

Rock Garden

Quarterly

Fall 2013

NARGS



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QUARTERLY
CONTACT**

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Let me know what you think

A recent issue of a chapter newsletter had an item entitled “News from NARGS”. There were comments on various issues related to the new NARGS website, not all complimentary, and then it turned to the Quarterly online and raised some points about which I would be very pleased to have your views.

“The good news is that all the Quarterlies are online and can easily be downloaded. The older issues are easy to read except for some rather pale type but this may be the result of scanning. There is amazing information in these older issues.

The last three years of the Quarterly are also online but you must be a member to read them. These last issues are on Allen Press’s BrightCopy and I find them harder to read than a pdf file. Also the last issue of the Quarterly has 60 extra pages only available online. Personally I find this objectionable as I prefer all my content in a printed bulletin.”

This raises two points:

Readability of BrightCopy issues versus PDF issues

Do you find the BrightCopy issues as good as the PDF issues?

Inclusion of extra material in online editions only.

Do you object to having extra material in the online edition which can not be included in the printed edition?

Please take a moment to email me with your views

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Don LaFond lives and gardens in Pinckney, Michigan, near Ann Arbor. He is a furniture builder and remodeling carpenter and, most importantly, a Mister Mom for two kids. Rock gardening has occupied and competed for his time for 20 years, with daphnes, irises, and dwarf conifers being among his many plant addictions.

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Dieter Zschummel is a retired chemist. He has been interested in plants for the rock garden since the 1960s. With wife Rosi, he has visited mountains every year since 1967. He tries to cultivate alpiners in a rather unfavorable climate near the town of Leipzig in Germany. Because of his special interest in Primulaceae, Dieter and Rosi have been to Iran several times looking for *Dionysia*, and in China for *Androsace* and *Primula*.

Front cover: Rock garden with *Saxifraga paniculata* and *Androsace studiosorum* in the foreground – David Sellars

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From the Editor

I SUPPOSE I should start with a confession. Although one of the *Ungernia* seeds that I wrote about with enthusiastic anticipation for the spring issue, germinated (one of those treated with GA3) this one seedling unfortunately perished. This was while a neighbour was looking after things horticulturally while we were visiting the US for the NARGS Annual Meeting. But since nothing else of any great importance perished during our four-week trip, we have much to thank her for.

My other loss, during a later one-week trip, was of rosulate viola seedlings which were eaten by molluscs (we have had a lot of slugs and snails this season). Since there were seedlings in 6 out of 10 pots of different species this was a much more depressing loss. Perhaps I'll try again next year. At least the germination had been a success.

Reading Michael Campbell's article on *Moraea* makes me think that I might try for some from the SeedEx this year (along with lots of others I expect). In the UK, as Michael writes, it is very hard to purchase bulbs of many species, but it is worth noting, for American members, that one of our advertisers, Telos Rare Bulbs (whose ad is on p. 384), currently lists 21 species. And it will soon be time to be searching Alplains seedlist again. Nursery small ads are a wonderful way to find rare plant material.

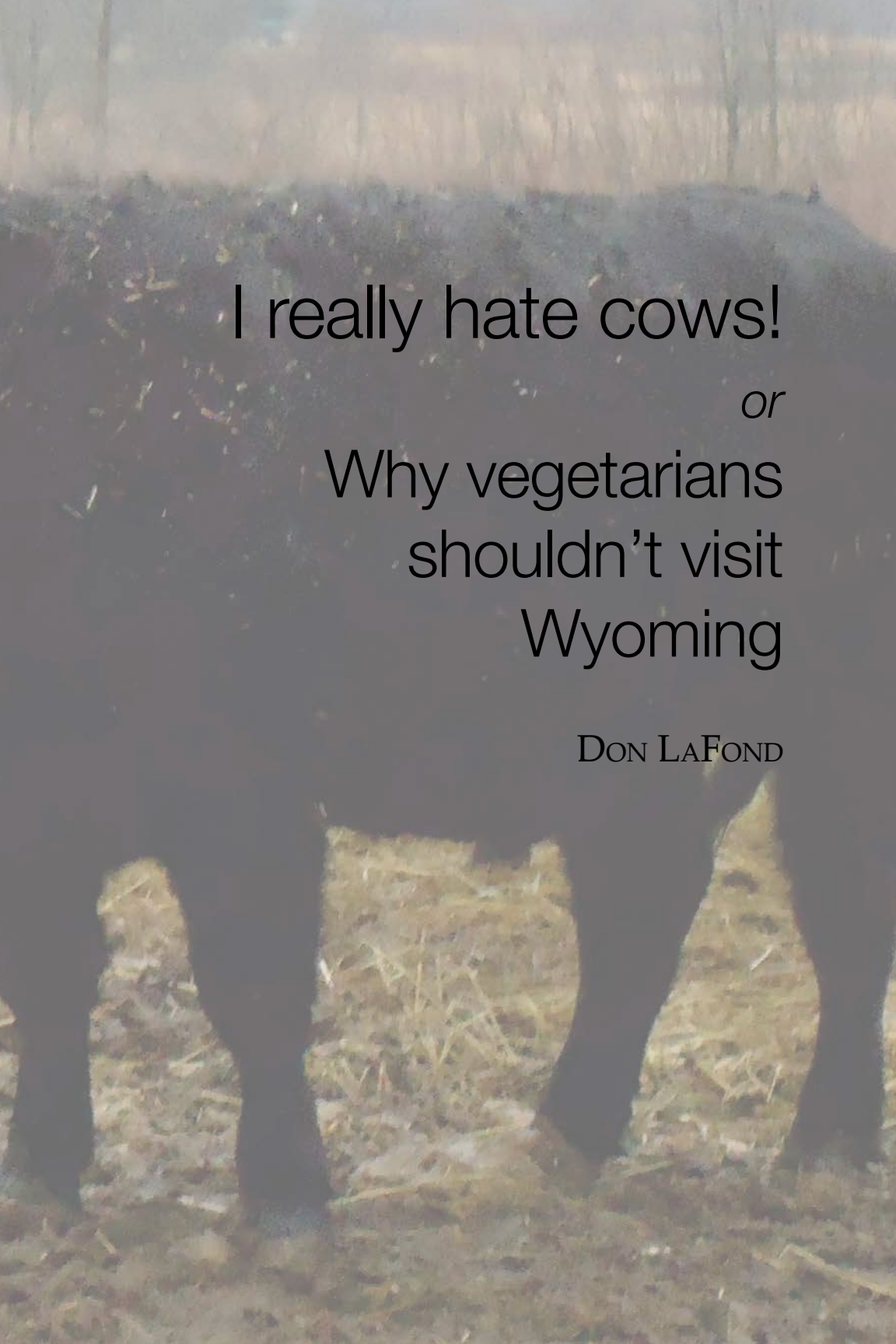
Apart from all this, the most significant development for NARGS in the last three months has been the launch of the new website which, as you can see, has an exciting new look. As before, it's at <www.nargs.org> and there really is lots to explore!



LIKE MOST ROCK gardeners, I have longed to take a trip to see plants in the wild. Unfortunately, my family doesn't share my obsession for plants. This meant that my plant hunting and wanderings would have to be done alone. In order to do this, I had to bribe my family with the promise of a trip to the Wisconsin Dells after I returned but, at the end of June of 2006, I left to see the Black Hills, Big Horns, and Beartooths.

Driving west across the plains, watching the mountains rise up in the distance, is always exhilarating to a flatlander like me. In my younger days I traveled to the West to backpack in the mountains, but not in pursuit of flowering plants. This time I wanted to see alpines, and so confined my travels to only the highest areas. In the Black Hills, this was about 6,000–7,000 feet, not all that high compared to the Rockies, which rise upwards of 14,000 feet, but the relatively low elevation of the Black Hills was a good way to acclimatize slowly to some later and higher-altitude exploring.



A dark-colored cow, possibly black or dark brown, is the central focus of the image. It is standing in a field of dry, yellowish-brown grass. The background is slightly blurred, showing more of the field and some trees in the distance. The overall lighting is somewhat dim, giving the scene a slightly somber or naturalistic feel.

I really hate cows!

or

Why vegetarians
shouldn't visit
Wyoming

DON LAFOND

Arriving in Rapid City, South Dakota, the eastern gateway to the Black Hills, I stopped to get directions, then impatiently drove into the hills. I stopped often, sometimes for cows in the road, sometimes for dots of color on the hillsides. The first thing I saw blooming was *Lilium philadelphicum*, short, and reddish orange, a favorite of mine, that was found in shaded ravines. A good start I thought. The hills were forested mostly with *Picea glauca* and *Pinus ponderosa*, but open and grassy under the trees. I saw lupines in nice blue and white bloom, and a whitish *Calochortus*, that must have been either *C. nutallii* or *C. gunnisonii*. I went to the top of a particular high ridge that had a radio tower on it that had been previously pointed out to me, and was shocked to see extensive bulldozing had wrecked much of the knob. There was a small section that had evaded the destruction. It hinted at an area that, before it was disturbed, had been a natural rockery. There were some very prostrate junipers, an unidentified (by me) *Erigeron* and a dwarf *Liatris* that wasn't in bloom.

Towards evening I began to look for a campsite. Out West, in national forests, you can camp anywhere you want so I could take my pick of likely places. There were a few homes and every so often a fence and a cattle guard in the road. But, by and large, there was very little sign of civilization. With dusk approaching I settled on a nice place to make camp: a very simple camp, a small one-man tent, a blue tarp for a dining fly and a fold-up table to set my stove on. Sitting down to eat I heard a loud shuffling noise accompanied by six or seven black Angus cows coming out of the woods, looking very much like a gaggle of people picking berries and gossiping. Looking down at my 14-inch-high tent, it looked somewhat inadequate. Oh well, how hard can it be to scare off a few cows? I grabbed a pan and a spoon and they left. Only to return several times, getting louder each time. Then they returned with help. He made a noise that would make a Scottish highlander take full notice. The beast appeared, complete with snot shooting from his nose, wanting to know why I had the audacity to camp in his living room. I tried the spoon-and-pan trick only to have him circle my camp bellowing in ever-closer orbit. He stood staring at me, stomping his hooves. I picked up a rock, knowing very well that I could plug him between the eyes, but having seen a bull turn a man into a rag doll, I declined. My mind went to a picture of a mad cow smashing me into my truck. The walking strip steak decided to enter my camp, knocking over my table and stove. I retreated, trying to keep the truck between him and me. I hate cows.

I hollered at the beast to leave or I would eat him but he knew that I didn't eat cow. The beast then stomped my tent and retreated to give me just enough time to get my camp wadded up and stuffed in the back of my truck.

It was now dark; I was hungry, and all I knew was that I was very close to the Wyoming border with very little gas. I drove off. I really hate cows.

