are dipped into 'Benlate' and then potted as if they were normal bulbs. By the following season each will usually have made a new complete bulb. Occasionally this method fails and I would hesitate to recommend it with *F. gibbosa*, which is not such a strong grower as *F. bucharica*.

The beautiful silvery-white flowers are broadly bell-shaped and are produced in a raceme of up to ten in vigorous specimens, which may be up to 30 cm in height. At the base of the segments is a greenish suffusion, and the nectary pits, which are smaller than those of *F. gibbosa*, are also green. The stem carries up to twelve grey-green leaves in addition to the bracts subtending each flower, so that it is quite a leafy-looking plant — much more so than the other species in the group. In the fruiting stage *F. bucharica* has fat capsules winged at the corners and somewhat horned at the apex of each corner.

F. bucharica was first collected, as its name says, at Bokhara in Russian central Asia and it is now known to occur quite widely in this area and in northern Afghanistan. It has been grown in Britain for more than one hundred years and several new collections were made in the 1960s by the Furses, so that the material in cultivation fortunately does not consist of just one clone as is the case with many bulbs from early introductions. It is thus worth cross-pollinating plants of *F. bucharica* in order to encourage seed production and avoid problems of clonal sterility through constant vegetative propagation.

F. stenantha (Regel) Regel. This is at present a great rarity in cultivation but is in the collections of a few specialist growers, so that hopefully it will become more widely known in the future. Like *F. bucharica* it has the six nectaries all equal to each other and not very deeply pitted. The flowers however are pink and, although bell-shaped in their lower portion, have segments which flare outwards to their tips, giving a more flattish appearance than in *F. bucharica*. It is a native of Russian central Asia in the Pamir-Alai and Tien Shan mountains, growing on the lower rocky slopes.

To summarise, one can give the following simple key, probably

much over-simplified, but nevertheless useful for the identification of most plants likely to be encountered.

1. Flowers tessellated, pale to deep pink, salmon or apricot - 2
 Flowers not tessellated, white or pink - - - 3
2. Capsule with prominent wings at the corners: southern
 Transcaucasus, Iran, Afghanistan, Baluchistan - *F. gibbosa*
 Capsule unwinged. USSR: northern Caucasus, southern
 Urals east to Russian central Asia - - *F. karelinei*
3. Flowers white, green at base. northern Afghanistan and
 adjacent USSR - - - - *F. bucharica*
 Flowers pink - - - - 4
4. Nectaries unequal, the upper deeper than the rest, giving
 the upper segment a 'horned' appearance. USSR: Turk-
 menistan, north-eastern Iran, West Afghanistan *F. ariana*
 Nectaries all equal. USSR: Pamir-Alai and Tien Shan
F. stenantha

Dombai Revisited

by G. E. BARRETT

THIS WAS in reality our *third* visit to Dombai as in the autumn of 1977 we had enjoyed a few halcyon days in this enchanting land when maples and birches had blazed with autumn colours, when *Colchicum speciosum* and *Crocus vallicola* filled the meadows and the brilliant orange stars of *Crocus scharojanii* more sparsely decked the greater heights. Now it was June 19, 1980 and we were glad to be back in the Caucasus.

We had spent the first few days of our holiday exploring the environs of Nalchik, an area newly opened to foreign tourists, but the weather had been bad and the great peaks of Dykh-tau, Koshtan-tau, Shkhara and the rest had remained aloof and hidden in a thick blanket of cloud.

Now as we sped along the obviously much improved road to Dombai it was raining again. Was even Dombai going to prove a disappointment to us? At least the familiar "Matterhorn" shape of Belalakaya and the vicious black fang of the Sofrudya Tooth could be dimly seen and recognised through the swirling mists although both were heavily powdered with snow. Indeed, a good deal of snow still lingered on these high mountains.

We had written to our friends in Dombai many months before but sadly had neither received nor indeed expected a reply. Only the fact that room had been found for us at the hotel indicated that *someone* at least was still working for us, although we knew not who or indeed if anyone might be there to welcome us.

A few moments after our arrival, however, we were being joyously received by Larissa, who had been our guide on our first visit to Dombai in 1976. Now no longer a guide but an "Instructor" and as the deputy of our friend Alexey now much concerned with the catering and general day to day running of the hotel. A pleasant quiet room at the end of the hotel had already been prepared for us and some special items we were known to favour provided there for our comfort.

A little later we were delighted to be able to meet our friend Alexey too and to discuss with him details of our possible excursions. These were soon settled without much difficulty. Only one proposal was debated at some length and even this, rather to my surprise, was finally accepted. Furthermore, Larissa was to take time off from her many other duties and to accompany us once again as our guide.

And so the next morning we set off on the first of our walks to visit the Baduk Lakes. Our "Guide", having been reminded that we were now even older by some three years and that we had not yet had much opportunity for walking since our recent arrival in the Caucasus Mountains, promised a moderate pace. First we went by car to a point about 14 kilometres along the road leading to Teberda and after crossing a small suspension bridge over the wide Teberda River, a bridge which swayed and joggled as we walked over it, began a long and fairly steep climb up through the woods. It was interesting to see *Polygonatum multiflorum*, *P. verticillatum*, *Pyrola rotundifolia*, *Neottia nidus-avis* and *Galium odoratum* growing here, all quite familiar plants.

It was a relief to come out into the open beside a wide furiously rushing torrent across which a rough bridge of logs had been thrown, only just above the level of the foaming waters. On the other side we rested for a moment before tackling the very steep incline now before us. As we sat a beautiful Camberwell Beauty butterfly settled on my shoulder and rested there for some minutes; quite an unusual experience for an Englishman these days! There are many fine butterflies here, fritillaries, swallowtails and apolloes being particularly attractive and relatively common. The slope was very steep but fortunately not too long and soon we were climbing less sharply through shrubs and bushes where sweetly scented *Rhododendron luteum* was in flower and

occasional fine plants of the large flowered *Aquilegia olympica* were to be seen and where *Geranium ibericum* was rampant, then over masses of boulders to the first of the three Baduk Lakes, small but scenically very attractive.

As we sat by the lakeside a large party of East Germans from our hotel also arrived, for this is a very popular excursion. It reminded me of the time two years before when a reporter from a Stavropol newspaper, a member of a large party that had come up from the nearby resort of Teberda, had here taken the opportunity to "interview" me and having plied me first with vodka photographed me allegedly talking animatedly to some of the prettiest girls in the party. I had heard no more of this and assumed that nothing further had come of it, but now I was assured that the article and the picture too had indeed been published. I have not seen it, perhaps fortunately, for my peace of mind, nor do I know what I am alleged to have said.

We threaded our way across more rocks and through the trees to the second lake. A few lilies were seen, *Lilium monadelphum*, with flowers not yet open. There were also one or two plants of the interesting *Saxifraga sibirica* and some sempervivums. *Rhododendron luteum* and *Rh. caucasicum* grew together here, although only the first was in flower.

More boulders and then finally the third and finest lake; the high snow-flecked mountains reflected superbly in its placid surface.

Our guide felt that we had done enough for this our first day, but it is recommended (and is possible) for those who wish to do so to carry on some way beyond the third lake to an area where there are fine views and where many more flowers may be found.

On the way back we paused to take photographs of a tiny pale-blue *Corydalis* (possibly a form of *Corydalis conorhiza*) and a splendid plant of the giant white-flowered *Anemone fasciculata*. Here we were overtaken by some of the East Germans who after watching our efforts decided to follow suit. One of them in particular became quite keen and although he was, as he explained, a chemist not a botanist, tried with some difficulty to tell us of some of the interesting plants he had encountered on his own excursions. "A tulip with markings like a chessboard" was fairly obvious, but "a plant with large flowers like long feathers" still has us mystified.

Our next excursion was along the Bu-Ulgen Valley, a valley particularly noted for its flowers and so requiring a special permit to enter it. Indeed there is a *locked* barrier across the road leading to this

valley and to the Klukhor Pass a little further on. The walk is an easy one of about 6 or 7 km along the fairly level floor of the valley, and there is a reasonably well defined track, albeit with a few very marshy patches. Our first surprise was the sight of many hundreds, indeed thousands of flowers of the very curious giant *Pedicularis atropurpurea*, in the woods and for some way up the valley, a most extraordinary plant. *Rhododendron luteum* was making a fine show against a background of rocky snow-capped peaks, while beautiful *Aquilegia olympica* sheltered beneath huge boulders where *Campanula saxifraga* grew together with a dainty little saxifrage somewhat resembling *S. cespitosa*, while the meadows were full of *Geranium renardii* and *G. ibericum*, of which we found an attractive white-flowered form. In the marshy area *Primula algida*, its flowers already much elongated, was in quantity growing with pink Cuckoo-flowers and here too was *Primula elatior* ssp. *pseudo-elatior*, while rather surprisingly the soggy turf was dotted with the small flowers of *Gentiana pyrenaica (djimilensis)* growing here in conditions very like those it favours in the Pyrenees rather than the higher drier habitats it usually adopts in these mountains.

Towards the end of the valley *Rhododendron caucasicum* was at last in flower and the showy flowers of *Pulsatilla aurea* began to appear. Here too was the yellow-flowered *Pedicularis condensata*, the white "chrysanthemum" flowers of *Leucanthemopsis alpina*, and an attractive blue-flowered *Polygala*.

By making a slightly hazardous boulder crossing of a small but rather fierce stream we were able to clamber up the lower slopes of the great peaks blocking off the end of the valley where a considerable amount of snow was still lying. Near the edges of the snow the dark brown bells of *Fritillaria latifolia* appeared in great numbers. There was some variation with a few almost pink flowers and greater or lesser amounts of tessellation. It was strange to see the familiar *Daphne mezereum* growing and flowering here in a dwarf form just like its counterparts in the Swiss Alps. Queen of the Snow, however, was undoubtedly the magnificent *Trollius patulus*, here seen at its best before it had elongated and become a little tatty. The weather was dull and there was more than a hint of rain, but the little "golden suns" shone brilliantly at our feet as we rushed excitedly from one splendid clump to another.

There had been some confusion concerning the cost of the various excursions we had proposed and so we decided to economise by cutting out a rather expensive second visit to the Klukhor Pass scheduled for

the next day and instead to award ourselves an "off-day". Not that this meant complete inactivity of course. We had told our hosts that we would wander off in the general direction of the Russian Glade and there was no objection to this. It was extremely pleasant to amble gently through the meadows, marshes and woods at our own pace and to stop and take photographs as often as we wished, meantime admiring Dombai-Ulgen and the great snow and ice-covered peaks on the opposite side of the valley. The weather was warm and sunny. In the lower levels there are some fine specimens of *Abies nordmanniana* and tall *Symphytum caucasicum* grows as a weed. In the meadows the showy *Stachys macrantha* is plentiful and the interesting elephant-head flowers *Rhynchospora stricta* and *R. orientalis* are also to be found. Higher up the dominant plant or at least the most outstanding one was somewhat surprisingly *Arnebia echioides*, the "Prophet Flower", which although herbaceous here forms quite large "bushes" which dot the mountainsides with bright splashes of colour. *Dactylorhiza caucasica* is plentiful here, as indeed it is throughout the district, but a beautiful white form was a surprise.

In the marshy areas one minor mystery was solved. Diligent investigation revealed that the sweet scent we had already noted here did not in fact come from the birches as we had supposed, but from a willow growing up to about six feet in height, apparently a form of *Salix pentandra*.

In this quiet way we found we had travelled as far as the Chuchkur Waterfalls, a "standard" excursion though one of the less strenuous ones and often used as an introduction to the district, a function for which it is well suited. Perhaps we were by then a little "off limits", but apart from the pleasure the walk had given us we found it excellent training and it strengthened us for later more energetic ordeals. However our "sins" found us out the next day when it was decided that Larissa would take us up to the Lower Chuchkur Pass since it meant that we would again have to traverse the Dombai-Ulgen Valley as far as the Chuchkur Falls. However, this is such a pleasant track, so relatively level and with such fine views, that this was really no great hardship. In addition, this time we also had a little help from the chair-lift almost as far as the Russian Glade.

The Falls which descend in several steps are quite spectacular, but the climb up the rough path beside them is steep and troublesome. However, *Aquilegia olympica* and *Lilium monadelphum* gladdened the way and on the other side of the stream *Rhododendron caucasicum* was

in full flower. Near the top of the climb were very many freely flowering bushes of sweetly scented *Daphne glomerata*, while a solitary but splendid "bush" of *Anemone fasciculata* crowned the final slope.

At the top we rested for a while and surveyed the wonderful view down the whole length of the Dombai-Ulgen Valley with the great peaks from Dombai-Ulgen to Sulakhat ranged down the far side and then turned to see what next confronted us. In front of us stretched a delightful valley enclosed on one side side by high peaks festooned with deep snowfields and hanging glaciers glistening in the fierce sunshine and on the other by lesser, more rocky peaks and ridges. Directly ahead stretched a fairly gently sloping sward, snow patched in places leading up to the steep snow-covered saddle of the Chuchkur Pass itself. A narrow track threaded its way up the valley, disappearing at times under deep drifts of snow and becoming very indistinct on the boulder- and scree-strewn slopes higher up. At first lush coarse vegetation gave evidence of man's earlier occupation but soon the familiar *Trollius patulus* and *Pulsatilla aurea* began to appear, growing together as they often do, their flowers almost indistinguishable from a distance, and many plants of *Primula algida* by the streamside. Then a patch of bright blue attracted us to *Scilla bifolia*, a plant we had not previously seen in these mountains, a small meadow brilliant with yellow buttercups; forget-me-nots, the sweetly scented dwarf *Coronilla* species so common here and a few plants of the "Prophet Flower", then quantities of *Fritillaria latifolia*.

Higher up among the rocks grew *Saxifraga paniculata* ssp. *cartilaginea* (the pink-flowered form), a most beautiful Campanula of the *Tridentata* Group, sempervivums, a small yellow-flowered *Draba*, *Rhododendron caucasicum* and an attractive dwarf willow with large catkins, presumably a form of *Salix apoda*. There were a few plants of the curious but very fine *Pedicularis panjutinii*, their flowers not yet fully developed. Our guide Larissa discovered a gentian, dwarf but with very large flowers of a most brilliant blue (*Gentiana angulosa*). Later we found others, all growing in hot, quite dry, rocky conditions.

Near our highest point we paused to have our lunch by a small stream, a large flat rock acting as our table. This in itself was something of a concession to our strange ways (and perhaps also to our age) as here it is more usual to make an early start and to return in time for lunch, even though this may be taken quite late in the afternoon. When descending from the hanging valley we made use of an alternative path a little to the right of the one beside the fall itself, where

the marsh orchids were particularly fine. Although this was very rough and much overgrown, sometimes to waist height or more in places, it eventually led us safely down into the main valley. Although we walked briskly along the valley floor we failed to arrive at the top of the chairlift before it stopped running for the day, possibly due at least in part to a slight contretemps caused by my having strayed away when taking photographs and for which I had been berated by the two ladies. However, being downhill it did not add greatly to our efforts or to the time for our descent and when on the way down we passed a solitary climber (apparently German) trudging upwards under a large back-pack with ice-axe in hand and obviously intent on a really worthwhile unaccompanied climb, this blatant flouting of the "rules" so incensed our guide that my own minor "misdeeds" were quickly forgotten.

Our next excursion was a quite different and very unusual one.

Two years before I had asked to be allowed to visit the remote and rather mysterious Arkhyz Valley. There were a number of reasons for my interest. First it was an opportunity to see a completely new section of the great Caucasus Range hitherto apparently unvisited by western tourists and also because, although it is a considerable distance from Dombai by road, (some 200 km) it is nevertheless a subsidiary Nature Reserve, coming under the administration of the much greater Teberda-Dombai Nature Reserve. Hopefully, too, I might even see there the legendary yellow gentian of the Caucasus (*Gentiana oschtenica*) which since the Arkhyz Valley lies some way to the west of the Teberda Valley must almost certainly grow there. Finally, I had a personal desire to glimpse at least the great 600 cm astronomical telescope, the largest reflector telescope in the world, said to have been erected in this valley but about which little seems to be known in the western world.

On that earlier occasion I had at first been told that it was agreed then later informed that this valley was prohibited to foreign tourists. Now I tried again. Attempts were made to dissuade me. I was told that it was a very long way (which it was) and that Arkhyz was not nearly as spectacular as Dombai (which was also true). However, I persisted and eventually it was agreed and it was decided that our friend Alexey himself would be our guide. It was a strange journey, though a very interesting one. We had first to travel north via Teberda to Karachayevsk where the Teberda River joins the famous River Kuban and then to follow this river for a short distance towards

Cherkessk, but soon turning off westward to reach the large village of Zelenchukskaya and from there south again to Arkhyz itself, thus completing three sides of a square. Had we been able to travel directly west from Dombai over ridges and valleys as the crow flies the distance would have been comparatively short. The well wooded valley in which Arkhyz lies is a very pleasant one and the Zelenchuk (Green) River is an unexpectedly fine and large mountain stream, and then as we sped along this delightful valley the great telescope came suddenly into view on a high, thickly wooded peak on our left, its silvery dome reflecting the bright sunlight.

Arkhyz itself is at present a somewhat crude and unsophisticated mountain village of small wooden houses with a few tents for holiday-makers, although there are said to be plans to turn it into a tourist resort. Beyond Arkhyz the road, which had been surprisingly good and well surfaced throughout our journey, became a loose and dusty though reasonably level dirt road. At this point there was a barrier across the road and our car was stopped and in spite of the considerable authority of our guide no amount of persuasion would induce the stubborn gatekeeper to allow it through as our guide had neglected to obtain the necessary permit for our *car*. We ourselves, however, were allowed to proceed on foot and trudged for some 5 km along the very hot dusty road as far as the Arkhyz Glade and then trudged a further 5 km back again! It was some slight consolation to us though that our guide had suffered too, as he had not come dressed for serious walking and had on only a pair of rather tight 'city' shoes.

Obviously in the circumstances we saw very little in the way of flowers, but we did note *Polemonium caeruleum* and the attractive pink-flowered *Centaurea pulcherrima* that we had not seen elsewhere in these western mountains. We also saw two hoopoes, beautiful birds common in these mountains, and more swallowtail butterflies.

Unlike Dombai, a certain amount of grazing is allowed here and roadside verges are fenced off to protect the flowers growing beyond them. We saw one very large flock of sheep entering the upper part of the valley, being driven by youths on horseback who urged on the more reluctant animals with large whips.

Although the surrounding mountains are partly snow-covered they are lower and more distant than those at Dombai, but it is a beautiful valley and the river is especially fine. We were very glad to have seen it in its unspoilt state and would have liked to have explored it further. There is a path across the mountains by which it is possible to reach

the Black Sea and in one particularly remote valley the great European bison has been successfully established and now reigns there in undisputed possession as no one is allowed to enter this valley.

On our return journey we stopped for lunch (paid for by our guide) at the large village of Zelenchukhskaya, where we found a clean cool restaurant that provided us with a welcome respite from the great heat, but very little in the way of food.

It was with some trepidation that we learned that our friend Alexey himself was to be our guide again the next day. He is a grand chap, but seems to have within him a perverse streak that induces him to take us on longer and more difficult and more strenuous expeditions than are really suitable for walkers of our advanced years and to test us to our limit and perhaps even a little beyond. However, at least the outings he arranges are likely to be spectacular and particularly attractive, so it was with mixed feelings that we looked forward to our coming trial.

Ominously we were instructed to be ready to leave by 6.30 a.m. and provided with packed *breakfasts*. At that hour although the sun already shone brightly it was still quite cool, although it was obvious that very soon the heat would build up again. Our guide was not quite ready, so as "trusties" we were allowed to find our own way along the first part of the route by the pleasantly shaded track where long-eared brown-black squirrels scampered in the branches and a pair of Greater Spotted Woodpeckers flew beside us, as far as the Alibek Mountaineering Camp. We were of course familiar with the route to the Alibek Glacier and at first we followed this path through the meadows beyond the camp where blue mountain cornflowers, marsh orchids and fragrant orchids grow and where the white flowers of *Traunsteinera globosa* ssp. *sphaerica* were just beginning to appear. Soon, however, we turned off along an inconspicuous path into country quite new to us.

After breakfasting briefly by a small stream we climbed through more steeply sloping upper meadows then up rough slopes through scattered birch trees and bushes where *Rhododendron luteum* and *Lilium monadelphum* grew, and up a long and tiring path, narrow and slippery, to arrive at last on the top of a small knoll, and then upwards again through light woodland to emerge at a magnificent viewpoint decorated with splendid bushes of *Anemone fasciculata*. Indeed these wonderful flowers were the dominant feature of this walk. Apart from the great size of the plants, they appeared in a variety of forms, some a wonderfully

pure white, some with the backs of the petals tinged with pink, some with tight compact heads of flowers, some much more open, but all in their beauty providing a wonderful foreground to the snow-covered mountains beyond.

