

July 2019

THE ROCK GARDEN 143

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Further information about this form of membership is available only at www.srgc.net (and not from the Subscription Secretary).

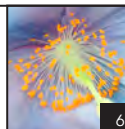
The Rock Garden

The Journal of the
Scottish Rock Garden Club
July 2019

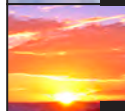
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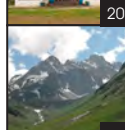
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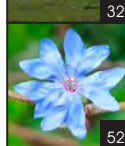
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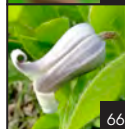
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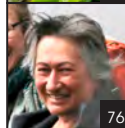
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The Editor welcomes articles, photographs and illustrations on any aspects of alpine and rock garden plants and their cultivation. Authors are encouraged to submit material electronically but articles may also be submitted in manuscript. Digital images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

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

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

Enquiries about advertising should be made to:

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Annual General Meeting 2019

The AGM will be held in the Old Church Hall at Burnside, Scone from 11.00 till 3.30 on Saturday 9th November. There will be talks, the Clark Memorial Lecture, photographic competition, 50/50 plant sale and display. There is ample parking. Full details are given in July's *Dryas*.

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Editorial

Anton Edwards

Here is the 25th issue of *The Rock Garden* that I have produced for the club and its wider readership. This and every journal is filled with the generous work of many authors who, with their words and pictures, show many floral beauties in their natural habitats, in their gardens or in the demandingly competitive world of showing. At this “quarter of a century” it seems timely to recall the birth of the *Journal* and to look at some of the changes over the last eight decades. It is interesting to look back to the second issue in 1938, when the following appeared:

The first number of this journal, which made its appearance in December 1937, met with a kindly welcome from members of The Scottish Rock Garden Club. This was very gratifying, as it is always a little difficult to determine just what is wanted in the way of a society’s magazine. It is known and admitted that the Journal is far from perfect, but it must always be borne in mind that our Society is a small one and that the funds available for printing are by no means unlimited. Even so, it should be possible to produce a publication of a kind useful and instructive to all, whether they be experienced gardeners or newcomers to the hobby of Alpine plant cultivation.

*But in order to achieve this desirable end the cooperation of members is necessary. It is felt that there are many who possess valuable knowledge of Alpines and their ways which would be of the greatest assistance to others if only it were made available. For this purpose the Journal was brought into being, and for this purpose it exists. We suggest that it is the duty of all members who have information to impart – and there must be quite a number of them – to do so through the medium of its pages. Modesty is one of our outstanding features, thus we are too apt to underrate our ability to put our ideas on paper. But if this journal is to be a success, and if it is to fulfil its purpose, this natural disinclination to “air our views” must be suppressed. **We therefore appeal to all who grow alpines, either in the rock garden or in pans, to hand on their experiences by contributing notes and articles to their own Journal.***

Kenneth Charles Corsar

Corsar still speaks for me today, and his appeal to members remains as poignant as it was in 1938. Despite the second world war, the passage of time, technological advance and huge social changes, nothing has changed in our need to communicate with each other about our enthusiasms and our plants. This journal and its online companion, *The International Rock Gardener*, will only thrive if you, the reader, write for them. In the next issue I will look at the changing content of the journal but, for the time being, all you need do is send me your enthusiasms, your tips, your plants and your experiences with alpine and rock gardening.

The Discussion Weekend, 11 – 13 October 2019

Four years on from our last visit to Grantown-on-Spey, the Perthshire Group of the SRGC invites you here again for the Highland hospitality of the 2019 Discussion Weekend. Grantown is a 'planned' town built in 1766 by Sir James Grant. It features a broad high street with the square at its northern end and is perhaps unique in Scotland in that it has no chain stores, just a range of independent shops, cafés and bars. The town is small and, with little by way of modern housing developments, still enjoys a peaceful woodland location alongside the River Spey.

The Grant Arms Hotel sits in the middle of the square and was recently refurbished to a very high standard. All our club experience of the hotel has been friendly and welcoming; that is one of the reasons for our moving to Grantown for 2019 and 2020. At the hotel we will also be guests of the Bird Watchers and Wildlife Club (BWWC, www.bwwc.co.uk), whose facilities and informative help are available to us. The hotel is cosy, with forty-eight rooms, two of which suit disabled guests, while six are available as single rooms. When all rooms in the Grant Arms have been filled, delegates will be housed in the equally agreeable eighteen-bedroom Garth Hotel just a hundred metres across the square. If arriving by car, leave the A9 at Aviemore and follow the A95 to Grantown. If coming by public transport, we recommend the scenic train journey through the Grampian mountains to Aviemore, then onwards by the frequent bus service to Grantown.

Saturday morning is, as usual, free time for delegates and organizers to enjoy some arranged visits. There is a great deal to recommend. The Grant Arms, as the base for the BWWC, can provide guides to take you on wildlife walks in the neighbouring Anagach Woods and by the River Spey; both long and short walks are planned. There is a native plant garden at 600 metres on Cairngorm mountain and the gardener may be able to tell you all about it, after which you might enjoy the funicular to the Ptarmigan Station to see the views and to enjoy their world-famous hot chocolate. Grantown may be a place for a longer break, with the Discussion Weekend as the 'jewel in the crown'; there is so much to see and do. If golf appeals, Grantown has its own magnificent eighteen-hole course, or you may drive up to Nairn to try the two links courses, or even the home of the Scottish Open at Castle Stuart.



Provisional Programme

Friday 11 October 2019

- 15.00 Registration
- 16.00 – 17.00 Plant staging
- 18.00 Dinner
- 19.45 President's welcome
- 20.00 The Jim Archibald Bulb Lecture:
Dimitri Zubov (subject to visa agreement) 'Bulbs in the Wild'
- 21.00 Small Bulb Exchange

Saturday 12 October 2019

- 7.00 – 9.00 Breakfast
- 8.00 – 9.00 Plant staging
- 9.00 Optional activities
- 9.30 Guided walks in the area, organised by the hotel
- 12.15 Lunch
- 13.45 The Harold Esslemont Lecture:
Anne Wright 'Growing Bulbs'
- 14.45 Peter Korn 'Inspiration from the Steppe'
- 15.45 Tea and coffee
- 16.15 Steve Newall 'Growing Plants for Seeds'
- 18.30 Drinks reception
- 19.00 Gala dinner
- 20.15 Presentation of show trophies
- 20.30 Plant auction

Sunday 13 October 2019

- 7.00 – 9.00 Breakfast
- 8.00 Show opens
- 9.30 The William Buchanan Lecture:
Christopher Bailes 'Gardening with Shade Perennials'
- 10.30 Tea & Coffee
- 11.00 Steve Newell 'The Alpine Gems of Te Waipounamu'
- 12.15 Lunch
- 13.15 Show closes
- 13.30 Peter Korn 'Creating Conditions'
- 14.30 The John Duff Lecture:
Kevin Hughes 'Cally Gardens – my First Year'
- 15.30 Closing address
- 15.45 Tea & Coffee

We are delighted to be able to offer the weekend at the cost of £237 per person for the weekend for two persons sharing (see the *Dryas* for full price details and order form). The preceding Thursday or following Sunday nights are available at £71.50 per person per night for Dinner, Bed & Breakfast. Outside this period the Grant Arms will welcome your company at the normal rate.

The closing date for applying is 31 August 2019, subject to availability.

If you have any further queries, please contact

Julia Corden at julia.corden@icloud.com or phone 07976849666

We look forward to seeing you all in October 2019.



Gardens open in or near Perth in May include Branklyn (these pages) and Explorers Garden at nearby Pittlochry (see the following pages)



2021

Perth

Scotland

8 - 11 May



Margaret Easter



In June 2018 the SRGC helped support me in the privilege of spending three weeks in the Explorers Garden in Pitlochry in Scotland. The garden was born out of a partnership with the Pitlochry Festival Theatre. The theatre and the land that later became the garden were originally obtained in the 1940s. The joining of theatre and garden is called *Theatrum botanicum*. The hope was that performances would be held in and throughout the garden to give visitors a more interactive and dynamic experience. Still fully set up to host performances, this garden may be unique: there are manholes with ducts, and cables running throughout. The present-day goal is to commemorate Scottish plant hunters by hosting collections of

Above: *Meconopsis* 'Crarae'



the plants that they brought back to Scotland from their explorations. The garden is divided by region, and although the regions can be quite different in climate, the flora thrives successfully and the regions flow into each other seamlessly, easily guiding the viewer throughout the site.

The Explorers Garden is managed by Julia Corden, our present SRGC president, who organizes about forty volunteers weekly to create the beauty that is the garden today. She is a remarkable plantswoman. Under her vision and guidance, the site has been filled with beautiful, relatable and often rare flora that she has sought out and cultivated.

Above: *Meconopsis baileyi* by a garden seat



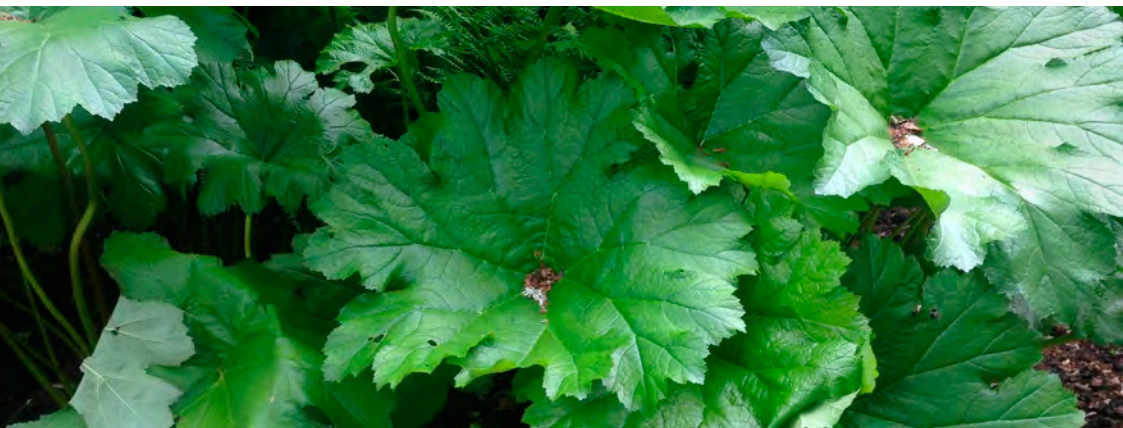
Meconopsis baileyi

Meconopsis

The garden boasts an impressive thirty-two *Meconopsis* cultivars – 95% of the Blue Poppy cultivars list. These plants fill many of the garden beds effortlessly, creating a gentle but impressive and memorable effect. It is well known that blue poppies in many circumstances are quite hard to grow. Fortunately, the Scottish climate is one of the most suitable for these beautiful plants. Julia explained to me that *Meconopsis* species like nutrient-rich soil and that every other year they should be covered with manure and leaf mulch to ensure their survival and performance. She described how they are best divided in early spring while in flower. I was in the garden when they were in full flower in June, an ideal time for transplanting. This was one of my first tasks.

I was very fortunate to work with the genus *Meconopsis* on one of my very first days. *Meconopsis* x 'Lingholm' had found its way into a bed only meant for *M. baileyi* and Julia was hoping to get the plants separated and restored to their intended beds. *M. baileyi* generally has a lighter blue flower than that of *M. 'Lingholm'*. Of course, I was quickly warned of the fragile stems and leaves that suffer easily during transplanting. I carefully dug around the *M. baileyi* and managed to move several

Darmera peltata



M. 'Lingholm' successfully, with little damage to the foliage or the blooms. I also had the opportunity to plant more *M.* 'Lingholm' plugs and to create a new bed beside the newly transplanted plants from the previous bed. Scotland, like the rest of Europe in 2018, was having an exceptionally hot summer and the new plugs were just a bit too dry to do well, being directly planted out. I soaked the two trays of plugs for about ten to twenty minutes to ensure that they would retain enough moisture after they were put in the ground. The spacing was about 15 cm for the baby plugs and about half a metre for the more mature transplants.

Trillium

The Explorers Garden has a fantastic climate for woodland species such as rhododendrons, primulas, and trilliums. I was very excited to take part in the project to transplant and divide trilliums. They grow wild in the woods in western North Carolina where I've been living for the past five years, so I have a deep love for them as a familiar and beautiful genus and I also recognize just how rare and valuable they are. There were three species in the same bed: *Trillium chloropetalum*, *T. grandiflorum* and *T. albidum*. Julia's goal was to transplant and divide *T. chloropetalum* and *T. grandiflorum* into two new areas and allow the *T. albidum* to remain. In their original planting, *T. chloropetalum* and *T. grandiflorum* were interplanted with *Darmera peltata*, *Sanguinaria canadensis* and *Tiarella*. It was already a beautiful display but Julia wanted to establish new plantings to continue to develop and expand the garden.

It was the first time I had divided trilliums. I was very cautious and nervous because I knew their value. Again, timing was key, as they had mostly finished flowering and the energy had moved into the roots. If the stems were damaged, it wouldn't be too detrimental to the plant. The main concern was to ensure no root damage as I dug them up. I started on *Trillium chloropetalum* and successfully managed to dig up and divide gently all the plants according to size. Their newly designated space was behind the *Darmera peltata*, in a moving arc from largest to smallest. I spaced the largest plants about thirty cm apart and the smallest about eight cm. Julia's plan was to wait for the smallest to mature and eventually to establish a new bed within the next few years. Next, I dug up and divided *T. grandiflorum*; their destination was under a beautiful rhododendron tree adjacent to the Douglas Pavilion.

Peat Garden

The next project I joined was the restoration of the existing peat garden. It had been constructed eleven years earlier by Peter Korn. I had had the good fortune to work with Peter and his partner Julia for six weeks in their two gardens in Sweden. Helping restore something he had created was exciting and felt like an appropriate way to show my gratitude for all that I had learned with them. The peat garden had been built with Swedish peat blocks and was holding up remarkably well for its eleven years. In its existing state, the blocks as well as the existing plants had become a bit

overgrown with moss. The borders and plants had begun to look undefined and a little wild. Julia outlined a plan that involved weeding, moss removal, plant clean-up, removal of old soil, addition of new soil and mulch, then reintroducing plants as well as adding new species.

I began by weeding out grasses and a few species that in other spaces might be cultivated but in the peat garden were considered invasive or weeds. These included *Potentilla*, *Ajuga reptans*, Bracken, *Hypericum*, *Rhododendron*, *Prunella vulgaris*, *Epilobium ciliatum* and *Digitalis purpurea*. Once this was done, I began to dig out and remove the moss that thrived happily in the main bed spaces. I then removed the old soil from behind the peat blocks; loads of stones and tree roots had crept in over the years. About twenty cm (the depth of a spade) of soil was removed and the width was determined by the space between the existing peat blocks and the hill behind. I composted the tree roots, old soil and moss and took the stones to the piles outside the upper back gates of the garden. Julia showed me how she had begun to sort the stones into different groups. They were divided according to whether they were smooth and river stones, or rough enough perhaps to be used for scree in some of the existing rock gardens.

The wonderful garden volunteers played a large part in the removal of the soil and the carting of the rocks to the piles behind the back gate. One of them, Helen, took the time to go through and pull the moss gently from the peat blocks while making sure that they remained intact. After all the soil, debris, and old weeds had been removed, I went through and dug out the plants that were to be kept but cleaned. I dug out *Gentiana asclepiadea*, trilliums, cassiopes, *Primula capitata*, *Ledum groenlandicum* and *Polygonatum*. Julia and I also went through the rest of the *Ledum groenlandicum* that were to remain in their existing spots and we carefully removed every small piece of moss. The *Ledum* leaves may be made into tea and I found that it is also believed that they may be used as a herbal remedy for puncture wounds. Some of the existing plants in the peat garden that were untouched by the reconstruction were the *Phyllodoce breweri*, shortias and jeffersonias.

When the site was ready, we mixed the new soil, composed of equal proportions of peat, leaf mulch and soil mix. Julia mixed the soil in the back of the mule and the volunteers and I used wheelbarrows to empty it into the peat garden. I then began to replant the plants I had previously removed and cleaned, and I added *Primula vialii*, *Primula capitata*, *Primula aurantiaca* 'Harperley Pink', *Erythronium hendersonii*, *Meconopsis* 'Old Rose', *Omphalogramma delavayi* (Julia's favourite and most prized!), *Gentiana* 'Iona' and *Gentiana* 'Blue Heaven'. Finally, we added a finishing layer of mulch and watered everything in.

Himalayan Garden

Another project that I truly enjoyed was planting *Meconopsis* and *Primula* species down by the Himalayan section. This area was one of my favourites because of its plants, its construction and its general



design. The plants were destined to fill in some parts, continuing the existing collections. One of the reasons I enjoyed this work was that Julia let me know which *Meconopsis* and *Primula* she wanted and what areas they were to go in, and then let me do the design and layout, merely following the usual spacing guidelines. The selected species were *M. napaulensis* and *M. paniculata*, with *Primula vialii* joining the already existing *P. aurantiaca*.

One of the volunteers' tasks was harvesting hellebore seed. Gardens today must be resourceful and creative when it comes to resources, especially regarding plant conservation. One of the best ways of conserving is to save seed. I always appreciate learning about the ways in which seeds – especially higher valued genera – are harvested and collected to ensure their continuation.

Excavation and planting





Seed collection

I thought that the varied collection of flower heads looked particularly beautiful.

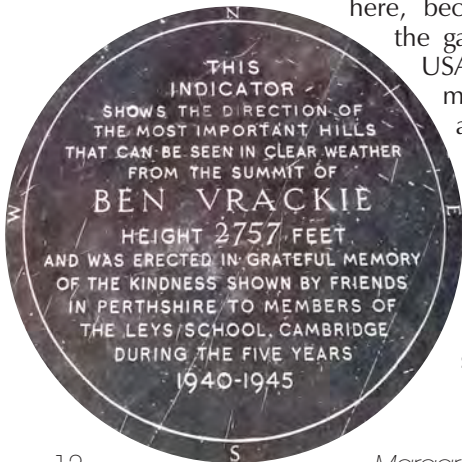
Something I observed and learned at the Explorers Garden was the use of *Rhinanthus minor* (Yellow Rattle). This species is a hemi-parasitic herbaceous annual, making it an ideal candidate to plant on parking lot banks because it has a beautiful flower and colour and it helps out-compete the grasses and other weeds that try to take over. Julia used it in one of the

Pitlochry Theatre parking lots so successfully that she joked that now the hill was a little too bare for her liking. I love the idea of using natural plant characteristics rather than potentially harmful chemicals to achieve weed suppression and I believe that, as time passes, natural methods will be increasingly important as the results of more studies of the effects of chemicals emerge.

When I wasn't working in the gardens, I liked to explore the surrounding highlands, hiking the mountains, and discovering the local flora. Tay Forest Park was about fifteen minutes walk from where I was staying. This beautiful area is filled with pines that are used by a logging company, but it also contains some beautiful flora. I find it interesting to visit recently cleared areas and see what species pop up to repopulate the newly vacant niches. I encountered *Digitalis purpurea*, *Alliaria petiolata*, *Buddleja davidii*, *Equisetum* – and many thistles. I thought the *Buddleja* and *Digitalis* were beautiful additions and found it interesting and amusing that they are considered weeds here, because I have planted out many in

the gardens I have worked in within the USA. I hiked to Ben Vrackie, probably the most famous summit (841 m) in the area and easily reached from Pitlochry. On the way up, I saw beautiful *Alchemilla alpina*, *A. glabra*, *Dactylorhiza purpurella*, *Ajuga reptans*, and *Pinguicula*. About halfway up I stumbled upon Loch a'Choire with its beautiful views and a very different marshy habitat surrounding its edges.

At the top of Ben Vrackie



On Loch Katrine

Loch Katrine

I accompanied Julia and the volunteers to Loch Katrine, a beautiful freshwater loch about two hours from Pitlochry, and the primary reservoir for Glasgow for 150 years. We took a boat tour to see the beautiful landscape and I got to know some of the hilarious and wonderful volunteers better. I even had my first tea-time experience with, tea, biscuits, and creamed butter.



Edinburgh Royal Botanic Garden (RBGE)

On my final day, I took the train to visit the RBGE. It was wonderful, still my favourite botanic garden. I spent hours looking at the many different plants and collections. I ended up spending most time in the outdoor alpine house and rock garden – with my favourite group of plants. I had started working with alpines with Peter Korn, and Julia had inspired me even more with her extensive knowledge. Every time I asked about a plant I liked her response “That’s an alpine”. I like the astonishingly intricate details of these plants. Whether it is the disproportionately large and colourful blooms that serve to attract pollinators at high altitudes or the various coping mechanisms they have developed to survive harsh conditions of very hot days and cold nights, I find them all fascinating and stunning.