Looking at my map I guessed at my location and headed west. I was gaining altitude rapidly. I could make out the shadows of the mountains, but no obvious places to make a camp. A Ford pickup can go a long way on an eighth of a tank of gas. Coming down from an adrenalin rush, I really needed to stop. After many miles of retreat I saw a large parking lot. There were no lights, no buildings, just a sign that mentioned something about the Arapaho. Going to the very back of the gravel lot, I unloaded my previous camp in a heap next to the truck. Fishing out of the mess my sleeping bag and sleeping pad, I slid them in the bed of my truck, climbed in and went to sleep.

Sometime later I woke to a car pulling up next to me. I heard a police radio. The dispatcher was saying not to investigate without backup. The cop said he would be fine. When he got closer I saw his flashlight and I asked what I could do for him. He responded by asking if I was sleeping; he then said that was fine and left. That night I dreamt about Indians banging their tom-toms. They had me cornered in a small ravine.

I woke to light trying to seep through the early morning fog, and drums. Yes, tom-toms. I crawled back out of my truck and noted where I was, mountains on all sides rising from the small gravel parking lot, much like a western movie. From one direction the drums would pound a simple beat, then from the opposite direction they would start again. They sounded off all the way around me. For Chrissakes, where was I now? Tired and very puzzled I drove away.

I was in Wyoming, I still needed gas, and I was still gaining height. How long would my truck run on E? After a short way, the truck quit going uphill. I coasted for many miles. Sometimes gaining speed too rapidly but not wanting to waste the inertia, I used my brakes sparingly. Finally I spotted a bar with a gas station, but it was 5:30 in the morning. I made breakfast and waited; around 8 someone must have taken pity on me because they sent their young son out to pump my gas. I was finally on my way to the Bighorns.

Wyoming is a place of paradox. The corners of the state have dramatic high mountains, with the center a high desert. The Big Horns rise from this desert with high snowy peaks with a hint of "come on up, I'll show you something cool." To navigate to places I wanted to see, I used Iza Goroff's very informative article in the *Quarterly* vol. 64 #1. In this article he gives exact directions to locations of alpine plants and natural rock gardens. Off US 14A, is Hunt Mountain Road, perhaps the best stop of my trip. About a mile-and-a-half up the road was a text-book rock garden: a large limestone outcrop that juts out near the top of



Primula parryi, Big Horn Mountains

the mountain. It seemed as everything was in bloom on that 3rd of July. In flower I saw *Primula parryi*, *Tetraneuris (Hymenoxys) grandiflora*, *Mertensia ciliata*, *Erigeron*, *Aster*, *Penstemon*, *Phlox* and others. Oh my. One of the great joys of life is to lose all track of time, which is fine at home, but I don't recommend it on top of a mountain. What jolted me back to earth was a lightning strike a half a mile below me. That was near to where I'd parked the truck!

Slightly panicked I picked my way back down the mountain to the truck. It was late afternoon so I decided to head further into the mountains to find a place to make camp. I found myself racing a thunderstorm on a road rapidly becoming a rutted Michigan driveway. I kept saying to myself that just over that next rise it looks as though I will find a place to hide. Wrong, the road kept getting higher and the storm was quite fierce. What if the lightning hit my truck? I did find a small group of trees so I went there to hide. I know, I know that's not



where you go to shelter from lightning, but to a flatlander it was a calming little shire to hide among. When the storm cleared I found I was parked just a few feet in front of a little trailer but luckily no one was home. I moved down the road away and made a camp. I heard cows in the distance but there was a fence 25 yards in front of me and I felt safe enough.

After the camp was set up I went to explore. I was camped just below the top of a different mountain and I found a marker that said it was 10,900 feet above sea level. It was very open and windswept but covered in all kinds of grasses and other plants in bloom. I went down and made my dinner. Sitting in my lawn chair I was relaxed and content watching sheep on the far side of the fence when a loud noise interrupted my reverie. Sound carried a long way out there but I couldn't see anything for quite a while. A pickup drove past me pulling a very large boat, the kind of boat that uses stilts to hold it on the trailer. Then some ATVs thundered past. Umm, now maybe I understand why people enjoy sitting on their porch watching traffic. Another ATV drove past carrying some 12-foot-long vinyl siding crossways, bending itself into "v" shape.

The next day dawned clear and crisp with frost on the windshield and I wanted to find *Aquilegia jonesii*. According to Iza's article it was about 4 miles from US 14A. I backtracked the correct mileage to the place where they were supposed to be. It looked like a parking lot. I kept driving to another spot where *Kelseya uniflora* and *Telesonix jamesii* subsp. *heucheriformis* were supposed to be, and they were there. A couple of football fields away, stood a grouping of huge rocks that looked like a castle made by a giant in the 15th Century. Very high on the vertical walls of the deeply pockmarked reddish limestone clung the *Kelseya*. Some of the low green humps were very large, 2–3 feet wide and up to 6 feet long. I tried to take some pictures but these plants presented a problem I couldn't solve with my cheap compact digital camera. After looking at the *Kelseya* until my neck hurt I started walking around the rock formation. All over the rocks, in shaded crevices, was the *Telsonix*. The plants had a few flowers and seed showing at the same time and I now have a plant on tufa from that seed collection in my garden. *Primula parryi* and *Mertensia* were flowering, and in front of the melting snow in the shade was *Ranunculus eschscholtzii*. But it was starting to get slightly darker; looking up I could see a storm way off in the distance. This time I got out of the way in time.

I still wanted to see *Aquilegia jonesii*. I drove back to the spot where it was supposed to be and stopped. It looked as if someone had taken chunks of limestone the size of a fist, spread them, and rolled it all with an asphalt roller. Note to self, look down. That little columbine was all over, mixed with *Eritrichium*, *Erigeron*, *Townsendia* and cow flop; all in

bloom except the *Aquilegia*. There were several acres and I walked most of it looking for a columbine flower, the closest I got was one dried-up ghost. I heard ATVs again, and gun shots. Ricochets sounded off around me. I hit the dirt. It was the 4th of July, and the redneck cowboys were out on their combustion ponies. I had to stay hidden until they saw my truck. When they approached I asked what they were shooting at, they replied rock chucks. What the hell is a rock chuck? I didn't ask them. They left, and I left too, on my way to the Beartooths.

When traveling out West, you will eat well if you eat cow. I don't, although at the time I wished I did. Cows must outnumber people in the West by ten to one. I met no people in the West who knew how to cook anything but cow. I saw many folks of Mexican or Central

A storm brewing in the Beartooth Mountains



American descent, and I assumed that I could get some decent Mexican food. How silly of me - they were serving tater tots on the tacos. So I stopped for dinner at a place that looked as though John Wayne should be sitting on the porch shooting corn dodgers. I ordered fried chicken, it was deep-fried in thick gooey batter, like the kind used on frozen fish from Mr. Gorton.

The Beartooth Mountains are situated in the northwest corner of Wyoming and straddle the border with Montana near Yellowstone. The light seems more radiant everywhere in the West but especially in the Beartooths. They have a different feel than the Bighorns. They're steeper and the rocks are bluish gray with red accents.

Heading south from Red Lodge in Montana the mountains rise aggressively upwards. The road is not for the faint of heart. It zigs

and zags in 180-degree hairpin turns ever upward, and the guard rails when present are close to the side of the road and seem inadequate. Wherever the road cuts into the mountain, which is almost all the time, the rocks sprout rock-garden plants like weeds in a ditch. I stopped along the road whenever I could. I went high into the mountains and made a camp by a small lake with a river and a waterfall, and I saw no cows, no ATVs, and heard no guns. Peace!

I explored from early afternoon on. Big gnarly rocks surrounded the small lake and, on the edges of the water, white marsh marigolds were blooming and there was the ever present sound of water splashing. That night I slept the sleep of an unworried man, under the clear dark night, my dreams only of how to make my garden look like the Beartooth Mountains.

On a whim I drove through the Snowy Range in Wyoming on my way to Colorado. It's a grand drive from Saratoga to Laramie on RT 130, right up the middle of the mountains. The rock is a curious milky white in color. It's quartzite and is older than the mountains around it, looking to all the world like mushrooms studding the slopes. The day I was there I saw hundreds of yellow *Erythronium grandiflorum* blooming among the rocky mushrooms. Sitting by a







lake, wishing I had a fishing pole, I satisfied my hunger looking at some western *Caltha* and some pearly white *Trollius*.

I really wanted stay in the Snowys but my time was not unlimited. I had to make a choice, stay and explore or see Colorado. I have listened to Panayoti evangelize on the beauty of the Denver Botanic Gardens and was delighted in Nicola Ripley's description of her beloved Betty Ford Alpine Gardens (*Quarterly* vol. 61 #1). So my decision was made: I am a gardener, and maybe Colorado had something satisfactory to eat. I got into Denver quite late, and, well, perhaps a short bit of advice – don't stay in a hotel with bulletproof glass between you and the desk attendant.

After a long night I finally had an excellent breakfast of huevos rancheros, with a freshly made salsa. Now, off to the Denver Botanic Gardens. It was unbearably hot. The gardens were very attractive but at this elevation the rock garden bloom was cooked. At the garden, I read a sign that reminded me about Mount Goliath on Mount Evans, a rock garden at 14,000 ft, and only about 35 miles away. Seeya! As I climbed in elevation it did cool off. It's alpine tundra up there, and I stopped often and found one of my holy grails, *Claytonia megarhiza*, right out in front of God and everyone.

When you get to Mount Goliath, just before the top of Mount Evans itself, about the only living things standing taller than a pika are the sacred old bristlecone pines. Their trunks are bare of branches for eight feet or so, a reminder of the amount of snow that crowds the old thick grey stems for eight or nine months a year. If you have only one day in Denver I would recommend Mount Evans. The drive up is inspiring and the drive down will inundate your system

Phacelia sericea, *Potentilla*, *Ceum triflorum*, sagebrush, and thistle, Beartooth Mountains



Tetraneuris acaulis

Claytonia megarhiza





Trifolium nanum, Mount Evans

with enough adrenalin to get rid of your headache from the thin air. But the atmospheric conditions were rapidly deteriorating, so I rolled back down the mountain and a visit to Betty Ford Alpine Gardens in Vail before the journey home.

It had been a great trip and I thought about the standout moments. One stood out. On my last day in the Beartooth Mountains, I drove to Beartooth Pass. On the way it rained slush balls the size of softballs. I invited a man who was traveling on a motorcycle to share my dry cab until the slush on the mountainside slid down in one large sheet. There

Erythronium grandiflorum, Snowy Mountains





Caltha leptosepala and *Trollius albiflorus*, Snowy Mountains

is a parking lot at the pass, 10,947 feet high, complete with a general store. People were walking the several hundred yards to a large rock pile to look through the clear blue sky to see Idaho in the western distance.

I, of course, was looking down trying to not step on the Persian carpet at my feet: *Eritrichium*, blooming by the hundreds with *Erigeron* and *Polemonium*, and *Douglasia*, and *Cerastium*, and *Myosotis*. Where do I walk, where is my trowel, and why can't I breathe? It took a long while but I did make it to the rock pile. Upon arrival a little girl asked me why I was looking down and how come I walked crooked? I asked her if she liked Persian carpets, and did her mom make her take her shoes off in the house!