Now the path contoured round steep slopes towards the Pass itself and the first brilliant yellow flowers of *Pulsatilla aurea* began to appear; magnificent flowers, too, several inches across. Indeed, all the flowers on this walk seemed to be larger than usual. *Gentiana angulosa* too had huge flowers of a gorgeous deep blue. One was *measured* at an inch and a quarter across and this was by no means the largest. *Trollius patulus* was here to greet us in bright patches by the tiny rushing streams, *Gagea glacialis* too by the melting patches of snow, *Primula elatior* ssp. *pseudo-elatior* in especially fine form, a small pale violet resembling *Viola montana* and great numbers of *Fritillaria latifolia*. There were also a few *Crocus* leaves but no flowers. Now we had reached the upper part of the valley leading directly up to the Pass.

On a ridge high above us a lone chamois appeared and posed dramatically, all four feet together, on the top of a huge pointed boulder like some wood-carving produced for tourists.

The final steep slope proved difficult and strenuous by reason of the altitude, the great heat and age (ours), but eventually we surmounted it and reached the last snow slopes of the Pass itself at a height of about 3000 m (9850 ft.). It was a wonderful viewpoint; the whole length of both the Alibek and Bu-Ulgen valleys lay spread out below us. Here we rested for about an hour then, while our guide went off to check up on the activities of a Russian party who were attempting to glissade down steep snow slopes into the valley, we slowly threaded our way down over the streams and rocks.

The heat was very great; even here in the mountains it was 82°F (down in the plains it was over 100°F) and the final walk back down the road to our hotel was quite exhausting. Even so, I was still able to point out to our guide a typically British flower — Honeysuckle, *Lonicera periclymenum*. He is busy learning the English names of flowers from a book we left for him in 1977 and which he now carries around in his rucksack.

When we pointed out that many of the finest flowers we had seen were not even in cultivation in our own country, he suggested rather unexpectedly, since he is a very ardent conservationist, that we should try to grow some of them from seed and promised to send us some when the seed was ready. International complications and postal

difficulties may of course prevent this, but he is a man of his word and will send them if he can.

The excursion had been very enjoyable but had left us very tired, which was hardly surprising as in ten hours we had covered some 25 km in distance and had climbed (and then descended again) about 1525 m (5000 ft.) in conditions of great heat. It was ironical that a party of British Ramblers staying at Dombai for a few days prior to crossing the Klukhor Pass to Sukhumi on the Black Sea coast were only allowed to carry out some of the lesser standard rather hum-drum excursions as their "training" programme. The East Germans, some of whom were young men so energetic that they sometimes did *two* excursions a day and *ran* up and down the mountains had complained bitterly at not being allowed to carry out more interesting trips, while we, who were really too old for such strenuous activities, were permitted to participate in more unusual expeditions such as those to the Chuchhor Pass and the Alibek Pass, and indeed apparently to attempt whatever route we wished.

Indeed, it had been proposed that Alexey would take us the next day on another difficult and possibly even longer walk along a valley that we had not previously visited, but we felt that we were too exhausted for this, especially as it was our last day and we would have some packing to do. We rather doubted in fact if we would be fit to go anywhere the next day! However, by the next morning we were sufficiently recovered to go with Larissa on an outing to an area which was at least in part quite new to us, and which proved to be very enjoyable.

Near the Chuchkur Falls I had discovered a small track which appeared to lead up into the seldom visited Ptysh Valley in which I was particularly interested. I had little hope of being able to visit it, but now here we were. After crossing the stream which descends from the Falls by means of a rough bridge we passed through an area of dense vegetation where there were hundreds of magnificent flowers of *Aquilegia olympica*, large thickets of *Rhododendron caucasicum* and many fine spikes of *Lilium monadelphum*. As we toiled up the valley, now becoming more open though covered in places by the remains of large avalanches, I was surprised to see growing on boulders the interesting *Potentilla divina* looking somewhat lax at this low altitude, purple-flowered *Corydalis conorhiza*, large drifts of yellow- or cream-flowered *Anemone speciosa*, and cream and also mauve-flowered plants of dwarf *Astragalus oreades*, all normally plants of much greater altitudes.

There was a nice soft pink form of the usually purple *Geranium ibericum* and an orange *Doronicum* that was new to us. The usual *Trollius patulus*, *Pulsatilla aurea*, *Gentiana angulosa*, *Campanula tridentata* and *Arnebia echioides* were here in plenty. There was some *Rhododendron luteum* and much *Rh. caucasicum*, but we saw no sign of the pink *Rhododendron* that is said to grow here. I have my own suspicions as to what this may be. Near the head of the valley are three fine waterfalls, not large in volume but high and very beautiful on their black cliff with flowery meadows full of *Anemone speciosa* in its various forms in the foreground and snowy peaks behind. Altogether a very satisfactory walk.

At dinner on our final evening at Dombai, while we were sipping our champagne (Russian of course) kindly supplied by the management, our guide Larissa, who on this special occasion was dining with us, suddenly volunteered the information that there was a lady in the resort, also an instructor, who was very interested in flowers, who knew where the "yellow gentian" was to be found and who, if we wished, would supply us with a colour slide of it. Leaving us and her meal, she went off by car and returned some time later with the desired picture. It seems that this plant is to be found only in one particular valley at a considerable distance from Dombai itself and where it must surely be at the extreme eastern end of its range.

We had in fact earlier suggested this valley as one of our possible excursions mainly in the faint hope that we might find this plant there, but the route had been dismissed by Alexey as "not very interesting" and we had not pursued the matter.

It was a somewhat mysterious note on which to end our visit, for there seem to be a number of unanswerable questions. Why, if she resided in Dombai, had we not been allowed to meet the lady before? Possibly she did not wish to meet foreigners from the west and yet we were told that if we came back again she would be happy to talk to us about the flowers. Why was this mysterious lady not produced in person even then, but contact made only through our guide? Perhaps one reason for the late disclosure was to tempt us to return to Dombai at some future date and in this it might well be successful, although a countryside as beautiful and as interesting as Dombai hardly needs such extra inducements, especially as there is a strong possibility that Mineralnye-Vody may soon become an International Airport with direct flights from London, thus making the journey a very much easier one.

Why Not Try The Andes?

by JOHN and BRENDA ANDERSON

AS THE result of a chance meeting with a couple who owned a ranch in Argentina, the possibility of plant hunting in the Andes crystallised; until then it had existed only as a dream. San Carlos de Bariloche was suggested as the place to which to go.

We were fortunate in finding that a representative of Aero Lineas Argentinas lived in Dundee, so we were able to get some first hand information. There is galloping inflation in the Argentine — 100% plus — but prices are quoted in U.S. dollars, so that, though prices continually go up in pesos, the number of pesos one gets to the dollar likewise, or nearly likewise, increases. We decided to risk it.

We discovered that there was, starting on 1st February 1979, a cheap tourist domestic ticket that would enable one to fly anywhere within Argentina.

As I am in my mid-seventies, I need a car to get me to the heights, and we discovered that it was possible to hire self-drive cars in several places. We were also given the name of a Travel Agent in Buenos Aires. We attempted to make hotel bookings from this end with a total lack of success, but eventually, thanks to Telex, got booked in for our first night in Buenos Aires.

The cheapest way to get there was by Lan Chile airline from Frankfurt. This way the fare worked out at half the normal direct flight. Without incident we arrived in Buenos Aires on 1st February, to be greeted at our Travel Agents with the information that the date for the Tourist Air Ticket (obtainable only in the Argentine) had been changed to 1st March! As we had come out on this particular date in order to avail ourselves of this ticket, I became somewhat persistent. It was a hot day, everyone was very sympathetic — but! Luckily my wife has sufficient Spanish to get us around; without it things would have been even more difficult. Eventually, hot and exhausted, we reached a “decision maker” who couldn’t have been nicer. He quickly put us at our ease, admitted the Airline was at fault in not sending the information to their London Office, summoned his Traffic Manageress, and instructed her to supply us with the Tourist Tickets, and arrange for the necessary flight reservations. Problems continued to occur throughout our journeyings, but everywhere we found the people so pleasant and helpful.

We lost no time in making for Bariloche; however, as so often happens to us, for technical reasons the plane was delayed. Eventually, late in the evening, we arrived at Bariloche Airport — bleak, brown and dusty, and 15 km from town. We were having problems getting from the Airport into Bariloche, and obviously looked like foreigners, so when we struggled on to the only bus, against vociferous protests from taxi drivers, it was bliss to be greeted by an English voice! Hilda Rumboll, who lives in Bariloche, turned out to be a very charming person, who helped us a lot during our stay.

Owing to friction between Argentina and Chile at that time, with troop movements at the Frontiers, Bariloche was fairly empty and we had no difficulty in getting hotel accommodation — normally it is full to overflowing in summer.

San Carlos de Bariloche, to give it its full name, is a ski and summer resort situated in the Argentinian Lake District on the southern shore of the huge Lake Nahuel Huapi, at a height of 850 m. The climate was very pleasant when we arrived on 2nd February, which would be the equivalent of 2nd August in the northern hemisphere. In winter they are under snow for several months, but owing to the presence of the large lake, do not have severe frosts. It is surrounded by high mountains which, as is general throughout Patagonia, are clothed in an impenetrable belt of *Nothofagus*, various species of *Berberis*, and a nasty bamboo from about 1000 m up to about 1500 m. The alpine slopes are therefore difficult to reach as roads are few and far between. Fortunately at Bariloche access to Cerro Lopez and Cerro Catedral has been cleared for skiing. We were able to hire a car, so, to acclimatize ourselves, set off to explore the low ground.

Pride of place went to the mutisias. The orange-flowered *M. decurrens* was the most showy, but, alas, no seed was available. A nasty little beastie gets into almost every flower and destroys the seed. We hunted through many heads. The commonest variety was a vigorous climber which clambered through the spiny undergrowth and shrub myrtle. It varied from dirty white to a lovely shade of pink, and from substantial blooms to squinny ones. We were told that the pink ones are *M. retusa*. We collected seed from some of the good colour forms, but from the mass collected only a few seeds appeared viable. These germinated readily, and are growing nicely through shrubs in our garden, and have now flowered. There are apparently many varieties of *Mutisia* in South America and the names are confusing. Growing everywhere along the lakeside was the sweet scented, white-flowered

Myrtus apiculata, *Fuchsia magellanica* and the common yellow *Alstroemeria* which was just as invasive as it so often is in our gardens.

We drove round to the other side of the lake where we visited a friend of Hilda Rumboll, Dr. Diem, an elderly, enthusiastic gardener, who was struggling valiantly to keep alive his, for that area almost unique, collection of rhododendrons and gentians. It had been an exceptionally dry spring and summer and except on the lakeside everything was parched and dry. Normally there is spasmodic rain in the summer season. Unfortunately the car broke down well in the middle of nowhere, so we did not have much time to explore. The alpine slopes on that side of the lake proved to be inaccessible due to the forest belt.

We did a beautiful day trip on Lake Nahuel Huapi to Puerto Blest, near the Chilean frontier, which has a mini climate and flora of its own, but on organised trips one never gets much opportunity to look for plants. We did, however, see growing in thick undergrowth, *Desfontainia spinosa*, and, clambering through shrubs, *Mitraria coccinea*, both in flower.

Hilda Rumboll had taken us to meet Snr. Bruno Polastri, who runs a market garden and, at that time, a small Hosteria. He also kindly sends seeds to the S.R.G.C. We were able to stay with him, and he very kindly offered to take us up Cerro Lopez to show us some of the flowers. The alpine slopes of Cerro Lopez, which rise to a height of 2076 m, are reached by a very rough, very steep, dirt track which is restricted to certain hours for "up" and "down" traffic. Younger and more energetic people camp at the Refugio and thus explore the heights. Our stay was, of necessity, short. It had been a very dry season and February is also somewhat late for that area, so we did not see a great display of flowers, but growing in areas still moist from the melting snow higher up, we saw *Anagallis alternifolia*, a small pink *Calandridia*, *Ourisia alpina* and a scarlet variety of *Ourisia*, also an attractive dwarf *Senecio* (?marquinensis), *Perezia variabilis*, *Calceolaria* spp., *Quinquimalium chilensis*, a showy yellow *Sisyrinchium*, and the dwarf *Nothofagus pumilio*. There was a particularly good stand of a scarlet, tubular *Ourisia* which I photographed, and from which we collected seed. The seed germinated and several plants have flowered, but it turns out not to be what we call *O. coccinea* or *elegans*. In Argentina I believe it is now called *O. racemosa*. The description in Ingwersen's book of *O. magellanica* is the nearest we can find, but there is no mention of *O. racemosa* so possibly the two are synonymous. It will need to be identified when it becomes more mature.

The following afternoon we visited Cerro Catedral, so called because of its jagged "spires", the highest peak, 2388 m. The mountainside has been cleared of trees and scrub for skiing, and is served by a cable car and several chair lifts. Snr. Polastri drove us to the cablecar station, and pointed out to us where to look for plants, which saved us a lot of searching time! On arrival at the top it looked parched and desolate; however, as if by magic, plants appeared in the areas indicated. We were first greeted by a *Loasa* that made quite a show and produced a nice photograph. The *Loasa*, *Caiophora*, *Blumenbachia* — they go by many names and grow in many places all over S. America — have one thing in common, they nearly all sting! We found many plants of rosulate violas but none were in flower. We collected some seed, but none of this batch germinated with me, though some seed I gave to a friend has germinated. As usual, time was our enemy, as we had to catch the last cablecar down. We had seen enough, however, to make us wish to revisit this mountain.

This we were able to do the following year, when we visited Chile and returned to Bariloche to stay for a few days with Hilda Rumboll. This time it was in early January and the mutisias were only just coming out. We were taken for a couple of picnics, when we saw interesting shrubs and different *Calceolaria* species, but pride of place went to sheets of *Tropaeolum polyphyllum* — not the usual yellow but various shades of pink, and a large yellow *Hippeastrum* as yet unnamed. There was also a curious green striped chloraea with flowers fully as big as those of *Cypripedium calceolus*. With great difficulty we collected some tubers of the *Tropaeolum*. One needs to find a slope and dig several feet away and below. We also got some bulbs of the hippeastrum, and have now received some seed, both of which are growing.

We revisited Cerro Catedral, and this time had the best part of a day on it. There was a long queue for the cable car, which delayed things, and we could not get an exact time for the last descent which meant returning to the station earlier than was really necessary — however, we had several hours. The rosulate violas were in flower, and very beautiful they are. If only they could be persuaded to grow properly here! No doubt they are like *Eritrichium nanum*, and need just that something — altitude, sunlight, dry atmosphere and that little something more! Very little seed was available of these, or other plants; we were seeing the flowers, though we did manage to glean the odd seed pod here and there. There was plenty of *Ourisia alpina* (I

now have some promising seedlings) and *Oxalis adenophylla*. In damp places grew the pure white, prostrate *Caltha sagittata* and an unidentified "small white fluffy" spike (no seed) and *Primula farinosa* var. *magellanica*. *Oreopolus glacialis*, *Perezia variabilis*, *Sisyrinchium*, *Tristagma uniflora* (?), the ubiquitous calceolarias (there are a great many varieties, both shrubby and herbaceous, all over S. America), *Pernettya leucocarpa*, and many other fascinating plants inhabit these slopes. One is irresistibly drawn on and upwards, pausing to gaze out over the lake at a stupendous panorama of snow-capped mountains, with the tantalising thought that most of them have never been explored botanically, and if one small area of one mountain can produce so much, what could be hidden out there! At the highest point we achieved—about 1900 m—before having to turn back for that last cable car, there were three more treasures: a tiny yellow-flowered *Oxalis* looking for all the world like the "bun" of a saxifrage (possibly *O. microphylla*), *Nassauvia lanata* and a single, large yellow *Chloraea alpina*. It was a satisfying day.

To return to our first trip, as we had this wonderful Rover ticket to fly anywhere in Argentina, we decided to make full use of it, and next flew to Jujuy, right up in the north. San Salvador de Jujuy, to give it its full name, is a capital city and stands at 1260 m in a fertile, sugar growing plain, completely surrounded by wooded mountains. The weather was only pleasantly hot when we arrived, in spite of being very near to the Tropic of Capricorn. We were able to hire a car, and intended going north up the Rio Grande into the high mountain pass into Bolivia. Going north, and rising steadily, we saw many exciting plants, but not alpine. Beautiful trees of *Chorisia insignis* with its creamy "lily" flowers, a low-growing dwarf mimosa with pinky flowers, possible *M. pudica*, a bright scarlet verbena, little *Alophia lahue* in a meadow, *Clematis hillarii* scrambling over thorny bushes, and that dramatic epiphyte *Phrygillanthus letandrus*, which looks like bunches of brilliant scarlet honeysuckle, were all to be seen.

Unfortunately, well on in the afternoon, we discovered from a friendly policeman who wanted to check our papers that the road ahead, to the pass, had been washed away, so we had to retrace our steps. The roads are mostly just "consolidated" with no proper surface; distances are great, and the going is slow and dusty! This part of Argentina is very sparsely populated, and the villages are pure Indian; however, there was a small government-run hotel not too far away. We were now in cactus country, with three-fingered giants 12-14

ft. high, populating a landscape of incredibly coloured mountains — rust red, purple and verdigris green, all soil and rock, no vegetation. The next day we found a side road which eventually took us to a height of 4172 m, at which there were small, prickly scrub bushes, and a good ground cover of what looked like a small-leaved prostrate “prickly pear”, and little round bun cactus — but there were also other exciting things! Unfortunately it had taken a long time to get there, and in the late afternoon low clouds come down over the mountain tops and we didn't want to get caught in a thick mist, so we had to drop down without having much time to investigate. At that height Brenda had to bring me plants to be photographed, as I was suffering from the altitude, and in one damp gully she found *Caiophora coronaria* and a purple *Sisyrinchium*.

We dropped down to about 3500 m, where the star turn was a brilliant orange flower, rather resembling an enlarged, but orange, *Geum reptans*. There were three different varieties — white, pink and yellow — of something that looked to us like first cousins of the N. American *Talinum*, and rosettes of a flat, purple *Solanum*. We have not been able to get anyone to hazard even a guess at naming any of these! We searched, but could find no ripe seeds, the cloud caused everything to close up, so we beat it down the mountain and back towards Jujuy. We spent the night at an almost deserted Thermal Spa hotel, nestling in sub-tropical forest, and the following day investigated yet another track in the hopes of breaking through the forest to the mountain slopes above, but did not achieve any great height. There were white begonias, exotic creepers (one of which was visited by a hummingbird while I was trying to photograph it) and other interesting flowers. We did, however, collect seed of an orange-flowered climbing *Caiophora*, which has proved to be an easily propagated annual which climbs happily through shrubs in our garden, and has not even been deterred by this grey summer.

From the extreme north we proceeded to the extreme south, to visit the glaciers, which we hoped might be a profitable area to find hardy plants. To get there we had to return to Buenos Aires for a night to catch an early flight out in the morning to Rio Gallegos. From there we were booked to fly to Calafate, on Lago Argentino, by L.A.D.E. — a local domestic air service run by the Argentine Air Force, primarily for the benefit of the local inhabitants. The weather can be very treacherous with strong winds and bad visibility; landing strips are small and so are the planes. Although we had booked our

flights at Bariloche 14 days previously, no one knew anything about it, and we were told the plane leaving the following morning was full! There are only flights on certain days, and if we did not get on that one we would not be able to do it at all. Rio Gallegos is the most desolate, wind swept and depressing little outpost you can imagine! Accommodation had been booked for us at a Motel in Calafate through A.C.A., the A.A. of Argentina. We contacted the A.C.A. representative, and he could not have been more helpful. Eventually, having spent most of his supposedly free Sunday at the airport, he persuaded the pilot to take us — and, even more important, to bring us back three days later. This was essential for our connections for our return flight home.

We had got to know a charming, English-speaking Argentinian couple, also bound for Calafate, during our enforced overnight stay in Rio Gallegos. Thanks to their previous knowledge of Calafate, and prompt action on arrival, we were able to get on a mini-bus trip to the Perito Moreno glacier that afternoon. Our route passed through a valley, the slopes of which were clothed in *Embothrium*. They were no longer in full flower, but some trees had belated blossom; it would have been a fantastic sight earlier in the season. Above the embotheriums stretched an impenetrable belt of *Nothofagus* and *Berberis* before the open alpine areas. There were no tracks through it, so plant hunting in this area, for us, was out. Perito Moreno is a really impressive glacier, quite unlike anything we had seen in Europe. According to the Tourist leaflet, it is 197 ft. high and two miles wide — it certainly falls sheer into the lake in fantastic, towering, jagged blue pinnacles. The other glaciers are visited by boat, weaving through the icebergs, if you are lucky enough to have calm weather such as we encountered, though a vicious storm blew up on the way back. The glaciers were most impressive, and well worth the trip, but how we would have liked to get up into those mountains! Air travel has opened up this area, but there must be thousands of square miles upon which no human has as yet set foot. The only plants of interest that we found were *Viola maculata*, the remains of what had been a green *Chloraea*, and the little red-berried spikes of *Gunnera magellanica*.