Summary

I am very thankful for my time in the garden. Julia is the sole permanent gardener, albeit with the amazing volunteers, so I had a great chance to work on my own, trust my instincts and advance my skills. I deeply appreciated the guidance and knowledge that Julia imparted, and I learned enormously about woodland species, alpines, building garden collections, and managing a garden with volunteers. I have been inspired to continue a life in horticulture and I am forever grateful to the SRGC and the Aitchison fund for helping me with this opportunity.



Eryngium at the RBGE



Building our Oasis in Dunblane

Sandy Leven


Every garden changes as it matures. Our one third of an acre above Dunblane has changed significantly since our house was built in 1975. We chose our site because it had uninterrupted views over Dunblane to the ring of hills and mountains that stretches from the Campsie Fells in the South-West, taking in Ben Lomond, the Arrochar Alps, Ben Ledi and the Trossachs in the West, to Ben Vorlich and Stuc a'Chroin to the North-West. Our small, hillside and residential estate of about twenty houses was once part of a birch wood. It is also part of Sheriffmuir battlefield of 1715; government troops were once camped here!

A local developer was building and selling houses. Developers seem not to like natural contours on their building sites. The trees had been felled and the ground had been churned up and 'reshaped' by tractors and bulldozers. Because every plot needed water, gas, electricity and telephone lines, the whole site had been turned upside down. There was no proper access road, only a muddy track cut into the hillside, resulting in a steep bank on our side. Vehicle access to 'our bit' was by a circuitous two-mile detour along a farm track. My father could scarcely believe that we had paid good money for this muddy piece of land. Anne and I were not discouraged, because two houses had already been started. Most of our ground was once subsoil. To my eyes the plot offered many possibilities. At least the services had been laid. All we needed was a hard surface on the road and the builders could start on our house. Other plots sloped away from the road but ours sloped down towards it. Today, the road climbs uphill all the way to our front door.

Our ground slopes steeply to the West and rather more gently to the North. It is bounded by the street (part now called an 'Avenue' and the other a 'Court') on three sides, like a peninsula. We have only one immediate neighbour and the seven other houses are across the street. Most of our ground is above street level. To build the house, the top part of the ground was flattened, leaving a nearly level area to the front. Thus, nearest the house at the top of the slope, there was some real soil.

With spectacular views, we benefit from more sunshine than the rest of Dunblane. The setting sun lights up our west-facing plot while there is shade below. This extra sunshine is especially noticeable in winter when it makes me the happy soul that I am. We never tire of the magnificent sunsets and, when there is snow on the mountains, I think our view towards Ben Lomond is like that from Seattle towards Mount Rainier. The downside of the steep hill is that the road gets blocked when it snows. However, my children learned to ski in the garden and on the road round the house.

Ben Ledi, frost, and stones



Snow falls more heavily on our exposed slope than on the older houses in upper Dunblane. Initially, before we established shelter, the north winds blew uninterrupted through the gap between Gleneagles and Glen Devon, hitting our garden with full biting force. The old gamekeeper from Kippenross estate told me that our end of the former Kippendavie Wood has always been a “windy bit”. It still is.


We moved in December 1976. A frost had frozen the mud so that the removal van could drive right up to the front door without becoming bogged down. In my mind I kept imagining the layout of the garden. My plan was pretty standard. There would be a central grassed area west of the house with rock gardens on the slopes. The front would be grass with a rose border beside the pavement. My first thought was that the west slope would become a sunny rock garden and the north slope, shaded by the house, would be a ‘peat garden’. To reduce the height of the west slope, the ‘lawn’ is not level but inclines to the West, meaning that you must be careful where you place a chair, or you might just tip over.

With members of the Glasgow Group, I had visited Jimmy Wotherspoon’s garden in Fairlie on the Clyde coast. I admired his approach to privacy. His garden was screened from the road, but he had neither hedges nor fences nor walls. The specimen trees and bushes around the edge screened from the road and pavement. I saw this as a friendly way to keep the centre away from public view. I copied Jimmy’s idea.

My plans for a west slope rock garden were thwarted by geology. The underlying strata comprised alternating layers of sandstone and clay. Water draining through ground from higher up seeps along the sandstone layers to form wet areas where the sandstone reaches the surface. I soon realised that most rock garden plants would need better drainage, although Himalayan primulas enjoyed the water seeps. I would need to raise the flower beds above the cold wet clay. I used the large rocks and stones, which I uncovered in the garden, to create a series of terraces stepped up the slopes. This resulted in many level planting areas with retaining walls in front. The walls were wide and strong enough to stand on to access the terraces. I became a competent dry-stane dyker. I had learned the basics from Jeke Anderson, the stonemason who built the wall round my parents’ garden in Falkland. He also worked for the National Trust for Scotland at Falkland Palace. I learned a lot and now I am quite adept with a cold chisel and mason’s hammer. Our stratified sandstone was easy to split and trim to shape.

At first the west slope looked like a quarry, but this did not deter me because I had seen the rock garden at St Andrews Botanic Garden when it was first built. Its huge rocky faces and gravel fields could have given any quarry a run for its money. However, I knew that, as my plants grew, they would soften the appearance of the stone. I built raised beds on the flatter areas at the top and in front of the house. Because of the slope, the

Acer griseum



under-building of the house on the west side is higher than on the east. James Aitken, the respected rock gardener of yore, whose alpine nursery was beside Branklyn Garden in Perth, had designed many gardens around the city. I got good ideas from his lectures at SRGC meetings. One of them was to raise the ground level near the house and then plant something which would become a focal point. James was hill walker, a photographer and had an encyclopaedic knowledge of Scottish flora. He told us that the summit of Suilven in Western Ross was flat enough for a football pitch. The only problem was that if the ball went out of play you had to go to the bottom the mountain to retrieve it. That said, my focal point was an *Acer griseum*.

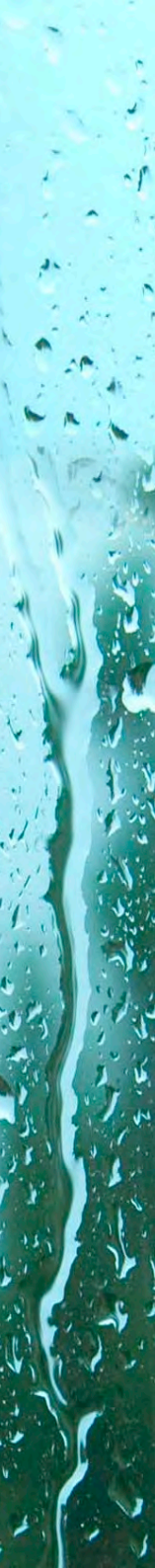
Dunblane has heavy rainfall, so I realised that I would need the water to drain away. I also needed access to all parts of the garden. I laid a path of 900 x 600 and 400 x 400 (mm) slabs around the house. I dug drainage ditches where the paths were to go and covered them with gravel. These drains connect to each other so that all rain water runs away downhill into a deep sump, which I dug to below road level at the lowest corner; where it goes after that I don't know. The result is that our garden comprises several areas separated by shrubs and trees and linked by paths and steps.

The sandstone layers were a godsend. As I cleared and dug in the red clay, removing buried tree trunks and roots, I uncovered hundreds of flat stones churned up by bulldozers. These are the stones I used to build the raised beds. Bett Brothers, builders from Dundee, were building a whole housing estate just below us. They were dumping huge amounts of stone from their excavations and the night watchman allowed me to take as many as I wanted. I transported them in the boot of our Triumph 2000 car. That didn't do the car much good. Our local farmer, also named James Aitken, provided trailer loads of similar local rocks and stones from unwanted dry-stane dykes on his farm. With this abundant supply I built retaining walls two to three feet high, right round our plot. This reduced the steepness of the slopes quite considerably.

I left a 1.8 metre strip round the garden for the eventual pavement. The local council said that the piece at the bottom, on the west, was mine. Thus, I got an extra 1.8 metre strip down there and built a big raised bed on it. I had enough stone to build several sets of steps, using big stones for the risers and flat ones for the treads. Over time I paved an area near the house, fondly called 'The Patio'. All my raised beds and drains were filled to half their depth with the small stones uncovered while I was digging, and from chipped-off debris from the stone walls and steps. This ensures good drainage. Nothing was wasted.

Jimmy the farmer brought well-rotted dung to add humus to the clay. It came with a supply of couch grass and horseflies! I ordered and barrowed countless tons of sharp sand and gravel from our local quarry to open up the clay soil. While our garden in the highest part of Dunblane has clay soil,

Dry-stane dyking, and rain



lower areas near the river are part of a glacial moraine, the source of the sand and gravel. One day, at lunch time a lorry delivered twenty tons of sharp sand and washed gravel which the driver emptied beside the house. He tipped the sand into a pile, drove forward and dumped the gravel so that there were two huge heaps. The only drawback was that gravel was piled up on the back doorstep and threatened to invade the kitchen. When I got back from work, I had to dig out the door.

I followed the fashion of the days by terracing the north-facing slope with peat blocks bought from a farmer in Armadale who also supplied blocks to the Royal Botanic Garden in Edinburgh (RBGE). These blocks were manageable and easy to work with but quickly disappeared under thick growths of *Polytrichum* moss. The blocks themselves crumbled after a few years. Our rainfall is much higher than that in the RBGE, which has the additional advantage of sitting on very sandy soil. At the time there was a peat-cutting business in Airth, near the Kincardine Bridge, which supplied bales of peat. I used a lot of this to create our 'peat' beds. I realise that this would be bad practice today, but back then I felt I was supporting local business. I also dug in what little home-made compost I had. A big problem in a new garden is that sources of garden compost are few. There just are not enough weeds, fallen leaves, prunings, grass cuttings, potato peelings and kitchen vegetable waste to make much.

My neighbour and I decided where our boundary was and went to the local sawmill for posts and planks. Thank goodness the manager at the mill offered to build the fence for us. It comprised 15 cm sarking planks on alternate sides. This allowed the wind to blow through without destroying the fence. With the boundary walls and fence all in place, we could look out the living room window and imagine what the garden could look like. My grandad always said a crop of potatoes clears the land. So, for a couple of years we had to look at rows of potatoes where the lawn was to be. Grace, our neighbour across the street, remarked that she hoped that she would not have to look at a garden like that for many more years. I was tempted to grow potatoes every year just to annoy her! Nature ended that idea, as the potatoes suffered from blight.

The first trees I planted came from Plus Trees at Auchterarder; later, after perusing their guide to trees: I ordered more from Hillier's in the south of England. They supplied my star trees: *Prunus serrula*, *Acer griseum*, *Betula albosinensis*, *Sorbus cashmiriana*, a *Laburnum*, which died because the soil was too wet, and a *Davidia* which has never ever in forty years developed any white handkerchiefs! I planted three *Eucalyptus*. The fastest growing was *Eucalyptus gunnii*. It had to be felled after twenty years to make room for our conservatory. *E. longifolia* grew to over twenty feet high and was quite magnificent but succumbed to frost one winter. *E. pauciflora* has proved long-lived and hardy here but it is spindly. I should have planted three together. The hardiest *Eucalyptus* came from the Treeshop Garden

Betula albosinensis




Centre beside The Oyster Bar on Loch Fyne, where Tony Blair and Gordon Brown once had a 'secret' meeting in 2004. You can visit it while travelling round Craae, Arduaine and Ardkinglass gardens. Sometimes you can buy special plants at these beautiful west coast gardens.

Another fashion I followed was that promoted by Adrian Bloom of Bressingham, growing heathers and dwarf conifers together in island beds. I used these very successfully on the steepest parts, facing west. First, I dug the ground and incorporated as much humus as I could find. Then I covered the slope with black polythene, the shiny stuff, not the fancy garden fabric available nowadays. I planted the conifers through the polythene and put the heathers between them. Then I covered the polythene with a deep layer of pea gravel, using rocks to prevent all gravel tumbling downhill. This area looked great for many years, but you could not walk on it. In time however, the conifers, mainly junipers, grew too big. I now know the difference between 'dwarf' and 'slow growing'. The dwarf ones stay wee and the slow growing ones take a while to get big. Perhaps I should have just pruned the conifers, but I at last decided I would clear the slope and start again. When I tried to lift them, I was horrified to find that it was impossible to dig through the polythene because the tree roots grew tightly below it as well as above through the gravel. There was the added danger of toppling down the slope! It was hard work to dig out the junipers. I left the *Abies koreana* because I like its blue cones. Luckily it is planted on the slope and I could look down on it. Now the cones are hard to see because the tree is too tall.

When I was planting the shady area on the north side, my neighbour told me he had found a good local source of dwarf conifers. These were being sold at bargain prices as the nursery was closing. I bought a dozen or so and planted them like a row of soldiers alongside the pavement. As they grew, they started to become a hedge that sheltered the plants in the 'peat garden'. Foolishly I continued this hedge with some Leyland Cypress grown from cuttings. This hedge became a real burden. Even though I trimmed it regularly it became wider and wider, reducing the width of the flower beds. The other problem was that the Cypress roots invaded everywhere, sapping goodness from the other plants, even invading the compost heaps. I now know to resist temptation and that it is usually a mistake to go for a bargain. Several Silver Birch trees and rowans germinated trying to re-establish the former wood. For many years I left them alone as they grew quickly and provided shelter. Most have now been felled. I used their trunks to replace the disintegrating peat blocks. They make good retaining walls.

My favourite tree is our Chilean Firetree, *Embothrium coccineum* var. *lanceolatum*. I bought the seedling from a nursery in The Black Isle while we were still living in Inverness. I expected it to be tender; to protect it I planted it close to the house, perhaps too close. It proved me wrong and has thrived. Every June its bright crimson flowers erupt to announce that

Prunus serrula



summer has arrived. Once established it grew quickly and must be pruned every second or third year. I once let it get so tall that my neighbour asked, "What are those red flowers growing above your house?" I marvel at the way new growth just bursts out of the old trunk.

We visited local specialist nurseries every month to find plants in flower, and chose those we liked. By choosing locally raised plants we could be sure of when they would flower, their height and what they looked like. Thus, we would have something of interest all year round. I joined the SRGC when I lived in Inverness, so when we moved to Dunblane I could attend club meetings in Stirling, Glasgow, Edinburgh and Perth and found a warm welcome at all of these. Many of our garden plants came as raffle prizes at meetings, were bought at club stands at our flower shows or were gifts from fellow members. I still link many of our plants to the generous gardeners, many much older than I, who gave them to me. Membership of the SRGC has taught me that, although people pass on, their plants can live on in their friends' gardens.

Once the plants started to grow, the wildlife that had been displaced by all the building work decided to return for regular meals. The rabbits were easily excluded by building a 60 cm wire fence round the garden above the retaining walls. It took a long time to cement in the angle-iron posts. To prevent the rabbits digging underneath it, I dug the wire netting 30 cm below the soil level. Soon several neighbours followed suit. Today we rarely see any rabbits. Their numbers have been reduced by myxomatosis and by feline predation. I don't know what happened to the roe deer. On harsh winter days we may get a visit but luckily their favourite food seems to be *Bergenia*. I think they have just moved uphill to Sheriffmuir. Pheasants can be a nuisance as they plod everywhere with their big feet and they love to eat flower buds. As for the local cats, which I used to chase away because I considered them to be enemies, I now welcome them. Why? One winter my *Crocus* collection was more than decimated by mice. They climbed into the cold frames and comprehensively worked their way through each potful, leaving almost no corms at all. In spring I rescued the few remaining tiny cormlets. It took a long time to build up the numbers and those left tended to be the cheapest ones. I still wonder, "How did the mice know which pots contained the expensive corms?"

Back then I was a young gardener, full of ideas and the strength and determination to implement them. Over the years our garden has changed considerably. Trees get taller and bushes get wider. Mostly the plants that have survived are those which enjoy our ground and climate conditions. All signs of the sticky red clay have been hidden, the mossy 'lawn' has never been anything like perfect, but it is the centre of our oasis from which we still admire the mountains of the highland edge, the magnificent sunsets and even the storm clouds blowing in from the west.

Embothrium coccineum var. *lanceolatum*

Guided by *A Quest of Flowers*[#] – In Search of *Primula sherriffiae** and its Historic Cliff

Johan Nilson[§]



FIG. XLV. — PRIMULA SHERRIFFIAE (p.130)

Photo, R. M. Adam.

Primula sherriffiae has, since it was first discovered, been regarded as one of the most beautiful members of its genus, perhaps even as one of the most beautiful plants of the entire Himalayan range. It has only ever been found twice. First in 1934, by Frank Ludlow and George Sherriff, in a remote part of south-east Bhutan, and later, in 1948, by Frank Kingdon-Ward, in the Mishmi Hills in Arunachal Pradesh in India. So, in 2015, when our party travelled through the same region as Ludlow and Sheriff 81 years previously, we definitely wanted to search for it. Already, on our entry to Bhutan two weeks earlier we had decided to stop and search for “the cliff” on our way north. However, a landslide and a road block spoilt our chances of searching that day.

Above: *Primula sherriffiae* at the Royal Botanic Garden Edinburgh in 1935, reproduced with permission of the RBGE, from *New Flora and Silva* (W W Smith, 1936, 8:131)

[#] H R Fletcher (1975) *A Quest of Flowers*. 387 pp. University of Edinburgh Press

* The name has been corrected from *P. sherriffae* to *P. sherriffiae* according to the IAPT code 60C, because the epithet honours a woman

[§] Gothenburg Botanic Garden

Eventually, on our way back from the thirteen-day trek (*In Search of Meconopsis grandis*, *The Rock Garden* 141), we decided to spend our last two days searching for this mythical plant. On the seventh of July we left Sakteng and headed for Yongla Gumpa in the Pemagatshel district in the south-east part of Bhutan. Our plan was to track down the old main road entering Bhutan and to find the historic cliff where Ludlow and Sherriff found *Primula sherriffiae* in 1934. We arrived at Yongla Gumpa at noon that day and spent quite some time asking around at the monastery, hoping to find the whereabouts of the old road into Bhutan. But nobody seemed to have knowledge of it.

From the original description of *Primula sherriffiae* in *New Flora and Silva* (no. 8, 1936), I requote what I believe must have been Sherriff's notes: "Eastern Himalaya: S.E. Bhutan, at Chungkar, Diwangiri-Trashigong Road. Pale violet, centre white. Growing in wet moss on overhanging rock cliffs in shade. Flowers farinose, especially buds. Alt. 5000 ft 24th June 1934", and then the author's reflections, "The altitude is unusually low for a *Primula* in the Himalaya. The specific name is in honour of Mrs C I Sherriff, mother of the collector."

Thus, it was known that the primula had been found on rock cliffs in shade, at 5000 ft (1524 metres), along the road up towards Trashigang (Trashigong). We also knew that people had unsuccessfully searched in recent years along the main road at that altitude. But when Ludlow and Sherriff entered Bhutan in 1934, the world was a lot different and there must have been a different road. Could there be an old hidden road that we needed to find? *Primula* expert Pam Eveleigh was convinced of this. She sent me the Google Earth maps before I left Sweden and pointed out what might have been the right place to search for it.