Moraeas

for the Rock Garden,
Patio, and Cold
Greenhouse

IRISH GARDENER MICHAEL J. CAMPBELL
WRITES ABOUT HIS INTRODUCTION
TO THESE BEAUTIFUL SOUTHERN
HEMISPHERE IRIDS



Moraea aristata

JUST MENTION *MORAEA* and most bulb growers reply “Oh, I can’t grow those because I have no heat in my greenhouse!” This is, however, very far from the truth for, while they do come from South Africa where they take the place of northern temperate-zone *Iris*, they are quite accustomed to cool and wet weather. With the proper substrate, a sunny position, and good drainage, many of them can be accommodated in the rock garden, raised bed, cold greenhouse, or even large pots on the patio.

My introduction to growing *Moraea* in the garden came about quite by accident. Many years ago I requested and received a number of packets of seed from one of the seed exchanges and sowed them following the usual instructions. After a while, when nothing had germinated (I am by nature an impatient person), the contents of the pots were duly dumped into a bin I kept for spent compost. As luck would have it, at that time I was building a raised bed at the front of the house here in Ireland and the contents of this bin were used to help fill the bed. When autumn arrived, lots of monocot seedlings appeared in the bed and, out of curiosity, I decided to leave them and see what developed. Much to my surprise, after two years flower buds started to appear, and as soon as they opened they were quickly identified as *Moraea polystachya*. This is widespread in the Karoo, extending through a number of South African provinces: Eastern Cape, Northern Cape, western Free State, and North West (western Transvaal); as well as into Namibia. It is the most accommodating of the species. Here it has grown outside in that original south-facing 12-inch-high (30 cm) raised bed for twelve years. *Moraea*

Moraea polystachya



polystachya is the earliest of the species to flower and can start opening flower buds on 19–24 inch (50–60 cm) stems from late September (Northern Hemisphere) and continue until late December when planted outside. For some reason they are not so accommodating when pot-grown in a cold greenhouse and do not start flowering until much later; I presume it is because they do not get watered until the start of September,

while those outside take advantage of the late summer rain and start into growth much earlier. But it can be grown in a 12-inch (30 cm) pot on the patio and moved to a sheltered spot if heavy frost is forecast.

Moraea vegea and *M. lurida* were two more species among the surprise seedlings from my raised bed. *Moraea vegea* grows in heavy clay soils in the extreme southwestern Cape and is easily accommodated in the rock garden. Indeed it can become something of a weed if it likes the conditions, but it is easily removed from any area where it is not required. Some people may not like this species because of its buff to dull brown flowers with yellow nectar guides. The flowers are held on 6–12 inch (15–30 cm) stems and can be easily overlooked, but I quite like it and if planted in the right place it has its own gentle charm. When planted about 3 inches deep (7–8 cm) it can easily stand –5C (23F) here and never fails to appear in spring.

Moraea lurida, which flowered after three years in the raised bed, is restricted in the wild to the Caledon district of the southwestern Cape. It comes in a variety of colours blending through brown, green, maroon, yellow, and orange, in various combinations. The fetid-smelling flowers appear from March to May on 8–12 inch (20–30 cm) stems. It multiplies rapidly and also produces lots of seed which germinates readily, and indeed it has self-seeded in the rock garden. So do not let the smell put you off: this is a charming little plant that also does splendidly in a pot in the greenhouse.

Moraea aristata, illustrated on the title page of this article, belongs to the so-called Peacock *Moraeas*. Everyone admires it and it is my own favourite. It is quite easy-going although it took three years to flower from seed. Now thought to be extinct in the wild, it was originally recorded in the Cape Town area but there were not



Moraea vegea

Moraea lurida



enough plants to ensure its long term survival in the wild. Thankfully, it has been preserved by botanical and private gardens and its survival is now ensured. It has grown quite happily in my raised bed with *M. polystachya* for a number of years without any problems; it does however perform most magnificently in a pot in the cold greenhouse. Given the proper drainage and plenty of water after the foliage appears, it is no problem at all, and produces many cormlets every year. I have never managed to get seed from it, probably because of low temperatures. The white flowers with blue to dark green nectar guides usually appear on 12–14 inch (30–35 cm) stems in March, but in a mild winter can appear in February.

My interest in *Moraea* grew after the unexpected success of my early experiences and lots more were added to the list. One of these was *M. setifolia* (syn. *Gynandiris setifolia*), another delightful little plant for the rock garden that flowers sporadically over a three to four month period from late spring to early summer. The small flowers, which do not open



Moraea setifolia

until early afternoon, are pale mauve with orange and white nectar guides, and need a dark background such as brown shingle to show of their best. Given a well-drained site with sandy soil in full sun, *M. setifolia* will seed around into any available crevices. Be careful that this one does not escape from the garden as it has widely naturalized in the temperate and semi-arid regions of southern Australia.

I have never tried *Moraea atropunctata* outside, but it is excellent in a pot in the greenhouse. It is a local endemic of the Caledon district in the southwestern Cape where it grows in fertile soil. The large grey-white flowers with dark speckles in the centre, and brown on the reverse, are produced on 10 inch (25 cm) stems from early February through March. Unfortunately, it does not reproduce itself with any abundance by cormlets and I have never managed to get any seed set.

Another species restricted to the south-western Cape is *Moraea tricolor* which grows in wet low-lying depressions in sandy soil and is very rare now due to farming activity. It is a dwarf among the *Moraea*, its stems only 6–8 inches (15–20 cm) tall. Its sweetly scented short-lived





Moraea atropunctata

flowers in shades of yellow, pink, and red, with yellow nectar guides, are a joy to behold through late winter to early spring. It asks for and deserves a place in the alpine house where the sweet perfume can be appreciated in comfort. Slow to reproduce, it requires very sandy compost and a copious supply of water once the foliage appears, and careful watering after flowering. I am confident that given the proper conditions, it would do well in the garden and I intend to try it when stocks allow.

Moraea tulbaghensis, which now includes the former *M. neopavonia*, is restricted to the upper Tulbagh Valley in the southwestern Cape between Tulbagh and Tulbagh Kloof where it grows in light, stony, clay soils.

Moraea tricolor



Another one that belongs to the Peacock Group, it can have flowers on 4–6 inch (10–15 cm) stems ranging from orange through orange-red to brick red, with nectar guides in shades of blue, green or black. I grow this in a pot but only because I don't have sufficient stock to trial it in the garden. The flowers need full sun or they fail to open properly, but I am confident that it would survive in the rock garden or a raised bed given the proper sunny site and good drainage.

The Tulbagh Valley is also home to *Moraea villosa* which is much too precious for me to chance it in the open and, to this end, it is cosseted



Moraea tulbaghensis
Moraea huttonii



in the greenhouse. In the wild this is found growing on heavy clay soil and sometimes on sandy stony Cape mountain soil although it is quite rare in the wild. Colour can range through white, cream, orange, pink and purple with nectar guides that can be blue, green or purple outlined with a broad band of dark colour. The flowers usually appear in February or March on 12–15 inch (30–40 cm) hairy stems with a single hairy leaf. A deep pot and plenty of water in the growing season keeps it happy.

Moraea huttonii has a wide range in eastern southern Africa where it grows in or near water and is often found at the edge of mountain streams and rivers. It was also one of my raised-bed seedlings and is a very robust species with large yellow sweetly-scented flowers and dark yellow nectar guides on 24–35 inch (60–90 cm) stems bearing strap-like leathery leaves, and can take anything the

weather here can throw at it. More a plant for the herbaceous border than the rock garden, because of its size, I had to remove it from the raised bed, as it was overwhelming everything else. It is nevertheless worth a place in the garden.

Homeria was once considered a separate genus but is now included in *Moraea* along with *Galaxia*, *Gynandiris* and *Hexaglottis*. The only former *Homeria* species that proliferates in my garden, is *Moraea collina* (syn. *Homeria collina*). It comes in a mixture of various shades of yellow and orange, and developed into something of a weed here, much like *Freesia laxa*. I had to weed it out of other plant pots and even from under the bench in the greenhouse, until the hard winter of 2010–2011 finally killed it off. There are some other very striking species such as *M. elegans* (syn. *Homeria elegans*) which I intend to try in the garden but as my small garden is so crammed full of plants I have to wait until a plant dies to make space for something new. Another former *Homeria* is *Moraea pendula* (syn. *Homeria pendula*) which grows in moist places in Namaqualand in South Africa. The yellow flowers have reflexed tepals and red anthers and are quite happy in a damp, not wet, spot in the garden.

Most of the moraeas in my garden are in the south-facing raised bed discussed at the start of this article. The bed is approximately three metres from the house. It is filled with spent potting compost which consists of about 50-50 grit and soil, plus whatever perlite has been added to the compost. Moraeas planted in the rock garden get the same treatment as the pot-grown corms except that they are planted a little deeper. I dig a hole about 12 inches (30 cm) deep, then add about 4 inches (10 cm) of good gritty compost, and on top of that a 2-inch (5 cm) layer of very sharp sand. I place the corms on this, and cover with another 2-inch (5 cm) layer of sharp sand, and top with grit. Those grown



Moraea collina
Moraea pendula





Moraea setifolia

in pots in the greenhouse are in a mixture of 2 parts compost, 1 part perlite, and 1 part grit. I fill the pot to 3 inches (8 cm) from the top, then add a layer of very sharp sand (not grit) and place the corms on this, then I completely cover them with more sharp sand and top with grit. I water them from the beginning of September and keep moist all winter. When the flower buds appear in the spring, they need lots of water. After they have flowered, they die back very quickly, and should be kept dry until re-potting in early autumn, after which watering starts.

Fortunately, moraeas are easily grown from seed. This is the best way to build up stock as corms are not readily available commercially, and unless you know someone that has a collection and is willing to let you have some spare cormlets, it is the only way. I also find that seedlings adapt better than corms to my growing and climatic conditions. I try to sow my seed before the end of August using 3½ inch (9 cm) pots filled with a 50-50 soil and coarse sand mix, with a layer of fine sand on top of this on which the seed is spread evenly and then covered with grit. The

pots are then placed outside in an open frame to get the autumn rains and a careful watch kept that they do not dry out at this stage. It is the combination of warm days and cool nights that triggers germination which usually takes place four to six weeks after sowing. I bring them into the greenhouse after germination to protect them from the worst of the weather and to stop the slugs from having them for supper. All my bulbs and corms are left undisturbed for at least two years to give them time to establish before potting on or planting out. When they start into growth in September of their second year they are fed with a dilute tomato feed every three or four weeks and at the end of that growing season I have nice healthy corms.

So, if you don't live in too harsh a climate but haven't tried growing moraeas, out in the garden, in pots, on the patio, or in the greenhouse, give it a go; you may be pleasantly surprised with the results. Given the right conditions they are easier than you think.