On our return to Buenos Aires we spent a pleasant day in the residential Delta area, where we visited two gardens of friends of our Calafate acquaintances, and collected seed of *Zephyranthes candida*, which was flowering along the river bank. It has germinated, is growing on nicely, and is, we understand, reasonably hardy in spite of its location.

On our last evening we were able to contact Dr. Fiedler, who sends seeds to the Alpine Garden Society. He invited us to stay for supper, and showed us some of his slides. We were most impressed, and are so glad that he was one of the speakers at the Alpines '81 Conference in Nottingham, where his pictures and enthusiasm made many people long to see these plants and mountains for themselves.

Our calculated risk holiday had been a success! We had had a wonderful time, made new friends, and those primeval mountains had cast their spell. We had been told that inflation in Chile was not nearly so rampant; next year, we would go and explore the Western side of those mountains!

(To be continued)

Europe's Choice Alpines

by MARGARET and HENRY TAYLOR

EVERYONE in our club is keen on alpines, and everyone should go to see the alpine plants of Europe in the wild, as soon as possible. Why soon? We will give reasons for going soon in due course. But why go to the mountains at all, why not just visit a nursery? First of all, if you visit the hills, you can see a population of thousands of plants and just pick out the exceptional form. Then you can study the natural habitat of the plant, the situation and type of rock that it grows on. You can take photographs and ramble in the hills. This is very strenuous, but relaxing to the mind.

We intend to describe a few interesting places and gorgeous plants, to give you a taste of the mountains in early July.

All these mountains are within range of a three week camping holiday in a motor car. We start at the North Cape in Norway, then to Spain, the Pyrenees, France, Switzerland, Italy, Austria and Yugoslavia.

The North Cape is in the region of the midnight sun. It is the northernmost point in Europe, well north of the Arctic Circle, but with lots of good arctic plants in the turf. Margaret made me shift our car to avoid parking on a Forrest Medal specimen of *Cassiope hypnoides*. *Diapensia lapponica* is another speciality of this North Cape region. The *Diapensia* has large white saxifrage-like flowers on little hummocks of bronze leaves. Unfortunately these arctic plants are

much more difficult in cultivation than the plants of the Alps. *Primula nutans** was growing in a marsh beside the Alta fjord. This *Primula* has good sized flowers but, though a member of the *Farinosae* section, has no powder on stems or leaves. A little further inland, in Finland, we found a very large flowered form of *Cornus suecica*. This grows in the region of permafrost puddles where the air is full of millions of midges 24 hours a day. Even worse than in Ardnamurchan, where the midges are reputed to be as big as horses!! It is an exaggeration to say that it rained every day in Norway; on some days it snowed!

Now to a very different land, the south of Spain, where in the foothills of the Sierra Nevada on a hot dusty threshing floor, horse-drawn sledges with cutter wheels were chopping up straw. Yet you can motor right back to the snows of winter on a very good road which runs from Granada twenty miles uphill to the summit of the Veleta, 3392 m (11,129 ft.). Anyone who visited the Sierra Nevada a few years ago, and goes back now, will be horrified at the enormous ski complex being built on the Veleta. Bulldozers have devastated a vast area.

The first site we visited was a limestone outcrop. Here is found one of the world's most outstanding alpiners, *Convolvulus boissieri* growing as compact cushions of silver leaves with large pink or white flowers sitting right on top of the foliage. Above this limestone outcrop most of the Veleta is mica schist. *Fritillaria lusitanica* hides under juniper bushes to escape goats. The new "Flora Europaea" does not mention any sub-species but certainly the *Fritillaria* found on the Sierra Nevada was an absolute beauty, about 10 cm tall with flared bells striped and stippled in green and brown and gold. We camped beside a snowbank, to obtain fresh water for drinking and cooking, and the stream froze at night. One of the specialities in this region is *Ptilotrichum purpureum*, which forms compact mats on the mica schist scree. The flowers vary in colour, so we looked for deep purple-pink forms of this, one of the best alpine crucifers. Right on the summit of the Veleta, we found *Erigeron frigidus* with flowers pressed down on the mat of foliage and no flower stalk at all. We also found this beautiful lilac *Erigeron* at lower altitudes, with 10 cm flower stalks. A dirt road leads from the Veleta round towards the highest mountain in the range, called Mulhacen. On our previous visits this track had always been blocked by

*The Asiatic *Primula nutans* of gardens should now be called *Primula flaccida* since the original name was used for the arctic species. See *Journal* 68, p. 190. *Editor's Note.*

snow, but in July 1980 we found a snowplough at work. We picnicked until the workmen went home that night, then motored past the 'no entry' sign and rattled along the dirt track to a nice camp site beside the Laguna de la Caldera at 3000 m on the slopes of Mulhacen. When Margaret recovered from the shakes, we found very good plants on the barren-looking slopes. The plants that had been eliminated by the ski resort on the Veleta can be found again, beside snowbanks and streams on Mulhacen. *Gentiana alpina* is very plentiful beside ponds on the mica schist; it has tiny compact leaves. *Ranunculus acetosellifolius* is another of those plants where the finest, large-flowered forms are found in damp areas near streams, whereas the very choice *Viola crassiuscula*, with round flowers and tiny leaves, hides under rocks in wild dry coarse scree. When dropping down the track towards Capiliera we found the very attractive chestnut-red *Digitalis obscura*. This plant is doubtfully hardy but, as we collected seed at the upper limit of its habitat, we can hope. A little further round on the south side of the Sierra Nevada, *Sarcocapnos crassifolia* grows on loose, crumbly, slaty cliffs facing north-east. The blue-grey leaves help to make this rare plant very attractive.

Next, we visited the Sierra Cazorla, and a peak called Cabanas. Near the top there is a natural archway in the limestone, and in the vicinity there are many good, rare, endemic plants. The speciality is *Viola cazorensis* and there were lots of it. When this plant is found down in the woodland it is usually rather poor and straggly with small flowers. But on the summit of Cabanas, gorgeous, large, rosy-pink flowers sit on compact plants. Botanists reckon that this peculiar shrubby *Viola* with heather-like leaves is a Tertiary relict that escaped the last ice age. Also beside the archway among several *Narcissus* species, *N. hedraeanthus* is rather exceptional. Short flower stalks appear out of the ground, at a low angle, so that the cream-coloured flowers actually rest on the soil.

The next area to be visited is the Picos de Europa. The cablecar at Fuente De lifts you up a steep precipice on to a limestone plateau with good walking tracks. Beware of sun reflecting off the snow and limestone. We have never solved the problem of severe sunburn on the underside of nose and chin. In cracks of the limestone cliffs, there was a very good golden-yellow form of *Saxifraga aretioides*, much better than the greeny-yellow flower that we have seen in the Pyrenees. In the nearby Puerto San Glorio, where the rock is a peculiar conglomerate and slate, you can find *Ranunculus amplexicaulis*, 25 cm tall with large

flowers and attractive grey-green hairy leaves. Here in the San Glorio, in a slate area, there is an absolutely lovely purple-pink *Matthiola fruticulosa* only 5 cm tall, whereas on the limestone at Fuente De it is a poor brown-flowered plant.

Now to the Pyrenees, and the funicular railway that takes you up to the Sanctuary of Nuria, a lovely spot. The hotel is in gorgeous hill walking country. In water flushes among the moss and grass is found the deep purple *Gentiana pyrenaica*, while on the coarse scree grows another speciality, *Adonis pyrenaica*, with dazzling golden flowers. Climb higher on really nasty scree to find the rare *Viola diversifolia*, with grey-green leaves covered with silky hairs and on the summit ridge, with a view down into France, note the thin grassy leaves of *Ranunculus pyrenaeus* before returning down another valley leading towards Nuria. *Ranunculus parnassifolius*, every plant with gorgeous pink flowers — each one better than the previous plant — grows on slaty scree beside the waterfall. Where *R. parnassifolius* overlaps with *R. pyrenaeus* there are a great many hybrids with leaves half way between the parents. These hybrids have very attractive large flowers in a big cluster, sometimes white, sometimes pale pink. This hybrid has been called *Ranunculus x flahaultii*.

The Bonaigua pass on the edge of the Val d'Aran has a limestone cliff with special plants. The loose soft brown limestone close to the road is the home of *Saxifraga media*, with gorgeous plum-purple hairs and bracts on the flower stems. Climb higher and you will find a tiny compact form of *Geranium cinereum* with purple-veined flowers.

When abroad a smattering of the language is always helpful. In France, as any experienced traveller knows, the essential phrase is "Deux comme ça", while pointing to the cakes in the boulangerie patisserie!

In the Maritime Alps and particularly in the Col de la Sine *Lilium pomponium*, with tomato-red flowers and thin grassy leaves, grows profusely. Farrer, writing in the 1920s, worried that this lily might become extinct because an English nursery sent out a squad of men to dig up the bulbs. Luckily there are still valleys with plenty of lilies. Above the village of Thorenc, *Fritillaria tubiformis* is found in grassy clearings in the woods. It has very squat short fat bells of rosy brown. The finest spot we visited in the Maritime Alps is the Valle de Valmasque near Tende. It has excellent hill walking country with a variety of rocks and very choice plants. Climbing in the morning we passed the beautiful *Tulipa australis*. The buds hang down but as the flowers

open they straighten and point upwards. They are buff yellow with chestnut backs to the petals, and are a lot more delicate and attractive than the garden hybrids. *Saxifraga florulenta* (Fig. 66), a rare endemic on the granite cliffs, was just sending up the first flower spikes in July. The spiral rosettes of leaves are more striking than the dull white flowers. Within walking range is the Vallée des Merveilles, the 'marvels' being peculiar rock engravings dating from 15,000 BC made by a series of small holes in smooth red granite rock. It is rather sad that a recent development of pony trekking from the Minière valley has resulted in folk carving their initials amongst the prehistoric engravings. The form of *Leucanthemopsis alpina* in the Vallée des Merveilles has silver leaves and flowers which open white but gradually change to pale pink. You can return via the Fontanalbe valley where there is a wonderful collection of semi-double and double flowered *Ranunculus pyrenaicus* subsp. *plantagineus*. Also present is *Dianthus pavonius*, some with fringed petals and some with flower stalks only 3 cm tall. Beyond the ski resort of Valberg there is a track leading to the slopes of Mt. Demant. At the end of the motor track there are scree slopes with marvellous plants of *Campanula alpestris*. Several colonies of white-flowered plants were spreading with underground runners through the loose scree. The Mt. Demant *Linum salsoloides* has most attractive peach-coloured backs to the petals. There is an area of steep loose moving scree covered with thousands of *Allium narcissiflorum*, not the usual plum-purple coloured garden plant but a beautiful shell pink, about 15 cm tall. The Bonette pass, in the Cottian Alps, is one of the highest in Europe. The climate is cold and brisk, camping at 2500 m. Just beside our tent on granite rocks there is *Ranunculus glacialis* with thick waxy leaves, while only a few yards away there is a peculiar soft limestone hummock sprinkled with fossil shells. The *Ranunculus* here is *seguieri* with rather a flattened appearance and silky hairs on the leaves. Again, a few yards and we find *Daphne cneorum* var. *pygmaea* growing on hard limestone pavement. This finest most compact form of *Daphne cneorum* was named *pygmaea* by the late curator of the Lautaret Botanic Garden, M. Ruffier-Lanche. Go further north to the Col du Galibier in the French Alps to find fine white forms of *Primula latifolia*. Nearby *Gentiana punctata* grows 25 cm tall with rather a squashed appearance but with a very striking colour combination of gold flowers with purple spots. On the border between France and Italy, the Petit Mt. Cenis Pass, there is a marvellous collection of *Primula pedemontana* including some fine white ones. These grow on

mica schist rock along with *Soldanella alpina*. Occasionally white forms are found. In wet spots, *Dactylorhiza sambucina*, with bright yellow flowers, is particularly attractive. Once we saw a nice stand of this orchid in the late General Murray-Lyon's garden at Pitlochry. There are two or three small limestone outcrops in the Petit Mt. Cenis. On the vertical limestone cliffs there are hard compact cushions of *Saxifraga diapensioides*. It is late flowering with good big white flowers.

We took a short diversion into Italy along a dirt track marked difficult and dangerous above the town of Sestrière. It runs along the crest of a 2400 m ridge, obviously an ideal place for finding alpinists. The notice at the start of the track states the banks are dangerous and the track is blocked, but every explorer is accustomed to ignoring road signs. Nine times out of ten the notice, 'road blocked by snow', is untrue. We stopped to photograph *Geum reptans* with bigger flowers and less straggling runners than usual, while a red Italian car headed along the track. We thought, excellent — he can shift any fallen rocks. Eventually, we followed along until a snowbank completely blocked the track. There was no sign of the red car, but a faint track led down towards Sauze d'Oulx. Down we slithered, until we found the car with the driver waving "Go back". It was a ski track, of course, and it disappeared over the edge. The driver's nerves were shaken, he wanted to lie down and die, but his wife persuaded him back into his car. We built a bridge, pushed his car, then our own car back up the mountainside, a yard at a time. Whenever we encountered a particularly nasty bit, the Italian crossed himself and muttered a prayer. "He's a good Catholic", said his wife, a sturdy resourceful character. Like the man, their son didn't do a hand's turn — though he was a great hulking seven-year-old. Our girls have been pushing cars since they were four years old. The Italians invited us to visit them in Turin. They vowed they would never take their car off a motorway again. We camped, and just beyond the summit snowbank found limestone hummocks with beautiful cushions of *Androsace villosa*.

Switzerland stands for the Matterhorn, of course. When in the mountains, always take spare food and a compass whenever you leave the car. Just a little look round the corner can end in an eight-hour hike where plants entice. People on the Hornli ridge path were tramping on *Eritrichium nanum* — always exciting to a plantsman. On a moraine above the Mattmark See, *Saxifraga biflora* and *S. oppositifolia* hybridise to produce broad petalled bunch flowers of a lovely ruby-rose

colour (*Saxifraga x kochii*). *Pulsatilla vernalis*, sometimes with a blue back to the petals, sometimes pink but always with long sparkling hairs all over the backs of the petals and down the stem, is always attractive. In the wild, there are usually only one or two flowers on a plant, whereas the form in John Duff's garden at Glenfarg has great masses of flowers. In the St. Bernard pass, we found a field of *Crocus albiflorus* beside melting snow. Mice had made runs underneath the snow and had piled up hundreds of corms, presumably their larder. We noticed this crocus in a catalogue at £1.40 per bulb; wealthy mice! On the Italian side of the St. Bernard we found a good big rose-coloured form of *Primula hirsuta* and, after a further search, a gorgeous snow-white one.

The finest plant hunting region in the Alps is the Dolomites, which are approximately 70 miles from Venice. The outstanding pass in the Dolomites is the Rolle. Cimon della Palla limestone is on one side, while on the other side of the road the granite of the Colbricon has a different range of plants. We looked first at the limestone and found *Eritrichium nanum* again. It is strange to relate that Farrer was very doubtful of *Eritrichium* on limestone, yet we easily found it close to the road in the Rolle. *Ranunculus bilobus* is another limestone plant and has deep green evergreen leaves showing off large white flowers. *Campanula morettiana* is yet another speciality of the limestone cliffs, and has compact cushions of small woolly leaves. Across the road on the granite of the Colbricon we found *Saponaria pumilio*, with its cushions of great big pink flowers and a strong scent of strawberries, while down by the stream *Pinguicula leptoceras* sometimes has three white spots on the lower petals, sometimes just one white blob amid the purple. Pinguiculas seem easy to grow in pots if given lots of water. Also beside the stream grows the best of all pyrolas, *P. rotundifolia* with lovely 25 cm tall spikes of flowers. I've only seen this once in a garden — again General Murray-Lyon's in Pitlochry. The Stelvio pass (2758 m) is the highest road in Italy. On the Dreisprachenspitz side we found a gorgeous deep rose-coloured *Androsace alpina*, with some ripe seedpods beside fully open flowers. A field of *Soldanella pusilla* was quite a sight when photographed eleven years ago. The same field is now a car park for huge ski hotels. It is advisable to visit these mountains next summer, before there is more building. Monte Caplone, with its neighbour Mt. Tombea, at the side of Lake Garda, is the site of some very choice plants. *Daphne petraea* grows in cracks on the vertical limestone cliffs above Tremalzo or Magasa.

Its beautiful, waxy, pink flowers certainly qualify it as a choice alpine. On the summit ridge of Caplone there was a field of *Primula spectabilis* with deep and pale rose large flowers. A little below the summit there was a nice deep pink *Rhodothamnus chamaecistus*. It is sometimes pale, but in a deep colour it surely must be one of the most attractive ericaceous shrubs in Europe. Margaret reckons *Silene elizabethae* has rather a crude magenta-pink colour, but the huge 5 cm flowers impress me. This is a plant found only in a very restricted area around here.

We now visit the land of Grüss Gott, Austria, for friendly people and well marked walking tracks. On the summit of Eisenhut, there is a tin box containing a visitors' book. Margaret studied the book but didn't find a single S.R.G.C. name; we expect an improvement next time. Close to the summit, *Androsace wulfeniana* forms compact cushions of bronze-green leaves covered with lovely pink flowers growing on slaty acidic rock. It was worth the nine hour hike. Good forms of *Primula minima* grow here and on the neighbouring Wintertalernock. *Primula glutinosa* is found on the shady cliffs, and there are lots of gorgeous hybrids intermediate between *P. minima* and *P. glutinosa* and clusters of large *minima*-type flowers in glowing colours. The lovely sky-blue *Campanula alpina* is said to be biennial, but unfortunately we have never found ripe seed of this. Lower down growing by a stream, *Callianthemum rutifolium* has very peculiar crinkled leaves. Lower still, in the woodland, the finest of Europe's wild orchids, *Cephalanthera rubra*, grows and is like a miniature *Gladiolus*. This is found in many places in Austria and Switzerland.

While in Austria we bought good cheap climbing boots in a hypermarket at Klagenfurt. These boots are essential on the last mountain that we visit. A stick is also useful in the mountains when traversing steep snowbanks. Margaret also used hers to beat back adders!

In Yugoslavia the reception in the mountain huts is very hospitable. No one minded me lifting down the picture of Tito so that I could take a photo. The last two or three plants are on Triglav where the piton memorial commemorates partisans of the last war. Triglav is spectacular, but very dangerous indeed, with loose crumbly limestone, and any route up involves precipices. It is the wildest mountain we have ever climbed. On the screes there are tiny hard cushions of *Gentiana terglouensis* with beautiful, long-tubed, deep-blue flowers. Also found on this scree was *Ranunculus traunfellneri*, usually squinny, but just occasionally a prize-winning large flowered clone. Our last flower must be *Campanula zoysii*, which we found in the Vrata valley

spreading through the rubble of a dried up stream bed. When growing in a good spot, it spreads rapidly and has a very long flowering season.

Before we finish I'd like to recommend two books. Lionel Bacon's 'Mountain Flower Holidays in Europe' is an excellent guide to take in the car on a motoring holiday. Huxley's 'Mountain Flowers' is essential for plant identification.

Don't hesitate, plan your next summer's route right now.

Plant Note

PERNETTYA MUCRONATA 'Stag River' (Fig. 67)

Shown on 30th May 1981 by Mrs. Jill Sleigh, 18 Garscube Terrace, Edinburgh.

It is not often one sees fruits and flowers at the same time on a plant, but pernettyas are well known for this. Among the various forms that exist within the species *mucronata* there are some which are extremely garden-worthy and are so variable that it seems strange another form should receive an Award of Merit. But this has occurred and without doubt *Pernettya mucronata* 'Stag River' well deserves this honour.

The plant shown was well grown, having been lifted from the open ground from a shady part of the garden which is always moist and top-dressed with peat. It was well furnished with masses of white flowers and carried just as many pinkish-mauve berries. The fact that no other *Pernettya* grows in the garden clearly indicates that the flowers must be self-fertile, therefore hermaphrodite, a useful character in *Pernettya* where the flowers are usually dioecious. The whole plant measured only 22 cm in height and 55 cm in width and was compact. The leaves were glabrous, very slightly serrulate and carried the distinctive pointed tip. This dwarf evergreen shrub was four years old.

The history has been easy to trace. The original plant was raised by Jack Drake some years ago from seed collected in Patagonia by Mrs. Ruth Tweedie. This distinct form was selected from the resulting seedlings and has been offered by Inshriach Alpine Plant Nursery under the name *Pernettya mucronata* (dwarf form). The cultivar name 'Stag River' was suggested by Mrs. Tweedie and is the name of her farm in Patagonia where she harvested the seed.

J. S.

Postscript from Plan de Gralba

by NORMAN WOODWARD

THE VAL GARDENA, the Sella and the Pordoi Pass areas have been well written of in the past,¹ so what is there to say about the second and third weeks of July 1981, beyond that we used suncream on one day and waterproofs on six days. The Val Gardena and surrounding areas had, at one time, 48 hours of continuous rain, floods around Bolzano produced a brief disaster area, large rockfalls descended on the Bolzano-Brenner Autostrasse, and up to six inches of snow fell on the higher ground from 1800 metres upwards. Plan de Gralba is at 1875 metres. Previous writers have observed that the weather may be unreliable in July!