So here we were at the monastery, without any signs of the old road. We did a short trek through the surrounding forest, which after all turned out to be rather interesting. Besides some huge stands of *Arisaema*

Arisaema galeatum with its curious spathe

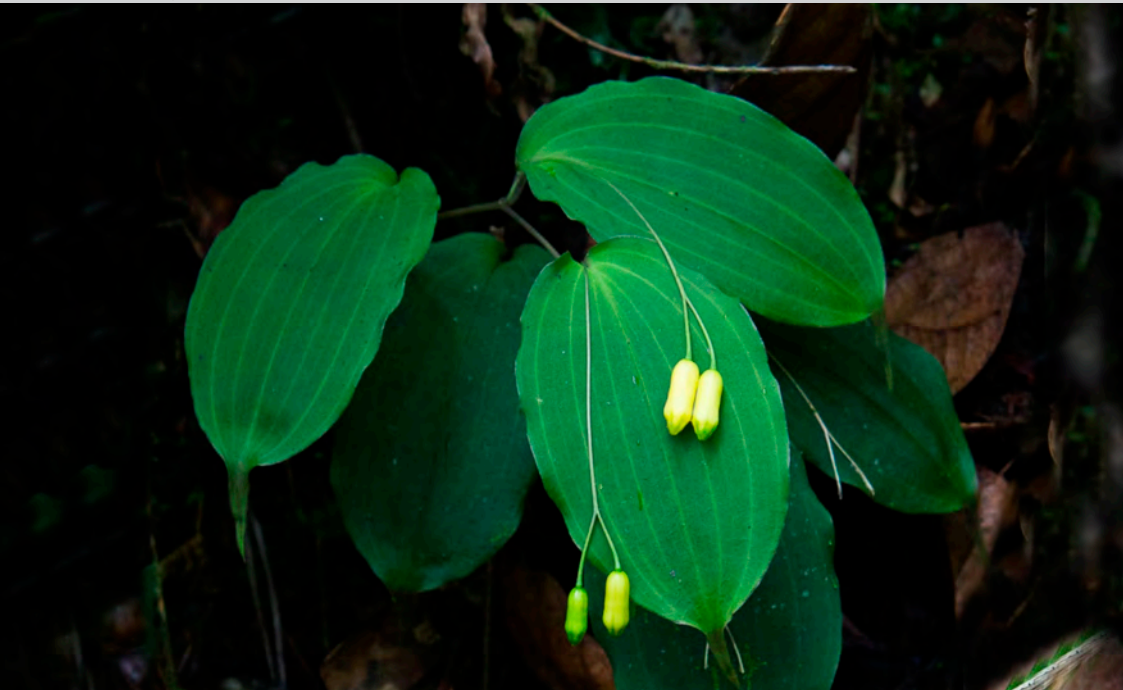


An unidentified *Arisaema*

galeatum with its peculiar look, we came across another quite puzzling *Arisaema*. These plants were all out of flower but clearly showed characters of belonging to section *Nepenthoidea*. Some had the strangest intriguing leaves, which gave them an overall evil look. On later consulting with *Arisaema* expert Pascal Bruggeman, we concluded that they might represent some intermediates between *Arisaema wattii* and *A. nepenthoides*. I believed a majority of the plants in the area to be *Arisaema wattii*, with its characteristic three-segmented leaf (the leaves of *A. nepenthoides* consist of five segments). But since these plants were all out of flower it is still unclear what they truly represented. As far as we know there has been no previous record of *Arisaema wattii* in Bhutan and the fact that the nearest known observation (KW 8243) was more than 400 km further east in the Mishmi Hills make these plants even more intriguing. I would love to get the chance to get back earlier in the year to try to figure this out.



Polygonatum nervulosum, a rarely seen yellow-flowering Solomon's Seal





Our key guide to *Primula sherriffiae*

A Solomon's Seal very different from anything we had seen before turned out to be *Polygonatum nervulosum*, a species discovered by Joseph Hooker during his travels through Sikkim in 1849. Its rather broad leaves had a distinct white nervation and its yellow flowers were held in an unusual way above its leaves. According to *Polygonatum* expert Aaron Flodén, who helped identify this, among other plants, it was likely the first time this species

had ever been photographed. Found at a rather low altitude (2200 m), I wonder if this could be growable at all in a cold Swedish climate. I hope that someday, someone will get the chance to introduce this to cultivation, for it would surely be an ornamental addition to any garden.

After a few hours we arrived at our new campsite where our tents had been raised. It turned out to be on the premises of a nunnery. There were no nuns around, but a massive choir of barking dogs made us aware that we were close to civilization. As we sat down for our evening meal, out of nowhere and very suddenly, an old man appeared. Apparently, word of

The nunnery and its barking dogs





Gleichenia gigantea over the old road

our presence had spread around; he had heard that we were looking for someone with knowledge of the old road and now he had come to our aid. It turned out that he knew about the old road and, after we showed him a picture of *Primula sherriffiae*, he also claimed to have seen it in flower along the way. It was decided that he would return next morning and help us find the way.

Chirita species

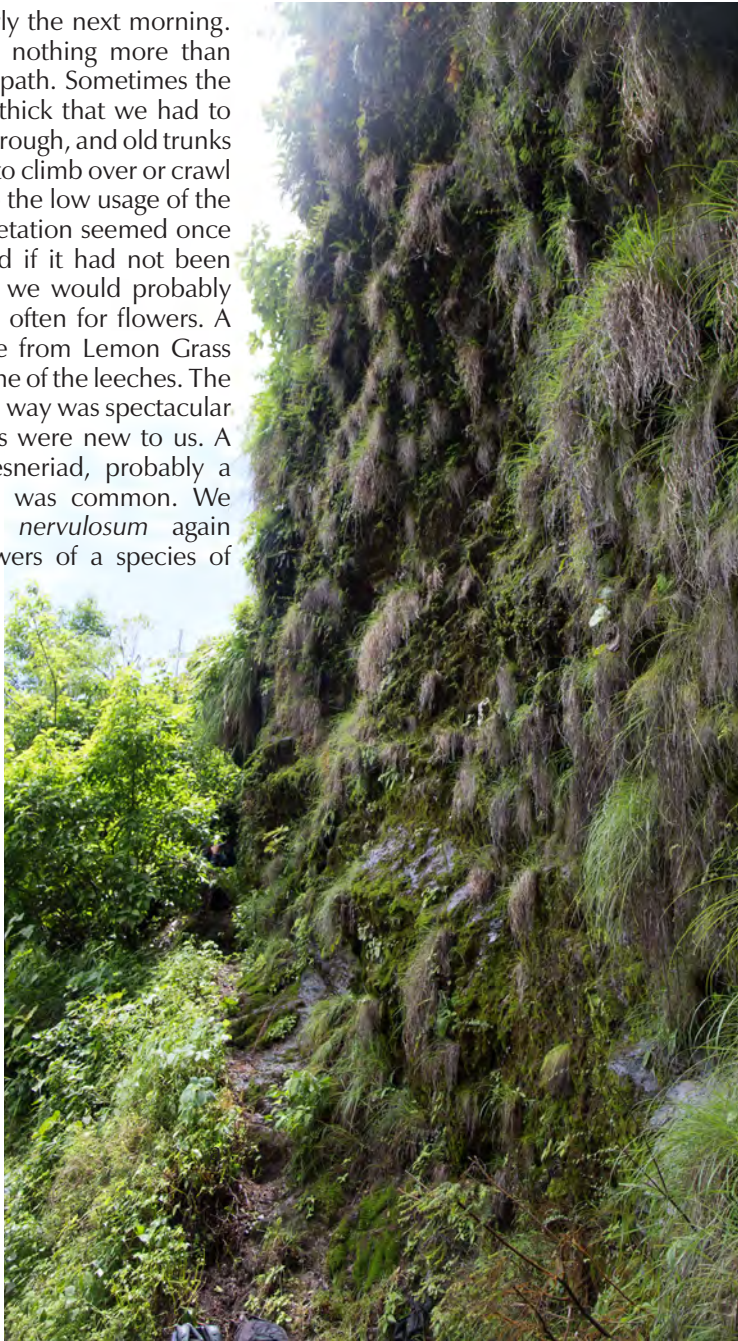


Agapita species



We set out early the next morning. The old road was nothing more than an overgrown tiny path. Sometimes the vegetation was so thick that we had to squeeze our way through, and old trunks that we either had to climb over or crawl under witnessed to the low usage of the path. The lush vegetation seemed once again very rich and if it had not been for all the leeches we would probably had stopped more often for flowers. A special spray made from Lemon Grass helped to deter some of the leeches. The fern-flora along the way was spectacular and several species were new to us. A blue flowering Gesneriad, probably a species of *Chirita*, was common. We saw *Polygonatum nervulosum* again and light-pink flowers of a species of the epiphytic genus *Agapetes* hung down at eye level. Among the different orchids a pink-flowering *Calanthe* was the most interesting.

After about two hours walking at a rather brisk pace we approached the location where the cliff was supposed to be found. Suddenly, the great cliff was right in front of us as a 20-metre vertical wall appeared on the left-hand side of the path. As we got close enough, the entire wall





Bergenia and *Thalictum* on the cliff

came alive with flowering primulas. We were all overwhelmed by the sight, at the same time finding it hard to comprehend that this was actually happening to us. After 81 years we were at last standing in front of the historic cliff that Sherriff and Ludlow climbed in 1934.

We were now at around 2100 m! This was a significantly higher altitude than the 1500 to 1600 metres noted by Ludlow and Sherriff. We don't know what methods were used in 1934 and how accurate they were then, but clearly the old altitude seemed wrong. At once we started to document the wall as best as we could. A constant flow of

water trickled down over the mossy rock so that when we put ourselves in position to photograph the plants, we enjoyed dripping water all over ourselves and our cameras. Besides the primulas two other familiar plants we noted were *Bergenia ciliata* and a *Thalictum* species, possibly *T. virgatum*. The Lily, *Lilium nepalense* var. *concolor* – the reason Sherriff climbed the wall in the first place all those years ago – was nowhere to be seen (it is pictured in "In Search of *Meconopsis grandis*", *The Rock Garden* 141).



Primula ludlowii on the cliff



We had been hoping to find *Primula sherriffiae* at the site; but this was not it. From growing it back home, I at Gothenburg and Elspeth Macintosh at Edinburgh could say right away that what we found was something different. I remembered reading about *Primula ludlowii* (W W Smith, 1936, Notes Roy. Bot. Gard. Edinburgh 19: 172), a second species found here by Sherriff in 1934, and realized that this must be it.

For a long time, authorities regarded *Primula ludlowii* as “just” a depauperate form of *P. sherriffiae* and until this point there had only been herbarium material available for examination. But now, standing in front of hundreds of these plants, there was no doubt that this was a distinct species. Compared with *P. sherriffiae*, the plant facing us was much smaller in all aspects. Its flower was much smaller and it had a much more intense and deeper colour. It also lacked the long scape that in *P. sherriffiae* gives the long-tubed flowers their special dangling appearance. Instead, its calyx sat low down, inserted into the leaf-rosette. The *P. ludlowii* had quite long-tubed flowers but not as long as those of *P. sherriffiae*, which measure up to four cm. The flower tubes of *P. ludlowii* were no longer than 2.5 cm. Another distinct feature was to be seen in the flowers. While the corolla of *P. sherriffiae* is covered in white farina, the corolla (and the entire flower) of *P. ludlowii* was covered with fine hairs. This I assume to indicate different pollinators. We were excited, realizing that it had to be *Primula ludlowii* in front of us and at the same time also puzzled by the fact that *Primula sherriffiae* was not.

In the original description it was clearly stated that *Primula sherriffiae* was found “Growing in wet moss on overhanging rock cliffs in shade” whereas the site we were now standing in front of was in the open and rather exposed. We probably needed to look along the cliff further into the woods and search for more shaded situations. Driven by an unstoppable force (perhaps of botany, horticulture, science, exploration, history, madness & love) we entered the forest, with our minds set on finding it.

After several attempts to reach the cliff through the forest, we eventually managed to get close enough to spot something high up above us on overhanging rock cliffs that could have been it. But it was too far away and seemed impossible to reach. From *A Quest of Flowers*, we had learned of the difficulties Sherriff had climbing this cliff, so we knew from the start that it wouldn't be easy.

Quoting from *A Quest of Flowers*: “They were now on the road to Trashigong and Tsona. They were also in the land of the leeches, great red things which squeezed their way through the eyelet holes of Ludlow's boots and covered his socks with blood. Biting flies were also a pest, raising large blood blisters which were frightfully itchy. However, some fifteen miles beyond Diwangiri, on the way to Chunkar (6,400 feet) [1950 m] they had some great stroke of luck that made these inconveniences

Facing: *Primula sherriffiae* on the historic cliff





Primula sherriffiae



Primula ludlowii

temporarily forgotten. On a great cliff, close to the right-hand side of road, Sherriff spotted a number of handsome lilies, which he managed to reach with great difficulty ... they proved to be *Lilium nepalense* var. *concolor* ... But this was not all. In the perilous business of collecting the lily Sherriff found two primulas which he hadn't seen before; 'I hope they may be new ones.' No one else had seen them before either, although other travellers had passed by that same cliff, and possibly collected on it, including William Griffith as long ago as 1838. And they were indeed new species"

We were soon close enough to realize that it was *Primula sherriffiae* that we at last had in front of us! After several attempts we finally managed to reach one of the plants. We took lots of pictures and made a thorough documentation. There must have been hundreds of plants higher on the cliff. It was indubitably a strong and healthy population, well protected by its inaccessible habitat.

Primula sherriffiae



Primula sherriffiae and *Primula ludlowii* belong to the section *Soldanelloides*, a small section of 22 species within *Primula*, distributed mainly throughout the Himalayas and south-west China, with most species in the eastern part of the Himalayan range. Besides *P. sherriffiae*, *P. ludlowii* and *P. siamensis*, all other members are high altitude alpinists. *Primula reidii* var. *williamsii* from Nepal and *Primula flaccida* from south-west China are the only ones that have been truly successfully established in gardens. A few other species in the section linger on in cultivation thanks to a few dedicated alpine enthusiasts and botanical gardens. The RBGE has been able to keep *Primula sherriffiae* itself in cultivation since it was introduced by Ludlow and Sherriff in 1934. Thanks to RBGE's kind generosity, a few plants have also been cultivated at Gothenburg Botanical Garden during recent years.

Further images of *Primula ludlowii* and *Primula sherriffiae*, and a thorough blog on the taxonomic status of *P. ludlowii*, *Primula ludlowii* - *Species, Subspecies or Variety*, are to be found on the splendid website of Pam Eveleigh, www.primulaworld.com

I am grateful to my travelling companions: Julia Corden, Elspeth Mackintosh, Martyn Walsh, Ann De Rijke and Koen Van Poucke. I most sincerely thank the Scottish Rock Garden Club Exploration Fund for supporting my participation in this expedition. Finally, I am especially grateful to Pam Eveleigh, who provided loads of valuable information; without her help, *Primula sherriffiae* and *Primula ludlowii* would never have been rediscovered.

On the cliff





Russian and Georgian Caucasus- A Tale of Two Countries

Part 1: Russia

David Livermore

My wife, Liz, and I have been going on botanical interest holidays since 2006. To celebrate ten years of exploring the mountainous regions of Spain, Switzerland, Greece and Turkey, we decided to do something a little more adventurous. Fellow travellers and tour leaders had often spoken to us about the botanical treasures in the Caucasus Mountains, where the flora of Europe and Asia meet. Greentours, a company we have often used for our trips, have been organizing holidays there for a number of years. And so, one day in June 2016, we found ourselves at Heathrow Airport boarding an Aeroflot plane bound for Moscow, and from there on to the southern Russian city of Krasnodar. Before this, we had to obtain the necessary permits by visiting the visa centre in London along with our passports where we lodged our travel plan listing dates and hotels for our stay and had our fingerprints taken for security. This was an early sign that Russia is a much more bureaucratic country than the West, but at least someone would know where we were if we got lost (we didn't!) Finally, after a long couple of flights and a short coach journey, we arrived at our hotel in Krasnodar in the small hours of the following morning. Breakfast was the time to get to know the other five fellow travellers. We had already met up with the tour leaders Kurt Vickery and Pavel Křivka on the flight. Pavel is a Russian-speaking Czech, perhaps best known as co-author with Vojtěch Holubec of *The Caucasus and its Flowers*, a lovely hardcover reference book for some of the flowers we were going to see. More useful as a field guide is *Mountain Flowers & Trees of Caucasia* by Shamil Shetekauri and Martin Jacoby. Although this book covers mainly the Georgian side and further south, plants do not respect national boundaries. Another good reference book, focussing on the Russian Caucasus, is (as translated) *Field Guide to The Plants of the Russian Western Caucasus* by A S Zernov. Although written in Russian in Cyrillic script, it does include Latin names in Roman script, with good pictures to aid identification.

We didn't have long to look around Krasnodar as we had a full day's drive ahead of us to Lagonaki, which was to be our base for the next three nights. This is a huge nature reserve at an altitude around 1800 m with glorious alpine meadows set against a backdrop of the majestic Caucasus mountains. In the midst of this stood a huge edifice, the Azish-Tau Hotel, seemingly in the middle of nowhere. It was a very well appointed hotel though, ideal for skiers in winter and walkers in the summer, both drawn by the superb scenery and clean mountain air.

The first full day of botanizing in this botanical paradise started with an early morning exploration of the hotel grounds in glorious sunshine, which revealed some lovely specimens of the marsh orchid, *Dactylorhiza euxina*. Across the road a bank was home to *Lilium monadelphum* with its rich yellow flowers, many of which were on the cusp of opening. We had hired a minibus for the day but we didn't really need it, as there was so much to see that we only got about three km along the track. Highlights included

Facing: *Lilium monadelphum* ssp. *armenum* at Lagonaki



Lagonaki: *Campanula biebersteiniana*
and *Aquilegia olympica*



Pedicularis atropurpurea,
Polygala alpicola, *Arnebia*
pulchra, *Veronica*
gentianoides, *Gentiana*
oschtenica, *Fritillaria*
collina, *Campanula*
biebersteiniana and
Aquilegia olympica.
We found a lovely pale
pink hybrid primula,
P. amoena x *ruprechtii*.
Orchid buffs weren't
disappointed either, with
Dactylorhiza caucasica,
characterized by its
unspotted leaves, as well
as more *Dactylorhiza*
euxina to admire.

We woke the next
day to more sunshine.
The original plan had
been to explore some
higher altitude pastures



Lagonaki: *Primula amoena* x *ruprechtii*

Dombai: *Primula amoena*
Dactylorhiza caucasica



a bit further along the track, but we all decided we would first rather go downhill a bit in the hope of seeing more *Lilium monadelphum*. Just a few miles down the road, we were suitably rewarded. The specimens of this variable species here were more spotted than those we had seen on the previous day. There were so many interesting meadows to explore in this area that we stayed there all day. *Delphinium dasycarpum*, *Echium russicum*, *Campanula sibirica*, *Cephalanthera caucasica*, *Seseli petraeum*, *Neottia nidus-avis*, *Gymnadenia conopsea* var. *alba* and *Rhynchospora stricta* all competed for camera time with the photographers in the group. I think we could all have happily stayed in Lagonaki for a week, for there was so much to see and we had been blessed with fine weather, which isn't always the case in these high mountainous regions.

But it was time to leave the plateau behind, and head to our next location, Dombai in the southern province of Karachay-Cherkessia, very close to the border with Georgia and the disputed region of Abkhazia. It was another long drive through mostly uninteresting farmland. Eventually, however, churches gave way to mosques as we entered Karachay-Cherkessia and our destination. Greentours had chosen another well-appointed modern hotel, the Meridian, right in the centre of the town, where we settled into our rooms for the night of 23rd June. After a rather sleepless first night, the group emerged for breakfast in a distinctly grumpy mood, as the news of the UK EU referendum result sank in. But there is nothing quite like high altitude alpine flowers to calm the disturbed spirit.

Being a popular ski resort with the Russian people, Dombai benefits from a cable car just a short walk from the hotel. This whisked the group up to 2300 m, where we completed the ascent to the Mussa Achitara ridge (3000 m) by chairlift. There was still a little snow at the top, but plenty of plants to enjoy in the glorious summer sunshine. Just a few metres from the top station we found the little alpine potentilla, *Sibbaldia parviflora* and also *Saxifraga exarata*, at the eastern end of its range that stretches from the Pyrenees to the Caucasus. Not far away were some yellow rosettes of *Draba bryoides* beginning to open. One highlight for me were the Forget-me-not blue flowers of *Eritrichium caucasicum*, no less stunning than its close relative, *Eritrichium nanum*, the King of the Alps. I liked to call this plant the 'King of the Caucasus'! As we walked the path, we found lots of interesting plants growing in the scree.

Dombai: *Saxifraga exarata*





Dombai: *Draba bryoides*
and *Eritrichium caucasicum*





Dombai: *Corydalis alpestris*
and *Centaurea fischeri*

Particular highlights included *Corydalis alpestris* in various shades of blue and mauve, the unmistakable deep blue shades of *Gentiana pyrenaica* and *Gentiana verna* ssp. *angulosa*, and lovely mauve *Primula amoena*. We almost missed diminutive *Minuartia imbricata* with its veined white flowers. We were so engrossed with all the flowers that we didn't notice at first that the sun had disappeared, and part of the mountainside was now engulfed in fog. We thought it prudent to



turn back but, as we made our way along the path, we caught sight of some magnificent specimens of *Draba bryoides* growing on a rocky promontory near the station, which we had somehow managed to miss earlier. After our cameras had paid homage, we descended to the lower station. On the chairlift, a sudden gust of wind caused me to part company with my sunhat, much to the amusement of a Russian family I was sharing a chair with. Following a picnic lunch near the station, we continued our exploration. The stand-out plant for me at this altitude was undoubtedly the Caucasian endemic white cornflower, *Centaurea fischeri*. I also admired bushes of the Giant Hogweed, *Heracleum leskovii*. Close examination of the grassland revealed some nice spikes of the frog orchid, *Coeloglossum viride*, along with some more visible stems of fragrant orchid, *Gymnadenia conopsea*. Later on, we saw some lovely specimens of *Arnebia pulchra* with particularly prominent markings. As the afternoon went on, the weather became more unsettled, so we called it a day and descended to the town where we wandered around the market stalls by the cable car station in search of a new hat. Passing a stall that was selling wool by the skein, I decided I would like a new jumper. After some gesticulation and written discussion between my wife, who knows just a few words of Russian and can read Cyrillic script, and the stallholders, the amount of wool needed was established and a price agreed. They don't get many western tourists in Dombai, let alone ones buying knitting wool, so they probably couldn't wait to get home and tell their families of their sale.