NOTE: When reading this article, please take cognizance of my growing conditions. I live in the west of Ireland in a temperate maritime climate, modified by North Atlantic currents; mild winters, cool summers; consistently humid; overcast about half of the time. Winter temperatures from about -5C to +14C (23F to 57F) summer temperatures from +16C to 24C (61F to 75F). Annual rainfall 40-55 inches (1000-1400 mm).

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Moraea atropunctata





A perennial border is “almost like a heavily decorated curtain or tapestry”

On Rock Gardens

GWEN MOORE

I - INTERPRETING PERENNIAL DESIGN

MOST GARDENERS COME to rock gardens after tasting the delights of perennial gardens. Abandon now the struggle to have great color combinations at all the summer’s turns! The rock garden differs from the perennial garden in many ways, and so design must be considered differently. Notice I did not say that design should be abandoned.

Perennial gardens are typically viewed from one side and considered as a vertical composition, almost like a heavily decorated curtain or tapestry. Rock gardens are more often viewed from above, as a carpet might be seen. The shape and spatial arrangement of the rocks plays a large part in the rock garden, whereas perennial gardens are almost entirely made up of the plants.

It has long been my thesis that perennial borders imitate tall meadows, whether the meadows of the lush prairies or those of subalpine zones. They therefore contain large groupings of plants, massed against each



other, usually cheek by jowl, with no open ground or space between.

Rock gardens, on the other hand, display a tundra or alpine-like design, with individual plants separated on the whole by rocks or gravel. Each plant may occur ten times in a small area, not bunched up next to its fellows, but rather inter-sprinkled with other kinds of plants. Thus the color coordination of the border may be abandoned—no rainbow changing from one color spectrum to another, the cool blues melding gradually to hot pinks, reds and oranges. Rather, we have a spatter painting, yellow dots of draba, bright lavenders of erigerons, the shiny whites of iberis, like the tiny dots of the neo-impressionists.

How many plants of each variety are used will of course influence the continuity of the flower painting. Generally, I would urge the rock gardener to use at least three of each, but if you grow your own you may be able to use twenty. Or plants of similar flower color and bloom time may be used to mimic each other and extend the splatter of that hue further through the garden. Drabas of various species are an obvious choice, the cheery pinks of *aethionema* another.

The sophisticated rock gardener, with many plants and colors to his palette, may introduce a yellow-and-white variegated foliage plant such as *Heuchera* 'Snow Angel' in the shady edge of the garden to pick up the pale yellow of *Primula auricula* farther down the slope; a spreading lavender phlox, a rosy lilac thyme, and a dwarf lavender may be popped into especial vividness by the addition of a single Indian paintbrush

A rock garden is "more often viewed from above, as a carpet might be seen"



or an orange wallflower. But no color charts are made during the designing of the rock garden. A merry mix is sprinkled about, and the plants left to create their own delights. Later, accents may be added, but the rock gardener generally does far less transplanting to achieve and affect design than does the perennial gardener. Rock garden plants are often reluctant to reestablish, so why take the chance? Better to add than to subtract, in this design.

The sole aim of rock garden design is to use an infinite variety to create ongoing surprises. The variety, the changing color combinations are provided by having a large selection of plants in the garden, often as large as possibly can be acquired. Two thousand varieties are not too many for even a small yard and garden.

Surprise is provided by building the garden so that it cannot all be seen from one spot at one time; as in Japanese gardens, the paths should lead to new views and thus new discoveries. Because the rock garden is usually raised vertically, different exposures to the sun and weather are created, advancing or delaying the season of bloom even of the same plants planted facing different directions.

Rock garden design, like perennial and evergreen garden design, should incorporate contrasting foliage color and texture to heighten the interest of the garden, even when most every plant is out of flower. Gray foliage

The rock garden raised vertically with different exposures and aspects



next to dark green, feathered foliage next to the heavy leathery leaves, and a hundred other combinations lend to the captivating nature of the garden.

Individual plants are also more important in the rock garden than is the continuity of color. A glorious plant is to be set off against a rock or a backdrop of less spectacular, even non-flowering plants, so that its individual beauty of color or, even more especially, of form may be admired.

II - MULCH

Rock gardens are not much work to maintain once you have completed the initial construction and planting. Part of the reason is that they are mulched.

Traditionally rock gardens are mulched with small gravel, crushed or water-rounded. These gravels go by many names, especially pea gravel, but generally are 1/4 – 3/8 inch diameter. Ideally the gravel matches the rock of the garden. The steeper the garden slope the more desirable it is to find sharp gravel, that is gravel with abrupt, rather than rounded sides, so that it will not roll down the slope in heavy rain. Gravel cools the soils beneath it, protects the crowns of the plants from mud splash and water pooling, and allows rain to penetrate the soil easily. It is simple to keep mulch free of weeds by “stirring” the gravel with a hand rake or three-pronged scratcher. Do this once every week to ten days and you will never even see weeds, as they will be destroyed before they reach the surface of the gravel. Also, a good number of weed seeds need direct light to germinate and will not sprout under gravel. Gravel need only be deep enough to cover the soil completely.

Bark mulch is not appropriate for rock gardens, as it gives off toxins during its decomposition, uses up nitrogen, and harbors pathogens. Most rock garden plants are adapted to rock soils and have little contact with woodlands where bark mulch might have occurred naturally. Woody plants, such as shrubs, usually have little problem with bark mulch, however.

Leaf mulch is acceptable for woodland rock gardens, but to avoid creating a matted layer of leaves, it is better to grind or compost the leaves before applying them to the rock garden.

Pine needles can make a fine mulch for woody rock gardens. Again, it is best to grind the needles, if only because they are then so much easier to apply between the plants. Some mountain homeowners are only too glad to give away bags of pine needles, where forest fires are feared, and some parks departments dutifully rake the needles under pines and throw them out, so that the grass may grow. Alert gardeners can glean needles from these sources or use their own needles if they have large numbers of pine trees. Spruce needles are not recommended, as they seem to mat too thickly and they are also awfully “stickery.”

III - MAINTENANCE

There's no denying that some rock garden plants will not make it into a second year. Keep the rock garden looking healthy by removing dead plants promptly. Several times a year evaluate the rock garden for replacement plants and add new treasures rather than mourn the old. One of the pleasures of rock gardening is growing and buying new plants.

Weed the tiny out immediately! Attention saves time. Get those new dandelions out before they are an inch tall and you will save much effort. Seedling weeds show up well against the mulch of the rock garden and it is easy to remove them whilst touring the garden looking for the latest flower to come into bloom.

Grass is a serious enemy of rock gardens. It must be removed immediately or it will spread its persistent rhizomes throughout the rock work. Once entrenched it is very, very difficult to remove, except by poisoning. So, prevent. You can simplify and significantly reduce your maintenance efforts by having as little contiguous edge between the lawn and the rock garden as possible. Use a wide gravel path, a stone walk, or a stone wall to separate the garden from lawn areas. Or build a cement edge 6–8 inches wide and 10 inches deep to keep out the grass runners and give you a head start on fighting back the grass. Or, dig a trench 8 inches deep and 8 inches wide around the edge of the rock garden and fill it with the same gravel you use for mulch. It is fairly easy to pull advancing grass out of the gravel, and equally there is little harm in "Roundingup" grass that has not yet intermingled with the delicate plants of the rock garden.

KEEPING IT TRIM

Gardeners vary in their taste for the very trim garden. But there is no doubt that weeds are more easily seen when the old flower stalks and any dead leaves are removed. Speed is necessary in trimming if you are to maintain a large garden and here are some tips.

Breaking—instead of trimming each stem individually it is often possible to break off flower stalks. Grab a handful of stalks near the cushion of the plant and break with a sudden downward motion away from yourself. Some plants, such as yarrows, mints, and chrysanthemums break very easily, and you can save yourself a lot of time using this method. Begin cautiously and desist if the stalks tear or if the rosettes at the base of the flower stems come off with them.

Dusting—Some flower stems break off if you simply rub your hand back and forth across the cushion. Try this with some thymes, drabas, and with any cushion plant with very fine flower stems.

Mechanical Shave—If you have large areas to neaten try an electric shaver for rapid pruning. The gardener's wrist is a tool to be spared and saved. These little shavers/ clippers vary in weight and quality, so test drive them before purchasing.

Pull and Clip—When a plant has grown out of the desired spot or proportion, rather than clipping it into a perfect round, try for a more naturalistic look by pulling out the stems away from the center of the plant and then cutting them irregularly at an angle. This will give a more natural outline to the plant.

Separating plants is a good idea, if you do not wish the aggressive to eliminate the modest. Plants such as *Androsace sarmentosa* and *Veronica pectinata* can look fabulous growing through each other, but it is best to officiate at least once a year. Tease them apart and cut back either or both until there is at least a quarter of an inch between them. They will rapidly reunite, but you will have added definition to the rock garden and protection to the weaker plant.



A moment of rest and contemplation

Photographs: Malcolm McGregor

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Remembering Paulette Zabkar

BILL BROWN

IT IS WITH great sadness that I reflect on the death, recorded in the last issue of the *Quarterly*, of my friend and dedicated plantswoman Paulette Zabkar of Pittsburgh, Pennsylvania, who died on April 13, 2013.

I first met Paulette in 1992 at the Winter Study Weekend held on Long Island, New York. This was the first major NARGS meeting attended by Paulette and her husband, John. Her enthusiasm was obvious from the start and she was asked at a later date to become a member of the awards committee, eventually becoming the chair of the committee.

Paulette served as a member of the Board of NARGS from 2001–2004 having been nominated by Pat Bender, then president of NARGS. The following remarks are taken from a letter I received from John Zabkar:

Paulette enthusiastically encouraged people to get interested in rock gardening and did all she could to promote it in this area. She worked energetically for the seed exchange, both collecting seeds but also being a local coordinator for the sorting and packing of the seeds for several years

She was asked to allow the local Botanical Society to open the garden for their Best of Pittsburgh Gardens tours so they could raise money for the construction of the botanical garden. She worked feverishly to make sure the garden was pristine for the tours. After doing this for at least three times she felt it was rather redundant and helped find other places to include in the tour. A few years after this we got a mystery phone call from the Pennsylvania Horticultural Society asking if they could schedule a tour for a busload of gardeners that were doing a two-day tour of Western Pennsylvania gardens, so we polished it up again for one more tour.

Right up to the last month, she was interested in what was going on in the garden, and when I went out in the garden she always questioned me about what was blooming.

I visited John and Paulette's garden last September, and although she wasn't feeling well she enthusiastically showed me around the garden. Upon leaving I was presented with a pink form of *Styrax japonica*. I have taken some nomenclatural liberties with this plant, and the label now reads simply 'Paulette'.

Photo Contest 2013

The NARGS Annual Photo Contest gives you an opportunity to see your photographs in the *Quarterly* – as well as getting a free year's membership for someone of your choice.

Closing date for entries is November 1st, 2013

CLASSES You may enter a maximum of ten images in each class.