Reading back many years through *Journals* and *Bulletins*, and not taking Farrer too literally, one gets the impression that the number of visitors has increased vastly, whilst conversely, the number of choice plants on the more accessible routes has correspondingly diminished. True, we were rather late in the year; primulas, pulsatillas, anemones, crocuses, soldanellas and other early bloomers were over, but, whilst some areas were still colourful, there was little of interest in others. Particularly the Vallelunga, for example! This long, wide, level valley running north-east for four kilometres from Selva has been spoken of in glowing terms. We found it to be a vast cow pasture and picnic area. '*Phyteuma comosum* grows on the sheer cliffs along the valley . . .', they said. There are at least nine kilometres of sheer cliff, practically all guarded at the base by deep conifer thickets with a dense undergrowth of willow and *Rhododendron*. We found no *Phyteuma*, nor *Cypripedium*, nor *Rhodothamnus* (for which we were probably too late anyway). The *Rhododendron*, both in this valley and elsewhere, mostly *Rhododendron hirsutum*, but with some *R. ferrugineum* as well, was good, and in one part of the woods *Pyrola rotundifolia* was widespread. Close by, a huge scree cuts through the woods almost to the valley floor. Prominent amongst its flora were *Gypsophila repens*, often quite pink, and *Campanula cochlearifolia*. Perhaps the head of the valley, a little earlier, and with a little more time to explore, might have revealed more of interest. It was before entering the valley proper that we had most reward for our searching, around the castle. 'Castle' is perhaps rather flattering for the ruins of what appears to have been

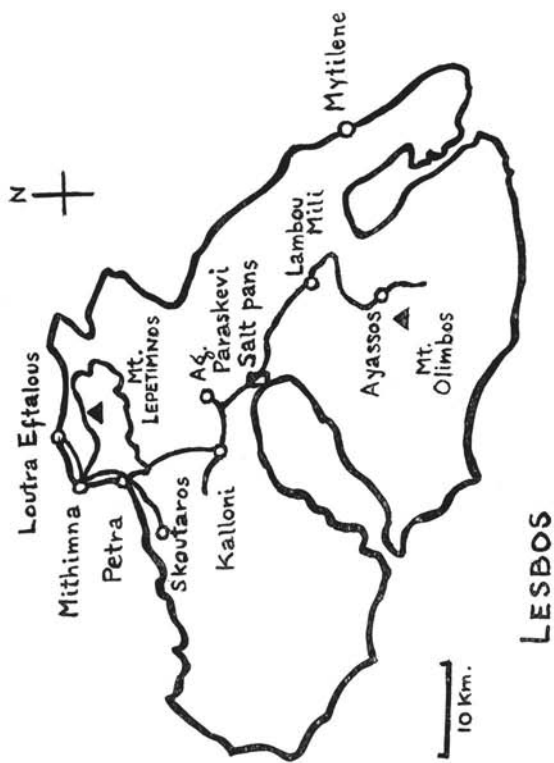


Fig. 64—Map of Lesbos (See page 277)

C. North

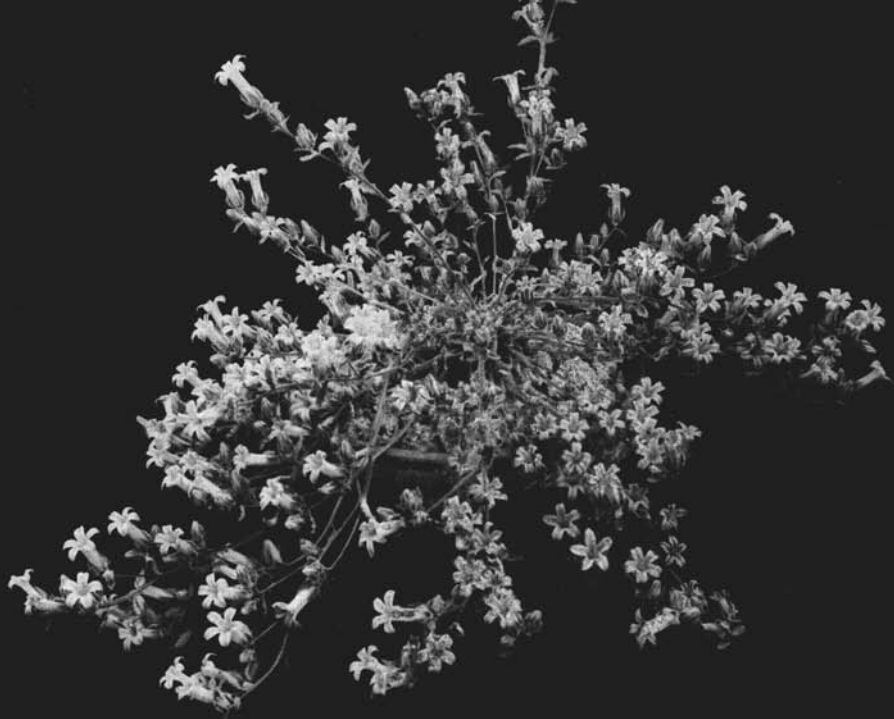


Fig. 65—*Campanula rupestris* (See page 278)

Photo—H. Esslemont

Fig. 66—*Saxifraga florulenta* (See page 307)

Photo—H. Esslemont





Fig. 67—*Pernettya mucronata* 'Stag River' (See page 311) Photo—Jill Sleigh

Fig. 68—*Phyteuma orbiculare* (See page 314)

Photo—H. Eslemont





Fig. 69—*Lewisia rediviva* (See page 337)

Photo—H. Eslemont

Fig. 70—*Gentiana depressa* (See page 340)

Photo—The Late David Wilkie



little more than a fortified ledge of the cliff face just before the entrance to the valley. Paths zig-zag up across wooded, stony slopes from the road to the ruin. Where the path reaches the foot of the cliff we found *Physoplexis comosa* (although everybody still calls it *Phyteuma comosum*). Not a lot of it, two or three single flowered plants and one with four heads, all, significantly, just out of reach of a good arm's length plus a walking stick. The path continues up along the foot of the cliff for a short distance, and just before reaching the remains of the castle's door *Artemisia nitida* was growing amongst the rocks between the path and the cliff, quite an attractive plant with feathery, silver leaves and 20 cm high, one-sided spikes of yellowish flowers.

Between the castle and the road is a terrace walk, a much better access to the valley than the main road, which wends its way past the army camp, dog-less² and rather deserted, to the car park. On the slopes above the terrace grew the bright blue stars of *Gentiana utriculosa*, an annual, with the flowers rather overbalanced by the large, broad-winged calyces below. Keeping it company roundabout was a *Dianthus* (*D. sylvestris*?), and a large yellow daisy, *Bupthalmum salicifolium*, whilst in places, and even alongside the terrace walk, the dark red helleborine, *Epipactis atrorubens*, was just beginning to open its lowest flowers. Two other plants thereabouts were *Horminum pyrenaicum*, widespread in meadows throughout the area at the start of our trip, and the delightful small fragrant orchid, *Gymnadenia odoratissima*. The roadsides at Plan de Gralba particularly suited this miniature which grew there by the hundred, 10 to 15 cm tall, with dense, fragrant flower spikes of fifty or more flowers, ranging in colour from white to reddish-pink. It seemed to flower slightly earlier than its larger relation, the fragrant orchid, *Gymnadenia conopsea*. Although both were in flower for some time together, we saw nothing that suggested a hybrid.

Walking on the roads required strict attention to traffic for survival, footpaths being the exception out of towns, which did not give much time for flower gazing. However, in addition to the orchids already mentioned, the only martagon lilies we encountered were along the edge of the wood on the Selva-Plan de Gralba road. Fortunately, one can walk from Selva to the Sella Rifugio via Plan de Gralba by various combinations of footpaths and ski-runs much more peacefully. One of the phenomena of this area is the general absence of streams during the summer, even after heavy rain, the only local one being from near the Sella Rifugio down the valley to Selva and beyond. No doubt

there were underground streams, and on the path down to Selva from Plan de Gralba several side-valleys had 'rivers' of the yellow wolfsbane, *Aconitum vulparia*, running down them, the plants presumably following the line of most moisture. Plan de Gralba to the Sella Pass gave us woods, meadows and screes. *Campanula cochlearifolia* was widespread in the screes, and in any other rocky place, together with the yellows of *Saxifraga aizoides* and *Papaver rhaeticum*. *Thlaspi rotundifolium* was there in flower the first week, and setting seed before we left. *Phyteuma orbiculare* (Fig. 68) and *Paederota bonarota* added blue to the colours and *Dryas octopetala* grew almost everywhere. Was it the height, we wondered, that resulted in flowers as large as any we had seen anywhere, but with extremely small leaves? Wintergreens, *Pyrola rotundifolia*, *Moneses uniflora* and the occasional *Pyrola secunda*, grew in the woods all round, often profusely, whilst the Frog Orchid, *Coeloglossum viride*, was not uncommon. We were just in time to see the last of *Clematis alpina* draping its blue flowers over the red of the alpenrose. Although too late for the flowers, we were surprised to see how widespread *Soldanella* leaves (*S. alpina*?) were in these woods. We had always thought of soldanellas as growing through melting snow in meadows, not deep in herbage beneath conifers.

The meadows were as colourful as ever, largely with composites and legumes, the light blue and white of the milk vetch, *Astragalus alpinus*, contrasting with the yellows of hawkweeds, the deep orange-red of *Crepis aurea*, and the purples of *Pedicularis*. Higher up, further shades of medium and light blue were added by *Campanula barbata*, a plant which seems to grow much smaller in the wild than in cultivation. Also common in the meadows throughout the area, but less numerous, was the vanilla orchid, *Nigritella nigra* and *N. rubra* (both now combined, I believe, as *N. miniata*).

The slopes above the road beyond the Sella Rifugio produced *Gentiana punctata*, whose rather dingy, yellowish-brown flowers I find a little difficult to consider as a gentian, let alone become enthusiastic about them. Here also was a case of the usual trend in plants towards increasing dwarfness and compactness at altitude being reversed. A fortnight earlier on Holy Island, off the Northumberland coast, we had seen wide stretches of thrift, *Armeria maritima*, on the salt flats along the edge of the beach with flowers only 2-3 cm high. On the Sella Pass, whilst not forming large mats, the mountain thrift, *Armeria maritima* subsp. *alpina*, formed clumps of six or more stems 15-20 cm tall, with large heads of bright, rosy flowers. The grassy slopes up to

the ridge linking the Col Rodella with the Sasso Lungo, whilst lacking the overall colour of the meadows lower down, still had many flowers. *Loiseleuria procumbens* and the pulsatillas were over, and so were the primulas, except for one *P. minima* and one bud, and in the same hollow was *Gentiana acaulis* (*kochiana*?), including one blue and white flower. C. C. Mountford,³ the late editor of the A.G.S. *Bulletin*, encountered similar plants near the Pordoi Pass before the last war, and attributed this aberration to constricting grasses restricting the opening of the bud, and producing a permanent etiolated effect! This theory, unlike the piebald gentians, does not seem to have survived. *Ranunculus seguieri* still grows in places on the ridge, and *Gentiana bavarica*, *Aster alpinus*, *Androsace chamaejasme*, *Silene acaulis*, *Geum montanum*, various helianthemums, potentillas, veronicas and *Pedicularis* were not hard to find, together with a few late flowering *Anemone baldensis* and the occasional edelweiss, much more attractive in its native setting, where it seemed to be mostly flower with little leaf, than the opposite, which so often occurs in cultivation.

The screes above the meadows and below the cliffs of the Sasso Lungo had, in addition to *Dryas octopetala*, two interesting finds. To the first we were led, or misled, by its fragrance, and prematurely assumed that we had found *Thlaspi rotundifolium* growing in large mats. But, despite the large mats and tight heads of fragrant, pink flowers, it was not *Thlaspi*. A page by page search eventually ran it to earth, and left us wondering. Here was a plant with, apparently, all the attributes of a first class, high alpine scree plant — large, compact mats, covered with low, tight heads of fragrant, pink flowers — and we had never heard of it. More than that, we could find no reference to it in any of the *Journals*, and only three in over fifty years of *Bulletins*, two 'mentions in passing' long ago, and a brief paragraph and picture over a decade ago. The seed lists (various) did list it once, a few years ago, but with a query, and it does not seem to appear in nurserymen's catalogues. We were left wondering, is *Valeriana supina* either as awkward in cultivation as *Eritrichium nanum*, or does it grow so much out of character as to be not worth growing?

Much less mysterious were the large mats of *Potentilla nitida* that we found, some growing on boulders, along with edelweiss and *Dryas*, others flat on the screes, with colours from quite light to very dark red. On one of the largest plants we counted over sixty flowers in bloom, with a considerable number of buds still to open. Up here as well was the only plant of *Daphne striata* with any appreciable amount

of flower, in this case some thirty or more flower heads. Whilst the *Daphne* was quite widespread, flower heads usually occurred singly and far apart.

What we may have said about our holiday weather would surely have paled into insignificance compared to the eruption which would have exploded from Farrer had he been able to revisit the Pordoi Pass and the Vial del Pan with us, the former resembling Hampstead Heath on Bank Holiday, the latter a four foot wide emulation of Blackpool promenade in August, with everything except fish and chips being served at the Rifugio Vial del Pan! And flowers? Well, it was well into July, but a few geums survived, and nigritellas and *Campanula barbata* were still numerous. There was a sparse smattering of orchids, one possibly an early purple orchid, *Orchis mascula* ssp. *signifera*, and the other definitely the globe orchid, *Traunsteinera globosa*, together with one or two plants of the yellow-flowered *Sempervivum wulfenii* and the merest trace of *Eritrichium nanum* on one of the rocks alongside the path. More *Eritrichium* was reported from higher rocks at the gap just past the Rifugio. However, the views of the Marmolada with the Lago di Fedaià down below, the Dolomite peaks to the east and west, and the very impressive southern face of sheer cliffs of the Sella Gruppe are probably still much the same, and still as impressive as in Farrer's days. A short venture up the end of the ridge above the Vial del Pan produced more gentians, including *G. brachyphylla*, with *Androsace obtusifolia* and *Leucanthemopsis alpinum*. Although, or because it is less accessible, I feel this ridge could be better for flowers than the much more well known path below it.

Declining the opportunity of having a whole day to pack and prepare for home, two of us embarked on the breakfast time bus for the Gardena Pass. We had been there earlier, on our second day, having walked down to Selva, thence to be elevated by the Dantercepies telecabina to the meadows above the top of the Pass. Much of what we found there we were to see elsewhere later — *Nigritella*, *Leontopodium*, *Horminum*, *Rhododendron*, *Dryas*, *Gentiana acaulis*, *Silene acaulis* and *Phyteuma orbiculare*. Here also was the first *Potentilla nitida*, growing in minute cracks on the tops of scattered boulders, with *Saxifraga caesia* still in flower in crevices on the sides. Two achilleas, *A. clavennae* and *A. oxyloba* were there, the former growing, and flowering profusely, in apparently soil-less, stony ground; the latter not quite so impressive, despite being a rarer and protected plant with larger flowers. The southern butterwort, *Pinguicula leptoceros*, flourished there,

including one patch of over twenty flowers all of which had not merely a white throat, but the whole of the three lower petals white. That first visit had been overtaken by rain in the early afternoon, with a subsequent dampish, but not uninteresting, four mile walk back along the road to Plan de Gralba. More correctly, it was 6.8 km, and we found one advantage of metrication. 'Milestones' every tenth of a kilometre flash past much more rapidly than every 1760 yards!

There was no rain, though, on this final walk, just sun and clouds, and we were bound, we hoped, for the Val Khedul, another walk much written about in the past. The Pizzas da Cir along the northern side of the Gardena Pass are a formidable looking set of peaks, jagged dolomitic pillars and crags soaring to nearly 2600 metres, and apparently offering no passage to any but experienced and well equipped mountaineers — and the Val Khedul was on the other side. Well, others had been before, and survived. Had we had the mountains to ourselves, as at first we had, the discretion that comes of the desire for a long and happy retirement might have prevailed, but before an ignominious retreat had really been considered, we were being overtaken not merely by many younger and fitter travellers, but by appreciable numbers of five- and six-year-olds, clad in sandals, shorts and teeshirts, skipping aloft with unconcerned alacrity. We toiled on! The eventual summit is a narrow ridge with, on one side and behind, a lunar landscape of jagged rocks, ahead, and far below, the head of Val Khedul, steep-sided, sheer in places, dropping down to the foot of the Valle Lunga beside Selva. The ridge was crowded, and the footpath ahead seemed to vanish into empty space, but again, inspired, or shamed, by the much younger generation, we found the track across a long, steeply sloping scree firm and easier than it looked. Halfway along it, we left the crowds, who were probably heading for the Rifugio Puez-Hutte along Alta Via n.2 (an Italian equivalent of the Pennine Way), and turned down into the head of the Val Khedul. Within a few minutes we had found *Ranunculus seguieri*, *Hutchinsa alpina*, just a few remaining *Soldanella minima*, the smaller form of *Gentiana bavarica*, *G. bavariva* var. *subacaulis* with small, almost imbricated leaves, and *Gentiana verna*. This valley falls in four 'steps', increasing in size from top to bottom. The top two steps are large, stony and grassy, flanked by steep screes, the lower two are wooded, with sheer cliffs behind the woods. The upper two had most to offer, as might have been expected. Further finds up there were *Gentiana nivalis*, *G. terglouensis* and a *Gentianella*. *Potentilla nitida* was common again, varying from light

to dark red forms, whilst *Helianthemum alpestre* and *Dryas octopetala* were widespread. The grassy parts held edelweiss and many good colour forms of *Silene acaulis*. *Rhododendron hirsutum* formed a link between the upper and lower ends of the valley, growing both in the rocky parts above and in the woods below. There was not a great deal in the woods beyond *Horminum pyrenaicum*, nearly over, and a few *Campanula scheuchzeri*. This was another 'waterless' valley. A large waterfall descended halfway down the cliff on one side and then vanished without trace, whilst a small stream which did appear about halfway down the valley lost interest after only a few yards and vanished. Only when we had reached the Valle Lunga did a large stream then emerge from under a huge boulder.

The Val Khedul is definitely a valley to walk down, being some 3 km long, and dropping nearly 1000 m (i.e. nearly 1 km) from top to bottom. The one-time lane from its junction with the Valle Lunga is now an avenue, or several avenues, lined with modern hotels and guest houses, culminating in the middle of Selva with a magnificently arcaded Hotel Oswald, resurrected, phoenix fashion, from the rubble of earlier reported demolition. It is interesting to note that the buildings hereabouts appear to owe more to the Swiss chalet style of architecture than to any traditional Italian influence. There is also a very distinct feeling for working with wood, a consequence, no doubt, of the wood-carving traditions of the valley. Those more interested in flowers than buildings should visit the bookshop opposite the Hotel Oswald. Despite having 'no Italian and little German', we felt that the two volumes⁴ we bought there were well worth the extremely modest price we paid for the several hundred first class illustrations on high quality paper alone. (And a set of twenty good postcards of local flowers costs less than one pound). Nor are hotels the only changes in Selva. Anybody reading a recent book⁵ on mountain holidays, and hoping to reach Selva by an Italian 'High Speed 125' train should think again. This now defunct line was originally built as an Austrian military supply route from the main line at Chiusa, north of Bolzano, to Plan, at the eastern, top end of Selva. The first half, from Chiusa to Ortisei, is now the road link from the Brenner Autostrasse (there is no interchange at the bottom of the Val Gardens). The upper half links Ortisei, St. Christina and Selva as a new footpath, obviously well graded and away from the busy main road.

And there is probably the clue to the best flowers now-a-days, get away from the main roads and routes, to the top end of the Valle

Lunga, the two top levels of the Val Khedul, the high meadows and screes below the Sasso Lungo, the top and the northern face of the Col del Cuc above the Vial del Pan, and the high screes beyond the Rifugio Vial del Pan. The flowers are still there, but a bit further and a little harder to get at, but it is well worth getting there.

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Show Reports

MORECAMBE—21st March

SHOW SECRETARIES are prone to worry about how the weather on Show Day will turn out. The day at Morecambe could not have been wetter nor the floods around the show hall more threatening, but inside all this was (almost!) forgotten amid the tables of plants and the bustle and chatter of a hall-full of enthusiasts.