Dombai: *Arnebia pulchra*

... and *Lilium monadelphum*





The Mukhinski Valley

The following day, we were introduced to our Russian drivers, Rustan and Aslan, who were to accompany us for the remainder of our stay in Dombai. They were both very friendly, though their vehicles were a little eccentric – an old Lada minibus with some home-made modifications to convert to 4-wheel drive, and a Soviet-era miniature troop carrier! They did the job well enough though (well almost, more of that later). We headed north of Dombai on a reasonably good road to the Mukhinski valley, where we turned off and headed to high ground on some mountain tracks littered with potholes. We stopped for a while at about 1600 metres to explore the banks, which contained fine specimens of *Rhynchocorys orientalis*, *Scutellaria orientalis* and *Lathyrus rotundifolius* ssp. *miniatus*. Continuing upwards in our vehicles, the landscape and plants changed

Mukhinski Valley: *Gentiana aquatica*

Stranded!



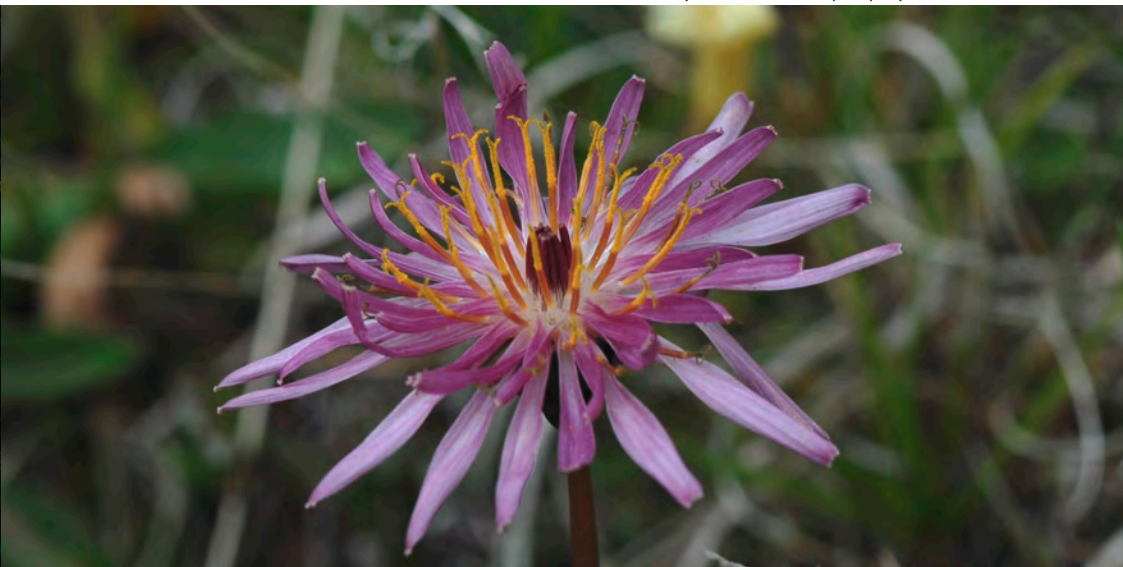


Mukhinski Valley: *Scutellaria orientalis*

after crossing a mountain stream. There were plenty of interesting alpinists to enjoy, notably *Saxifraga scleropoda*, *Thalictrum foetidum*, *Dactylorhiza caucasica*, *Viola arvensis* and a whole field full of *Persicaria bistorta*. Higher still, at around 2600 m, we explored a hill which contained three species of Gentian: deep blue *Gentiana pyrenaica*, creamy-yellow *G. oschtenica* and the diminutive pale blue *G. aquatica*. Nearby was a lovely red dandelion, *Taraxacum porphyranthum*, a rare lousewort, *Pedicularis nordmanniana*, and a lovely member of the Brassicaceae, *Cardamine seidlitziana*.

We were so impressed with the flora on this mountainside that we decided to return the next day, exploring some different tracks. Our first stop was at around 1500 m to admire lots of butterflies puddling in the ponds by the side of the road. There were swallowtails, skippers, whites and blues

Mukhinski Valley: *Taraxacum porphyranthum*





Pedicularis nordmanniana



all enjoying their surroundings. Moving on, we veered off the road on another track along a mountain stream. In time, the stream became more of a torrent, and the track went right through it! At this point, we learnt that Lada minibuses cannot swim, and it got well and truly stuck in the water. The 'troop carrier' vehicle was made of sterner stuff, and came back to try and drag us out, but the rope broke! With water levels rising inside the bus, there was no option other than to evacuate, which we did (camera equipment first with the help of the leaders). Safely on the bank, we pondered what to do next. Eventually, the troop carrier was sent back to near Dombai to summon help (a journey of around an hour). The rest of us settled down to dry off and enjoy some lunch. Eventually, the troop carrier reappeared

Rhynchosorys orientalis



Centaurea nigrofimbria growing near the border with Abkhazia



In the Lysara Gora Valley:
Facing: *Delphinium schmalhausenii*
Lathyrus roseus

Anemone speciosa x *fasciculata*
Orobanche grosheimii
Daphne glomerata







Lysara Gora Valley; *Onosma caucasica*
Jurinea alata above Nizhnaya Teberda





Lysara Gora Valley: *Hyoscyamus niger*
Iris furcata above Nizhnaya Teberda



armed with a much sturdier rope that was immediately put to work to pull the minibus out of the stream. Mission accomplished, a few of the group decided they wanted to explore the immediate area a bit more, while the rest still wanted to get to the far side of the river, so we all squeezed into the troop carrier and made our way uphill. We were rewarded with clumps of *Arnebia pulchra* – with its characteristic black spots that fade after pollination, *Geum rivale*, *Aquilegia olympica* and many more, all against a backdrop of some of the most stunning landscapes of the tour.

The next day we travelled south to the Alibek valley, near the border with Abkhazia. Abkhazia is technically part of Georgia but it is a *de-facto* independent republic, recognized by Russia and a few other countries. Although tensions can rise high at times in this volatile region, the road to Abkhazia from Dombai is unsuitable terrain for military vehicles, being very narrow and very steep. Indeed, we saw no-one else on the trip, right up to the unmanned border marked with just a noticeboard (in Russian). Taking care to stay on the Russian side (our visas only permitted one entry into Russia), we admired a deep red form of *Polygonum carneum*, rich blue *Centaurea nigrofimbria* and more *Rhynchosorys orientalis* against a backdrop of the high Caucasian peaks. Moving on from here to the Ulgen valley, we were shown a huge lousewort that had recently been found and described by Pavel, which he had controversially named *Pedicularis milosevicii*. In truth, it wasn't a hugely impressive plant, apart from its great size (over a metre tall). We returned to Dombai mid-afternoon for a bit of free time. I went back to the cable car and explored the mid station a bit more as the weather was much more settled than our earlier visit. I wanted to walk down the slopes a bit, in the hope of finding *Lilium monadelphum* in full flower but was called back by a Russian official who insisted I should keep on the path or close to the station, probably concerned for my welfare with steep slopes lower down. There were a few lilies in flower in the permitted area, so I contented myself with these. I was delighted to find some butterfly orchids, *Platanthera chlorantha*, and some nice pink *Tanacetum coccineum* (syn. *Pyrethrum coccineum*) as well as revisiting the lovely *Centaurea fischeri*.

The following day saw us heading north again, near to the Mukhinski valley where we had already spent a couple of days. Our venue this time was the Lysaya Gora (Bare Mountain) valley, a new location for Greentours but one that had been recommended by our two drivers. We were not disappointed. The day started grey and cloudy and rain was in the forecast for later, so we decided to get to the top as quickly as possible, pausing just long enough to admire some lovely red peas, *Lathyrus roseus*. We continued up to the summit, navigating many hairpin bends in the road, arriving at the top with dark clouds looming.

Facing: Hidden treasures of the Mukhinski Valley include *Salvia virgata*, *Gentiana oschtenica*, *Dianthus ruprechtii* and *Dactylorhiza euxina*



Our efforts were rewarded with several species we hadn't seen before, including the Globe Orchid, *Traunsteinera sphaerica*, alongside lots more frog orchids. The hybrid *Anemone speciosa* x *fasciculata* also impressed. There was just time to photograph the lovely *Daphne glomerata* before the long-threatened rain arrived, prompting a quick dash to the vehicles. We were all set to start our descent when we realised Pavel was missing. He has a seed-collector's license for his business and was taking full advantage of the opportunity to collect some new varieties. While we were waiting for him, the weather eased enough for me to venture outside again for a closer look at some white-flowered *Rhododendron caucasicum* that we had spotted a few hundred metres away. Finally, we were all back in the vans and we started our descent. We were surprised to drop out of the rain clouds quickly, and at lower altitudes the day turned distinctly warm, enabling us to botanize in comfort on the lower slopes. Of particular note were a huge broomrape, probably *Orobanche grossheimii*, good clumps of *Onosma caucasica*, and some spikes of *Delphinium schmalhausenii*. Just when we thought that was it for the day, we saw some magnificent specimens of Black Henbane, *Hyoscyamus niger*.

Our last full day in Dombai saw us heading north to Nizhnaya Teberda, home to an ancient Armenian church. The meadows in this area were filled with the pretty Pink, *Dianthus ruprechtii*, blue *Salvia virgata*, and pink

A meadow with *Polygonum carneum* above Nizhnaya Teberda



Salvia verticillata. A particularly stunning sight was a meadow filled with thousands of the Pink Bistort, *Polygonum carneum*, seemingly stretching as far as the horizon. We also found the threatened thistle, *Jurinea alata*, known from only ten locations in the Russian Caucasus. Bulb buffs were rewarded with some good specimens of *Iris furcata* and *Gladiolus tenuis*, and there were so many orchids that at times it was difficult to avoid treading on them. One couldn't help but notice the bright red parasitic *Diphelypaea coccinea*, with its knapweed host plant *Psephellus dealbatus*. Eventually, the weather turned and a shower of rain prompted an early return to the hotel.

We had seen so much in just a few days, but the next day it was time to pack our bags and head to the airport at Mineralnye Vody (Mineral Waters). A long driving day was ahead, with only a few short stops scheduled. The highlight was a walk to the summit along Combashi Pass, where we were rewarded with flowers of *Dryas caucasica*, the Burnt-tip Orchid, *Neotinea ustulata*, and some nice *Helianthemum* species, probably *H. buschii*. From the summit we could look down onto the Pass and soak up the fabulous mountain countryside. From there it was onto the airport and our flight to St Petersburg, where we enjoyed some Russian culture for a couple of days. Then it was time to return home, but we were already starting to think of returning to the Caucasus and exploring the Georgian side. But that is a tale for a future article.



A Dendrologist in Yunnan and Sichuan

Chris Parsons

For a long time, I had read with interest about plant exploration in wild places by botanical institutions and independent explorers, so it was a great honour to join the Rankins' expedition in 2016. This trip had strong emphasis on alpine plants, especially *Meconopsis* and *Primula*, and these were highlights for everyone. I have since moved on to RBGE's Logan but, as someone who had worked in arboreta at the Royal Botanic Gardens at Kew and at Lord Heseltine's Thenford, trees and shrubs have a special place in my heart, and they are my main focus here, complementing previous contributions from my fellow travellers.

Arriving in Kunming, the capital of Yunnan, we immediately noticed the municipal plantings, especially in Kunming Botanical Garden, and I was surprised to see how many native Chinese plants were included. The hamamelid, *Loropetalum chinense* var. *rubrum*, was common in urban areas throughout our travels, often clipped into shape. We saw *Aucuba omeiensis*



Syringa yunnanensis

Margins: Planting in Chengdu



Left: *Deutzia piptanthus*
Right: *Deutzia* aff. *calycosa*

(native to Emei Shan and introduced to western cultivation by Roy Lancaster), *Trachycarpus fortunei*, *Schefflera delavayi* and *Nandina domestica* within very effective plantings in a Chengdu park. *Ginkgo biloba* was widely planted as a street tree throughout our travels and some were the largest trees we saw, probably saved by their sacred status from the economic demand for timber that fells other trees before reaching veteran proportions. *Metasequoia* were frequently planted as roadside trees, especially in Sichuan, and so must be far more widespread in China than when they were discovered in 1941.



This might reflect the proud use of native trees, in stark contrast to UK horticulture, where we are always searching out the newest introductions; that is - what we don't have.

Our wild botanizing began with a visit to the Cang Shan range west of Dali and I remember the excitement that brewed as we ascended the windy track on the eastern slopes; this was what we had been waiting for! On the ascent our two 4WD vehicles parted, allowing the higher party (including me) to get out and explore the flora. The woody plants were a pleasing mixture of familiar plants from Western cultivation and some that had us scratching our heads to identify. Species of *Philadelphus*, *Deutzia* & *Cotoneaster*, *Syringa yunnanensis*, *Coriaria nepalensis*, *Berberis wui* (soon to be published as a new species) and *Rubus tricolor* all had populations here. Single



specimens of *Hydrangea heteromalla* were impressive and almost tree-like at around six metres tall. I was pleased to see *Piptanthus nepalensis*, a shrub I had grown from seed at Houghall Horticultural College in Durham. We were later to find another *Piptanthus*, albeit not in flower, growing at the Lijiang Field Station and the nearby dam on Yulong Xue Shan (Jade Dragon Snow Mountain), in the form of *P. tomentosus*, sometimes listed as a subspecies of *P. nepalensis*. I had heard of this species but was surprised at how a few silky tomentose hairs could give the whole shrub such a recognisable and distinctive silvery appearance.

The dominant trees on Cang Shan were *Abies delavayi* and *Pinus yunnanensis*, also with prominent *Lithocarpus* species. In the surrounding more disturbed

Sorbus pseudovilmorinii

Hydrangea heteromalla & *Lithocarpus* species





Sorbus aff. filipes

Sorbus discoloris

ground, there were pioneer trees such as *Sorbus* species and we saw a few *S. pseudovilmorinii* in flower, small shrubby plants with small neat leaflets. This species was collected here by the Sino-British Expedition to Cangshan (SBEC) in 1981 under the collector code SBEC 974.

Leaving the main track and heading up a small footpath towards the summit and its TV tower, we saw two more species of *Sorbus*. One had nine to ten pairs of oblong-obovate leaflets and persistent stipules at the base of the petioles, its fruit were just beginning to develop, and its twigs were noticeably rather thick. Keith Rushforth has said that this is probably *Sorbus hypoglauca*, which he collected here in 1993, although it is omitted from the *Flora of China*. Another species higher up bore nodding clusters of around ten to twelve pink flowers and was quite a highlight





Sorbus rehderiana

for any *Sorbus* enthusiast. Rushforth collected seeds from a plant very much like this one from the Cang Shan (KR 2766) and it would be tempting to call it *Sorbus filipes*. However, as Hugh McAllister points out in *The Genus Sorbus* (2005) there may exist a species complex in this region, with numerous apomictic microspecies waiting to be described, so I refer to it only as *Sorbus* aff. *filipes*.

We saw *Sorbus* of various sections throughout the trip but identifying them, especially when lacking fruit and flowers and knowing that many of the horticultural microspecies were only collected from one wild

location, is fraught with difficulty. *Sorbus* of section *discolores* were quite distinct and recognisable even when seen from a distance – such as from across an impassable river on Ma'er Shan – by their generally glaucous, blue-green foliage and tree-forming rather than shrubby habit, with a definite 'trunk'. For example, a rather impressive specimen from the old pass above Lugu Lake, on the border between Sichuan and Yunnan, strongly resembles what we know as *Sorbus glabriuscula* (formerly *S. hupehensis*) in both leaflet number and shape (obovate leaflets); however, as the trees in cultivation originated from the Lijiang area (see *The Genus Sorbus*), this is likely to be a different microspecies from *S. glabriuscula*.

A species that I confidently identified is *Sorbus rehderiana*. We saw it in the Zhongdian region both in a valley near Tianbao Shan and on the pass over Hong Shan. It was very distinctive with its stiff twigs and oblong-lanceolate leaflets with yellowish pubescence on the leaf undersides, in the region of the rachis and leaflet mid-ribs, and with its petiole bases sheathing (partially surrounding) the leaf stems. This species is common in the wild but is rare in cultivation. Observing the fine specimens on Hongshan, draped in lichen in constantly moist and cool places, it is easy to see why it might not be too happy in some areas of the UK. At Thenford we have *Sorbus lingshiensis*, very closely related and morphologically virtually

the same, albeit hailing from Bhutan. It is a weak grafted specimen which perhaps only survives in Northamptonshire because it is grafted on *Sorbus aucuparia*, which better tolerates the warm summer conditions.

An interesting range of other shrubs and climbers grew on Cangshan, at around the altitude of *Sorbus hypoglauca*. *Pieris forrestii* flaunted sumptuous red new growth, while a *Euonymus* with intricate purple flowers, possibly *E. frigidus*, caught our interest. We saw a species of Schisandra with hanging, pinkish-white, Magnolia-like flowers, possibly *S. sphenanthera*, close to our first sight of *Primula spicata*. The purple umbels and maroon-tinted leaves of an interesting *Smilax* species were subtly attractive. I went to some length to try to identify this myself and my attempt illustrates some of the challenges of identifying plants in the wild. *Smilax* is a large genus with some 79 species in China (39 endemic). Working through a key in the *Flora of China* initially led me to *Smilax elegans*. The problem is that *S. elegans* is purported to occur in Bhutan, Myanmar, India and Nepal, and not China. However, it has a subspecies 'subrecta' in the right area, now given specific status as *Smilax longebracteolata*; this is my provisional verdict on its identity. Working on identifications like this made me realise just how undocumented, mainly through lack of good photographs, much of the Chinese flora is.

As we climbed Cangshan, rhododendrons became more prominent and, under a light canopy of *Abies delavayi*, *rhododendrons neriiflorum* combined with *R. taliense* to form impressive stands. The latter shrubs shrank with altitude, from two metres to thirty cm, coming to associate with another species of subsection *Lapponica* above the tree-line.

Smilax cf. *longebracteolata*





Ceratostigma minus

Below: *Rhododendron neriflorum* & *R. taliense*

Our next botanizing session on the 11th of June took us to Nanhejian, a valley to the East of Eryuan. It was disappointing we could not trek far enough to see the much-anticipated *Meconopsis betonicifolia*, but there was still an interesting assortment of woody plants. Invasive non-native *Opuntia* species testified to the warmth and aridity of the valley mouth.

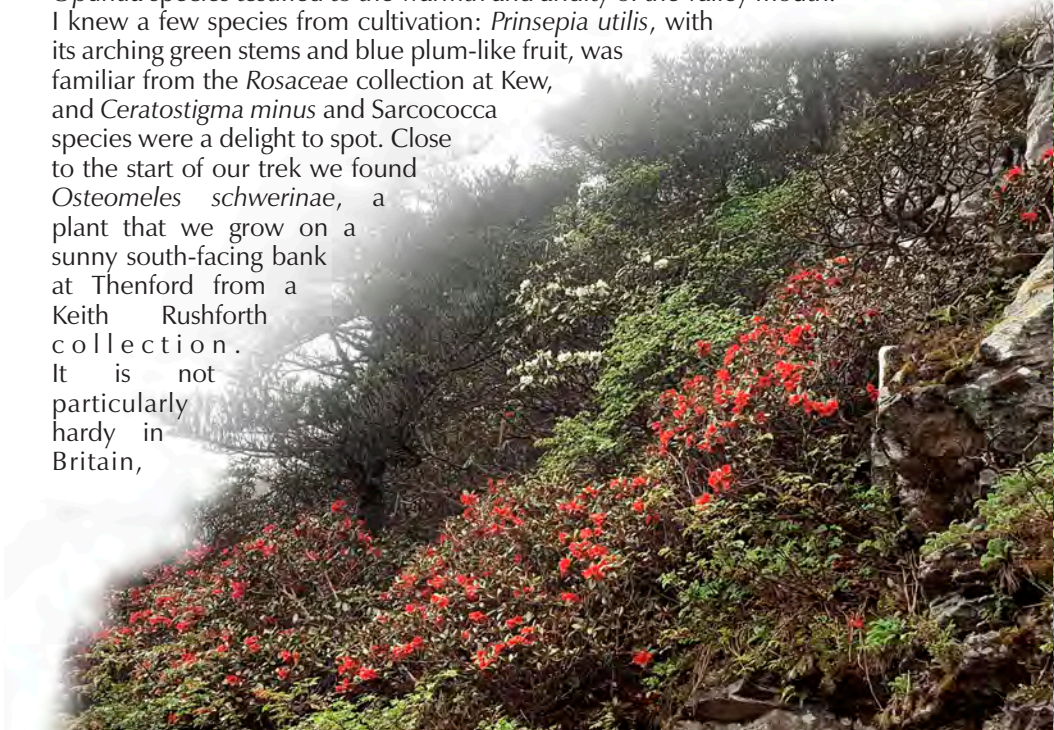
I knew a few species from cultivation: *Prinsepia utilis*, with its arching green stems and blue plum-like fruit, was familiar from the *Rosaceae* collection at Kew, and *Ceratostigma minus* and *Sarcococca* species were a delight to spot. Close

to the start of our trek we found *Osteomeles schwerinae*, a

plant that we grow on a sunny south-facing bank at Thenford from a

Keith Rushforth collection.