Class 1: ROCK GARDEN SCENE

Class 2: PORTRAIT OF A PLANT IN CULTIVATION

Class 3: PORTRAIT OF A PLANT IN THE WILD

Class 4: NATURAL SCENE WITH PLANTS

Class 5: CLOSE-UP

Class 6: NORTH AMERICAN NATIVE PLANT

INSTRUCTIONS

Digital images may be submitted in JPG or TIF format. Other formats may cause problems. Submit all your images on one CD, with each image file renamed with the subject and your initials (e.g., *Phlox hoodii JM.jpg*). If you are entering several classes, it is very helpful to make a separate folder for each class.

Include a text document (on paper and on the CD as a “.doc” file) listing your entries by class, with plant names fully spelled out and any other information you feel should appear in a caption when the photo is published.

FOR MORE DETAIL AND FULL CONDITIONS SEE pages 222-223 in the previous (Summer) issue of the *Quarterly*.

ENTRIES SHOULD BE SENT (by November 1st) TO :

**Bobby Ward, NARGS Executive Secretary,
PO Box 18604, Raleigh, NC 27619-8604, USA**

Saxifraga sp. aff. *diapensia* growing with *Androsace yargonensis*

Dongda La

A Treasure House of Alpines - 2

DIETER ZSCHUMMEL



AS I SAID at the end of Part One, the top and surrounding slopes of southeastern Tibet's Dongda La are a wonderful place for new and exciting alpinists even if they are not immediately obvious from a distance. We have already seen some outstanding plants but there were plenty more.

One of the plants new to us was *Dracocephalum bullatum*, a small plant with a disproportionately big head of blue-violet flowers, and on the same scree slope

Dracocephalum bullatum

we came across a dwarf *Delphinium*, both unfortunately only just coming into flower. We had to assist a little in order to open the flower and identify it as *Delphinium chrysotrichum* var. *chrysotrichum*. This species – or its other variety *tsarongensis* – has found its way into the gardens, or more often into the pots, of

Delphinium chrysotrichum

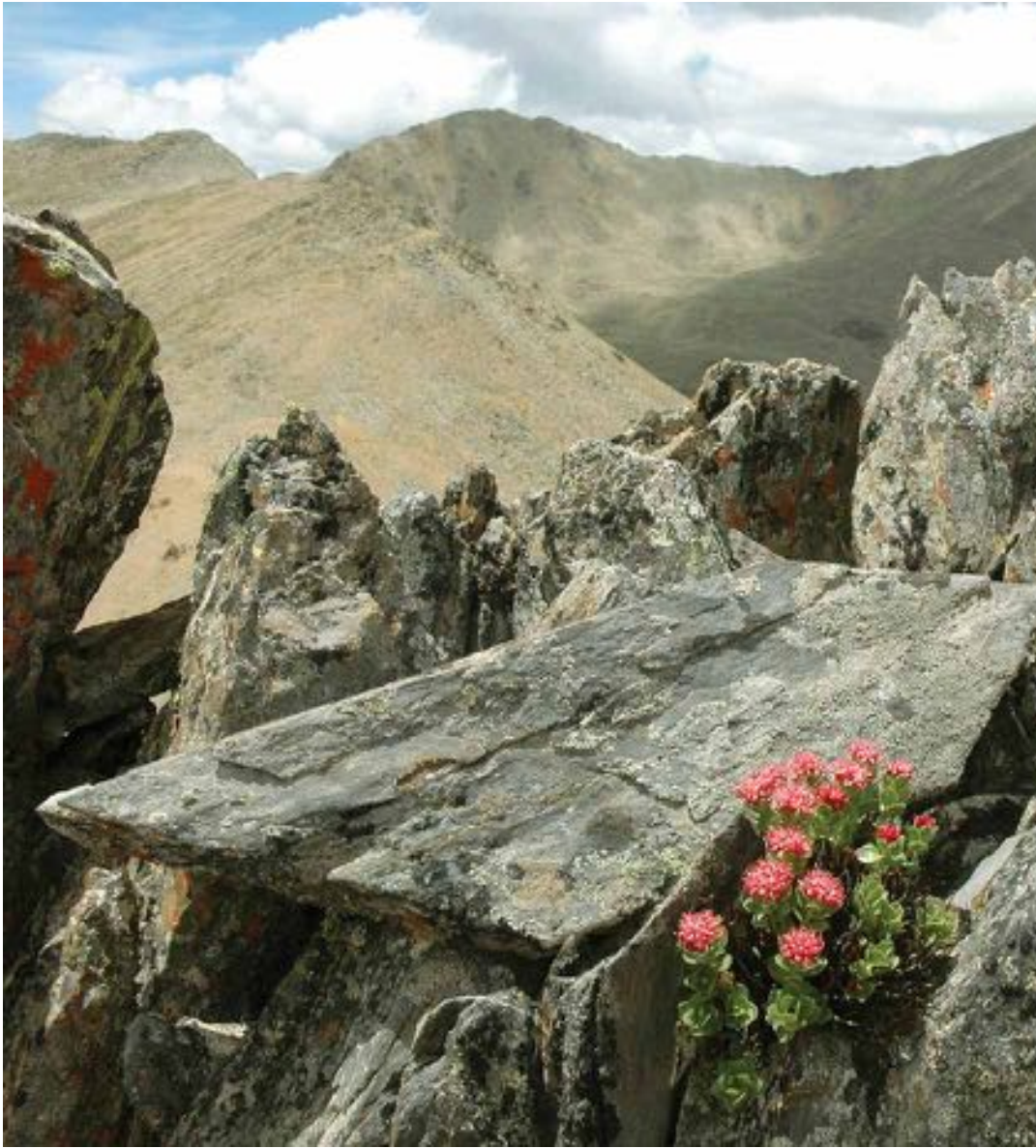




Gentiana urnula

specialists at shows in the UK. The dwarf *Delphinium* and *Aconitum* species of the high mountains of China and the Himalaya are very nice plants but are not common in cultivation.

We had seen *Gentiana urnula* several times in other parts of China when we reached altitudes of about 5000 m, but we were always too early to find it in flower and so had only been able to admire its mats of square-leaved rosettes. In 2009 we were very happy to find it with some flowers. It is a lovely plant, but unfortunately it is one of those plants not yet tamed, although the similar and very closely related blue-flowered *G. depressa* is in cultivation.

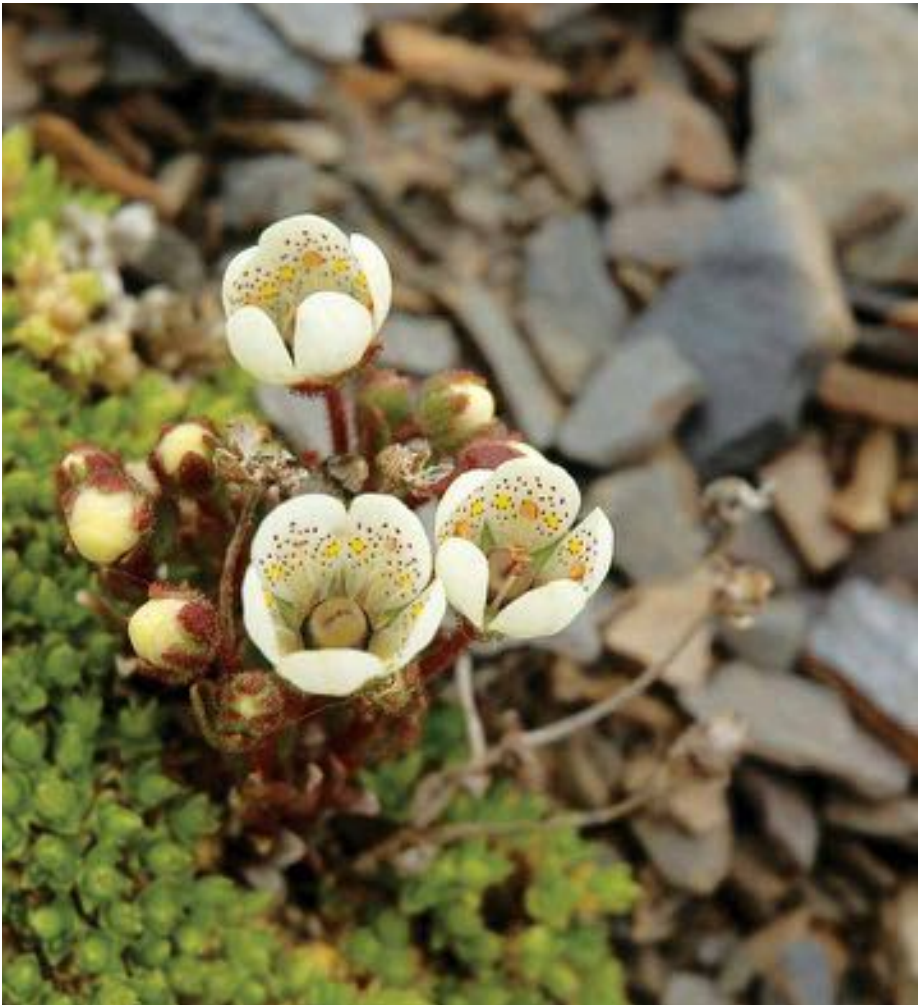


In coarse scree, we found three species of *Rhodiola* but the only one we could identify was *Rhodiola crenulata*. It was not a dwarf plant, but decorative in bud and in bloom. As can be seen in both parts of this article, some plants are growing in scree made up of quite small rock pieces but other plants manage among much bigger rocks. The *Rhodiola* grows in the most inhospitable places amongst very large craggy rocks.



Rhodiola crenulata





Saxifraga punctulata

It is probable that there are no high mountains in the Northern Hemisphere without members of the *Saxifraga* and many of these are firmly established in our gardens. But saxifrages from China are still rare in cultivation. This is especially true of the numerous members of section *Ciliatae*. This section alone contains a lot of very attractive dwarf plants, and surely several of these species should not be too difficult in cultivation for experienced gardeners, and there are signs that some, such as *S. llonakhensis*, are gaining a small footing in the hands of specialists. On Dongda La we found *Saxifraga punctulata*, a delicate little plant with charming flowers, which should not be mixed up with *S. punctulatooides* which we found farther west in Tibet. It belongs to



Saxifraga engleriana

section *Ciliatae* but is unusual in that section by having petals which are white rather than yellow. Another member of the section, common on Dongda La, was probably *Saxifraga engleriana*. Its yellow flowers were born on rosettes of a diameter up to 1 cm and the leaves looked somewhat succulent. A third species from this section, closely allied to *Saxifraga diapensia*, was found growing with *Androsace yargongensis*.

Besides these *Saxifraga* species from section *Ciliatae*, we also found other members of the family. *Micranthes melanocentra*, which we found on the Dongda La, was contained in *Saxifraga* section *Micranthes* (according to the *Flora of China*, FOC), but this section has now been elevated to the status of a genus (according to McGregor's book *Saxifrages*). *Micranthes melanocentra* can be variable, the center of its flowers is not always black but can be brown or even nearly red. It has a wide distribution (not only in China's mountains) and normally prefers to grow in companionship with small herbs and grasses.