Several plants worthy of a Forrest Medal were staged but eventually one was carried in and caused a hush among the exhibitors which was remarkable, as was the sight of experienced exhibitors walking round to have yet another look. It was duly awarded its Forrest Medal. The plant was Eric Watson's *Dionysia freitagii* and comfortably filled a 9 in. dwarf pot with a perfectly formed low mound evenly covered with the $\frac{1}{2}$ in. diameter violet flowers of its species. Closer examination revealed the neat foliage patterned by raised veins and given a matt texture by short glandular hairs. The large size and robust health of this specimen caused it to be compared with the larger *Kabschia saxifrage* exhibits rather than other dionysias and androsaces. The experienced grower found the *Dionysia* flattered by the comparison but the less experienced viewer was rather alarmed by the great variation in flower colour with age in the *Dionysia* and tended to prefer the solid yellow crenalated petals of a beautiful and similarly sized cushion of *Saxifraga* 'Faldonside', or the softer beauty of a 9 in. pot of *Cyclamen libanoticum* which richly deserved its Certificate of Merit. The *Cyclamen* was

staged by Alan Stubbs of Leeds, whose beautiful *Cyclamen* exhibits have been described before in these pages and who was heard later discussing the advantages of spent mushroom compost as a component of *Cyclamen* potting composts; high humus content, high nutrient content, excess acidity neutralised by limestone

Saxifraga 'Faldonside', staged here by Wilf Kirby of Preston, is not at all easy to grow satisfactorily to a large size and we are pleased that an early show-date gives us an opportunity to see such lovely plants. Another saxifrage of note was the Nepalese *S. hypostoma* staged by Eric Watson, a true high alpine cushion some 3 ins. in diameter, its minute green leaves silver tipped below the white flowers. In complete contrast was *S. oppositifolia*, which grows wild only twenty miles from the Show Hall, shown in a good large-flowered form by Dr. Farmer of Barnoldswick and filling a 6½ in. pan with royal purple.

Saxifraga lilacina, the pink lime-hating species from the Himalayas, was one of the six plants in 6½ in. pots which won the A.G.S. Silver Medal for Duncan Lowe. With it went *Primula marginata*, the silver cushions of *Raoulia mamillaris* and *R. bryoides*, and the farinose and efarinose forms of *Dionysia tapetodes* — a cultivator's tour-de-force indeed and linked together by the predominance of silver foliage. All had been grown out-of-doors in a raised plunge-bed and were as compact as could be desired.

One of the lovely plants which helped Mrs. V. Lee to gain the most points in Section 'C' was the tricky *Primula aureata*. The thick silver-cream farina formed an even coat over the 4 in. rosette of irregularly edged leaves and made a perfect background for the lovely inch-wide white flowers within their deep yellow centre. This plant remains difficult to propagate and hence rare in cultivation. Many other Asiatic primulas were shown in good heart and beautiful flower and were widely admired. Recent discussions have caused the Show Report writer to baulk at naming some of the exhibits and Stan Taylor of Warwick, whose lovely exhibits won him the Hollet Trophy for the open classes, at least admitted that his superb Asiatic primula was a hybrid! Dr. J. Richards, Newcastle, in winning the newly presented Michael Roberts Memorial Trophy, showed *Primula irregularis* in a fine robust form collected in 1978 in Sikkim by H. Templer.

It is reliably reported that a majority of the fine plants of *P. edgeworthii* which were staged probably arose from seed sent from Nepal by Ghose in 1979.

A less familiar primula was *P. inayatii* (Mr. A. Holman, Milnthorpe).

The leaves of the starfish rosette were 10 cm long with one-third of that length the winged petiole. The upper surface was glossy mid-green with a lighter green midrib and the lower surface was covered with farina, *P. inayatii* being in a sub-section of its own in the section *Farinosae* of the *Primula* family. From the rosette arose a 5 cm high scape topped by six 1 cm long pedicels each holding a pale lilac flower with a white eye. In the wild it inhabits a small area in north-western Nepal and Kashmir.

Two non-competitive exhibits made a striking addition to the show and were particularly commended by the judges by the award to each of a Gold Medal. Paul Christian had brought along from north Wales a most comprehensive collection of spring flowering bulbs, most of which are rarely seen on the show bench or indeed anywhere outside the gardens of the small bulb enthusiast. All were delicately beautiful and, in addition, all were accurately named! John Leedal contributed over fifty wonderful colour prints of alpine plants in the wild ranging from close-ups to studies capturing the moods of the mountains themselves with the emphasis on the plants and mountains around La Garda in northern Italy.

DAVID MOWLE

STIRLING—28th March

STIRLING'S first Show, held on Saturday 28th March 1981, was a very successful occasion. Exhibitors came in force from far and wide to support it. The quality of the plants was excellent and the hall was well filled. It was a pleasant contrast to walk in from the grey wet day outside, to the spacious well-lit hall and to see the colourful stands of primulas, narcissi, fritillarias and tulips, and to breathe that special fragrance which spells 'Early Spring Show'.

The George Forrest Memorial Medal went to Mrs. Bette Ivey's superb *Dionysia aretioides*, a perfectly symmetrical dome fully eighteen inches across, covered in primrose-yellow flowers, and in immaculate condition. The same plant also won the Institute of Quarrying Quach, awarded to the best non-European plant in the Show. *Dionysia aretioides* is a native of the Elburz Mountains in Iran. It was introduced in 1959 and appears to be firmly established in cultivation as an alpine house plant.

In Class 1 (Three Pans Rock Plants of different genera) Mr. Eric Watson's entry of *Androsace vandellii*, *Primula allionii* 'Apple Blossom'

and *Dionysia aretioides* came first. The *Androsace* was awarded the new trophy which has been given to Stirling Show by the Ben Ledi Alpine Plant Nursery for the best European plant in Section I. *Androsace vandellii* is an inhabitant of high volcanic and granite cliffs in the Central and Southern Alps, where it makes dense cushions of silvery-leaves covered in season with stemless pure white, yellow-eyed flowers.

The winner of the Carnegie Dunfermline Trust Trophy for most points in Section I was Mr. Alexander Leven. His exhibits included well grown pans of crocus, iris, narcissi, tulips, primulas and saxifrages.

Among other plants noted in Section I were *Corydalis solida* var. *alba* with dainty spurred flowers and delicately lobed glaucous foliage, a plant which enjoys woodland conditions. *Synthyris lanuginosa* var. *pinnatifida* with silvery, finely cut leaves and spikes of deep blue flowers is a lovely but difficult plant. These two together with *Haastia pulvinaris*, a tightly packed woolly cushion of closely overlapping leaves comprises Mrs. Sheila Maule's First Prize winner in Class 3.

Two interesting 'home-made' hybrids were Dr. Don Stead's dwarf daffodil, *Narcissus bulbocodium* x *N. triandrus* var. *albus*, and Mr. and Mrs. Henry Taylor's *Primula allionii* x *P.* 'Linda Pope'.

Mr. Harold Esslemont staged three pans of rarely seen fritillaries. They were *F. alburyana*, showing four bright pink, saucer-shaped flowers, the maroon and yellow *F. michaelovskyi* and *F. cardusorum* 'Elliott's form'. Also shown by Mr. Esslemont was the Yugoslavian *Crocus scardicus*, a large pan of beautifully shaped, clear yellow flowers. Two notable juno irises were *Iris graeberana*, flowers of lavender-lilac with darker striped falls shown by Mr. Eric Watson, and the dainty *Iris aucheri*, bluish-lilac marking on white flowers exhibited by Dr. J. Gosden. *Tulipa polychroma* with yellow-centred pure white flowers and glaucous leaves, and also *Tulipa ancilla* with flowers of white, pink and yellow were noted.

Primulas in variety filled one whole side of staging the length of the hall, a big selection of Asiatic and European species and hybrids. These included an interesting colour break in an apricot-lilac *P. scapigera* x *irregularis* seedling shown by Mrs. L. Bezzant, a striking dark violet-blue *P. sonchifolia* grown by Dr. D. Harding, and his *P. allionii* 'Sunrise' covered in pale lilac-pink flowers, a good pink, large-flowered *P. allionii* named 'Elliott's Var.' exhibited by Mrs. J. Sleigh, *P. allionii* 'Apple Blossom' and *P.* 'Joan Hughes' from Mrs. B. Ivey, and Mr. and Mrs. Taylor's unusual holly-like leaved form of *P. marginata*.

A lovely fleshy-leaved form of *Cyclamen libanoticum* with many

shapely pink flowers was shown by Mr. Esslemont. The seldom seen *Cyclamen creticum* with its delicately poised white flowers and silver splashed leaves was shown by Mr. R. Johnstone in Class 26 as well as in Class 3.

Dark lilac, white-eyed flowers covered a splendid plant of *Dionysia viscidula*, an inhabitant of shady crevices in limestone cliffs of Afghanistan. In the class for soldanellas a lovely pink-mauve *S. hungarica* was shown and also good plants of *S. montana*, *alpina* and *carpatica*. Dr. P. Semple's winning three pans Primulaceae exhibit comprised excellently grown and presented plants of *Androsace carnea*, *Dionysia aretioides* 'Paul Furze' and *Primula marginata* 'Drake's Form'.

Of the orchids there appeared the yellowish-brown flowered *Ophrys fusca*, with a well flowered ten inch spike, grown by Mr. R. Johnstone, and the fascinating green-flowered *Pterostylis nutans* shown by Mrs. J. Stead. Her *Saxifraga grisebachii*, well established in its tufa rock, grows in beauty year by year. It had six arching stems of crimson fur-covered flower sprays.

Rhododendron entries included the pink-lilac-flowered and aromatic leaved *Rh. pemakoense* and *Rh. imperator* with rose-purple flowers and glossy leaves, grown by Dr. B. Knights. A big floriferous *Rh. leucaspis*, a most beautiful species, with milky white flowers and chocolate-brown stamens was shown by Dr. P. Semple. Among other Ericaceae *Pieris japonica* shown by Mr. and Mrs. Bremner, *Arcterica nana* exhibited by Miss Joyce Halley, and *Epigaea gaultherioides* grown to perfection by Mr. H. Esslemont were prominent.

In her arrangement of cut flowers and foliage of rock garden plants, Mrs. J. Cobb used *Helleborus foetidus*, *Scilla sibirica* and a white-flowered *Erica* to create a delicately beautiful exhibit.

In Section II the winner of most points, and therefore of the Fife County Trophy, was Mr. Fred Hunt. His collection included well grown and presented plants of *Shortia galacifolia*, *Saxifraga oppositifolia*, *Narcissus watieri* and *Cassiope lycopodioides* 'Beatrice Lilley'. Miss Karen Taylor's exhibits included a very good plant of the pink tufted *Androsace hedraeantha* and a well grown pan of *Anemone blanda*. Mrs. E. Hardy's *Primula aureata* form was a tribute to her skill as a grower. Mrs. D. Duncan, Stirling's newest member at the time of the Show, had a fine pan of a yellow *Tulipa greigii*. Mrs. M. Niven had among other plants a well grown stand of *Narcissus asturiensis*. Mrs. B. Cheyne's *Primula allionii* was a perfect dome of pink flowers, not a leaf visible.

A beautiful display of plants from the Royal Botanic Gardens, Edinburgh, included *Corydalis solida* 'George Baker', with delicate pink flowers over fresh green foliage, *Fritillaria japonica* var. *kordzunuana* (?) from Honshu, tiny square-shouldered bells of green and white suspended on four-inch stems, and the breathtakingly brilliant blue-flowered *Tecophilaea cyanocrocus*, a well flowered plant.

Branklyn Garden's exhibit included the lacy-leaved *Ranunculus mueleri* var. *brevicaulis* with glistening yellow flowers. This plant was grown from seed collected on Mt. Kosciusko, Snowy Mountains, Australia. Also shown here were *Primula bernina* 'Kosciusko Windrush', *Androsace carnea* var. *albiflora* and *Narcissus watieri*.

Dr. Brian Knight's Certificate of Merit winning exhibit of colour prints included well laid out and informative display of rhododendrons, Ericaceae, conifers, flowers of Ben Lawers and wild flowers of northern England.

Hartside Nursery provided an attractive layout of alpine plants. The Stirling Group's sales stall had a busy and rewarding afternoon. The tea room was well patronised and made a welcome break for visitors.

Our grateful thanks are due to the exhibitors, and also to the judges, Mr. David Livingstone, Mr. James R. Aitken and Mr. Robert Mitchell. Tribute must also be paid to all the local members, especially the Junior brigade, who worked hard and long to make the Stirling Show the great success it undoubtedly was.

LYN BEZZANT

PERTH—25th April

Compared with the record number last year, entries were down by ten per cent, probably due, to some extent, to the severe late frost (17 degrees Fahrenheit locally) which occurred two nights before the Show date. It is also likely that the Alpines '81 Conference and its aftermath prevented some members from competing. We missed having the usual members from the Inverness Group, but this was the result of their own Show being held on the same day. Nevertheless, there was an imposing display of plants to judge and we were much indebted to Messrs. R. S. Masterton, R. J. D. McBeath and A. Duncan for their morning's work.

Mr. M. Adair repeated his last year's success by winning the L. C. Middleton Challenge Trophy which is awarded to the competitor who

collects most points from first prizes in Section I. His outstanding plants included *Schizocodon soldanelloides*, *Saxifraga cebenensis*, *Dionysia involucrata* and a magnificent large plant of *Cassiope selaginoides* which was awarded a Certificate of Merit. This member has now clearly shown that he is a master at growing plants of the plant family Ericaceae, having produced at Perth in previous years equally superb specimens of *Cassiope* 'Muirhead' and *Kalmiopsis leacheana*.

The Alexander Caird Cup awarded for the six-pan class was won by Mr. J. B. Duff, his entry consisting of *Daphne petraea*, x *Phylliopsis hillieri* 'Pinocchio', *Fritillaria pyrenaica*, *Lewisia cotyledon* hybrid, *Ranunculus parnassifolius* and *Gypsophila aretioides* var. *caucasica* (ten inches in diameter). The *Daphne* was awarded the George Forrest Memorial Medal for the most meritorious plant in the Show and also the Major-General D. M. Murray-Lyon Trophy for the best plant exhibited by a member residing in Tayside Region. Second in this class were Drs. C. and J. Gosden with *Rhododendron* 'Pipit', *Soldanella montana* var. *villosa*, *Tulipa maximowiczii*, *Claytonia nivalis*, *Dodecatheon alpinum* and *Primula modesta* var. *alba*. Elsewhere in the Show these two exhibitors staged noteworthy plants of *Primula concholoba* and *Cyclamen pseud-ibericum*.

In the Three Pan class there were eight entries giving a great display of good plants skilfully cultivated and presented by some of the best growers in the Club, and it was the veteran of many years experience, Mr. H. Esslemont, who triumphed and carried off the Dundas Quaich with his entry of *Androsace vandellii*, *Kalmiopsis* 'M. le Piniec' and *Cassiope wardii* hybrid. Dr. Semple was second with *Androsace vandellii*, *Calceolaria fothergilla* and a beautiful plant of *Gentiana verna* var. *angulosa*. The third prize went to a new member of the Angus Group, a first time competitor at our Show, Mr. Fred Hunt from Invergowrie, who chose to enter his plants in Section I and did so with considerable success, gaining two first prizes, three seconds and two thirds. His winning plants in the Three Pan class were *Sarcocapnos crassifolia*, *Daphne petraea* 'Grandiflora' and *Cassiope fastigiata*. His other prize winners included *Calceolaria darwinii* and *Rhododendron* 'Snipe' which must have been a close runner-up to the winner of the E. H. M. Cox Trophy. Mr. Hunt is no stranger to gardening but is a recent convert to the growing of rock plants and is obviously a valuable recruit to the Club.

The E. H. M. Cox Trophy for the best dwarf *Rhododendron* in the Show was won by a shapely specimen of the white-flowered American

hybrid 'Dora Amateis', one of the many fine plants on show by Mr. A. G. Leven (Dunblane).

This year a handsome new trophy attracted much admiration. A generous gift to the Show by Mrs. E. M. M. MacPherson, a member of the Perth Group, it takes the form of a silver *Gentiana acaulis* beautifully created by a silversmith resident within the Perth Group area. Named "The Perth Trophy", it will be awarded annually to the member of the Perthshire Group gaining most points in the Show. The donor graciously presented the new trophy to the first winner, Miss G. L. Blackwood. On behalf of the Club, Mr. L. Bilton thanked Mrs. MacPherson. It was most fitting that this honour should go to a member who for many years has so loyally supported the Show, both as an exhibitor and as a helper. Miss Blackwood's winning entries included *Phyllodoce caerulea*, x *Phylliopsis hillieri* 'Pinocchio', *Gentiana acaulis*, *G. verna* var. *angulosa*, *Polygala chamaebuxus* var. *purpurea*, *Kalmiopsis leacheana*, *Ramonda myconi* 'Rosea', *Corydalis cashmerana* and *Ranunculus amplexicaulis*.

Other plants which held my attention as I moved along the tables were *Lupinus lyallii* (from seed), *Adiantum venustum*, *Lithospermum oleifolium*, *Calceolaria darwinii* and *Pinguicula grandiflora* (Henry and Margaret Taylor); *Pulsatilla* 'Carter's form', *Helichrysum orientale*, *Corydalis wilsonii*, *Phlox* 'Chattahoochee', *Orchis mascula*—the early purple orchid, and *Orchis laxiflora* (Dr. J. L. S. Cobb); *Helichrysum coralloides*, a large well-flowered *Androsace vandellii*, *Daphne arbuscula* and *Leucojum nicaeense* (Mrs. E. Ivey); *Campanula alpina*, *Pleione pogonoides*, *P.* 'Blush of Dawn', *Salix myrsinites*, also a pretty *Salix* grown from a cutting taken on the Island of Gigha (Mr. and Mrs. Bezzant) and *Douglasia nivalis* var. *dentata* (Miss J. Halley).

The four entries of Containers of Rock Garden Plants arranged for effect were all greatly admired, the one judged best having been brought over the border from Hexham by Mr. R. R. Brown, whose dwarf conifers always give us so much pleasure. His entries this year included fine specimens of *Chamaecyparis obtusa* 'Nana' and *Picea abies* 'Gregoryana'. Mr. Brown also won first prize in the "New, Rare or Difficult" class with *Cassiope hypnoides*.

Mr. S. Benham's dwarf conifers *Chamaecyparis obtusa* 'Nana Gracilis' and *C. obtusa* 'Nana Lutea' were also a delight to see.

We were glad to welcome to Perth Mr. and Mrs. M. S. Bremner, Langbank. We congratulate them on their well-grown prize-winning plants and hope that they will continue to support the Show.

There was keen competition again in Section II where Mr. Ian J. Douglas won the Bronze Medal for most points with a varied and well presented collection of plants which he has built up over the last few years.

Non-competitive support for the Show was again an important feature of the event. Flower paintings by Mr. Lawrence Greenwood and Mrs. C. M. L. Rockwood and photographs of alpine plants by Lyn and Michael Almond were all of a very high standard and indeed were each in themselves a treat to see, providing a delightful bonus for visitors to the Plant Show.

Displays of choice rock plants were staged by Branklyn Garden (National Trust for Scotland) and by Mr. R. S. Masterton from his garden at Cluny House.

Trade stands by Mr. J. R. Aitken, Orchardbank Nursery, and Mr. Ron Russell, Meikleour, added to the floral display.

We are grateful indeed for all these forms of support.

For the success of the Show thanks are also due to the ladies for their home baking and for preparing and serving the teas; to all exhibitors, particularly those from as far away as the Isle of Arran, Hexham, Aberdeen and Ayrshire; to Bob Brien for his Plant Sale and to his family for providing transport and fetching and returning the heavy and awkward-to-handle tables.

JOHN B. DUFF

ABERDEEN—9th May

A STRANGE spring with warm sunshine in early April followed by devastating icy winds and snow later in the month meant that shrubby plants such as rhododendrons and cassiopes were blasted out of all recognition and did not appear on the show bench at Aberdeen. However, competitors made up for this in other classes so that there was a record number of plants to be seen.

Mr. Crosland produced his usual immaculate display to win the Six Pan Class with *Pleione forrestii*, *Pleione yunnanensis*, *Gentiana verna oschtenica*, *Trillium nivale*, *Androsace vandellii* and *Lewisia tweedyi*; all beautifully matched and in tip-top condition. The runner-up, Mr. Aitken, showed in his collection a compact and floriferous *Celsia acaulis*.

The Three Pan Class was closely contested and was won by Mr. McKelvie who showed the shy-flowering *Fritillaria camschatcensis* at its best. Second was Mrs. Craig who included a splendid pot of

Fritillaria meleagris 'Purple King' with chequered bells 8 cm across. Mr. Aitken in third place excelled with a striking *Tulipa celsiana*, 30 cm tall with white and red pointed petals.

A compact and prostrate *Juniperus communis* won the Scottish Native Class for Mr. Pascoe, while Mr. Esslemont won the Class for two plants raised from seed with *Primula ellisiae* and *Fritillaria acmopetala*. The *Primula* was a good form with notched lavender petals and ample white farina, while the *Fritillaria* had large pale green bells with dark brown stripes. Mr. Esslemont showed another *Fritillaria* (*F. roderickii*), 15 cm tall with glossy green leaves and dark chocolate bells with cream tips to win the Class for Rock Plant raised from seed.