It is not particularly hardy in Britain,





Bauhinia brachycarpa

Below: *Bauhinia* topiarized by grazing

perhaps only to -5° C and this may indicate the hardiness of other neighbouring plants at an altitude of only 2200 m. Other shrubs and trees included *Excoecaria acerifolia*, *Indigofera*, *Dodonaea viscosa*, *Lespedeza*, *Leptodermis*, and an interesting *Morus*, possibly a form of *M. mongolica*, with deeply incised leaves, looking something like a matt version of a Swiss Cheese Plant. *Bauhinia brachycarpa*, of the Caesalpiniaceae, grew all through this valley, often topiarized into cloud-like shapes by grazing





Sarcococca species
Osteomeles schwerinae



animals. When it managed to rise above the grazing line it took on its natural appearance, not unlike an *Exochorda*.

The valley sides supported an interesting range of self-clinging climbers such as *Parthenocissus* and *Ficus* species, visible as we headed up into the mist. Close to our sighting of *Primula bullata* var. *bracteata* was a species of *Zanthoxylum* with a distinctive winged rachis on its leaves, probably *Z. acanthopodium*, which has a large range encompassing many Asian countries; this was one of two species of *Zanthoxylum* we found in this valley, the other being a climbing species with recurved spines on the stems, possibly *Z. oxyphyllum*. Of course, we also encountered the Sichuan Pepper, *Z. bungeanum*, throughout our trip, often cultivated in plantations for its pepper corns. Beyond our sightings of *Primula blattariformis* we encountered the Plum Yew, *Cephalotaxus harringtonii*, for the first and only time during this trip.

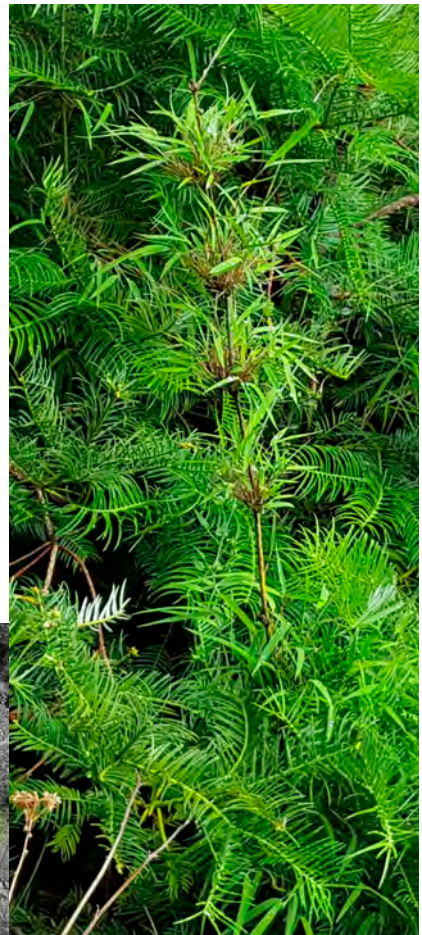
To write an article like this on woody plants without mentioning oaks would be rather offhand, considering that I work in a major and comprehensive collection of them and that they formed such a large component of the flora we witnessed. Evergreen species were the most common and my favourite was *Quercus guyavifolia*, which studded the hillsides on Ma'er Shan and was present in Gan He Ba. With its dark green foliage complete with golden yellow leaf undersides and often reddish new growth, it was a particularly ornamental species. Some of the best were on the Hong Shan trail at lower altitude, where they were more than fifteen metres tall. Deciduous species by the trail from the Lijiang Field Station on Yulong Xueshan might be either *Quercus yunnanensis* or *Q. dentata*, differing only in the cupule bract length. Not surprisingly, some authorities treat them as the same thing. Of course, there were no acorns in June so we couldn't come to any firm conclusion.



Zanthoxylum aff. *acanthopodium*

The 13th and 14th of June we spent exploring the Yulong Xue Shan, first the area around Lijiang Field Station and then the glacial valley of Gan He Ba further north on the east of the range. We began botanizing in a young *Pinus yunnanensis* forest below the station, where a highlight was an unidentifiable pink-berried *Berberis* species. *Berberis* featured throughout the trip: *Berberis amoena*, both here and in Nanhejian; *B. pruinosa* on the track up to the field station; and at Tianbao Shan a species which is yet to be described – *Berberis tianbaoshanensis*. My favourite was *Berberis calcipratorum*, from our

Cephalotaxus species, & with detail





Berberis calcipratorum

passage over the Ma'ershan, very attractive with its red new growth and steely-blue glaucous foliage.

Ascending to the field station, a short stop at around 2700 m revealed very interesting shrubby plants including a *Clerodendrum*, probably *C. yunnanense*, which in many ways resembles *C. bungei*, with its upright cymes of pink flowers, familiar from British cultivation and indeed seen in Sichuan from our vehicle window. It is interesting that *C. yunnanense* isn't grown in the West because, coming from this altitude, it might be expected to have hardiness potential. Our stop offered sightings of the parasitic shrub *Taxillus delavayi*, which we also saw on the way down from the field station, on the valley sides at Gan He Ba, the old pass above Lugu Lake and at Baishuitai (the White Water Terraces). I became fascinated with this plant. It grows in much the same way as mistletoe, *Viscum album*, and we found it on a variety of hosts including *Viburnum*, *Salix*, *Sorbus* and *Rhododendron*. It wasn't fussy!

A real highlight for me was a short exercise stop at Erlang Shan in Sichuan on our long journey from Kangding to Jiajin Shan. This pass at around 2200 m presented a phenomenal diversity of woody and herbaceous plants. What was strikingly different to previous places was that plants would occur only once along the track and seemingly not again, or not in populations that were visible. There were *Cornus*

Quercus guyavifolia

Schisandra species

controversa, *Sorbus meliosmifolia*, various *Acer* species (perhaps including *A. oliverianum*), species of *Neillia*, *Cotoneaster* & *Polygala*, at least two viburnums (I recognized *V. betulifolium*), *Hydrangea* cf. *aspera* and *Salix fargesii*. I was pleased to see small plants of *Euonymus cornutus* var. *quinquecornutus* with the five-horned fruit just beginning to develop, and our first sighting of *Decaisnea fargesii*, known in China as the Cat Poo Tree (on account of the seed appearance rather than any fragrance). Another highlight was the botanically interesting *Helwingia japonica*, which despite its specific epithet has a range much larger than Japan. It is noteworthy because its flower stems follow the midribs of its leaves, giving the impression that the flowers grow directly from the surface of the leaf. At the time when we visited, its berries were just beginning to form.

The climbers here included various *Actindia*, *Holboellia*, *Lonicera*, *Schisandra*, *Berchemia* and *Rubus* twined amongst the shrubs to make the resulting tangle even more confusing and difficult at times to decide which leaves belonged to which plant! A very un-*Rubus*-like *Rubus* caught my interest. It had simple lime-like leaves with white undersides and tiny white panicles of flower, which unfortunately meant it evaded being photographed well. Barry Clarke of the Hillier Arboretum tells me that this is *Rubus assamensis*, which has been collected by Royal

Clerodendrum cf. *yunnanense*





Rubus assamensis (leaf underside)

Botanic Garden in Edinburgh. He says “It is a very beautiful species” although I’m sure that, being the National Collection holder for *Rubus*, he is slightly biased.

Not long after this stop I asked the drivers to pause again. The rest of our group was puzzled as to what was interesting; I had spotted a nice specimen of *Schefflera delavayi*. These ‘hardy’ *Schefflera* have gradually been making their way into British horticulture and are popular with gardeners who appreciate exotic plants. All the forms we saw had strikingly lobed leaves. They grew here near cultivated crops, and again on the road to Jiajin Shan next to a *Cunninghamia* coppice, and on Zhaogong Shan near Chengdu, always in disturbed sites, fitting them as pioneer trees.

Helwingia species



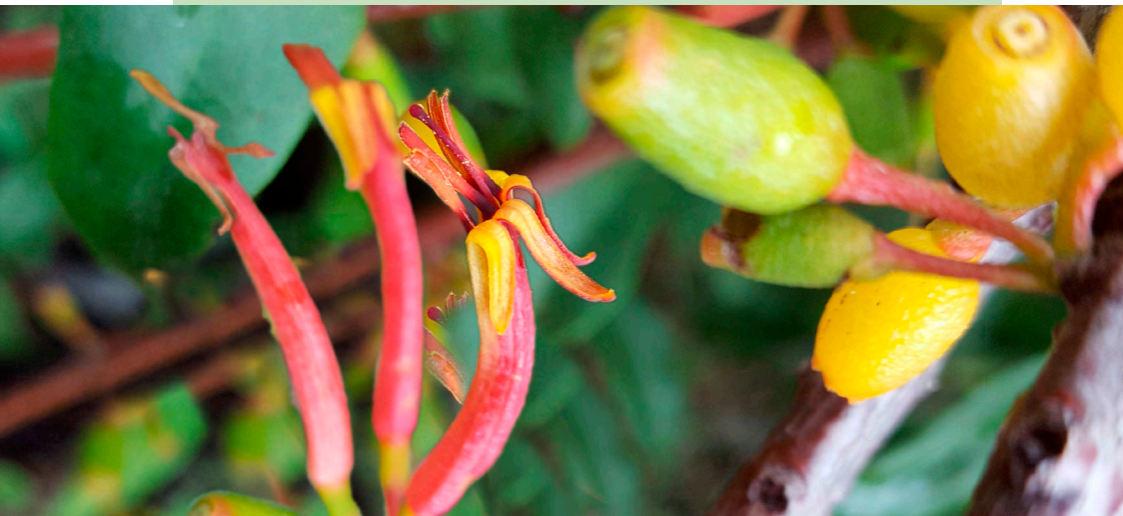


Above: An unidentified *Berberis*

Below: *Taxillus delavayi*

It has been difficult to decide what to include and what to omit, such was the overwhelming diversity I saw. I'm thankful to have been a member of this trip; it gave me many new perspectives on the plants that we grow in gardens and has ignited an interest in Chinese plants that I'm sure will endure for a long time. As well as Stella & David Rankin, I would like to thank Julian Harber, Keith Rushforth and Barry Clarke for helping to identify the plants we found.

This is the last of five articles in the series introduced by Stella & David Rankin in their piece *People, Plants and Places* in *The Rock Garden* issue 139: Ed Shaw (139), Graham Gunn (140), Peter Edge (141) and Ngairé Burston (142). Readers who would like to see a map of the areas visited should look at the map presented in issue 139.



Rock Garden Clematis

Panayoti Kelaidis



Eurasia is undeniably the centre of distribution of the genus *Clematis*, with no end of twining glories that are acknowledged as the aristocrats of vines. Rock gardeners are gradually becoming aware, however, that there are clematis that are herbaceous perennials – growing more like *Pulsatilla* or compact herbaceous peonies. Many of these are compact enough to feature in rock gardens. North America is where most smaller clematis are to be found, many of them in the section of the genus classed as *Viorna*: in fact, some botanists have suggested segregating the entire section as a separate genus of that name!

Clematis viorna, which gave its name to the section, is a bit of an exception to the rule: it is more vining than most of the members of its group, clambering over neighbouring perennials to two or three feet. It is a woodland plant widespread in the eastern American hardwood forests. Most of the herbaceous exemplars of this group tend to grow in scree-like environments or in meadows. The cup-shaped flowers with pointed segments typify the whole section. In *C. viorna*, they are often bright purplish, but frequently stained with green in this species. *Clematis crispa* and *C. pitcheri* are also vining members of this group widespread in the south-eastern states, the former with pale blue crenulated bells and the latter with purple flowers and a stockier habit.

For rock gardeners, the most desirable clematis species in the *Viorna* section are sun-loving perennials that emerge from a central crown and have a vase-shaped and clumping habit. They often have beautiful seed heads reminiscent of their cousins, the pasqueflowers. In several of these species the seed heads can be bright gold – almost as showy as the flowers, and lasting much longer.

The greatest concentration of *Viorna* clematis species occurs in the Appalachians, where a dozen or more species are found; many more are being identified and named (so many of these are very local in nature). The three most frequently encountered species from the Appalachians are *Clematis addisonii*, *C. albicoma* and *C. ochroleuca*, which overlap in range and some of their characters. They are all quite rare in Nature, found in rocky habitats in the foothills of the mountain range. They may form clumps with up to a dozen or more stems. The flowers are not the brightest of colours, often dull green with a little purple staining. But their thick sepals and a covering of hairs make them very appealing. Seek out the true forms of any of these and you will not be disappointed. As with all clematis, fresh seed is the way to go – although, admittedly, not for the impatient! It can take three or more years for the first flowers to appear from seed. *Clematis baldwinii* with its long frilly bells is restricted to Florida and is as exquisite as it is rare in Nature and in cultivation. Likewise, *C. socialis*, one of the dwarfest, with good blue bells of blossom and a suckering habit, is highly localized in north central Georgia, although well established in cultivation.

Facing: *Clematis fremontii* in central Kansas



Clematis ochroleuca
Clematis albicoma



A personal favourite of mine is *Clematis fremontii*, which occurs mostly to the west of the group. The specific name honours John C Frémont, one of the most flamboyant and erratic figures of 19th century American history, who conducted five far-flung and ambitious explorations of the American West. It is found primarily in the Ozark uplift of Missouri, and on rocky prairies of Nebraska and – especially – Kansas. I was lucky to be guided to a wild location north of Wichita where this clematis grew in enormous numbers on rolling hills of tallgrass prairie. Here, they emerged before the grasses grew rank and made bushel basket sized mounds of rounded dark-green leaves and the typical *Viorna* nodding chalice in greenish and purplish shades (no two plants were the same). This has taken well to cultivation in America; a large wholesale nursery in Nebraska (Bluebird Nursery) markets them throughout much of the United States.

The American West does not possess as many different species of clematis as are found east of the Mississippi, but those that grow there are among the most sought-after and beautiful in the genus. *Clematis hirsutissima* is perhaps the most widespread and abundant of all the clump-forming *Viorna* section: it may be found from the foothills to subalpine heights



Clematis hirsutissima 'Garden Club of America'
Clematis hirsutissima, pink form





Clematis hirsutissima in cultivation in Denver Botanic Garden

in mountains of eleven western states, often occurring by the untold thousands in many colonies. I have seen this in several of these states, where the size, habit, form and shape vary so enormously even in a small area that I am inclined to believe that, one day, several species may be teased out of this complex group. In fact, two of them already have been – as we shall see.

Typically, *C. hirsutissima* in the foothills immediately behind Denver forms a delicate vase-like clump of three or four stems with dark-green clasping stem leaves and dark violet-blue bells that are slightly constricted in the middle. It is often seen dotted in the clearings between ancient Ponderosa Pines. Elsewhere, on the Western Slope, Utah and Idaho, I have seen a very different form that is twice or thrice the size, producing many more stems in each clump with squatter flowers that are a softer blue.

Clematis scottii



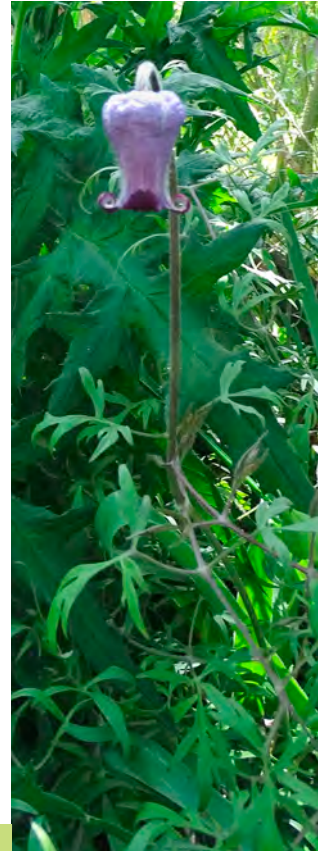


Clematis scottii in June

This form truly merits the specific name, because it is extremely shaggy with hairs as it emerges and has a coat of hair on the mature leaves thicker than the more delicate southerly form I first described. This widespread form is striking and can make a strong statement in the garden.

Clematis scottii has often been lumped as a subspecies of *C. hirsutissima*; it is generally a lower elevation plant, commonest at the upper reaches of the Great Plains and in steppe habitats. It does not form the upright clumps of the other species but tends to trail slightly. The foliage is much more glaucous and less hairy. The flowers are more spherical and more constricted at the mouth than *hirsutissima* proper. To my eyes, one of the most obvious distinguishing features is the seed heads; in *C. scottii* they are a shimmering yellow gold, whereas typical *hirsutissima* is much shaggier and not such a shining bright colour. The many ecological, morphological and geographical differences more than justify the recognition of *C. scottii* as distinct from the much commoner *C. hirsutissima*.

Clematis bigelovii, the giant cousin to *C. hirsutissima*, is another obvious ally of this group but it is found far to the South and is so much larger and gangly in habit that may immediately be distinguished from the more compact northerners. I have seen specimens of this well over a metre tall although, aside from size and distribution, the flower shape and foliage do closely resemble *C. hirsutissima*.



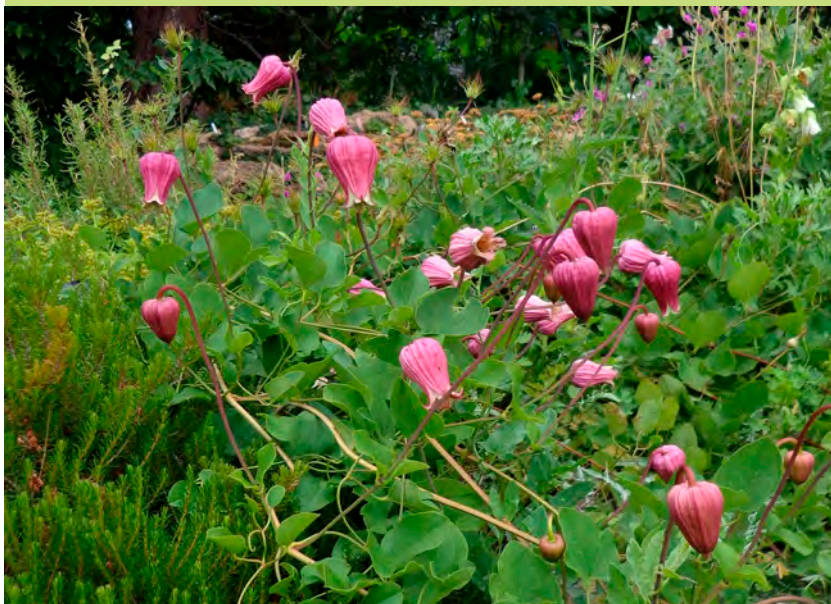
Clematis bigelovii in Tatroe Garden



Clematis columbiana var. *tenuiloba*

There are of course rambunctious white clematis found across North America (*C. virginiana*, *C. ligusticifolia*) that resemble the vigorous Eurasian *C. ternifolia* and must likewise be kept far at bay from any rock garden. But there is a cluster of species that are very desirable garden plants closely allied to the Eurasian *C. alpina*, and that are found throughout much of the United States. The tall and vining species most similar to *C. alpina* in its growth habit is now generally agreed to be *Clematis occidentalis*, although it has passed under a half dozen other names in the past,

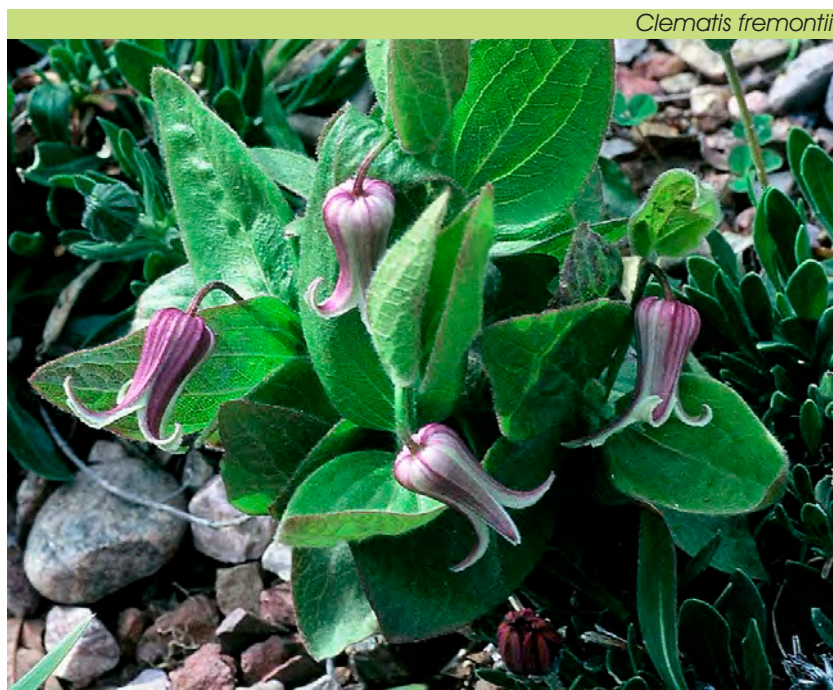
Clematis columbiana x *texensis*



including *C. pseudoalpina* and *C. grosseserrata*. It has more coarsely divided foliage than most of the other members of the section, and a distinct climbing habit.