I have already mentioned *Pegaeophyton*, in the first part of this article, but there were other members of the Brassicaceae on Dongda La. The genus *Draba* was represented, as it is on almost every mountain, and we found two species. The yellow-flowering species could have been *Draba oreades*. But there was also a species with white flowers which we could



Solmslaubachia prolifera

not identify. It was impossible to make an identification without the plant itself or a herbarium specimen. For a correct determination it is often necessary to see the characteristics of the hairs, and sometimes one also needs flowers and fruits.

Even more striking among the Brassicaceae than drabas are most members of the genus *Solmslaubachia*. But we have a lot to learn before these – most of them highly attractive – plants can be grown in cultivation. This is another genus in which botanists have recently changed a lot of the names. The FOC mentions ten species. In *The Plant List* there are twelve, but now the number of species has been raised to twenty-six. Due to modern analysis methods, two other genera have

now been combined with *Solmslaubachia*. And new species continue to be discovered.

On Dongda-La two species were seen. One of these was *Solmslaubachia retropilosa* which we found several times on high places in Yunnan and Sichuan. It is rather variable with regard to the colour of its flowers. It is characterized by its hairs, which are directed from the leaf-tip to the leaf-base.

When we found the second species for the first time, in 2004, it was one of the highlights. Then, it was not *Solmslaubachia* but still *Desideria*. It was determined from our photographs (by the Brassicaceae specialist, Ihsan Asl-Shebaz), as *Desideria himalayensis*. After it became a *Solmslaubachia*, the species name changed and its name is now *Solmslaubachia prolifera*.

The edges of the leaves in this plant are not entire, but have coarse teeth. The colour of the leaves and flowers can change somewhat. The leaf colour is adapted to the rocks which vary from grey-blue to various shades of brown. The fruits seen in 2009 were long and pod-shaped. It would have been easy to collect seed – also of other *Solmslaubachia* – if these had been ripe.

There was also an interesting plant from the Scrophulariaceae



Solmslaubachia prolifera in seed

Solmslaubachia retropilosa





Lagotis ramalana

in the coarse scree. The genus *Lagotis* is not yet well known to rock gardeners though some species are rather attractive. Perhaps the best is *L. ramalana*, the species we found on the Dongda La, because it is one of the most dwarf species. The others, more commonly found in the mountains, are coarser with larger leaves and often dirty bluish flowers. *Lagotis ramalana*, on the contrary, has small rounded glossy dark green leaves and a short spike of dark violet flowers. It has never, in all likelihood, been tried in a garden.

Finally, before we go down from the pass in the direction of Wamda, let us have a look to the *Corydalis*. This is a huge genus with more than 450 species in the world and a great many of these are at home in China.

So far, we have found six species of *Corydalis* on Dongda La. At the top of the pass we found *C. pachycentra*. This is a frequently seen plant in the mountains of southwest China, but we were surprised to find it at so high an elevation. Fortunately, it has become a durable component of gardens, somewhat less difficult to keep in lowland gardens than its relative, *C. cashmeriana*. We also found *C. melanochlora*, and another species was *C. calcicola*, well known from screes in other mountains.

The other three were found at their best in 2009. The determination of these we owed to Magnus Liden from Gotenburg. One of these belonged to the *Corydalis conspersa-hamata* complex. We saw *C. conspersa* several times in Tibet, but never such a good form.

The second species was determined as *Corydalis nubicola*. Like the species mentioned previously, it seemed to like rather moist places. It belongs to the same group as *C. calcicola*.

But the best of all for us was growing in rough scree near the crest, where the *Solmslaubachia prolifera* was also found. Like the *Solmslaubachia*, it seemed to need protection against

Corydalis sp. *conspersa-hamata* complex (left) and *Corydalis nubicola* (below)







animals which liked to feed on it. The interesting leaves matched the stones, making it unlikely for us to find the plant at all if it had not been in flower, but fortunately there were nice flowers in white and blue. The plant was growing from a bulb submerged in the scree and its name was *Corydalis bulbifera*. It belongs to *Corydalis* section *Trachycarpa*, the same as *C. melanochlora*. A photograph of it can be found in the FOC incorrectly labelled as *C. zadoiensis*.

As always happens in the mountains, time runs too quickly and because of this we have never explored the localities a little farther down from the pass on both sides. Once, we had a short stop a few hundreds meters down from the pass and found, growing in the alpine lawn, *Astragalus acaulis* and *A. yunnanense* (both with yellow flowers), the pink *Hedysarum sikkimense*, red *Pedicularis przewalskyi* and annual gentians of the *Chondrophyllae* section, to mention only a few.

There is nothing more exciting than exploring new places for alpine plants, but we would like to revisit Dongda La again and again.

Corydalis bulbifera

IN 2012, after a quarter of a century of work, David and Wendy Sellars' garden was awarded the Linc & Timmy Foster Millstream Garden Award. This is given by NARGS for an "outstanding" North American garden and it is hard to think of a higher compliment that can be paid to any rock gardener.

For the rock gardening enthusiast, the garden built by David and Wendy Sellars presents an intriguing mixture of rock garden, rhododendron groves, ponds and waterfall, on a north-facing hillside in

southernmost British Columbia. A great sweep of rockwork, up to about 15 feet high in places, and some 100 feet long, houses classic alpiners, including a collection of saxifrages. As a whole this is impressive but, as on any mountainside, the plant enthusiast is drawn to the individual plant as much as to the totality. At the foot of this a small pond, fed by a waterfall from the cliff, provides a quiet centre, with the rhododendron collection stretching out and beyond to a larger pond.



David and Wendy's first view of the place that would come to be home was on a bright sunny morning in the fall of 1986. The mossy "For Sale" sign was barely visible nailed to a tree but through the forest they could discern the mist in the Nicomekl Valley below and snow on the Coast Mountains beyond.

They bought the undeveloped hillside property in South Surrey, British Columbia, in 1987 planning to build a house and develop a garden.

The lot was 1.1 acres, covered with trees, mostly alders, birch and maple, unsuitable for use in the garden because of shallow roots and brittle branches. Having the land cleared with an excavator, leaving only a Douglas fir and a few Western red cedars, they had the sloping property graded to create raised beds and areas with steeper slopes. They also had ponds, streams and waterfalls excavated to create more visual interest.

View from David and Wendy's garden in April with *Magnolia denudata* and *M. grandiflora* in the foreground



The Sellars Garden

DAVID AND WENDY SELLARS

WE HAD NO gardening experience when we moved to Surrey and were facing a daunting task of developing a garden from scratch. It was difficult in the early years, but we gradually began to find our way, mostly by reading books and learning from our mistakes. A major challenge with developing a new garden is having enough plants to fill the space. At an early stage we planted lots of trees including *Davidia involucrata*, *Magnolia denudata*, *Acer griseum*, *Paulownia tomentosa*, *Stewartia pseudocamellia*,

Styrax japonica, and a number of forms of *Acer japonicum*. But we decided our focus would be on rhododendrons as they eventually would grow quite large, and they suited our north-facing slope and mild wet winters. We joined the American Rhododendron Society and went through the various stages of interest in rhododendrons starting with common hybrids, then rare hybrids, and finally to rhododendron species. We have grown many species rhododendrons from seed and the garden now contains some rhododendrons rare in cultivation such as *Rhododendron glanduliferum* and *R. asterochnoum*.

By around 1999, we had learned about as much as there was to know about growing rhododendrons and we were looking for new challenges. We were also running out of space with some parts of the garden now consisting of rhododendrons as groundcover. A long curving bank facing the house became our new rock gardening focus. The bank contained rocks but was mostly heavy clay soil barely suitable for small rhododendrons and heathers. Over the next 10 years we worked on renovating the bank in stages to ultimately create an extensive rock garden. The basic strategy was to build outwards from the bank, prying out the rocks to support the placement of well-drained material suitable for growing alpinines (1).

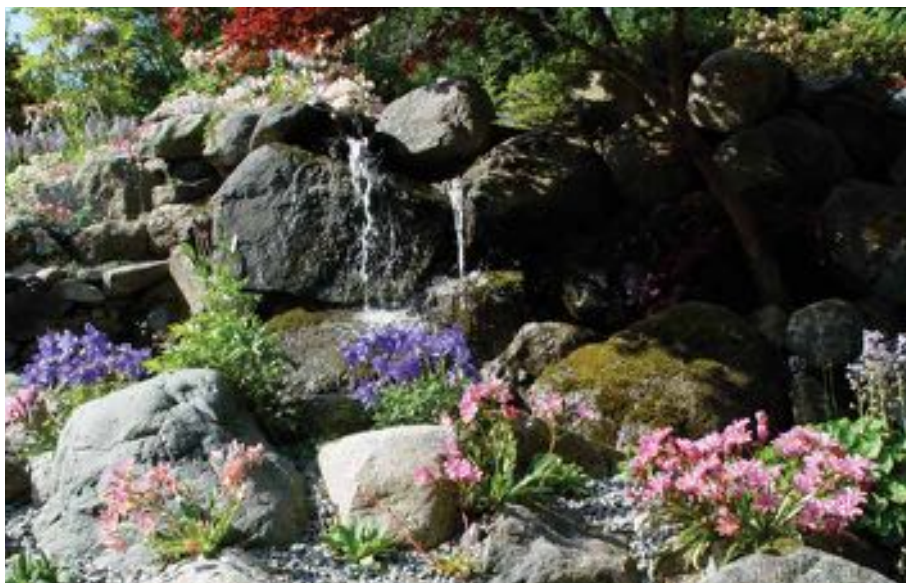


Hybrid rhododendrons in bloom in May





The front garden looking west
Waterfall with *Lewisia cotyledon* and *Aquilegia bertolonii* in the foreground



We joined the Alpine Garden Club of British Columbia and NARGS and started growing alpinines from the seed exchanges, recognizing that with a large rock garden it was the only practical way to obtain enough plants. Gradually, we learned about selection of rock garden soils, rock placement, and using rock mulch to plant alpinines. About 95% of the rocks were found on the property and neighbours donated the remaining rocks often in exchange for rhododendrons. Most of the rocks were placed by hand and only the largest rocks were positioned using an excavator.



Waterfall and small rock garden pond

We are fortunate in Western Canada to have access to tufa from the Rocky Mountains and renovation of part of the bank included building a tufa wall. Building our tufa cliff has allowed us the opportunity to create optimal conditions for a range of plants particularly cushion saxifrages (2).

Another area of interest for us is in mountain hiking and this dovetails very well with our rock gardening. In 2003 we went on the NARGS expedition to the Wallawas (3). This helped us become familiar with the native North American alpine flora and we have developed a website <www.mountainflora.ca> that features some of the best wildflower hikes around the world.