Of botanical interest was Mr. Holmes's *Saussurea* BMW77 with stems covered in dense cotton wool which won Class 6 for rare plants raised from seed. Mr. Esslemont was second with a most delicate *Anemone* JJ266 with pure white flat flowers and pointed petals.

The effect of feeding plants was illustrated in Class 7 for grey foliage. Two plants were shown of *Raoulia x loganii*, of the same provenance, but the one which had been fed was darker green with flat individual rosettes. The other plant, looking like a completely different clone, had much narrower and greyer rosettes.

Class 8 for cushion plants was won by Mr. McKelvie with a well-flowered plant of *Androsace vandellii*, closely followed by a non-flowering bright green cushion of *Dionysia curviflora* in excellent condition shown by Mr. Esslemont.

A superb pot of *Pulsatilla vulgaris* 'Rubra' was a handsome winner of Class 11, but surprisingly it has never set seed, much to the dismay of the many people who requested some. Mr. Aitken won Class 12 with a remarkable plant of *Celmisia ramulosa* with woolly grey leaves and masses of small white flowers, which he had grown in the open garden. This was the first time in 15 years that it had flowered so profusely. The same exhibitor won the Class for Cruciferae with a well-grown plant of *Draba rigida*, a neat pin-cushion 25 cm in diameter covered with bright yellow flowers.

It was interesting to see a number of plants of *Daphne petraea* in Class 14, potential winners in years to come. The winning plant was shown by Mrs. Maule and was more than 20 cm across covered in bloom.

The various classes for Ericaceae had obviously suffered from the early season followed by the frost so that quality plants were rare. Mr. Holmes won Class 16 with a beautiful plant of *Kalmiopsis leachiana*

lifted from his garden in Banchory and covered in bloom. Another excellent plant was x *Phylliopsis hillieri* 'Pinnocchio' with deep glossy green leaves surmounted by unusually deep pink campanulate flowers. Mrs. Simpson won Class 19 with *Rhododendron* 'Carmen' in superb condition. Mrs. Craig won the single *Rhododendron* Class with *R. fastigiatum*, the foliage of which was completely submerged underneath the deep blue flowers.

Cyathodes colensoi with its small white stars over deep glaucous leaves is much less common than it used to be but it is still an excellent dwarf shrub for the front of the peat border; Mr. McKelvie won Class 21 with a plant of this species lifted from the ground. Mr. Aitken was second with a bright yellow *Cytisus hirsutus* var. *demissus*.

Bulbs were not very plentiful but *Tulipa aucherana* (*humilis*) was exhibited by three people in Class 24. Mr. Aitken's pot had its flat lavender flowers well clear of the foliage and rightly gained first prize.

Class 25 for Liliaceae had a large number of entries. Mrs. Maule won with a very uniform pot of *Fritillaria pontica* with its large lime-green bells on 25 cm stems. Another excellent *Fritillaria* was *F. pyrenaica* shown by Mr. Holmes, and also *F. 'Saturnus'* shown by Mr. Esslemont.

There were six immaculate pots of *Pleione* in Class 26 with Mr. Crosland winning first prize and the Forrest Medal for *P. limprichtii*. This was a 30 cm pan with more than 50 deep pink flowers all in the peak of condition. Mr. Kent's *P. 'Blush of Dawn'* had the real fresh look one would expect from its name and was awarded second prize.

Mr. Esslemont won the Class for Orchidaceae with the unusual *Cypripedium formosanum*, native to Japan and Taiwan. It had enormous pale scalloped broad rugose leaves and a single pale lime flower on a 20 cm stem.

Phlox adsurgens had in many gardens suffered from the bad weather and its great enemy, slugs, but Mrs. Kent overcame these difficulties to win Class 28 with an excellent plant. Mr. Aitken won Class 29 with a large pan of *Douglasia vitaliana* which was extremely well-flowered. Mr. Holmes's second place *Cortusa matthioli* was in superb condition and the leaves had a real Japanese appearance about them.

The *Primula* Classes were rather short of quality plants but Mr. Holmes's entry in the Two Pan Class with *P. petiolaris* and *P. ioessa* was rightly awarded first prize. A large elegant white form of *P. sieboldii* with deep serrated petals was included in Mrs. Williamson's second place entry. *Primula aureata* is not an easy plant to exhibit

well, but Mrs. Maule won Class 31 with a good form with deep farina and large flowers. Mrs. Williamson's *P. reidii* hybrid with large heavily scented white flowers was second.

It is good to see double and laced primulas coming back into fashion. Mrs. Williamson won Class 32 with a neat *P.* 'Barnhaven Lace' and *P.* 'Rufus'. Mr. Holmes's attractive *P. auricula* and Mrs. Sleigh's *P.* 'Apple Blossom' were the best in a good class of European primulas.

There was a good collection of *Ranunculus* in Class 36 with the winning *R. parnassifolius* a magnificent example with glistening white petals, all the more praiseworthy because there are a number of poor forms of this species in circulation. Mr. Aitken won Class 37 with a panful of *Calceolaria darwinii* seedlings showing a wide range of flower types, some definitely worth selecting.

Dr. Hardy won the Class for saxifrages with the unusual *S. pubescens* ssp. *iratiana*, 8 cm tall with soft leaves and white petals streaked pink. There were few gentians on display but Mrs. Craig showed a magnificent plant of *G. acaulis* which had more than 30 large blue trumpets fully open.

There was a good collection of lewisias on display. Mrs. Craig won the Two Pan Class with good forms of *L. cotyledon* and Dr. Hardy had a beautiful *L. brachycalyx* of a soft diffused pink colour. Mr. McKelvie won the Single Pan Class in face of considerable opposition with a large-flowered white form of *L. brachycalyx*.

In Class 45 for plants not eligible for other classes Mr. Holmes won with a gorgeous pan of *Papaver alpinum* and Mrs. Williamson was second with the blush pink *Rhododendron* 'Margaret Rose'.

Mr. McKelvie retained the Walker of Portlethen Trophy for the most points in Section I. Mr. Aitken was a close runner-up.

In Section II, Mrs. Buyers won the Bronze Medal by a large margin. Among her plants were *Calceolaria darwinii*, *Primula auricula*, *Primula denticulata* and a splendid collection of sedums and sempervivums. Mrs. Gordon won the Aberdeen Quaich for the best plant in Section II with an unusual *Pinus sylvestris*, sown in 1963 from a packet of seed bought at the Royal Highland Show, but still only 20 cm tall. All the other plants raised from the packet turned out to be giants. Mrs. Parrish won the Shrub Class with a 35 cm tall *Cytisus beanii* smothered in yellow flowers. Dr. Smith won Class 54 with a neat compact *Picea mariana* 'Nana' with soft green new growth, and also Class 57 with a sweet scented *Triteleia uniflora*. There were three glorious pleiones in Class 58, which Miss Howlett won with a delicate pink *P. pricei*.

Class 60 for primulas was won by Mrs. Kent with a well-grown *P.* 'Ice Blue' and she also won Class 63 with a double *Anemone nemorosa*. Mrs. Hardy won the *Lewisia* Class with a floriferous deep pink *L. cotyledon* while Mrs. McKelvie won Class 72 with a large-flowered deep blue *Oxalis laciniata*.

Mrs. Bull won the three Classes for arrangements and containers of rock plants and flowers. Miss Wendy Martin won Class 77 for a vase of cut flowering shrubs and Class 79 for Junior Members with a neat *Sedum* while Master Michael Bull won two prizes with *Primula* 'Elpinor' and *Cassiope* 'Edinburgh'.

Non-competitive exhibits were staged by, and Certificates of Merit awarded to, Mr. J. N. Aitken, Dyce, with a collection of *Primula auricula* hybrids, Mr. J. Lawson of Jack Drake, Aviemore, with a splendid display of alpine plants; Mrs. Mary McMurtrie of Balbithan House, Aberdeenshire, with a neat display of miniature garden plants; Mr. R. Rutherford and staff of the Cruickshank Botanic Garden, Aberdeen, with an eye-catching display of well-grown plants, and the Aberdeen City Department of Leisure and Recreation, Alpines Section, Victoria Park, Aberdeen, with a comprehensive display of a wide range of plants for rock and peat gardens. Glenbuchat showed an excellent collection of hand-thrown clay pots with an impressive range suitable for all kinds of gardening. Thanks are due to the many people who ensured the success of the Show, particularly the exhibitors who contributed to the record number of entries; to the judges, Mrs. Maule, Mr. Sutherland and Mr. Duguid, who judged Section I and to Dr. Hardy, Mr. Holmes and Mr. McKelvie who judged Section II; to all who assisted as stewards or with the sale of teas and seeds.

Especial thanks are due to the Joint Show Secretaries, Mrs. Sylvia Simpson and Mr. Jack Crosland, particularly the latter who was officiating as Show Secretary for the last time, having given unstinted years of service in this onerous and vital job.

A. D. MCKELVIE

GLASGOW—16th May

1981 WILL no doubt be remembered as the year when excellent spring weather pushed on the growth of our plants, to promise marvellous displays for late April and early May, only to be followed by the disastrous frost of late April when flowers, buds and fresh foliage were destroyed. Ericaceae was particularly badly hit, resulting in no entries

at all for Class 4 and few entries elsewhere. In general, however, entries for all sections were about normal and there was even a marginal improvement in Section II.

The Dr. William Buchanan Rose Bowl for six pans was won by Margaret and Henry Taylor with *Phlox* 'Chattahoochee' and *P. triovoluta*, *Erodium petraeum* ssp. *glandulosum*, *Campanula alpestris*, *Nolana paradoxa* and *Androsace alpina*. Dr. Semple was second, his plants including *Primula bellidifolia*, a fine pan of *Gentiana verna* var. *angulosa* and *Primula forrestii*.

The Henry Archibald Challenge Rose Bowl was awarded to Dr. Semple for fine plants of *Saxifraga demnatensis*, *Cypripedium calceolus* and *Lewisia cotyledon* var. *alba*. Other good plants in this class included *Corydalis cashmeriana*, *Cypripedium parviflorum*, *Oxalis* 'Ione Hecker' and *Calceolaria darwinii*.

The William C. Buchanan Challenge Cup was awarded to Margaret and Henry Taylor. Their plants included a fine *Sarcocapnos crassifolia*.

As already mentioned, there were no entries for the Edward Darling Memorial Trophy.

The Forrest Medal was awarded to the Taylors' *Phlox* 'Chattahoochee', a magnificent plant two feet across and covered in bloom. It may be of interest to note that the Taylors find this plant to do much better in their alpine house than out of doors. This plant was closely followed by *Phlox triovoluta*, also large and floriferous, which received a Certificate of Merit.

Margaret and Henry Taylor also took the Crawford Cup for the most firsts in Section I, closely followed by Malcolm Adair.

The James A. Wilson Trophy for the most points in Section II was awarded to Dr. M. McCallum.

Mr. and Mrs. N. Rutherford made a clean sweep of the trophies in Section V (Rhododendrons), taking the Urie and Challenge Trophies and also the Sir John Stirling Maxwell Trophy for the best individual spray of a species, namely *Rhododendron yakusimanum*. Entries in this section were up on 1980 and it was a pleasure to note one or two new names among those of the exhibitors.

By no means all the good plants were in the trophy classes, as the following general account will show: In Class 5 was the Taylors' *Viola cazorensis*, a rarely seen plant; despite the general lack of Primulas several good plants of *Primula reidii* var. *williamsii* in colour from blue to white, *P. ioessa* and *P. griffithii*; fine *Androsace pubescens* and *A. vandellii* from Mrs. Ivey; dodecatheons in lovely condition in Class 19;

masses of *Rhodohypoxis* flowers in Classes 27 and 28; no less than three pans of *Calochortus uniflorus* in Class 30; thirteen entries in Class 38, where the best *Lewisia* was Mrs. Sillito's *L.* 'George Henley'; M. Adair's *Silene hookeri* in Class 43; a very fine *Rhododendron yakusimanum* from Mr. and Mrs. Kissen in Class 46; *Menziesia ciliicalyx* in Classes 47 and 48; *Viola labradorica* in Class 55 which, incidentally, resulted in a reduction of the stock of this plant at Finlaystone Gardens the week after the Show; *Pleione formosana* 'Snow White' and *P. yunnanensis* from Mr. J. Crosland in Class 56; *Dionysia involucrata* raised from S.R.G.C. seed by M. Adair in Class 59, and a number of miniature gardens in various classes.

The trade was well represented by Mr. J. Ponton of Legerwood, Hartside Nursery of Cumbria and Marchburn Nursery of Carlisle.

Thanks are due to the exhibitors without whom there would have been no Show, to the judges for their application in allocating the prize tickets, and to the innumerable members who ran the bakery stall and laboured unceasingly from the setting up of the Show to the final clearing of the hall at the end of the Show.

Finally, please note that the 1982 Glasgow Show will be held in Milngavie. Details will follow later.

CHARLES M. SIMPSON

NEWCASTLE UPON TYNE—23rd May

THE WEEK prior to any Show seems always to throw undue attention on show secretaries generally. Many additional factors undoubtedly added to the thoughts of the Newcastle Show Secretary, Ray Johnstone. These included the decision to hold a late May Show instead of the normal early April date (because of possible conflict with the International Show at Nottingham) and of course the difficult spring weather (but is it ever otherwise?) which had brought a generally forward season complicated in April by a succession of sunny days and a series of quite harsh frosts. However, all was well on the day with a better than hoped for 269 entries from 43 exhibitors.

All Newcastle Shows are run jointly under A.G.S. and S.R.G.C. rules. This being an A.G.S. year, the best plant in the Show was awarded a Farrer Medal. It went to a fine plant of *Saxifraga cebennensis* shown by Mr. F. Tindall of Huddersfield, although a good pan of *Calceolaria darwinii* with 35 flowers, grown by W. Kirby of Preston, must also have been in contention. The A.G.S. Medal for Class 1 went to Mr.

A. Holman of Milnethorpe with his entry of *Primula polyneura*, *Saxifraga aizoon* var. *rosea*, *Primula secundiflora*, *Rhodohypoxis baurei* 'Pictus', *Clintonia andrewsii* and *Ramonda myconi*. The overall trophy for Section A, the R. B. Cooke Plate, was also awarded to Mr. F. Tindall whose entries included *Rhododendron campylogynum* var. *myrtilloides*, *Vaccinium vitis-idaea* 'Minor' and *Vaccinium nummularia* in the 3 pan Ericaceae class. The A.G.S. Medal for Class 25 went to R. A. Hodgson from Stokesly for a fine entry of *Primula rusbyi*, *Ramonda myconi*, *Ranunculus parnassifolius*, *Raoulia* x *logani*, *Saxifraga stellaris* and *Lewisia cotyledon* "George Henley". Notable was Rob Brown's "trough" entry, a fine artistic planting of 35 specimens around pieces of tufa rock. Many other fine plants were noted in Section A. Several of these were shown by Duncan Lowe including *Eritrichium nanum* with 14 flowers, a *Lewisia rediviva* with enormous flowers and buds, and a rare *Saxifraga melanocentra* from the collections of Dr. George Smith in the East Nepalese Barun valley (a plant that was also shown by D. F. Mowle in the rare in cultivation class). In the section for plant native to North America Mrs. Wilson from Newark showed a fine specimen of *Lepidum nanum*. *Dionysia involucrata* appeared twice, shown by G. Rollinson in the class for Primulaceae and in the Sown from Seed class by Eric Watson. Also in that section appeared a single-flowered *Gentiana* B.M.W. 144. This plant seems to produce its current season's growth in a somewhat shrubby manner on that of the previous year. At this time of year it is inevitable that the sweet scent of *Primula reidii* var. *williamsii* would fill the hall. Many fine plants were on show. None was finer, however, than the 'Alba' form shown by R. A. Hodgson with 16 heavily belled stems. A pan of *Gentiana kochiana* with 45 flowers grown by Dr. A. Davidson of Hepscott rounded off a fine set of entries in Section A.

In Section B the Gordon Harrison Cup was awarded to J. B. Saxton. His winning entries included the 6 in. three pan class with *Raoulia* x *loganii*, *Gypsophila aretioides* 'Compacta', *Kelseya uniflora*, *Semperivum arachnoideum*, *Primula reidii* var. *williamsii* 'Alba', and *Chamaecyparis lawsoniana* "Green Globe". In this section local members took several first — Dr. John Richards with *Celmisia argentea*, *Cypripedium calceolus* and *Phacelia sericia* raised from seed; Dr. Dexter McArthur showed a number of fine plants of which *Raoulia hookeri*, *Azorella trifurcata* and *Rhododendron kiusianum* were notable, while *Rhododendron campylogynum* var. *leucanthum*, *Meconopsis quintuplinervia* and *Primula chumbiensis* gained firsts for Mr. Furness of Hexham.

Section C, as always, produced many entries and close competition. The Cyril Barnes Trophy was awarded to A. Furness of Hexham. The entries here included *Cassiope selaginoides* L & S form, a much tighter and shorter form than the ordinary *C. selaginoides* and with many large bells, *Salix boydii*, *Gentiana acaulis*, *Lewisia cotyledon* var. *alba*, and *Primula gambelana* grown from S.R.G.C. seed. L. Clarkson from Blackpool produced a number of first prize winning plants. His very fine 3 pan entry was *Phyteuma comosum*, *Aquilegia scopulorum* and *Campanula allionii* and he won the Asiatic primula class with *Primula cawdorana*, one of the difficult species in *Soldanelloides* section. Dexter McArthur showed a good *Gymnadenia conopsea*. Rock plant in flower went to a MacPhail and Watson (M & W 5900) collected *Lamium armenum* grown by D. Gibbs.

All successful Shows depend heavily on those working in the background. Thanks are due to those who judged the plants and the many who organised refreshments and meals, acted as stewards, sold admission tickets, organised book sales (tastefully displayed by Norman Woodward) and sold plants. This year the trade was represented by Hartside Nurseries and both local group and commercial sales went very well. The whole organisation was excellent. In all, a much enjoyed and very successful Show.

A. R. FURNESS

EDINBURGH and MIDLOTHIAN—30th May

THE Edinburgh & Midlothian Show was held in St. Ninian's Church of Scotland Hall, Corstorphine, Edinburgh, on Saturday 30th May 1981.

Entries were down on last year but what was lacking in quantity was made up in the quality of the exhibits.

The George Forrest Memorial Medal for the most meritorious plant of the Show was awarded to *Pernettya mucronata*, a dwarf form since named "Stag River" and shown by Mrs. Jill Sleigh of Edinburgh. This plant was a selected seedling raised from Patagonian seed collected in the wild and grew in the open peat bed in partial shade (N.E. facing) until it was lifted and potted up two days prior to the Show. It was a superb dwarf shrub with shining evergreen leaves covered in white flowers and large pink fruits. It completely filled a 12 in. pan and had been beautifully potted up and presented by the grower. It was also given an Award of Merit by the Joint Rock Garden Plant Committee.

The Henry Archibald Rose Bowl for 3 Pans of Rock Plants was awarded to Mr. and Mrs. Taylor, Invergowrie, for three well grown plants — *Oxalis* 'Ione Hecker', *Campanula alpestris* var. *alba* and a distinctive form of *Orchis elata*.

A larger pan of *Orchis elata* with three 22-24 cm flowering spikes won Mr. and Mrs. Taylor the Henry Tod Carnethy Quaich in Section I.

Viola cazorensis shown by the Taylors won first prize in the new, rare, or difficult class and a Certificate of Merit was awarded to them for a non-competitive exhibit of ferns which included: *Phyllitis scolopendrium* 'Sagittatum', *Phyllitis scolopendrium* 'Laceratum', *Cryptogramma crispa*, *Polystichum setiferum*, *Adiantum venustum*, *Cystopteris regia*, to name but a few that caught the eye.

The Elsie Harvey Memorial Trophy for Three Rock Plants, New, Rare or Difficult was awarded to that excellent cultivator Mr. J. D. Crosland of Torphins, his winning exhibits being two rare New Zealand plants, *Raoulia eximea*, *Haastia pulvinaris* and that treasure from Japan, *Dicentra peregrina* var. *pusilla* 'Alba' — a trio which would be a challenge to the most skilled cultivator. Close runners-up in this class were Mr. and Mrs. Taylor with *Viola crassiuscula* and *Sarcocapnos crassifolia* from Spain and *Nolana paradoxa* from Chile — three plants seldom seen before in Edinburgh. Also in this class our President, Mrs. Joan Stead, showed a fine pan of that rare *Iris* from N.W. Oregon, *Iris tenuis*.