Widespread in the Rockies, *Clematis columbiana* may likewise be weakly climbing or frequently vining along the ground: the foliage is generally much more finely divided, although the flowers are likewise nodding and have four sepals. Like *C. alpina*, this doesn't seem to have quite the same vigour ... nevertheless there is a distinct race of this species that is unique in habit and constitutes one of the showiest of rock garden plants imaginable.

Sometimes segregated as its own species, *Clematis tenuiloba* occurs at higher elevations than typical *C. columbiana*, often above the tree line, where it assumes an herbaceous habit and makes dense rhizomatous mats usually growing among rocks in screes or exposed meadows. It seems especially common on the limestones of the Bighorns and Absaroka mountains of Wyoming and in the Black Hills of South Dakota where I have seen it form a carpet many metres in extent. There are similar carpeting plants in the Front Range of the Rockies in Colorado and the Sangre de Cristo and Sandia mountains of New Mexico as well as the Wasatch mountains of Utah, although they don't seem to form tufts as dense as those on the alpine heights of the middle Rockies. The comparatively enormous nodding flowers run the gamut of blue, lavender and purple colouration, and even a pure rose and white. To see vigorous mats of this, completely covered with blossoms, is a high point of many a field trip to the Rockies. And ... fortunately, this form seems to be adaptable to rock gardens, although our longest-term success has been to grow it in a trough.



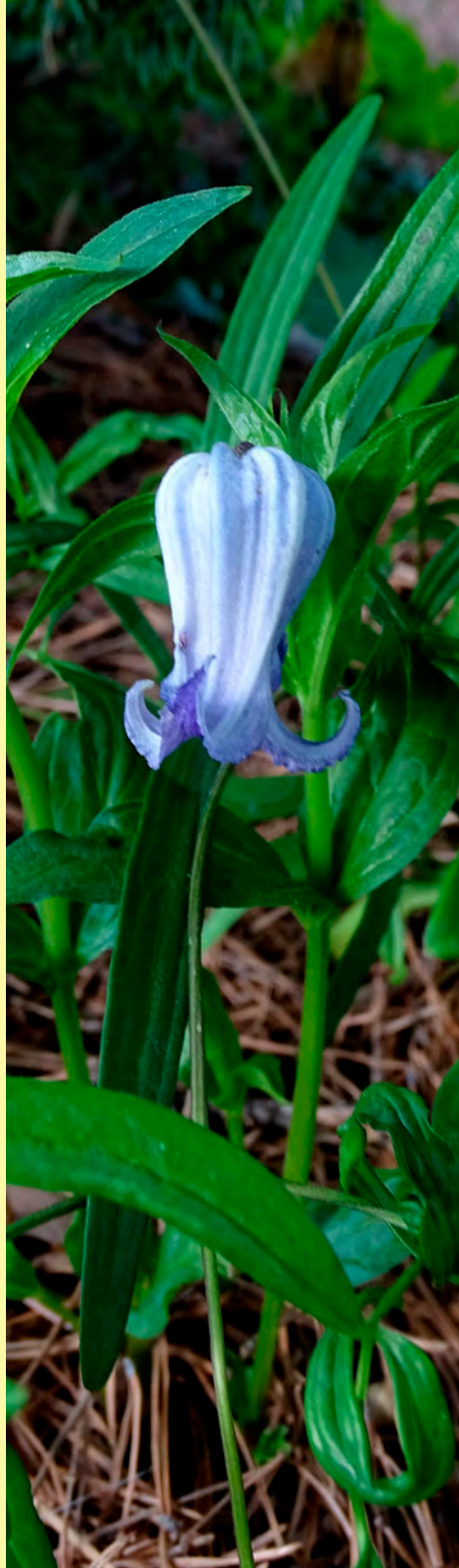


Clematis fremontii x *hirsutissima*

The best source of many of these species will always be the society seed exchanges; over time I suspect more and more garden-worthy dwarf clematis will be appearing there. And there are a few botanists who are still finding new species lurking in the hollows of the Southern states of the USA, so more yet may be waiting in the wings!

Facing, top to bottom: *Clematis columbiana* var. *tenuiloba*, *C. ochroleuca* and *C. hirsutissima*
 Far Right: *C. socialis*
C. fremontii x *hirsutissima* *C. albicoma*





Seed Collecting in the Maloti Mountains, Lesotho

Clara Friedrich, Andreas Groeger
& Jenny Wainwright-Klein

One of the questions is “*Why Lesotho?*”, followed closely by “*Where is Lesotho?*” Lesotho is a tiny mountain kingdom of about thirty square kilometres, land-locked by South Africa. The top of the Drakensberg escarpment forms the eastern border with several passes above 3000 metres, allowing easy access to high altitude plants. These eastern mountains, the Maloti, are of particular interest because they are moist in summer and cold with snow in winter. The Maloti are the watershed of southern Africa, with the headwaters of many important rivers. For instance, the Orange River flows over 2000 km westward to the Atlantic Ocean. The mountains in the centre and west of Lesotho are drier and the plants there not as suited to the wetter climate of Munich.

In 2005 we at the Munich Botanic Garden (MBG) had started to trial alpine plants from Lesotho in the MBG and in the Schachen Alpine Garden, our satellite in the Bavarian Alps. We were astonished at our success, particularly with those plants grown on the Schachen, and we wanted to increase the collection. In early February 2018, we therefore embarked on our fifth seed collecting trip, accompanied by Mike Bone from Denver Botanic Garden. We visited three areas: in the North-East, Bokong nature reserve and the wetlands of Letseng; in the East, the passes at Kotisephola and at Sani.

Bokong and the Mafika Lisiu Pass (9 to 11 February)

Our first stop was the Bokong Nature Reserve. It lies halfway between Leribe and Katse, straddling the Maloti Mountains, and is the highest nature reserve in Africa accessible by car. Both T'setlanyane nature reserve – in the foothills to the North-East – and Bokong were proclaimed as reserves in the mid-90s as part of the ecological compensation measures required by the financiers of the Katse Dam. Long and complicated discussions with the villagers in the vicinity were conducted beforehand, as this was their communal grazing land. In the end, minimal controlled grazing was agreed upon, making Bokong an important reserve in the otherwise overgrazed highlands.

Driving in from the North, we entered Bokong at 2300 metres via a manned barrier at the foot of the northern slopes of the Maloti Mountains. At this altitude there are woody shrubs and small trees in the gullies and ravines: *Leucosidea sericea* dominates, accompanied by *Heteromorpha arborescens* (Apiaceae), *Diospyros austroafricana* and *Rhus divaricata*. At this altitude, light frosts and perhaps a couple of snowy days are the winter norm. We followed the serpentine road up to Mafika Lisiu Pass at 3090 m, past slopes of *Agapanthus campanulatus*, *Moraea alticola* and *Ornithogalum (Galtonia) viridiflorum*. Thorny shrubs of *Berkheya rosulata* grew on the edge of the cliffs above the road and by the roadside. At the top of the pass a breath-taking view spread before us over the mountain slopes and valleys to the North. From previous trips we knew of the great diversity of plants here, because of the exposed position and the many and varied habitats on bare cliffs, sheltered between rocks, in seasonal puddles, on gravel and in mires. In Lesotho, as in most mountains worldwide, the flora is particularly rich in members of the Asteraceae and on this pass alone we found the following genera: Aster, Athrixia, Berkheya, Cotula, Eumorphia, Euryops, Felicia, Gazania, Helichrysum, Hirpicium, Macowania, Senecio and Ursinia. The diversity of the genus Helichrysum in southern Africa is particularly noteworthy: we found *H. basalticum*, *H. albobrunneum*, *H. bellum*, *H. flanaganii*, *H. lineatum*, *H. marginatum*, *H. praecurrens*, *H. retortoides*, *H. spiralepis*, *H. splendens*, *H. trilineatum* and *H. witbergense*. The same may be said for genera in Scrophulariaceae, with *Diascia capsularis*, *Glumicalyx flanaganii*, *C. nutans*, *Hebenstretia dura*, *Limosella vesiculosa*, *Manulea*



Aster erucifolius
Glumicalyx flanaganii



platystigma, *Nemesia* species and *Zaluzianskya distans* all growing in a variety of habitats around the pass. The genera *Hebenstretia* and *Zaluzianskya* have been in cultivation in European botanical gardens for many years, whereas the attractive species of *Glumicalyx* may be short-lived perennials and are rarely found in cultivation. There are six species of *Glumicalyx* and they are restricted to the Lesotho-Drakensberg area. The tubular flowers are held in pendulous inflorescences and are pollinated by long-tongued flies. The corolla's ivory-coloured tube contrasts with its orange tips. Unfortunately, we have never found any plants with seed; even during this excursion, which was purposely later in the summer than previous expeditions, late spring snowfall having delayed flowering.

As the road turns downwards to the south of the pass the visitor centre with newly built chalets is on the left with a magnificent panorama over the southern mountains and valleys. Unfortunately, the chalets, which may be rented, were unfurnished with no running water so we pressed on to Lejone village at the base of the pass and spent the night in the Motebong Lodge, a relic of the building of the Katse Dam. A few days later near Ha-lejone, on the way to Katse, we saw various species belonging to *Lotononis* (Fabaceae) in rocky exposed



Lotononis galpinii

areas. Fourteen species occur in Lesotho and in this short stretch of about twenty kilometres we spotted five: *L. eriantha*, *L. galpinii* and *L. laxa* – which form low growing woody mats, and *Lotononis lotononoides* and *L. sericophylla* – which are upright shrubs. All have typically dissected leaves and the flower colours range through red, yellow and blue to violet. In Munich, the winters are too wet for these plants, so most of the *Lotononis* species need to be grown under glass or protected under fleece 'tents' in winter. *L. galpinii* is effectively kept dry with this method through the winter but it forms a straggly mat instead of the attractive dense mats seen in the Maloti Mountains. Perhaps grazing contributes to the compact growth form seen in the wild.

The road to Katse winds through drier mountains, with species like *Kniphofia triangularis* scattered in the fields. On a cliff we saw a Malachite Sunbird (*Nectarinia famosa*) pollinating the tubular flowers. On the Latisoka Pass we stopped to admire a large population of *Euphorbia clavarioides* growing on the north-east facing slopes.

Moteng Pass and Letseng (14 to 17 February)

After three days in Katse Botanical Garden discussing and implementing various propagation methods, from seed sowing to different ways of vegetative propagation, we went back over the Mafika Lisiu pass to Leribe, a sprawling town near the border where we stocked up with supplies, refuelled and drove on through Butha Buthe, then southward over the Moteng pass (2820 m). Leaving Oxbow behind us, our route lay over three more high passes: Mahlasela Pass (3220 m), Pass of Guns (3240 m) and Tlaeng Pass (3275 m). This eastern stretch of mountains, with the escarpment

The Tlaeng Wetlands







Facing: *Kniphofia triangularis* with Malachite Sunbird 🍁 *Athrixia fontana*

and South African border twenty to fifty km to the East, experiences high summer rainfall, mainly thunderstorms, and often has snow during its otherwise dry winter. Moist air from the Indian Ocean pushes upwards when it reaches the escarpment, bringing rain, mist or snow. Large flocks of sheep and goats roam in summer, leading to overgrazing, exacerbated by droughts such as 2016/17, and leaving us with the feeling that we competed with the grazing animals for first dibs on seed and herbarium specimens. But we still managed to find interesting plants on the cliffs out of reach of the animals and in the wetlands.

Wetlands are areas of marsh, fen or bog characterized in the Lesotho Highlands by their thick peaty substrate which is wet all summer with steady slow seepage of water flowing through. After a thunderstorm or cloudburst these wetlands are ankle deep in water; the plants act as sponges and soak up precipitation, releasing it slowly between showers. Looking closely at the densely matted vegetation we identified several species: *Rhodohypoxis deflexa* and *Lobelia galpinii* entwined with *Limosella vesiculosa*, *Ranunculus meyeri* and *Haplocarpha nervosa*. There were slightly taller plants such as *Athrixia fontana*, *Senecio macrocephalus* and *Geum capense*, and in more open areas in pockets of gravel on the basalt sheets were colonies of *Moraea alpina*. This tiny species flowers at a height of six cm and is a vibrant mauve-purple with central yellow markings. It germinates easily and flowers two or three years after sowing. We also found seed of *Moraea stricta*, a species like *M. alpina* but more widely spread in Africa, as far north as Ethiopia.

The highlight of this area is the diamond mine at Letseng-la-Terae. It has been fenced with minimal grazing for over forty years, allowing the





Moraea alpina

development of a rich vegetation in an assortment of habitats from rock cliffs, rock sheets and gravel to grasslands and wetlands. A good friend, Bongani Ntloko, used to be the curator at Katse Botanical Garden and is now employed by the mines on a long term project to find the most suitable indigenous plants to re-naturalize the enormous mountains of waste material (kimberlite tailings and basalt waste rock dumps). Through Bongani we were permitted to collect seed and herbarium specimens within the mine lease area. We harvested seed of several attractive tussock-forming grasses. *Merxmuellera stereophylla*, *Pentaschistis airoides* ssp. *jugorum* and *Melica decumbens* are just three of those we will be trying in Munich and on the Schachen. We were also allowed into the seed depot, which is filled with sacks full of grass species indigenous to the surrounding mountains. The depot supplies seed for the re-naturing projects on mine property. On the way back to our accommodation at Afriski Lodge we collected seed of *Zaluzianskya ovata*, which grew in abundance on the roadside basalt scree. A large population of *Cotyledon orbiculata* var. *oblonga* prompted another quick stop. These plants prefer the sharp drainage found in cracks on the basalt sheets on east-facing slopes.

Mokhotlong and Sani Pass area (18 to 20 February)

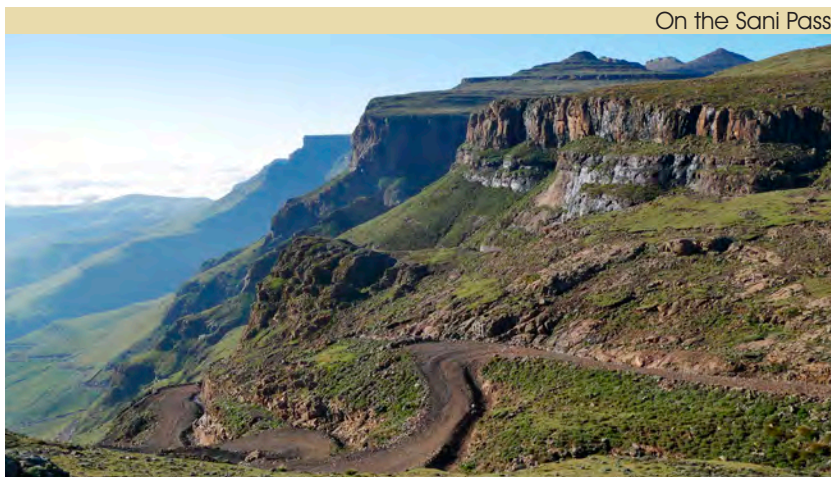
We refuelled and replenished at Mokhotlong. We particularly needed newspapers for our steadily growing herbarium. The place name, also given to the river flowing here at 2200 m, means *Place of the Bald Ibis*, a bird often seen in the wetlands and on the cliffs next to rivers.

From here we carried on south towards Sani Top, always on the lookout for promising places to stop and botanize. The road follows the Sehonghong River and offers few places to pull off and stop safely. With steep cliffs on the right, river on the left, crash barriers either side, pedestrians, herders with their sheep, goats or cattle, and even a broken-down vehicle, finding somewhere to stop is not that easy. We finally found a dirt road leading to the river and stopped to clamber up the steep slopes. A *Dierama*, perhaps new for our trip, had seed but, like all the others we had seen, it was not fully ripe and there were beetle larvae in the capsules. We managed to find enough for a small sample and hope to be able to identify it in Munich once it flowers. Seeds of *Themeda triandra*, called Rooigras or Red Grass, and widely spread in southern Africa, were also ripe and landed in one of our seed packets.

Returning to the Sehonghong Valley the next day, after a spectacular river crossing in the 4x4 we climbed the slopes to a small ledge and explored. In the steep north-facing cliffs we found *Lotononis* aff. *sericophylla*, *Senecio macrospermus* and *Pelargonium alchemilloides* as well as *Eucomis schijffii*, *Zaluzianskya pulvinata*, the saprophyte *Harveya speciosa* and – on the edge of a waterfall – *Phygelius capensis*.

On the way to Sani Pass we drove over Kotisephola Pass (3240 m), known as Black Mountain Pass. This area has been overgrazed, spoiled by roadworks to tar the road in 2014, and degraded by the 2016 drought. But there remain botanical highlights to be found. An impressive stand of *Massonia saniensis*, named for the Sani area where it was first described, covers the shallow pockets of gritty soil between the basalt rocks. The flowers form in late spring and early summer and, luckily, we had already collected seed in Letseng; up here the seed wasn't yet ripe. *Massonia* is a genus (Asparagaceae, formerly Hyacinthaceae) with more than twenty species found only in southern Africa. The leaves of *M. saniensis* are small, about four cm, with two leaves per bulb that hug the ground. The white flower clusters sit directly on the leaves.

Cushions of *Helichrysum pagophilum*, another endemic in the Drakensberg-Maloti Mountains, grow in the pass. Small mats of *Helichrysum*



On the Sani Pass



Eucomis schijffii
Jamesbrittenia jurassica



milfordiae, *Delosperma alpinum*, *D. congestum* and *Craterocapsa congesta* grow among the rocks in cracks and shallow grit. We hoped to find seed of *Jamesbrittenia jurassica* here and were rewarded with both flowers and seed. Further down in wetlands which are the headwaters for the Sehonghong River where thick mats of *Rhodohypoxis deflexa* and *Lobelia galpinii* were in flower with the first ripe seed ready for collecting. Other plants in the wetlands and environs were *Athrixia fontana*, *Hebenstretia* and *Hesperantha* species; in rocky areas *Clutia nana* (Euphorbiaceae) formed densely leaved rounded shrubs.

Late snow in the eastern Drakensberg in mid-November the previous year had influenced flowering and seed set in many



Helichrysum milfordiae



Helichrysum adenocarpum

Wahlenbergia polytrichifolia ssp. *dracomontana*

early flowering perennials. Some, such as species of the early flowering genus *Zaluzianskya*, had frost damage on the old buds and had produced no seed. Others like *Wahlenbergia polytrichifolia* ssp. *dracomontana* were only now in full flower with no seed in sight. Even though the trip had been planned for late summer to coincide with the seed-bearing time of most shrubs, it was still a bit too early for some of the plants we'd hoped to collect.

We stayed at the Sani Mountain Lodge, lying almost on the edge of the escarpment cliffs and perfectly placed for early morning botanizing. Behind us Lesotho, in front of us a panoramic view over South Africa. Here too we



found a selection of the well-represented *Helichrysum* genus. Seed of *H. milfordiae* was ripe although *H. glaciale* had already dispersed in the seemingly constant escarpment wind. Vertical cracks on the cliff faces held cushions of *Wahlenbergia pulvillus-gigantis*, their white flowers held on thin stalks up to twelve cm long. *Diascia barberae* and *Euryops acreus* were in flower and we had seed from the species of *Macowania* that hug the cliff edge.