Moraine with *Saxifraga paniculata* and *Androsace studiosorum* in foreground
Part of the tufa cliff with various kabschia saxifrages

Our primary rock gardening interests are high elevation alpinines. We have a large selection of *Saxifraga* species and cultivars (silver and kabschia) and *Androsace*. We are keen on growing North American alpinines that we see on our hiking trips and we are avid seed collectors. North American species that we grow include *Lewisia* (*tweedyi*, *cotyledon*, *rediviva*, *nevadensis*, *brachycalyx*, *columbiana*). *Phacelia sericea*, *Douglasia nivalis*, *Claytonia megarhiza* var. *nivalis*, *Aquilegia saximontana*, *Penstemon* (*dauidsonii*, *rupicola*, *caespitosus*, *fruticosus*, *uintahensis*, *richardsonii*, *barrettiae*, *scouleri*), *Eriogonum* (*ovalifolium* var. *nivale*, *caespitosum*, *umbellatum*).

In our woodland garden we have a wide range of shade-loving plants including *Podophyllum* and *Arisaema*. We love *Meconopsis* and grow *M. baileyi*, *M. napaulensis*, *M. superba*, *M. pseudointegrifolia* and *M. regia*.



Alpine shed
and plunge bed



At first we had no interest in growing alpines in pots and experimented with construction of rain shelters in the open garden (4). This was only partially successful and we eventually decided we needed to grow some plants, which could not withstand our wet winters, under cover in a raised plunge bed. This would reduce our losses in the open garden and provide stock plants that could be used for cuttings and seed. As we were planning to build a woodshed anyway, part of the structure became an Alpine Shed complete with automatic watering for the plunges and open on two sides. This now houses some plants such as *Androsace muscoidea*, *Myosotis pulvinaris*,

Androsace vandellii and *Saxifraga poluniniana* that would not be possible in the open garden.

It has been said that all serious gardeners eventually become rock gardeners and that was certainly true for us. We maintain a detailed written and photographic diary of the development of our garden which provides a fascinating account of the evolution of our gardening interests. It is satisfying to look at the garden today and recall that the location of virtually every plant and rock was selected by us over the past 25 years. Some of the trees we planted are now immense and look as if they have been there for years, which of course they have!

REFERENCES

1. *Rock Garden Quarterly* volume 66, pages 118-119
2. *Rock Garden Quarterly* volume 69, pages 364-369
3. *Rock Garden Quarterly* volume 62, pages 88-90
4. *Rock Garden Quarterly* volume 61, pages 206-209

The large woodland pond with rhododendrons and *Meconopsis* 'Lingholm' in bloom





Naghsh-e Jahan Square, Isfahan

Monocotyledons of Iran's Zagros Mountains

ANNA LEGGATT

“What! You are going to Iran. You must be mad! Why on earth do you want to go there?” My family and friends were concerned. But I was going to see valleys filled with orange crown imperials growing below snow-capped mountains in a country with over 8,000 species of plants, of which one quarter is endemic. A lifetime wish! And one that has again become impossible or at least slightly reckless to fulfill. I'm so glad I took the chance when I did, although things may improve again after the recent election.

Our group was with Worldwide Quest from Toronto, in April 2010. Ian Green from Greentours and Mehran Etemadi from Tehran were



our botanists. We met in Tehran, flew to Shiraz and then followed the mountains northwest to near Isfahan from where we returned to Tehran and had a few hours in the mountains to the north, the Elburz, before returning home.

Persepolis and Isfahan gave us a glimpse of the rich cultural heritage of Persia. Persepolis was an enormous palace built around 515 BC. Alexander the Great burned it down in 330 BC, and the ruins were left undiscovered in the ashes till the 1930s. Many of the bas-reliefs were in great condition, showing troops with weapons or bringing food for a feast. A day in Isfahan was not enough. After all, “Esfahān nesf-e jahān ast” (“Isfahan is half the world”) in the words of a proverb.

The Jāmeḥ Mosque is an encyclopedia of architectural styles from 771 AD to the end of the 20th Century. We walked round Naghsh-e Jahan Square (or Imam Square), visiting a palace and a mosque and watching people picnicking as prayers were broadcast. I wandered into a bazaar, feeling far safer than in India.

I had worried about clothing and had been taught how to wear a scarf at an Islamic fashion shop in Toronto. However, most women seemed relaxed with hair showing. Many Muslim ladies are more strictly dressed in Toronto.

Bakhtiari shepherd with his flock





The Zagros Mountains are in western Iran. They are comparatively recent geologically, running from northwest to southeast in a series of long limestone ridges, separated by valleys filled with marl. The folding of the rocks produced spectacular scenery. Highest peaks are nearly 4500 m (15,000 feet) high.

The up-tilted layers of rock and snow-capped mountains were a wonderful backdrop to fields blue with grape hyacinths, sheets of yellow tulips in water meadows, delicate deep violet gladiolus among the grass and impossibly large flowers of short-stemmed purple-black irises on rocky slopes.

Below the snowline so much of the landscape was green. Bakhtiari nomads were bringing herds of goats and sheep to the high pastures for



Bakhtiari camp

summer grazing, travelling on foot with a few riding on mules, always accompanied by the “tong” of the lead animals’ bells. They called out to us, “Salaam. Salaam aleikom” (“Peace be upon you”), not pausing in their long travels. Often one man and a couple of fierce dogs were guiding large herds, as they have for centuries.

We visited a temporary camp under an overhanging cliff. Possessions were in large bundles and a few lambs gamboled around while hens dozed contentedly. We puzzled the owner by taking pictures of useless flowers such *Dionysia archibaldii* on the shaded cliff face! We tried to communicate by sign language. Everyone was so friendly and interested in us.

And the flowers!



Fritillaria imperialis

Fritillaria imperialis was one of the plants that everyone wanted to see. The first we saw were growing on rocky slopes, often below steeper slopes, but not in the masses I expected. But later, millions were in perfect flower growing in sticky mud in a valley near Chelgard. Docks (*Rumex*) also grew in the same habitat, providing food for munching caterpillars. More of the *Fritillaria* were filling the valley below Goestan Kuh. All the plants were dark-stemmed with variants in colour from light orange to red. Some were double layered, the form that is sold as 'Kroon ap Kroon'; others were like 'Rubra Maxima'. A few yellow *Fritillaria imperialis* var. *lutea* were easy to spot.

Fritillaria persica was almost overlooked among the crowds at Chelgard. Plants appeared to be growing in slightly drier, more open patches. Colours ranged from pale yellow to brownish plum. These *Fritillaria* species are often difficult to grow in southern Ontario. They obviously need plenty of water while growing, with a dry summer, either from well-drained rocky slopes or a hard clay pan.

Fritillaria reuteri grew in shallow streams – clusters of charming brown bells with gold tipped petals. Again, these bulbs would be dry in summer. *Fritillaria zagrica* was smaller with a rich brown colour. These grew near the snowmelt on higher ground. Only a few were found. *Fritillaria gibbosa* has beautiful pink bells with out-flaring petals. We found a few, in protected well-drained stony soil, though away from possible competing plants. Sadly, the flowers were nearly finished or in immature seed. *Fritillaria kotschyana* was in bud below the snow line, north of Tehran.



Fritillaria imperialis
double-tiered form (above)
var. *lutea* (below)



Fritillaria persica
Fritillaria reuteri





Fritillaria imperialis near Chelgard





Iris songarica

Iris songarica was amongst wonderful plants on the rocky slopes at Hanna but its quiet beauty was overshadowed by *Iris lycotis* (*I. iberica* subsp. *lycotis*), for me the gem of the monocotyledons on the trip and my favorite of the *Oncocylus* group. The flowers were just opening, fantastically large and black, with subtle differences in colour of the veins and background colour. Here they were growing on rocky slopes in gravelly soil. Later that day we found another population on flatter, stonier ground.

Another *Oncocylus* species, *Iris meda*, was just coming into flower on the top of a hill near Aligoudarz. Many plants were in bud in the open gravelly soil. This specimen was paler than many illustrated on the internet. We had hoped to see a great variation in the coloring, and also hybrids between it and *I. lycotis*, but unfortunately no others had opened.



Iris lycotis



Iris lycotis

Iris meda





Muscari neglectum

Bellevalia pycnantha

Bellevalia saviczii





Scilla persica

Muscari and *Bellevalia* are very close with the major difference being that in *Bellevalia* the corolla lobes are not constricted. *Bellevalia saviczii* was just coming into flower. It was very attractive with plum buds opening to cream. Older specimens had elongated and looked less desirable, unlike *Bellevalia pycnantha*. This made striking sheets of dark blue beside streams and in damp areas. We saw about 10 species of *Bellevalia*, all

attractive when in early bloom. These should be grown more in North America.

Gagea sp.

Scilla persica grew among grasses (which almost hid their starry blue flowers) in damp arable fields.

Gagea species were ubiquitous. Pretty *G. fistulosa* was locally abundant near the snow, growing near *Colchicum (Merendera) wendelboi*.





Tulipa montana

Tulipa systola



Tulips were another group high on everyone's list. We found several species, seeing some nearly every day including *Tulipa biflora* which grew on slopes between shrubs and grasses.

Tulipa humilis was scattered around the hillsides north of Sepidan. Beautiful pink and white buds were emerging – needing more sun to open. *Tulipa montana* was another beautiful species.

Rich red *Tulipa systola* was scattered around on higher slopes. Some were choice food for a beetle – perhaps a relation of the Japanese beetle that ravishes my roses. It was hairy; so it may be a pollinator. I eventually photographed this species in Golestan Kuh, growing on dry, gravelly slopes, away from the fields of fritillaries.

Tulipa humilis



Among the tulips, my favorite was *Tulipa biebersteiniana*, growing in water meadows, forming a glorious yellow sheet with *Ranunculus sericeus*. Blue accents were provided by *Muscari neglectum* which was widespread.

Tulipa biebersteiniana (opposite) and (below) with *Ranunculus sericeus*







Eminiium lehmanii

Orchis simia

In open woodland below Ghaly Kuh we found a small attractive aroid, *Eminiium lehmanii*, and nearby were several orchids: fine spikes of violet *Limodorum arborvitum*, small bright *Orchis anatolica*, but the best, for me, were monkey orchids, *O. simia*.

Further members of the Liliaceae (broadly defined) were also in evidence. Deep purple *Gladiolus atrovioleaceus* grew in fields, scattered here and there; tiny *G. persicus* was common near Shiraz, though we only saw the bright pink flowers on the Kheramah-Sarvestan Pass; *Eremurus persicus* was showing white starry flowers just opening on the rocky slopes at Hanna. Particularly nice was *Ixiolirion tartaricum* growing in gravelly soil in the south. The most attractive clump was found in a crack in the pavements at Persepolis.

Throughout the country we found some wonderful plants that I wish I could grow in my garden but they would need a drier summer than I can provide.

This article is dedicated to the memory of Jim Archibald.