Rhododendrons were few in number but of excellent quality. The Midlothian Vase for the best Rhododendron of the Show went to Dr. and Mrs. Simson Hall for *Rh. nakaharai*, a species endemic to Taiwan and raised by the growers from Japanese seed in 1969. This was a beautiful plant and must have been on the short list for the Forrest Medal. It also earned first prize for a plant grown from seed by the competitor. *Rhododendron kiusianum* also shown by Dr. and Mrs. Simson Hall was awarded the prize for the best dwarf species closely followed by *Rh. serpyllifolium* shown by Mr. and Mrs. Bremner of Langbank, who also won the class for a dwarf hybrid with a lovely yellow-flowered plant with the parentage *Rh. ludlowii* x *Rh. hanceanum* 'Nanum'. Mr. and Mrs. Bremner also won the two pan class for rhododendrons with *Rh. kiusianum* and *Rh. campylogynum* var. *cremastum* — both well grown and well flowered in spite of the adverse weather conditions.

Lewisias are always colourful at this time of year and *L.* 'Pinkie', *L. pygmaea* and *L.* 'George Henley' brought honours to Mr. and Mrs.

Bezzant of Bearsden in the 3 Pan Class, while a well flowered pan of *L. 'Pinkie'* shown by Mr. D. Martin, Scotlandwell, was winner in the One Pan Class which included *L. 'Trevosia'*, shown by Mr. and Mrs. Hunt, Invergowrie, and *L. rediviva* (Fig. 69) exhibited by Mr. and Mrs. Bezzant.

The class for Three Plants Distinct, Raised From Seed is always popular and demonstrates to the amateur how these plants should be grown. The A. O. Curle Memorial Trophy went to Mr. and Mrs. Stone of For Augustus, their winning trio being *Dicentra peregrina* var. *pusilla* 'Alba', *Gaultheria depressa* x *G. crassa* and *Lilium nanum*. These were closely followed by *Dodecatheon ellisiae*, *Primula aureata* and *Tristagma nivalis* shown by Mr. Esslemont of Aberdeen.

Ferns are popular and some fine specimens were on show, Mr. B. Russ, Ormskirk, taking first in the two pan class with *Adiantum pedatum* var. *aleuticum* and *Asplenium fontanum*, closely followed by a compact form of *Adiantum pedatum* var. *aleuticum* 'Congestum' and *Adiantum venustum* shown by Mr. and Mrs. Hunt, Invergowrie.

The Maidenhair spleenwort, *Asplenium trichomanes* 'Incisum' won the one pan class also for Mr. Russ, while *Thelypteris dryopteris* and *Polystichum setiferum* 'Lineare' were runners-up for Mrs. Cormack, Edinburgh, and Mr. Adair, Glasgow.

A small Pteridophyte, *Selaginella helvetica*, shown by Mr. and Mrs. Stone, aroused much interest.

Dwarf conifers were well represented by *Picea abies* 'Gregoryana' and *Chamaecyparis lawsoniana* 'Green Globe', Mr. R. Brown, Hexham, being the winner in the two pan class. A very large pan of *Chamaecyparis obtusa* 'Nana', also shown by Mr. Brown, won the single pan class. This last plant was perfect and demonstrated the skill of the cultivator in keeping this very old plant in such good condition. Other conifers were represented by *Picea mariana* 'Nana', *Picea abies* 'Pumila', *Pinus sylvestris* 'Beauvronensis' and *Larix decidua*. All were in peak condition and were greatly admired.

Although May is not the best month for our Scottish natives the class was well supported. Mr. and Mrs. Chambers, Killearn, won with the orchid *Dactylorhiza purpurea*, followed by *Ceterach officinarum* exhibited by Mr. Russ. Two forms of *Salix reticulata* differing in leaf size and veining were shown by Mr. and Mrs. Bremner and Mr. Leven, Dunblane. Mr. Leven received an Award of Merit for his pan of *Mimulus glutinosus* which he exhibited in Class 10.

Three large pans of sempervivums — *S. hirtum*, *S. arachnoideum* and *S. montanum* won the class for Mr. Russ, who also took the winner's

sticker in the One Pan Class with a 12 in. pan of *S. ciliosum* var. *borisii*. *Sempervivum arachnoideum* var. *album* shown by Mr. and Mrs. Stone, not often seen, and *S. arachnoideum* 'Minor' shown by Mr. M. Adair were both excellent plants and should be propagated for wider distribution.

Two rarely seen Sedums, *Sedum humifusum* shown by Mr. Kirby, Preston, and *Sedum telephium* 'Roseo-variegatum' shown by Dr. Stead were worthy winners in their class.

That Mr. R. S. Masterton of Aberfeldy reigns supreme when it comes to growing primulas was upheld by the Judges when he was awarded the K. C. Corsar Challenge Trophy for 2 Pans Primula and the R. E. Cooper Bhutan Drinking Cup for the best *Primula* species in the Show. Few members grow *Primula reptans* and fewer still manage to flower it, but here was a plant filling the pan with mats of round serrated deep green leaves and bearing approximately 40 stemless purple-mauve flowers. The plant was given an Award of Merit by the Joint Rock Garden Plant Committee. His other *Primula* in the Two Pan Class was *P. muscarioides*. A tray of *Primula concholoba* as a non-competitive exhibit was awarded a Certificate of Merit.

Competition in the class for one Pan Primula was acute and the very rare *P. dickieana* brought a first for Mr. Kirby. It was good to see this *Primula* back on the show bench, a reintroduction by seed from the late Len Beer's expedition to Nepal in 1975. Second in this class was a large well flowered pan of *P. flaccida* (*nutans*) shown by Mr. and Mrs. Chambers, and *P. forrestii* shown by Mr. and Mrs. Bremner coming a close third. Mr. and Mrs. Bremner took second ticket in the Two Pan Class with *P. ioessa* and *P. reidii* var. *williamsii*.

Rhodohypoxis were in full flower and were colourful. *Rhodohypoxis baurii* 'Pictus' presented by Mr. Adair was the winner, followed by *R. baurii* itself shown by Mrs. Stead and *R. baurii* 'Pictus' exhibited by Mrs. Simpson, Edinburgh.

A beautiful pan of that very rare Himalayan *Pleione*, *P. hookerana* with seven rose-purple flowers with pale white lips and red-brown markings was a worthy winner for Mr. Crosland in the class for hardy orchids. Other orchids shown were *Dactylorhiza mascula* x *incarnata* shown by Mrs. Stead, *Gymnadenia odoratissima* exhibited by Mr. and Mrs. Bezzant, and *Cypripedium calceolus* presented by Mr. and Mrs. Hunt, Invergowrie.

In Class 33 — Bulb, Corn or Tuber — Dr. D. Graham, Edinburgh, was winner with *Oxalis* 'Ione Hecker', equal runners-up being *Oxalis*

laciniata from Mrs. Wylie, and a rare 5-year-old bulb from Corsica — *Pancreatum illyricum* — shown by Mr. Esslemont.

Scrophulariaceae was represented by a fine *Verbascum dumulosum* shown by Mr. Bilton, and a well flowered *Calceolaria darwinii* belonging to Mr. and Mrs. Hunt.

The class for Ranunculaceae was won by Mrs. Stead with that blue buttercup of Kashmir, *Anemone obtusiloba* var. *patula*.

The class for one pan Compositae produced some excellent plants. A superb 12 in. pan of that popular New Zealand alpine, *Leucogenes leontopodium*, won Mr. R. Brown a first, followed closely by two other New Zealand plants, *Helichrysum selaginoides* from Mr. Leven and *Celmisia bonplandii*, a plant not often seen, shown by Mr. R. Johnstone, Ryton.

In the class for Caryophyllaceae Miss K. Taylor of Invergowrie showed a lovely pan of *Dianthus callizonus*, that choice species from the Carpathians, and none too easy to grow. Runners-up were her parents with *Petrocoptis glauca*.

Dwarf shrubs always have a place in the rock garden and alpine house and this year they were well represented. *Daphne jasminea*, exhibited by Mr. and Mrs. Taylor, was well flowered and in peak condition and emitting a lovely scent. *Leptospermum scoparium* var. *nichollsii* 'Nanum', that doubtfully hardy dwarf shrub, was a close second for Mr. and Mrs. Bezzant.

The Boonslie Cup for a miniature garden to provide flower and foliage interest was won by Mr. R. Brown and the Kilbride Cup for an arrangement of cut flowers and foliage was awarded to Mrs. Jane Martin of Scotlandwell.

The Reid Rose Bowl, awarded to the exhibitor gaining most points in Section I, was won by Mr. B. Russ of Ormskirk.

In Section II some first class plants were on display. Mr. D. Kirby, Preston, who had exhibited in A.G.S. Shows but is new to the S.R.G.C., won the Bronze Medal for collecting most points in this section and his *Dianthus alpinus* 'Joan's Blood' was awarded the Midlothian Bowl for the best plant in Section II. He also showed a lovely pan of a very prostrate form of *Daphne jasminea*. Other exhibits in this section were *Dianthus* 'La Bourbrille', *Alyssum spinosum* shown by Mrs. Armistead, Edinburgh, and *Antennaria*, *Iberis* 'Little Gem', *Armeria caespitosa*, *Androsace sarmentosa* and *Globularia bellidifolia* shown by Mrs. Tucker, Kilmarnock, and a fine flowered *Genista pilosa* 'Minor' in the dwarf shrub class from Mrs. Chisholm, Edinburgh.

Also on display were drawings and photographs of the twice yearly competition, the subject in this instance being the genus *Iris*.

The winning entries were:—

Black and White Drawing of *Iris kumaonensis* (Anne Chambers).

Colour Drawing of *Iris versicolor* (Heather Salzen).

Black and White Photograph of *Iris iberica* (Michael Almond).

Colour Photograph of *Iris histrioides* 'Katherine Hodgkin' (Gavin Hardy).

Additional popular attractions at our Shows are the trade stands and this year we were pleased to welcome: Mr. and Mrs. Foley of the Holden Clough Nursery; Mr. and Mrs. Huntly from Hartside Nursery, and Mr. and Mrs. Ponton from Ponton's Nursery, Legerwood.

Mr. and Mrs. Flatman from the Stockbridge Bookshop brought along a display of garden books, and Mr. Ron Boyko, Glenbuchat Pottery, Strathdon, had a collection of clay pots and pans. All reported good brisk business and our thanks are due to them for the time spent travelling and staging their attractive stands.

Our thanks also go to the Judges, to Mrs. Rowe and her helpers, and all who contributed much to make this another very successful Show.

J. HARLEY MILNE

DISCUSSION WEEKEND SHOW REPORT

ON reading over last year's report I note the mention of "incessant rain". Fortunately, this time the deluge waited until we and our plants were safely housed under cover for the Show on September 19th and 20th. Section I was well up to standard while, although largely contributed by two members, entries in Section II were a great improvement on 1980.

Mr. D. Mowle won Class 1 and the East Lothian Trophy with *Gentiana depressa* (Fig. 70) — also gaining Certificates of Merit and Cultural Commendation —, *Allium callimishon* and *Cyclamen graecum*. Other plants of note were Mrs. L. Bezzant's *Campanula* 'Joe Elliott' and Mr. R. Johnstone's *Colchicum* 'Water-lily'.

Class 2, a well represented class, was won by Mrs. J. Stead's *Celmisia philocremna*.

Mr. Johnstone took Class 3 with a well-flowered plant of *Cyclamen cilicium* ACW 2411, followed by Mrs. Stead's *Notothlaspi rosulatum* in flower, and a delightful little annual, *Gentiana utriculosa*, from Mrs. Bezzant.

Class 4 was won by Mr. and Mrs. Stone's four-inch cushion of *Diapensia lapponica*, as was Class 5 with *Vaccinium vacillans*, a nice little shrub with almost scarlet autumn foliage. Other good coloured plants were Mr. and Mrs. Taylor's *Galax aphylla* and Mr. B. Russ's *Shortia uniflora*.

In Class 7 the best "silver" was Mr. Russ's *Senecio leucophyllus*. The Taylors also showed this plant, and others were *Tanacetum densum*, and *Celmisia alleni*.

Mr. H. Esslemont won the cushion class with a five-inch diameter *Dionysia curviflora*. Other good plants were *Raoulia x loganii*, *Pygmaea pulvinaris* and *Gypsophila aretioides*.

The two pan class for dwarf conifers was won by Mr. R. Brown with *Chamaecyparis lawsoniana* 'Green Globe', four inches high and ten inches across, and *Picea abies* 'Gregoryana'. Mr. Brown also took Class 10 with his very large *Chamaecyparis obtusa* 'Nana'.

The Best Dwarf Shrub in Class 11 was Mr. and Mrs. Taylor's *Daphne jasminea*, followed by Dr. D. Stead's *Hibbertia procumbens*.

Asplenium trichomanes 'Incisum' won Class 12 and a Certificate of Cultural Commendation for Mr. B. Russ, followed by Mr. F. Hunt's *Adiantum venustum*.

In Class 14 Mr. R. Johnstone was first with *Colchicum kotschyi*, followed by Mr. Esslemont with *Colchicum corsicum*, which was awarded a Certificate of Cultural Commendation.

Among many good plants in Classes 15 and 16 were noted *Calluna vulgaris* 'Beolay Silver', 'County Wicklow' and 'Peter Sparkes'.

Class 17 produced some well-flowered *Cyclamen*. The first was Mr. J. Crosland's *Cyclamen mirabile* with so many flowers that those who attempted to count them gave up in despair. This plant received a Certificate of Cultural Commendation and the Forrest Medal for the best plant in the Show. Next was Mrs. Spensely of Yorkshire with *Cyclamen graecum*. Others shown were *Cyclamen cilicium*, *purpurascens*, *africanum* and *hederifolium* var. *album*.

In Class 19 for Three Pans Gentians Mr. and Mrs. Chambers won the Peel Trophy. Among the fine plants shown were *G.* 'Kingfisher', 'Kidbrooke Seedling', 'Edith Sarah', *ornata* and *sino-ornata* var. *alba*.

In the single pan class Mrs. Bezzant showed a fine pan of *Gentiana pyrenaica*. This well-flowered plant received Certificates of Merit and of Cultural Commendation.

In Class 21 Mr. A. Leven was successful with *Sedum cautucolum*. Further good Sedums from Mr. Russ, *S. spurium* 'Purple Carpet', and

Sedum sieboldii 'Variegatum' from both Mr. Leven and Mr. A. Small were shown in Class 22.

Mr. B. Russ won both Classes 23 and 24. His exhibits included a 12 inch pan of *Sempervivum ciliosum*.

Class 26 produced an interesting variety of plants including Mr. Russ's *Petrocosmea kerryi*, which was awarded a Certificate of Merit, Dr. Stead's *Anemone obtusiloba* var. *patula*, Mr. W. L. Morton's *Lewisia* 'Pinkie' and *Trachelium asperuloides*.

Some fine miniature gardens were shown in Class 27 by Mrs. Wyllie, Mr. R. Brown, B. Russ, A. Small and Mr. and Mrs. Taylor. Mr. Russ won the Logan Home Trophy for his exhibit.

Class 28 entries resulted in a number of fine arrangements of flowers and fruit. Mrs. Outhwaite of Harrogate won the Wellstanlaw Cup for this class.

Mr. B. Russ won the Mary Bowe Trophy for most points in Section I.

Section II produced a close contest for the Bronze Medal between Mrs. J. Thomlinson of Bearsden and Mrs. E. Stevens of Dunblane. Mrs. Thomlinson, the eventual winner, included among her plants *Polygonum affine* 'Lowndes' Var.', *Leucogenes leontopodium*, *Pinus pumila*, *Calluna vulgaris* 'Foxii Nana' (gained the East Lothian Cup for the best plant in this Section), *Gentiana* 'Mary Lyle' and *Viola hederacea*. Mrs. Stevens' included *Limonium bellidifolium*, *Leptospermum scoparium* 'Nanum' in fruit, *Erica* 'Lyonesse', *Sedum spathulifolium* and *Rhododendron impeditum* in flower. Mr. T. Sprunt also showed *Cyclamen africanum*.

Adjoining the Show was a display of *Rhododendron* photographs provided by Dr. B. Knight.

The Book Stand, run by Dr. Stead, showed a wide range of publications, including a number of new ones. This gave members an opportunity to examine new publications before buying, and many were purchased.

The Plant Sale organized by Mr. and Mrs. Bremner and the plant auction did excellent business, thanks to the generosity of the members who brought in their spare plants for sale. Very many thanks to the contributors and buyers and also to the many members who helped in innumerable ways to make this a very successful weekend.

CHARLES SIMPSON

Europe's Alpine Ranunculus

by MARGARET TAYLOR

THE GENUS *Ranunculus* was named by Pliny from the Latin *rana*, a frog, since some of the species grow in damp "froggy" places and from my experience of them in cultivation, many appreciate copious water during their growing season.

It has been said that the worst fault of a *Ranunculus* is that it is a buttercup, a sentiment with which I do not agree. Of my chosen species, the white ones have the crystalline texture of a snowdrop rather than the inner glow of a buttercup. The only gold one I list here is *Ranunculus demissus*.

The genus as a whole is not widely grown or exhibited, which is a pity as most are easy to grow, either in a pot or in the open ground; what's more, they flower in April-May, during the popular show season. Perhaps their lack of popularity is due to the introduction of poor forms. Most *Ranunculus* species produce inferior plants but gorgeous forms do exist, so always buy or collect your specimen in flower. If you collect, do select part of a multiplying clone. With care, you leave the good plant in the wild and introduce a worthwhile increaser to cultivation. In a couple of years, you should have plenty of spares to disperse among friends. All *Ranunculus* are poisonous though.

The following perennial species have been grown for several years, at our home in Invergowrie, on the eastcoast of Scotland.

***Ranunculus acetosellifolius*.** (Fig. 71) This is a herbaceous plant. With us, it is the earliest species to come through the ground, about mid-February, and is also the first to go dormant in July. The sorrel-like leaves form a flat rosette. At flowering time, the stem is 7 cm (3 in) long, while the white flower is usually 2 cm ($\frac{3}{4}$ in) across, flattish in shape. There are many poor forms but some are outstandingly good with broad petals which are deep pink in the bud.

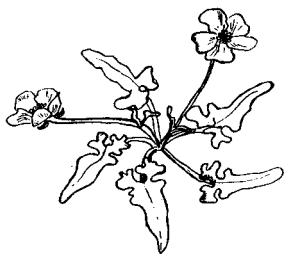


Fig. 71

It is endemic to the upper mica-schist region of the Sierra Nevada, Spain, at about 2,400 m (8000 ft), always in very wet snow-melt areas. Unfortunately, on the Veleta the

plant is being killed out in a few valleys, due to the massive drainage programme for a new ski/hotel complex, but it is still abundant on Mulhacen. (Veleta and Mulhacen are the two summits of the Sierra Nevada range.)

In cultivation, it requires a moist scree but is easier in a pot where watering can be controlled. It grows well in our capillary system and increases rapidly by division.

Ranunculus alpestris. This herbaceous plant forms clumps of dark green, shiny leaves, which are three to five lobed. The height at flowering is 7 cm (3 in) with white flowers 1.5 cm ($\frac{1}{2}$ in) across.

It is found over a wide area from the Pyrenees and Alps to the Carpathians, and always on limestone. We have seen plants with minute flowers in the Bonaigua Pass in the Pyrenees, but a very fine form grows on the rocks and in the turf at 2100 m (7,000 ft) in the Klausen, Switzerland.

It is suitable for a rich moist scree or a pot as it has a long flowering season.

Ranunculus amplexicaulis. (Fig. 72)

This herbaceous species is the tallest plant in this list. At flowering time it is about 30 cm (12 in) tall, becoming taller and straggly later, when in seed. The pointed, oval, glaucous leaves are sometimes covered with silky hairs. The tall branching stems carry several large white flowers 4 cm ($1\frac{1}{2}$ in) across. We once saw a beautiful pink-flowered plant on the Bonaigua Pass in the Pyrenees, unfortunately in a spot where it was impossible to stop the car for photography.



Fig. 72

It is found only in the Pyrenees and the mountains of northern Spain, growing in turf, usually at around 2000 m (6,500 ft).

It is very easy in the border or scree, but rather too leggy for a pot, and rapidly increases by division.

After reading about the beautiful cream hybrid *R. x arendsii*, which is *R. amplexicaulis* x *R. gramineus* (yellow), I carefully made the cross myself. Three years later, two seedlings flowered. Both had rags of green for petals! All those years of waiting, but that's the fun in hybridisation.

Ranunculus bilobus. (Fig. 73)

The evergreen clumps of scalloped, kidney-shaped leaves are shining green in colour with prominent veins. The stems are 7 cm (3 in) tall with two to three white flowers. Petals are deeply notched, a distinguishing feature of this species. Farrer describes the flower as 'pure white dog-roses'. They are 1.5 cm ($\frac{1}{2}$ in) across.

It grows in turf and on the hard, white limestone of northern Italy, and is particularly good on Caplone (Tombea) at 1977 m (6,400 ft) and on the Rosetta, in the Dolomites, at 2400 m (8,000ft).

It makes a good trough plant, able to stand a bit of drought, but also an attractive alpine house specimen, being evergreen. It rapidly increases by division. It is commonly confused in the trade with the similar *R. crenatus*, but in *crenatus* the flower petals are not so deeply notched and the leaves are a duller green. It should not be confused in the wild, as *crenatus* only grows on acid formations, further east in Europe.