Witsieshoek (21 to 22 February)

From Sani Top the famous winding dirt road of Sani Pass led us down from 2840 m to the South African border post just below 2000 m. We stopped to botanize and photograph but our permit did not allow us to collect in South Africa. Halfway down we encountered our first flowering *Protea caffra* and further down some impressive plants of *Cyathea dregei*, a tree fern endemic to Kwa-Zulu Natal. Heading east and then north following the line of the escarpment along which the Lesotho border runs, we made for our last two nights in a lodge at 2000 m in the Witsieshoek nature reserve, part of the Royal Natal national park. We spent a day exploring the plants along the hiking trail that leads to the top of the escarpment. It winds between 2800 and 3100 m along the base of the Sentinel and the escarpment's basalt cliffs. These slopes were rich with ungrazed vegetation, some new to us. *Eucomis bicolor* and the commonly cultivated *Nerine bowdenii* were widespread. The panoramic view of the amphitheatre at Mont-aux-Sources with mist rising from the valleys was a spectacular and fitting end to our expedition.

By the end of the trip we had collected 178 seed portions and more than 300 herbarium specimens. Half of the seed was sown in Germany in April 2018 and the rest in spring 2019. Our MBG Lesotho collection is in three sections: two in Munich, the Rock Garden (Alpinum) and the Alpine Display House; and one in the Schachen Alpine Garden in the Bavarian Alps at 1860 m. We have previously built up a rich and diverse collection, trialled in both lowland and high-altitude conditions. Most of our collected species were new introductions, many destined for trial.

Acknowledgements

We thank the Scottish Rock Garden Club and the Foundation for Horticultural Exchange Hamburg for their generous financial support, without which this excursion could not have been realized. We are very grateful to Bongani Ntloko for organizing our collecting permit for Lesotho and to Mosiuoa Bereng for organizing a special collecting permit for Bokong Nature Reserve. For readers who wish to explore more, we recommend Elsa Pooley's (2003) *Mountain Flowers - A Field Guide to the Flora of the Drakensberg and Lesotho*.

Facing: *Cotyledon orbiculata* var. *oblonga* 🍁

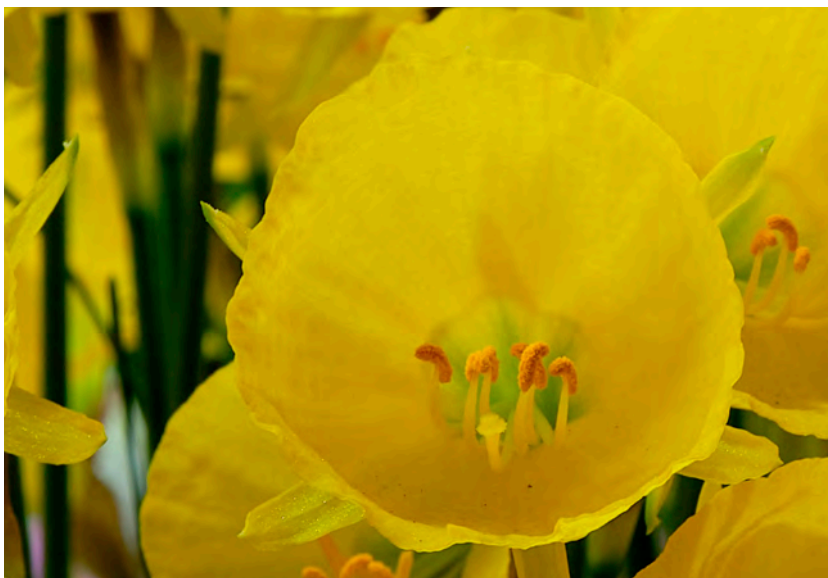


Stirling in Dunblane, 23 March 2019



Newer members may be puzzled by the title; the last time the show was held in Stirling itself was in 2005 in the city's Albert Hall; it moved to Dunblane in 2006. The show timing has also changed;

Narcissus bulbocodium var. *obesus* 'Lee Martin'





Facing: *Allium paradoxum* var. *normale*

Viola (Stan da Prato)

when it started it was later than the Edinburgh show, then the earliest in Scotland. When James Aitken rescheduled the Edinburgh show, Sandy Leven and his colleagues timed the Stirling show to be the first in

Corydalis solida ssp. *transilvanica*



Scotland - which it has remained since about 1984. Several of the Stirling trophies came from the defunct Dunfermline show, hence the Fife-related trophy names. More recently we had had a spell across the Forth in Kincardine but the show is now back in the Victoria Hall, also the venue for the club's very popular early bulb day in February.

Iris graeberiana 'White Fall'





Bulbs are a feature of this show, with two classes for six – usually small – pots. Class 8 calls for six different genera, this year supplied by your correspondent with narcissus, tulip, corydalis, muscari, *Hyacinthoides italica* and cyclamen – which we accept as a bulbous plant under Scottish rules. Class 9 is less restrictive, asking for six distinct bulbs, and it attracted two entries, being won by Cathy & Barry Caudwell with three narcissi, tulip, muscari and ipheion. The classes for two or three bulbs usually attract more entries and larger pots and this year class 10 for three pots was particularly strong. Peter Semple's trio included a notable *Tecophilaea cyanocrocus* that took the Institute of Quarrying quail for the best non-European plant. Chilean blue crocus has often featured at this show; many will recall some fine three-pan exhibits from Fred Hunt and more recently from Cyril Lafong. Dave Millward's three pans included a pot of *Narcissus obesus*, which took the Glassford Sprunt trophy for the best entry in a 19 cm pot. However, an even larger pot of the same daffodil from the same grower stood out in the class for one pot of narcissus and was awarded the Forrest medal as well as the Ben Ledi trophy for best European plant. This is the very good Lee Martin form, which our late colleague Bill Robinson had passed to David – who has multiplied the bulbs with spectacular results. Coming

Fritillaria gibbosa

second in this class was a good pot of *Narcissus* 'Douglasbank' from Ian Christie. This daffodil is named after the late Willie Buchanan's Glasgow garden. The class for 'other bulbs' was won by a good form of *Allium paradoxum* from Watt Russell. When grown outside, this plant needs supervision as it can become invasive. Margaret & Henry Taylor have developed many good hybrids and showed a new white *Narcissus* 'Ballet Girl', a cross between *N. cyclamineus* and *N. alpestris*. Unfortunately, this and some other plants were inadvertently left behind, and it seems that a passer-by picked them up. The contrast with the late cold spring of 2018 was evident in the bulb classes with no snowdrops remaining and only two pots of crocus appearing on the benches this year following our unusually warm sunny weather in February.

Several friends from south of the border often attend this show. Because the only AGS show was in Devon, more might have come north but several reported that their show plants were already past their best. Lionel Clarkson brought several good plants all the way from Blackpool while the leading English grower Don Peace made a rare appearance in Scotland – but only to take photographs. Tom Green and Jim Watson made their usual drive from Northumberland with a shared car full of good plants including many primulas. However, the hotly contested Spiller primula trophy went to a pot of the hybrid

Fritillaria carica





'Jackie Richards' from Edinburgh growers Jane & Alan Thomson. Another very big and floriferous pot was show secretary Sam Sutherland's 'Hartside 12'. Carole Bainbridge received a merit certificate for a large pot of *Primula palinuri*. From a small area of coast in southern Italy, this is now very rare in the wild. Besides exhibiting, Carole was also busy as secretary of the joint rock committee, which met behind a curtain on the stage of the hall. A fine pot of *Primula* 'Arduaine' from Anne Chambers was the best Asiatic primula. The Thomsons had a merit certificate for their vivid blue *Hepatica* 'Millstream Merlin' in the Ranunculaceae class. A smaller 'Millstream Merlin' came in a fine two-pan entry from Sue Simpson with one of her large pots of *Pulsatilla*, all carried in by her loyal supporter George Potlifter-Watt. George has written a very informative article on their six-acre garden in Ayrshire in *The Caledonian Gardener* for 2018 (<http://files.srgc.net/general/2018CG-Burnside.pdf>). Sue also showed two good yellow dionysias in the cushion plant class. She won both the single and two pan saxifrage classes, the former with the white 'Coolock Kate'; this class also had a nice white *S. georgei* from Watt Russell and the pink 'Allendale Beau' from Tom Green. Both Tom and Sue contested the small six-pan class with rather similar sets. Sue won with two saxifrages, a dionysia and three primulas while Tom showed two saxifrages, a dionysia, two primulas and a narcissus. Sue also received a merit certificate for her *Anisotome imbricata*.

Synthyris missurica var. *stellata*



Sempervivum 'Hey Hey'

It seems appropriate that a Scottish show has a class for our native plants and Peter Semple's large pan of primroses brought Spring into the hall and demonstrated that a plant doesn't have to be rare to be attractive. My own less colourful dwarf willow won the class; because of that and carrying in another 59 pots, I received the Dunfermline Carnegie trophy for most points in the open section. Section 2 was not well supported but Carolyn McNab did well by deservedly winning the Fife county trophy for most points while Dai Davies brought his seed raised fritillaries. Carolyn also did well in the artwork classes.

Finally, our thanks go to Sam Sutherland for all his organisation and I must pay tribute to the work put in by the catering team: Ann & Ian Christie, Kathleen Cartwright, Liz Mills, Anne Steele, Margaret Taylor, and apologies to anyone I've missed. I know how good the home baking was as I sampled most of it during the day!

Stan da Prato

(Photographs: Liz Cole)

Facing: *Correa pulchella* 'Pink Mist' 🍁





Perth 20 April 2019

A sunny day did nothing to inhibit visitors to the show this year. In section 1 there was one plant on the benches that was unmissable. It was to be the Forrest medal winner for most meritorious plant: *Pleione* 'Tongariro', top-dressed with moss, and belonging to Margaret & Francis Higgins who had generously come far, from Berriedale. This plant had been potted on each year into a larger pot, which was filled up with more pseudobulbs of the parent plant. The result was a massive pan sixty cm across, containing a number of blooms that we estimated as about two hundred, beyond my counting. A lot of good plants came south from Berriedale and the Higgins also won the Alpines 2001 trophy for best cushion plant and the Dundas quaich for class 2 in which they entered *Morisia monanthos* 'Fred Hemingway', *Soldanella minima* and *Androsace pyrenaica*.

There were some good rhododendrons represented, competing for the E H M Cox trophy. The winner was David Millward with the appropriately bred *Rhododendron dendrocharis* 'Glendoick Gem' – a Cox selection with pink flowers, rather delicately marked with darker pink. David grows this plant outside in a plunge area covered with shade netting for protection from direct sunlight. Some discussion on the meaning of the specific name *dendrocharis* and subsequent investigation suggests that this means something like *tree adorning*, a suitable epithet for an epiphytic rhododendron.

The bulb trophy and the Perth trophy for most points in show by a member of the Perthshire group were won by our local member Alan Weepers from Leven in Fife. His winning bulbs were *Muscari armeniacum* 'Siberian Tiger', which Alan considers to be a nicer white than the cultivar 'White Magic'. His bulbs are grown in clay pots in a mix of John Innes, grit, vermiculite and peat. They live outside well exposed to the elements throughout the year. Another grand pot of bulbs from another of our exhibitors that must have taken some considerable time to grow to its impressive size was *Narcissus x cazorlanus*, a natural hybrid between *N. bulbocodium* and *N. triandrus*.

Graeme Butler's Rumbling Bridge Nursery provided the winner of the Major-General D M Murray-Lyon trophy for the best plant exhibited by a member resident in the former Tayside region. His strikingly dramatic entry for One pan *Primula* own hybrid

Primula
'Celtic Maiden'
Parentage - *P. auricula* (Border)
x *P. pubescens* (Yellow hybrid).
A seedling was chosen from
the above cross and pollinated
by a white *P. marginata* hybrid,
"resulting in this
"Yellow *marginata*"
in 2010."

was 'Celtic Maiden', a remarkably subtle primrose-yellow flowered hybrid resembling the colour of the native *Primula vulgaris*, with the farinose leaf that is characteristic of *P. auricula*. It bristled with clusters of flowers and multiple rosettes, forming quite a robust plant. The parentage was *P. auricula* (Border) x *P. pubescens* (yellow hybrid). A seedling that had been chosen and pollinated by a white *marginata* hybrid resulted in this beautiful 'Yellow *marginata*'.

Primula 'Wharfedale Bluebell'

This attractive hybrid was bred by the late Alec Stubbs of Grassington, in Yorkshire's Wharfedale. It is often reported as slow to propagate and has been a popular exhibit on the show bench for many years.



The R S Masterton memorial trophy for the best Asiatic primula was awarded to Stan da Prato for his bright red *Primula maximowiczii*. Stan also won the Alexander Caird trophy and the L C Middleton challenge trophy. His exhibit of six pans included *Lathyrus vernus*, *Narcissus* 'Pacific Coast' and *Andromeda* 'Blue Ice'. The Joyce Halley award for the best plant grown from seed was won by Nick Boss with his *Townsendia spathulata* – four rosettes of it – growing

Primula rosea is native to the north-west Himalaya. It flowers on short stems and is about fifteen cm high. The species does well in lightly shaded, damp sites, where it spreads and multiplies generously. It has an award of garden merit from the Royal Horticultural Society.



Facing: *Sedum furfuraceum* originates in Mexico. It may be green, turning to purple at high light intensities. This slow-growing plant is covered by a light whitish mottling and the woody stems give it a slow-growing shrubby habit, making it good for bonsai. This sedum is not frost hardy but it is drought and heat tolerant, needing good drainage to thrive. 🍁

amongst rocks in his usual inimitable style, along with a pan of *Arabis bryoides*. Nick's plants always look as though they have really been transplanted from the summit of a windswept bare mountain. He grows them hard, cold and slow, mimicking carefully the conditions that they find in the wild.

Section 2 had full benches and great entries from Sheila McNulty, Peter Moore and Lillian & Ian Chapman. Sheila received the Perth salver

Tulipa aucheriana or, more strictly, *Tulipa humilis* var. *aucheriana*, comes from Iran and Syria where it occurs on rocky mountainsides. Characterized by its small, pink and stary flowers with their weak yellow blotch, it goes commercially under the name of *Tulipa aucheriana*, with which name it received an award of garden merit from the RHS. Given a warm sunny aspect, raised bed or large trough it performs well.







Iris suaveolens

The Latin epithet *suaveolens* means 'sweet scented', the species being so named for the fragrance of its flowers. It was at first known for several decades as *Iris mellita*, *mellita* meaning delightful. The species was first found in Kustendje in Bulgaria but occurs elsewhere in Balkan Europe in Romania, former Yugoslavia, Albania, Macedonia and Greece, and its range extends into Turkey. In some places it enjoys legal protection.

This impressive iris grows on open, dry and rocky hillsides, often of limestone, amid light scrub and sparse juniper trees. In Britain, it is not really hardy and benefits from winter protection such as a frame or alpine house. It has been reported to grow in the United States, in Colorado and Oregon. Often planted on the soil surface, it is favoured by full or partial sun, good drainage, dry soils, and regular but not excessive watering.

for most points in Section 2, as well as the John Duff prize for the best plant in section, which was her *Pleione formosana*. Sheila was awarded a bronze medal.

We were grateful to Petra and Scott from the Royal Botanic Garden Edinburgh who got up early to brought along a selection of plants from the alpine house. Seeing very professionally grown plants gives us all a standard to aim for in our own

cultivation. *Tulipa armena*, *T. karabachensis*, *T. saxatilis*, *Bellevalia longipes*, *B. pycnantha* and *Townsendia parryi* were six highlights in my own day. The RBGE display was awarded a very well-deserved gold medal.

There were 20 exhibitors and 143 entries, with some usual exhibitors – particularly Cyril Lafong and Sue Simpson – sadly missed. A great choice of plants was offered to customers from seven different nurseries and the club plant stall, manned by Alan Weepers. The usual catering standard was well upheld and, as ever, the show would not be possible without the wonderful team who help. This year our new show secretary, Alison Hogg, made a great job of organising the show. The displays were also enhanced by beautiful troughs planted up by Alison, who had time to bring these along as well as doing all the other jobs a show secretary does. We are grateful to her for taking over this important job. Our thanks also go to our judges: Anne Chambers, Julia Corden, Jim Jermyn, David Millward, Carole Bainbridge, Peter Semple and Sam Sutherland.

Cathie Caudwell
(Photos: *Liz Cole*)

Ranunculus amplexicaulis
'Pic D'Anie x Parnassifolius'





Rhododendron dendrocharis 'Glendoick Gem'
Facing: *Plejone Vesuvius* 'Tawny Owl' 🍁
Cakes and a warm welcome are always assured at the Perth show!



Edinburgh 13 April 2019







The Edinburgh show this year was a week later than usual which, together with the earlier flowering season, might have caused a slight concern about the number of exhibits. However, any worries were soon dispersed when the benches filled up with abundance of flowers and great variety of plants. The visitors were given an opportunity to appreciate a slightly different plant composition and some unexpected specimens. This was proven by the Forrest medal, unusually going this year to a clematis. It was awarded to Sue Simpson for her impressive pan of *Clematis columbiana* var. *tenuiloba* 'Ylva'. According to Sue, she finds the plant difficult to get to flower well but her undoubted skills as a grower brought the best out of this plant, which was full of beautiful blue-purple flowers. She grows it in the alpine house in a very well-drained mix. The Forrest medal wasn't the only award Sue Simpson took home: her delightful *Pulsatilla vernalis*, part of her small six-pan entry in class 1, won her the Kilbryde cup for the best plant with pan size not exceeding 17.5 cm. The judges also awarded her a certificate of merit for her perfect dome of a New Zealand native – *Anisotome imbricata* var. *imbricata*.

The show is well supported by local members and one to name is Stan da Prato. He always makes admirable effort to ensure the show benches are full and it paid off for him again this year when he took the Reid rose bowl for most points in section 1 for the tenth time with 38 entries out of overall 68. He just managed to take all his plants back home in two very full car loads. Stan grows most of his plants outside and has a particular interest in ericaceous plants, including many dwarf rhododendrons and several andromedas. It didn't come as a surprise that his *Andromeda polifolia* 'Compacta' won him the Alfred Evans quaich for the best pan of Ericaceae other than *Rhododendron*. It was part of Stan's three-pan class 2 entry of different genera that also won him the Henry Archibald rose bowl. The other two entries were *Polygonum tenuicaule* and *Lathyrus vernus* 'Alboroseus'. Another of Stan's successes was his lovely miniature garden based on tufa; this gained him the

Clematis columbiana var. *tenuiloba* 'Ylva' 🍀



Boonslie cup. According to Stan, it is at its best in March with its flowering saxifrages, but a couple of forms of *Armeria juniperifolia* had come into flower, making a very presentable exhibit. Stan grows his ericaceous shrubs in whatever suitable compost comes to hand, with added grit or lightweight cat litter – the type that many cacti growers have used for years. It behaves a bit like perlite but is less prone to float to the top of compost after watering. *Andromedas* can be grown to a good size but they are very vulnerable to drying out and may suffer dieback after several outings to shows. Unlike many dwarf rhododendrons they don't respond well to being cut hard back. Most of Stan's other plants are grown in John Innes No.3 compost with added grit up to half and half, and slow release fertilizer. Because of weight he had moved all his bigger plants into plastic pots.

Regular visitors to the show might have noticed that Stella & David Rankin had many more entries this year than in previous times. In fact, they entered the most plants ever, according to David, simply bringing all the plants that were too far along for other upcoming shows. They brought a number of interesting primulas. Although their *Primula bullata* var. *bullata* didn't take the first prize in class 2 as part of the three-pan entry of different genera, it won them the R E Cooper Bhutan drinking cup for the best Asiatic primula in the show. David was delighted to receive the Edinburgh group's historically most important trophy, which dates back to 1914 and comes from the Maharaja of Bhutan. Stella & David also entered *Primula bullata* var. *bracteata* and *Primula bullata* var. *forrestii* farinose form into class 9 as two pans of distinct Asiatic primulas, winning them the first prize. It was a great idea to present different varieties of one species so that the visitors could see the difference between them. Other such 'primula series' were two subspecies of *Primula farinosa* – *farinosa* in class 6 and *exigua* in class 3, *Primula darialica* and two forms of *Primula modesta*, all in class 5. A written note encouraged visitors to compare them all.

The K C Corsar challenge trophy for best American or European primula was taken by Watt Russell with his delicate *Primula* 'Aire Mist'. Watt has had this white-flowered *allionii* hybrid for many years and keeps it in a north-facing greenhouse with shading in summer. After flowering, he takes special care to remove all spent flowers. His recipe for potting mix consists of loam taken from mole hills, beech leaf mould and grit in equal parts, and a handful of bone meal.