Ranunculus demissus. This is a dwarf herbaceous variable plant, with dark green, finely cut, three to five lobed leaves. The flower, usually one to a stem, is glossy yellow, 1.5 cm ($\frac{1}{2}$ in) across. The Spanish form, 7 cm (3 in) is very attractive in the wild but tends to look like our own weedy buttercup when grown in a pot. A friend, an expert on herbicides, went into fits of laughter at my specimen, potted for a Show, as he reckoned he killed off much better plants in his work!

It has a wide distribution in nature, from Albania, Greece, Yugoslavia, Italy to Spain. I have only seen it growing in Spain, where it inhabits the same acid snow-melt silts of the Sierra Nevada as *R. acetosellifolius*.

At home, a moist scree suits this plant, but it is perhaps not choice enough for a pot!

Ranunculus glacialis. (Fig. 74) This herbaceous plant has thick succulent branching stems 12 cm (5 in) tall. The fleshy leaves, usually bronze-green, are three sectioned and deeply lobed. There are one or more large $2\frac{1}{2}$ cm (1 in) cupped flowers per stem; the sepals being covered in red-brown hairs. The flowers are white, ageing through varying shades of pink



Fig. 73

to deep rose. Some authorities say this colouring is due to fertilisation, but I don't think this has been proved.

Although so fleshy looking, this species holds the record for being the highest flowering plant in Europe (Reisigl and Pitschmann, 1958). It is to be found at 4275 m (14,000 ft) on the Finsteraarhorn in Switzerland (I haven't proved this either yet!). *Ranunculus glacialis* grows in snow-melt screes and hollows, often in the ditch beside a mountain track, but only on acid formations. We have never seen a poor form of *R. glacialis*. On the Timmelsjoch, in Austria, most of the plants have solitary flowers which turn to the darkest rose. Enormous clumps with huge flowers can be found beside *Androsace alpina*, on the Dreisprachenspitze, Stelvio Pass 2758 m (9049 ft) and also at the summit of the Col de Bonette in France at 2800 m (9192 ft).

Its distribution is Central Europe, Pyrenees, Sierra Nevada. We have not tried *R. glacialis* in the open ground. It survives and flowers sparingly, in a pot, where copious water must be given during the growing season. Again capillary watering is ideal for this species. It is very slow to increase.



Fig. 74—*Ranunculus glacialis*



Fig. 75—*Ranunculus parnassifolius*

***Ranunculus parnassifolius*.** (Fig. 75) This herbaceous plant is the cream of the cream when you find a good form, although it may be apetalous in some areas.

It is very variable in height from 4 cm (1½ in) - 15 cm (6 in). It has heart-shaped, dark green leaves, covered at first with silky hairs. The underside of the leaf is red-purple. There are one or more cup-shaped flowers per stem, and are usually white but occasionally pink veined, 2½ cm (1 in) across.

Although widely distributed throughout Europe from Spain to the

Alps, *R. parnassifolius* is always locally rare, growing on acid and on limestone screes.

A ten hour hike took us to the almost always apetalous form on the summit of Mt. Demant 2400 m (8000 ft) in the French Alps; while a short scramble up a scree above the Stelvio road, a mile below the summit on the Bormio side 2400 m (8000 ft) Italy, produced the squinny, transparent petalled type growing with a fairly showy *R. alpestris*. But for one of the most wonderful finds in Europe, take the little rack railway from Caralps to the Sanctuary of Nuria, in the Spanish Pyrenees. There again at 2400 m (showing a peculiarly consistent altitude preference) on the most treacherous, loose slaty scree grows a large, full petalled form with pink veining both inside and out of the flower. Each plant is better than the last. Our daughters nick-named it the 'Mermaid plant' for tempting us farther out on to that constantly moving wet scree, on which a sensible climber would have roped up. *Ranunculus parnassifolius* 'Nuria form' keeps company with *Senecio leucophyllus* and *Adonis pyrenaica*. The hybrid *R. x flahaultii* (*R. parnassifolius* x *R. pyrenaicus*) is variable with white to pink, narrow to broad petals, also grows there. Nuria is well worth a visit. *Ranunculus parnassifolius* is easy in a trough or scree. Pot culture suits it also. It is a good multiplier. This is the species most often seen at Club Shows.

Ranunculus pyrenaicus. In this herbaceous species the leaves are linear to broadly lanceolate, blue-green in colour. The stems are 12 cm (5 in) tall with one or more flowers. This species is also guilty of having some missing petals. In good forms, the white flowers are 2½ cm (1 in) across, sometimes double like small roses.

In spite of its name, *R. pyrenaicus* is not confined to the Pyrenees but also grows in the Alps. The best form that we have seen grows at 1800 m (6000 ft) in the French Alps at Fontanalbe above the Casterino Valley. Here many doubles occur. This form with broader leaves has sometimes been called ssp. *plantagineus*. (Fig 76) A rather nice cream form grows on the ridge above Sestrière, in Italy, at 2100 m (7000 ft.) *Ranunculus pyrenaicus* is always found in turf, flowering just as the snow recedes and usually in vast



Fig. 76

quantities. Farrer says 'like a solid tablecloth of moonlight'. Quantity perhaps but the rather fleeting petals quickly drop. We have photographed a field of them dotted with pink *Erythronium dens-canis* above the village of Tabescan at 2638 m (8600 ft) in the Spanish Pyrenees.

In some areas, such as at Gourette in the French Pyrenees, the form of *R. pyrenaicus* found here is fairly large and that of *R. amplexicaulis* very small, making it difficult to distinguish one species from the other.

Ranunculus pyrenaicus is easy in a rich scree or pot but is slow to increase.

***Ranunculus pyrenaicus* ssp. *alismoides*.** (Fig. 77) This is a miniature of the previous species growing to 5 cm (2 in) tall. The leaves are like blades of grass held flattish towards the ground and it has tiny white flowers.

This one grows in the acid wet turf of the Sierra Nevada, often with its feet in running water. It puzzled us for identification purposes for some years after we first saw it growing in the source of the Rio Genil on the Valeta, Spain. Modern books don't mention it but leafing through Farrer's 'The English Rock Garden', I came across the above name. Flora Europaea now confirms it.

I confess this species is definitely not showy but interesting in a collection.



Fig. 77—*Ranunculus pyrenaicus* ssp. *alismoides*

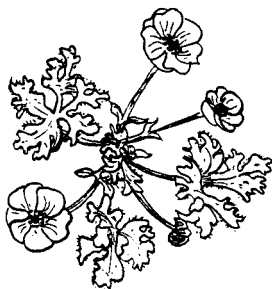


Fig. 78—*Ranunculus seguieri*

***Ranunculus seguieri*.** (Fig. 78) In this herbaceous species the basal leaves are palmately three to five lobed with segments further divided. When young, the leaves are covered in grey, silky hairs, later becoming a shiny mid green. The height at flowering is 10 cm (4 in). The clear white flowers, 2½ cm (1 in) across, are saucer-shaped, one of the features which distinguish it from the cup-shaped *R. glacialis*.

This species is sometimes mistakenly shown under the name of *glacialis* which it superficially resembles. *Ranunculus seguieri* is reputedly easier to grow than *glacialis* but we find both equally difficult. In the wild, identification is easy since *seguieri* is only found on limestone and the fleshy leaved *R. glacialis* only on acid formations.

Ranunculus seguieri has a wide range from N. Spain through the Alps to Yugoslavia, preferring a loose scree. We have seen reasonable plants on Sasso Becce 2400 m (8000 ft) the small limestone outcrop on the Bindelweg, in the Dolomites. Very squinny forms grow on Mt. Demant 2100 m (7000 ft) in France but the best we've seen are found on the fossiliferous pudding basin hill, on the Bonette — cockle shells at 2400 m (8000 ft) above the sea!

At home *R. seguieri* survives in a pot and in our scree but cannot be said to be happy. It is very slow to increase.

Ranunculus traunfellneri. (Fig. 79) Most books say this evergreen species is a dainty miniature of *R. alpestris*, to which it is related, but the Mangart form is much larger in all parts than *alpestris*. The leaves are finely cut and yellow-green in colour. The 9 cm (3½ in) stems bear a single pure white flower with overlapping petals.

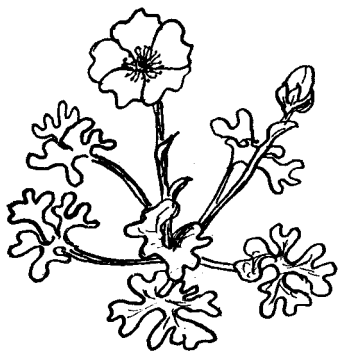


Fig. 79—*Ranunculus traunfellneri*

In the wild this plant grows in turf or limestone scree. A typical small but miserable form grows above the Seven Lakes Hut on Triglav, Yugoslavia, at

1800 m (6000 ft) but it is not worth a 600 m (2000 ft) climb up the perpendicular cliff face to reach the plateau where it grows, although *Lilium carniolicum* was quite a sight on this track. It is much easier to motor to the end of the road up Mt. Mangart, also in Yugoslavia. There were 2000 m (6600 ft) of prize winning clumps of flower-covered plants growing in the turf.

Ranunculus traunfellneri enjoys the scree or trough. It positively romps in a pot, covering itself in bloom. Our best form increases rapidly.

After reading my notes, I hope you don't get the wrong idea about Mt. Demant, in the French Alps. It may not produce good *Ranunculus*

but it is the home of Forrest Medal-type *Campanula alpestris*, shell-pink *Allium narcissiflorum* and dwarf, peach backed *Linum salsoloides*.

For those wishing to see *Ranunculus* in the wild, the Bonette Pass, in France, is one of the best places. In a space of 50 m, near the roadside, three different species, namely *R. glacialis*, *seguieri* and *pyrenaicus* grow. This is due to the variety of different rock all in one valley — granite, mud-shale, soft fossiliferous limestone and iron hard limestone pavement. The 2802 m (9193 ft) pass is sometimes closed until early July.

It is worth an effort to search for good forms of all these plants. They flower for quite a long period, giving spice to the usual diet of *Androsace*, *Dionysia* and *Primula*.

Line Drawings by Margaret Taylor.

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Joint Rock Garden Plant Committee

GLASGOW—20th SEPTEMBER 1980

AWARD TO PLANT

AWARD OF MERIT

To *Calluna vulgaris* 'Kinlochruel' as a flowering plant for the rock garden. Exhibited by Mrs. E. M. Bezzant, 24 North Grange Road, Bearsden, Glasgow.

AWARD FOR EXHIBIT

CERTIFICATE OF CULTURAL COMMENDATION

To Mr. F. Tindall, 48 Fir Road, Paddock, Huddersfield, Yorkshire, for a well grown pan of *Petrocosmea kerrii*.

EDINBURGH—30th MAY 1981

AWARDS TO PLANTS

AWARD OF MERIT

To *Primula reptans* as a flowering plant for the alpine house. Exhibited by Mr. R. S. Masterton, Cluny House, Aberfeldy, Perthshire.

To *Pernettya mucronata* 'Stag River' as a flowering plant for the rock garden. Exhibited by Mrs. J. Sleight, 18 Garscube Terrace, Edinburgh.

AWARD FOR EXHIBIT

CERTIFICATE OF CULTURAL COMMENDATION

To Mr. R. S. Masterton, Cluny House, Aberfeldy, Perthshire, for a well grown pan of *Primula reptans*.

GLASGOW—19th SEPTEMBER 1981

AWARD TO PLANT

CERTIFICATE OF PRELIMINARY COMMENDATION

To *Colchicum corsicum* as a flowering plant for the cold frame. Exhibited by Mr. H. Esslemont, 9 Forest Road, Aberdeen.

AWARDS FOR EXHIBITS

CERTIFICATE OF CULTURAL COMMENDATION

To Mr. J. D. Crosland, Treetops, Torphins, Aberdeenshire, for a well grown plant of *Cyclamen mirabile*.

To Mr. D. F. Mowle, 16 Peacock Lane, Hest Bank, Lancaster, for a well grown plant of *Gentiana depressa*.

To Mrs. L. Bezzant, 24 North Grange Road, Bearsden, Glasgow, for a well grown plant of *Gentiana pyrenaica*.

To Mr. B. Russ, 9 Crosshall Brow, Westhead, Lancashire, for a well grown plant of *Petrocosmea kerrii*.

Book Reviews

The Landscape Garden in Scotland, 1735-1835, by A. A. Tait 282 pp. Edinburgh University Press. £12.

The garden evolves and changes as do all other of man's products and attributes. Because the main influence on the garden is not plants, or soil, or climate, but man himself. And man is not content to stay still. He must change. Generally he believes the changes he makes represent betterment.

In some areas such betterment or lack of it can be objectively measured. If a strain of wheat is evolved which ripens a week earlier or so many temperature degrees cooler, few would dispute an advance. If it is found how to acclimatise a plant from one part of the Globe in another radically different land, there is an easily recognisable achievement. Equally obviously, if we alter methods of husbandry or cultivation in the garden to increase yield of flower or vegetable, that is measurable in a non-controversial fashion.

The garden itself also changes. The type of garden which we favour and prize in the last quarter of the twentieth century is different from what was esteemed — or even common — as little as half a century ago. Our rock gardens of today are vastly different from what was laid out at Chatsworth by that most eminent of gardeners Sir Joseph Paxton and the rock garden which Alfred Evans presides over in the Edinburgh Royal Botanic Garden bears no resemblance to that of his great predecessor MacNab a century earlier. But change in the ornamental garden is less easy to describe as advance or betterment or their opposite. The change echoes or is prompted by various qualities which influence the times. However, change undoubtedly there is. The garden is little more static than women's fashions!

It has long been possible to follow in fair detail the evolution of the garden in England. Capability Brown is almost a household name. A Repton Red

Book is treasured by any landowner whose forebears had employed the great landscape architect.

But till now little study had been devoted to the Scottish landscape garden. Did it develop separately from the English garden? Did the great improvers of England work also north of the border?

Dr. Tait of Glasgow University has now written an account of the Scottish landscape garden between 1735 and 1835. This is the interesting period when Kent, Brown and Repton and their respective disciples were revolutionising the English scene.

Dr. Tait has written a book of great scholarship and massive erudition. It is profusely illustrated in colour and black and white. In many cases the contemporary plan is matched by the present-day photograph.

Obviously the great English landscape architects had little if any practice north of the Cheviots, but they had influence. But Scotland did produce some landscapists who had a national reputation within Scotland. However, the development was never so revolutionary as in England. The distinctive scenery of Scotland was marshalled in aid of the landscaping. The work tended, more than in England, to be in the hands of nurserymen and gardeners. As what was being worked on was more what we now term the policies than the garden of the mansion house, understandably such men had less vision and certainly the wrong training. Additionally even in the latter part of the century discussed, which embraced the so-called Golden Age of Edinburgh, Scotland was by comparison a poor country.

Dr. Tait is much concerned with the detail. The footnotes are almost as extensive as the text. It is not always easy to discern from the minutiae the broad shape of development. Obviously his research has been vast. The book could have been more informative if the detail had been less and used more to exemplify.

Nevertheless the book is a signal achievement and must become a classic in Scottish gardening literature. Knowledge of the Scottish garden has been notably advanced and the professional and amateur alike have been furnished with an indispensable account of the development of the garden during a significant period.

J. T. AITKEN

Plant Hunting in Nepal by Roy Lancaster. 194 pp. £8.95*. Croom Helm Ltd. ISBN 0-7099-1606-X.

This book describes the plants, places and experiences of the members of the 1971 University of Bangor Expedition to Eastern Nepal. This expedition was the brain child of the late Len Beer. Two projects were undertaken. The agricultural project was to collect seeds of cultivated crops in the high regions for genetic study, while the horticultural project sought to collect seeds of plants new to science, or to reintroduce species lost to cultivation.

Roy Lancaster with Dave Morris were members of the horticultural project and all their collections were given BLM numbers. Many of their plants now grace our gardens and it is particularly valuable to have the determinations of these BLM numbers given as an Appendix, for this, so often, is not forthcoming from similar expeditions.

I found this a most interesting account of their expedition. It is a most readable book packed with information and anecdotes and I have no reservations in recommending it to members.

Having spent four weeks with Roy in a tent in the Cangshan range in western Yunnan, and knowing how painstakingly he records and describes plants in the wild, I can vouch for his accurate account of the expedition. He does not gloss over the bad days or the problems which inevitably occur, but gives detailed information of the topography, the plants, the customs of the people, and the routine of camping in what were sometimes difficult and trying circumstances, but always amongst superb plants. It is Roy's enthusiasm which sparkles throughout the book.

The illustrations, black and white and colour, are excellent, and the line

drawings add further interest. They are beautifully drawn and are pertinent to the chapters in which they occur. I would criticise only two of them — *Paris polyphylla* on page 47 is not clearly defined enough as a monocot with almost parallel venation, and *Rhododendron ciliatum* on page 145 should have a fringe of hairs on the leaf margin, hence its name.

It is remarkably free of typographical errors. On page 159 *Linium* appears for *Linum*, and several times a sentence begins with the abbreviated form of the plant name as *L.* (for *Lyonia*) *villosa* on page 109. This is perhaps a personal dislike but it does not in any way detract from a very fine book on the exploits of two of my closest friends. It is a fitting tribute to Len Beer, to whom the book is dedicated.

R.J.M.

*Available from the Publication Manager at £6.70

Growing Hardy Perennials by Kenneth A. Beckett. 182 pp. £6.95. Croom Helm Ltd. ISBN 0-7099-0621-8

There have been a number of books on hardy perennials over the past few years but none so comprehensive as this one. It contains a wide selection of plants in alphabetical order from *Acanthus* to *Zauschneria* and including such unusual plants as *Belamcanda chinensis*, *Deinanthe*, *Eomecon chionanthum*, *Reineckia carnea* and *Strobilanthus atropurpureus*.

The early chapters give information on propagation, cultivation and siting of these plants to best advantage.

There is a good smattering of rock plants which will suit Club members. This book covers the range of herbaceous and rock garden plants and as such is commended.

R.J.M.

The American Rock Garden Society

Probably most members are aware of the existence in the U.S.A. of a Society comparable with our own. Some members may have wished to join this Society, but have been deterred by the apparent difficulty of transmitting their subscription. We understand that this difficulty is not insuperable. In practice it would probably be best to consult one's Bank, which could supply advice and the appropriate forms.

The annual subscription is 8 dollars, and the Secretary, who will send further particulars, is

Donald M. Peach,
Rt 1. Box 282,
Mena,
Arkansas 71953, U.S.A.

In addition to its *Quarterly Bulletin*, the American Society has a Seed Exchange scheme in operation.

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SOME NEW 1982 HOLIDAYS FOR BOTANISTS AND GARDENERS

The holidays outlined below often combine an interest in sites and flowers and are new additions to our programme. Others, to alpine centres in Europe, will be operated as usual and details will be sent on request, together with dates, prices and names of tour leaders.

UZBEKISTAN — 25 April to 9 May

This new tour planned primarily for the study of alpine flora also includes plenty of opportunities for sightseeing. The itinerary begins in Moscow with a visit to the famous Dzerzhinski Botanic Garden, before flying on to Samarkand where time is spent in exploring the Aman Kutan Valley, an area of great botanical interest set in limestone hills. Also visited is Bokhara for desert flora; Tashkent for the Chimgan mountains and Fergana with excursions into the Khamzaabad mountains. The final two days are spent in Leningrad. 15 DAYS: £945

TRANSCAUCASIA — 18 June to 4 July

This, too, is directed towards local flora and again begins in Moscow. From here, we continue to Piyatigorsk, from which we drive to Terbeda, a small town in the main Caucasus range; to Ordzonokidze for mountain plant hunting and on to Kazbegi, reached by way of the Daryol Gorge, near Mount Kasbek. Tbilisi, our next destination, contains a particularly fine Botanic Garden in addition to many architectural treasures. Finally, five nights are spent at Yerevan, an area remarkable for its flora, notably in the Aragats mountains. (*vide 'The Caucasus in June, Volume XVII (No. 67), September 1980, by Victoria Matthews.*) 17 DAYS: £925

SWEDEN — A RIVER HOLIDAY — 5 to 19 June

This delightful and unusual itinerary begins with a short stay in Uppsala and continues in leisurely fashion in small boats from Harnosand up-river to the Norwegian border, staying en route at Ramsele, Stromsund and Gaddede, small, unspoiled places where the local flora can be found. Few people travel along this network of lakes and rivers; hotels are small and comfortable and the local people delighted to assist our parties in enjoying the natural beauties of the landscape and all it has to offer. The return is made by way of Ostersund and Sigtuna, from which we sail into Stockholm. 15 DAYS: £875

OTHER CENTRES AND COUNTRIES to which tours have been arranged include Romania, Jordan & Syria, Nepal with Kashmir, Southern India, India with Nepal, and Galway for 'The Burren'. Trekking in Nepal is also featured, as is Kashmir pony-trekking and an adventure into Ladakh.

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