It was nice to see several entries by John Richards, the well-known primula expert. His beautiful pot of dainty *Primula reidii* plants nestled in moss was one of my own favourites. The plants had been sown from his own seed in January last year. Although the pan 'only' took the third prize in the one-pan Asiatic *Primula* species class, perhaps because not all of the flowers were open, it brought joy to several people at the show.

Facing: *Primula bullata* var. *bullata* 



This year's Midlothian vase for the best rhododendron in the show went to David Millward and his *Rhododendron dendrocharis* 'Glendoick Gem'. David has been growing this lovely pink-flowered specimen in a pot for a number of years without any special care. He keeps it in a shaded cold frame.

Sam Sutherland's exquisite *Fritillaria tuntasia* took the Henry Tod Carnethy quail for the best bulb, corm or tuber in section I. This fritillary comes from only two islands in Greece: Kithnos and Serifos. Sam grew it from seed sown in 2007, it first flowered in 2013, and by 2019 showed its best ever display. He has only re-potted it a few times and uses tomato fertilizer as a feed.

Facing: *Androsace villosa* ssp. *koso-poljanskii* 🍁

Saxifraga 'Zlata Praha'



The best saxifrage in show was Tom Green's *Saxifraga cinerea*, which earned him the Bill Mackie quaiach. The plant is about five years old, grows well outside for most of the year but is kept in a cold greenhouse over winter. Tom says that if the plant gets a touch of frost the flowers do not open properly. Another beautiful saxifrage to mention was the old Czech cultivar *Saxifraga* 'Zlata Praha' brought by Sue Simpson as part of her two-pan Saxifragaceae entry.

The Elsie Harvey memorial trophy went to Carole & Ian Bainbridge for three pans rock plants, new or rare in cultivation. Their entry comprised *Androsace koso-poljanskii*, *Tristagma leichtlinii* and *Callianthemum kirigishiense*. *A. koso-poljanskii* comes from the Don valley in central Russia and is closely related to *A. villosa*. They grew it in gritty compost in the alpine house from seed obtained through the SRGC seed exchange in 2014. The hardy Patagonian bulb *Tristagma leichtlinii* was grown from Flores and Watson seed. It is slow to increase but sets copious seed. Flowers open pink and fade to white. It needs gritty compost in the alpine house. *Callianthemum kirigishiense* comes from Japanese woodland and was grown from seed in the 2011 exchange. The plant is kept in humus-rich compost and grows well in the rock garden. Carole & Ian brought a delightful display of six pans of rock plants that assured them of first prize in class 1. This entry consisted of *Ramonda serbica*, *Primula marginata* 'Beamish', *Petrocosmea martini*, *Helleborus x sternii*, *Cassiope wardii* and *Trillium pusillum*, all arranged in an effective triangular composition.

Nick Boss, who is well known at the shows for his holistic approach to the cultivation of plants, was awarded the A O Curle memorial trophy for three pans distinct rock plants, grown from seed by the exhibitor. His trio was *Townsendia spathulata*, *Androsace pyrenaica* and *Arabis bryoides* var. *olympica*. Nick's main objective is a healthy plant that is true in character;

Nassauvia lagascae ssp. *lagascae*





A Holistic Approach to the Cultivation of *Townsendia spathulata*.

The main objective here is to grow a healthy plant. Priority has therefore been given to studying the plant's requirements, those that enable it to function well generally, remain healthy & in character. The traditional methods of cultivation required for show perfection, to suit an ordinary garden or greenhouse were not considered, neither was the plant's garden 'value'.

Essential requirements:-

- (i) Growth: about mid-March, the plant will tolerate occasional watering from above to stimulate growth, thereafter, best done from below. Greenhouse cultivation only, or with care, outside.
- (ii) Summer: May to August, less water, just keep lower roots damp in plunge bed. Exposure to UV very important.
- (iii) Compost: spts. tufa & mineral rich sand, 1pt. SIC.
- (iv) Dormancy: greenhouse, covered in winter.

Misc. sowed 23/5/2012 Germ. 3/6/2013 - the largest plant, the smaller ones, subsequent generations.

only after achieving that does he consider the aesthetics. His cultivation of the North-American native *Townsendia spathulata* includes a drier period in summer (May to August) and his growing medium is made up of three parts of tufa plus mineral-rich sand with one part John Innes compost. When growing *Androsace pyrenaica*, Nick believes it very important to keep the plant cool around the end of March when it is emerging from winter and may suffer from excessive heat. *Arabis bryoides* var. *olympica* is endemic to Mount Olympus in Greece and Nick grows it in a south-facing cold frame with full exposure to ultra-violet light in a neutral or alkaline well-drained mix.

Section II was well represented and contained some interesting specimens. The Midlothian bowl for the overall best plant in section II went to Chris Kelnar for his impressive pan of *Pleione formosana*. He was also awarded the special prize for the best plant by a first-time exhibitor. Chris

started five years ago with just a few pseudobulbs that gradually multiplied without much intervention. His growing tips are not to overwater the plants and to keep them pot-bound to promote flowering. The bronze medal for most points in section II was awarded to Peter Moore. To mention only one of his entries, his floriferous pot of *Fritillaria meleagris* won first prize as one pan bulb, corm or tuberous plant.

A specimen that stood out in Section II was Ian Pryde's *Tristagma nivale*. It won first prize as a pan of rock plant grown from seed. Ian obtained the seed from *Chile Flora* nine years ago. This bulbous perennial grows on sandy and rocky mountain slopes in Patagonia. Its flowers have a gentle scent and their colour ranges through green, yellow, red to deep purple. Another curiosity in Section II was a set of neatly arranged plants of *Nassauvia lagascae* ssp. *lagascae* by Alex O'Sullivan. This Patagonian native won him first prize as a pan of rock plant for foliage effect.

Orchis italica



With their annual generosity, the Royal Botanic Garden Edinburgh contributed to the show with their plant display, which was awarded an honorary gold medal card. Beside the customary bulbs were other less usual plant choices such as primulas, lewisias, haberleas or drabas. A compact form of *Iris* aff. *vicaria* stood out from the display and received many compliments; it was also appreciated by the judges who gave it a certificate of merit.



Tristagma nivale

2019 saw another successful show thanks to all those people who somehow contribute, whether by helping or by coming as visitors. It is important to keep the shows running, because they are where people can connect through plants, and where our club reaches out to the public to show the amazing skills of our members.

Petra Palková
(Photographs: Liz Cole)

Mukdenia rossii 'Shishiba'



A Plant Hunter in Afghanistan

Christopher Grey-Wilson

ISBN 978-1-5272-2867-2

From: c.grey-wilson@talk21.com £36

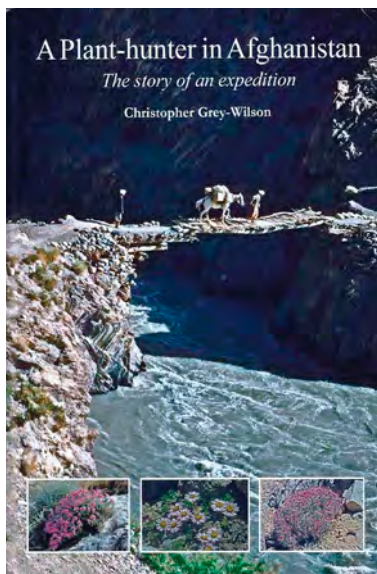
272 pages, 473 images (author's colour photographs, some drawings)

This book is based on a 1971 expedition from the Royal Botanic Gardens Kew. It has great historical value, stemming from a time when Afghanistan was peaceful, and it describes passage through Europe, Turkey, Iran and on to Afghanistan. The first part deals with travels through the low deserts to the heights of the Hindu Kush and the Pamir Mountains. The shorter second part covers a serendipitous trek up the Wakhan Corridor along the Silk Road route to the Chinese frontier.

More than fifty years later, we may now enjoy an account by an author with a remarkably strong memory of long-gone conversations. For example, regarding the expedition equipment he recollects saying "*Oh it will all fit in somehow*" and that may well underlie his approach to his story. The generously detailed narrative progresses at a leisurely pace as the reader is carried along on a stream of recollective consciousness that in equal measure embraces plants, places, people, politics, history and a forbidding geography. A large and significant proportion of the magnificent image collection recalls the variety of buildings and people of a beautiful country before its subsequent ruin by political events. Nevertheless, the flora itself is generously illustrated. Pictures are of good if variable quality, reflecting both changing photographic technology and passage of half a century, but their value is great, depicting places now inaccessible to all.

Grey-Wilson's book is a welcome reminder of the realities of collecting in distant lands. Here is none of the fly-in fly-out wonder of today's travellers. Instead, six months of journeying and social interaction are described in all the day-to-day detail needed to appreciate the perils and inconveniences of rock-falls, diseases, insects, sex-crazed stallions, dust storms, 1970s Land Rovers and central Asian roads. The book's structure reflects exactly that of most plant expeditions: you start; you travel; you collect; and you finish. The significance of all this effort lies in the (eighteen) new species and in reaffirmation of the distributions of others. It may also reside in the impetus that it gave to the long career of one of our most formative alpine plant authorities.

Anton Edwards



**Scottish Plant Lore
- an Illustrated Flora
Gregory J Kenicer**

Royal Botanic Garden, Edinburgh
ISBN 978-1-910877-26-5 £25



This attractive book contains descriptions of numerous Scottish plants and fungi, featuring their local names and how they have been used, with excursions into folklore, myth and magic. The introduction includes a prudent warning against trying any of the potions ourselves,

an account of the rôle of illustration, and a summary of the history of man's relationship with plants from Mesolithic times to the 1950s (with due credit to Robert Sibbald). The index has Latin, English and Gaelic sections. The plants themselves are grouped according to five broad natural habitats found in Scotland plus a sixth, associated with human activity.

Among practical uses of plants we find food, dyes and yarns, also numerous remedies. There is superstition (the reasons for banning the "hateful" Aspen from North Uist) and a recipe for a guaranteed love potion made from Foxgloves: you will also need Butterbur, Royal Fern (trimmed with an axe), some seaweed and "three bones from an old man newly torn from the grave..." More light-heartedly you can make squeaking sounds with an Iris ("Cheepers") leaf and improvise a buzzing reed pipe from a dandelion ("Bum-Pipe") stem: I have done both.

The text is enlivened and amplified on every page by the illustrations, which are wonderfully varied. Historical hand-coloured engravings are taken mainly from Sowerby's well-loved *English Botany*, while pressed specimens from the herbarium at the Royal Botanic Garden Edinburgh (RBGE) appear as whole sheets or enlarged details. Most of the rest are furnished by artists who have taught – or attended – the botanical illustration courses run by the RBGE (I am gratified to see that the Native Tree project that I instigated years ago is still going strong). Styles vary enormously and at least one painting is, unusually, reproduced a good deal larger than the original. Artists are given due credit for their images, though there is an unfortunate lapse regarding the decorative endpapers where many artists' works are used but none of our illustrations is attributed.

This is a book that I warmly recommend to you. You will enjoy exploring it and making intriguing and quirky discoveries among its assemblage of verbal and visual information, in addition to acquiring a well-produced publication.

Claire Dalby

Wildflowers of the Rocky Mountain Region

Timber Press, 2018

ISBN 978-1-60469-644-8

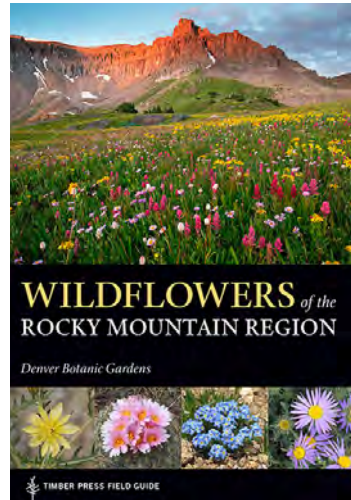
499 pages, 1245 colour photos.

Field guides march on in depth and quality, with photographs, distribution maps, and affordability, unthreatened by electronic versions. We've seen many rehashings of floras and regions no more thorough than older tomes. But, like the recent book about steppe – by four of the same contributors – this one is a refreshing advance.

A collaborative effort by staff of Denver Botanic Gardens, this rich and thick thing fits into a small rucksack and is not too heavy to venture up a mountainside. It covers a wider variety of plants one may see in bloom, including ruderal weeds, minor annuals, cactus, non-natives, and strange field legumes usually overlooked in guides made up of only bright, showy, and recognisable wild-flowers. It is organized by flower colour, includes a truly handy ruler printed on the jacket (which you will not undervalue if you've ever been in the woods, badly missing one) and has a set of illustrated descriptive botanical terms, flower parts and glossaries for the beginner. It does not include trees, grasses and graminoids, or ferns.

This may be one of the first mountain flower guides I've seen that gets comfortable in sub-dividing the Rockies into their North, Central, and Southern ranges, a division that heavily influences the distribution of many of the listed plants. Remarkably, each entry has a range map next to its photo. Credit must be given to the authors for the footwork of photographing many of the nearly 1200 plants. In fact, I remember Mike Kintgen's taking the shot of *Allium macropetalum* when he came to visit and wander in my nearby semi-desert steppe. Beyond the authors, we should acknowledge that even members of the SRGC appear in the book's photo credits, the star photo contributor being Todd Boland of Newfoundland. Many of these pictures are of art-gallery quality and most of them are solidly descriptive of plant and flower (as those in a field guide should be), making the small percentage of poor or incompletely descriptive photos entirely forgivable. The written descriptions are meant to positively identify the plants in their wild and seasonal contexts, which is very welcome, often focusing on the most diagnostic characteristics.

There is a brief but richly concentrated historical introduction by Panayoti Kelaidis, a useful little description of the plant families and



ecoregions, and a few pages devoted to the meaning of descriptive Latin specific names, which includes some great details I had not encountered before in my botanical reading.

This book is the ideal reference for the novice or sophisticated plant enthusiast who is travelling the Rockies, or for the amateur who lives here. I will absolutely be lending it to European friends who are passing through and making a botanical excursion and will take it on trips I make outside of my familiar home turf of the Southern Rockies to remind me of names like *Mimulus lewisii* and *Fritillaria affinis*. It functions as a strong bridge between the superficial introductory eye-candy of basic giftshop guides, and the authoritatively thorough, but dry, hard-to-procure and burdensomely proportioned complete flora.

Kenton Seth

Purdom and Farrer: Plant Hunters on the Eaves of China

Alistair Watt, 2019

alistairwattbooks@gmail.com

ISBN 978-0-646-59786-7

Softback, 339 pages, many illustrations. Limited edition of 250 copies

I doubt if any SRGC members have not heard of Reginald Farrer, even if only as the name of the medal for best plant at the joint shows we have in the North of England. And many will know about his explorations and very considerable influence on rock gardening at the start of the 20th century, as he was a prolific, albeit long-winded and egocentric, author. Fewer will recognize the name of William Purdom, although many still do in North West England, as I found when discussing this book at the Kendal show back in March. The only expedition Farrer and Purdom shared was in 1914-16 to remote areas on the borders of China



and Tibet, the subject of this comprehensive study by Alastair Watt who has himself travelled in China and is the author of a very good biography of Robert Fortune. The book began as a study of Farrer but changed as the author realised the need to bring Purdom's achievements to a wider public.

Although both men were born in the North of England in 1880 (the year of Robert Fortune's death) they were from very different backgrounds. Farrer grew up on the family estate in Yorkshire, where he became interested in the wild-flowers of the local limestone and built his first rockery at the age of fourteen. He had a cleft palate and harelip (which he later covered by a moustache), meaning that he spent much of his childhood alone and out of school undergoing operations. One wonders whether this experience had a bearing on his craving for recognition – often at the expense of others –

in adult life. Purdom was the son of a head gardener in the Lake District at Brathay Hall, now a well-known outdoor education centre. Like many country boys of the time, Purdom followed his father into horticulture, establishing a good enough reputation to move eventually to the Royal Botanic Garden at Kew. Here wages were low, the garden authorities claiming this was compensated for by the training. Purdom campaigned for an increase and this led to his dismissal. Doggedly determined, he took his case as far as Parliament but in those days to be labelled as a troublemaker was a serious matter for even the most promising of young gardeners. By changing career to become a collector for the famous Veitch nursery he took himself out of a world where he probably felt his future may have been compromised. By the time he teamed up with Farrer, Purdom had already travelled extensively in China working for Veitch and the American Arnold Arboretum during 1909-11. He got on well with the Chinese and was to prove invaluable to Farrer's plans. Despite his personal wealth, Farrer had to canvass support for such a journey. His high public profile did not convince some authorities such as the Edinburgh Botanics, where senior staff were doubtful of his scientific credentials, but he received financial support from the RHS and several private sources.

In 1914, Purdom and Farrer set out on their expedition. Purdom travelled ahead to make the arrangements. Farrer came later, travelling first class. By the time they were in the field, conditions were much tougher and at times dangerous, with the risk of attack by bandits and rebels, including the murderous White Wolves. Their adventures were documented in Farrer's books, *On the Eaves of the World* (1917), and *The Rainbow Bridge* (1921). Farrer gives credit to Purdom, something he did not always do with other explorers, although the plant introductions were all labelled as Farrer's. They never met again but remained in contact for the rest of their lives, both of which were cut short. Purdom stayed on in China where he showed commendable environmental awareness by working to restore the badly depleted forest cover; he died in Beijing in 1921 from a post-operative infection. After returning to Britain, Farrer explored in Burma with Euan Cox; he stayed on after Cox returned to Scotland but died there in 1920, allegedly from diphtheria.

This book has twelve main chapters. The first three deal with Purdom's earlier life and the fourth with the better-known Farrer. Chapter 5 describes their meeting. The actual expedition is mainly covered in chapters 6-9 but all the introductory material is relevant to understanding the two men and the world they lived in. Chapter 10 covers the aftermath of the expedition, chapter 11 deals with Farrer in Burma. Chapter 12 discusses their introductions and the book concludes with appendices listing plants and seeds collected by Purdom in 1910-1911, the plants collected by both men in 1914-16, and details of the author's sources.

Stan da Prato

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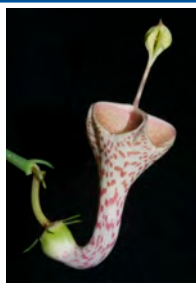
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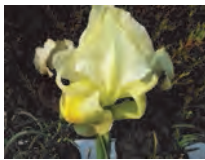
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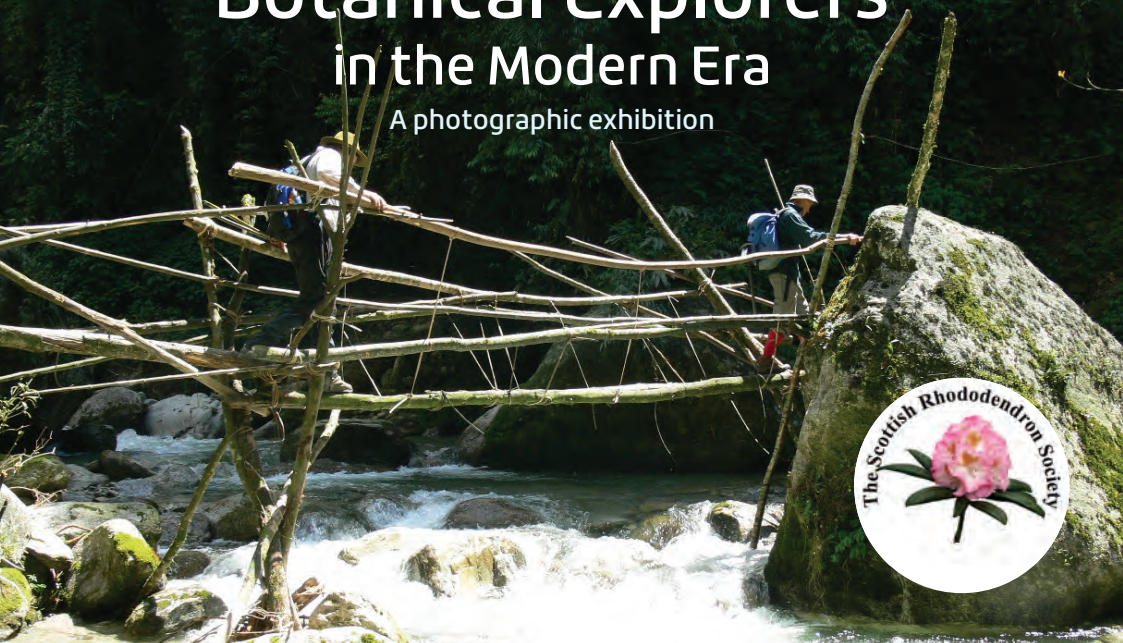
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