Ixiolirion tartaricum

Bookshelf

Above the Treeline: A Nature Guide to Alpine New Zealand

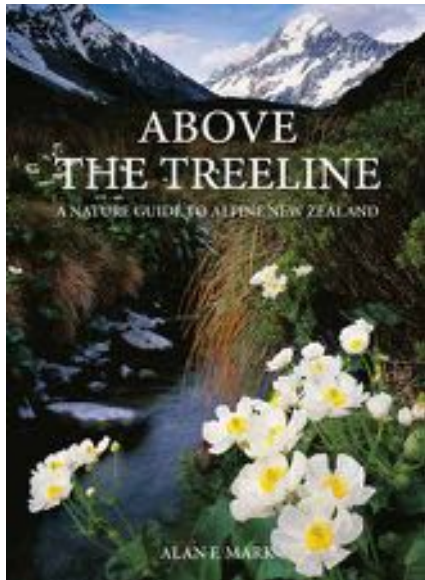
Alan F. Mark

Craig Potton Publishing, 2012, 472pp.
ISBN: 978 1877 517761 approx. \$56

For years my go-to reference for the alpine plants of New Zealand was Mark & Adams, *New Zealand Alpine Plants* (fully revised). Charming and detailed illustrations by Nancy Adams and text by Alan F. Mark, ecologist and professor of botany, serve as an able introduction to around 600 alpine species – over 90% endemic to the high reaches of one of the most interesting countries on earth. It still serves as an excellent source and retains its honored position on the shelf but Alan Mark is back...and in a big way.

Don't be put off by the "nature guide" portion of the title. This is a serious field guide to New Zealand's alpine flora – more than 675 species of the 750 plants found in the habitat are described and illustrated by beautiful color photographs. It is the most complete book of its kind, not only on the alpine flora of New Zealand, but on any alpine flora. While the bulk of the book covers plants, the fungi, lichens, birds and animals of the region are also considered and include some fascinating creatures that most of us have probably never seen.

The book begins with a short (too short) but valuable introduction to the mountains and alpine zones of New Zealand: the flora, fauna and communities of the ecosystem.



These 30 pages are worth the price of admission on their own.

The bulk of the volume is, as expected, the species accounts. No lover of alpins will be disappointed here. Old NZ favorites like *Celmisia*, *Ranunculus*, *Raoulia* and *Haastia* are well represented. The list of familiar genera with unfamiliar species is large and the catalogue of unfamiliar genera and species is staggering. Lists of desiderata will burgeon though many of the species are not found in cultivation. Of those that are, many are recalcitrant in American and European gardens demanding alpine house treatment in exchange for displaying their wares.

The wonderful and artistic renderings of Nancy Adams are missing (reason enough to own both books and keep them side-by-side), but Mark has created the definitive guide to the alpine habitat and denizens of New Zealand and set a high bar against which to measure field guides to other parts of the world.
Carlo A. Balistreri.

NARGS Bulletin Board

From the President

Today I wandered around my garden, simply taking in the beauty of the day. I had planned on planting some bulbs I picked up from Odyssey Bulbs in Lancaster, Massachusetts. But with the sun shining, the fall asters glistening with dew as they warmed and opened, I simply couldn't detach myself from the unusual pleasure of observing, rather than doing. I sipped my morning coffee and watched the more ambitious bumblebees start their daily effort at getting inside the bottle gentians, *Gentiana clausa*. We rarely assign intelligence to insects, but this process of a bee forcing her way into a flower, disappearing for a minute or more, and then bursting out covered with pollen certainly looks intelligent to me. Intellectually I may accept instinct as the driving force of these insects, but I cannot truly believe that there is nothing beyond DNA that creates this interplay, which enables these oddly beautiful flowers to produce seed and gives them a chance at reproduction.

I thought about getting my camera to record the beauty of flower and insect, but I decided that memory and imagination would provide me with a more satisfying impression of the day than any digital images I might store and then rarely, if ever, view. Even now, hours later, I find the pictures in my mind's eye more evocative than the reality that resides only 100 or so feet from my computer.

But the day has wound on, and as the clouds moved in to bring us a late summer thunderstorm, I moved out of the garden and back to the computer to finish this message and address a few NARGS issues.

First, it appears very likely that we'll be holding our 2014 Annual Meeting in Sante Fe, New Mexico, in late summer or early fall. We should have the specific dates worked out in a few weeks, so check the NARGS website for updates. Immediately after the meeting there will be one or two post-conference trips, which we are arranging through a new endeavor, NARGS Travel. We've been working with the leading adventure travel company in the United States to begin offering botanical treks and expeditions for NARGS members only, starting with these post-conference trips. More information about this new and exciting benefit of NARGS membership will be forthcoming, so watch the website!

Second, we've been working diligently to fix the bugs in the new website, and in particular, the Forum. So take a few minutes, visit <www.nargs.org>, and give it some of your time. I'm very interested in your feedback, so feel free to email me at <petergeorge@verizon.net> with your thoughts. We've spent a huge amount of time and energy, plus quite a bit of our treasure, to bring the site up to a much higher standard, and I would love to know how well it's working for you.

Finally, we're looking forward to our best Seed Exchange in recent years, but as always, we need your contributions. So please take some time, as the summer winds down in the northern hemisphere, and collect some seed to share with your fellow enthusiasts. A couple of hours of work will bring years of pleasure to others, and if we all do our share to collect high quality seed, we might even get the SeedEx into the black.

And don't forget about our Amazon.com affiliates program!

Peter George, President

New NARGS Web site

The new NARGS website <www.nargs.org> went on line on June 1st. The new site requires a single login for the entire site, including the Forum, the Seed Exchange, and for viewing the recent member-only access issues of *The Rock Garden Quarterly*.

IF YOU ARE LOGGING ON FOR THE FIRST TIME then you can use EITHER your membership number OR the e-mail address that you have previously given Bobby Ward (email him at <nargs@nc.rr.com>). You can then set up a password.

IF YOU HAVE LOGGED IN PREVIOUSLY TO THE OLD SITE then you can also use the username you set up. If you cannot remember your password, request a new one and you will be mailed a one-time password immediately. While you are changing the password, please take a minute to give yourself a recognizable username and update your membership information.

Among the new features of this site is the availability of all back issues of *The Rock Garden Quarterly* plus its predecessors: *Saxiflora* and *The Bulletin of the American Rock Garden Society*. At its meeting on May 2, 2013, the NARGS AdCom decided that there would be open access to all of these issues except the current last three years, which are reserved for member-only access. The cumulative indices for plants, subject, and author/title are currently being configured for web searches and should start to be posted by the time you read this.

The major feature of this website, and the primary reason NARGS decided to upgrade, is that members can now take an active role in the editorial process. There is no longer a webmaster who has to make most of the editorial changes. There is a site administrator, Daniel Dillon, who handles the technical stuff and content editors who are responsible for the content of specific pages. Mark McDonough and his team continue to administer the Forum. Bobby Ward administers the online membership database, and Malcolm McGregor administers the *Quarterly* pages. NARGS Chapters have been contacted and asked to appoint a member to administer their chapter page (and one-third of the chapters have!). Other members have accepted responsibility for the seed exchange, speakers, book of the month and plant of the month. There is still a lot of content to add and edit. Please take a look and give us your feedback.

Comments, criticism, suggestions, and especially your offer to contribute are welcome. Please contact <benj.burr@gmail.com>. There are undoubtedly many things we have not thought of. We'd love to hear from you.

Ben Burr, NARGS Recording Secretary

>>>>> COMPANION(S) NEEDED

I am searching for someone who is interested in participating in an expedition to Central Asia around June 2014 [*towards which NARGS gave Susann a grant from the Norman Singer Endowment Fund reported in the last issue of the Quarterly*].

You might join for part of the journey or the whole trip. The aim is to study *Pulsatilla* habitats.

The expedition is planned to start in Kazakhstan where localities in mountain and steppe are to be visited, before heading for the southern mountains of the Russian Altai. From the Altai we will continue to the Mongolian mountain and steppe and then continue to Baikal area of Russia. The end of the expedition is to take place in the mountains in Hokkaido; the northern Japanese island. The longer distances will be by the Trans-Siberian Railway. Hokkaido will be reached by air from Amur or Vladivostok. The trip is planned for 6-7 weeks.

As said above the main purpose of the expedition is to study pulsatillas, but I will of course try to adapt it to your suggestions if you wish to join. No details are set yet, but with this route I hope it will be possible to study at least eleven species and subspecies of *Pulsatilla*, possibly some more.

If possible seed collection will take place for Botanical Gardens and seed lists.

If you are interested in joining or just want more details, please contact me at
<to.samsbox@gmail.com>

Susann Nilsson, Sweden

New Members

*Welcome to those who joined between May 17
and July 31, 2013.*

Barbara Knapton, POB 15234, Fritz Creek, AK 99603
Mark Heath, 2625 Ortega St., San Francisco, CA 94122
Tomas Zillmann, 120 Tiptoe Lane, Burlingame, CA 94010
Francesca Avellina, 1285 Grass Valley Dr., Colorado Springs, CO 80906
Margaret Rousseau, 2215 York St., Denver, CO 80205
John Robertson, 9231 Springfield Ave., Evanston, IL 60203
Tom McMannon, 2461 Carthage Rd., California, KY 41007
Pamela Coravos, 22 Erue Ave., Newton, MA 02461
Paul Schulze, 229 Main St., Westport Island, ME 04578
Louis Bruno, POB 25, East Glacier Park, MT 59434
Chris Glenn, 5129 Ten Point Trail, Wake Forest, NC 27587
Richard Maurer, 5035 SW Windsor Ct., Portland, OR 97221
Jim Shaw, Bend Gardener, 60173 Turquoise Rd., Bend, OR 97702
Marianne Nessheim, Vardevein 62, Son 1555, Norway
Ronald Mudd, 3 Rysome Garth Cottage, Rysome Rd., Holmpton HU19 2QR, UK

A full NARGS membership list is available to members as an electronic PDF.
For a print copy email <nargs@nc.rr.com> with "Membership List" as the subject.

NARGS AWARDS

It's never too early to start seeking recipients for our prestigious awards. Please join me and the members of our NARGS Awards Committee to find the very best examples of rock gardening, other unique garden experiences, and members who have made outstanding contributions to the Society. Not all awards are given every year. This depends on YOU and receipt of nominations.

The committee members judge all awards. The entries for each category should be sent directly to me, and not to the individual committee members. Electronic submittal is encouraged. Nominations may be sent at any time, but the deadline is February 1, 2014.

The Geoffrey Charlesworth Award, given for the best article in the Rock Garden Quarterly, is judged by one of our local chapters. The Charlesworth Committee determines which chapter.

There is also a NARGS Chapter Service Award. A nomination is sent to the Chapter Chair to vet and then it is sent to Bobby Ward, Executive Secretary (nargs@nc.rr.com) who completes the process. The nominee must be a NARGS member. The Award, signed by the President, is presented by the Chapter Chair to the recipient. It's quite valued and well done.

On the website <www.nargs.org> you can find more detail about the different awards (ABOUT US - NARGS AWARDS) and a list of the current committee (ABOUT US - BOARDS AND COMMITTEES).

Please write me with ideas and suggestions. Best regards,
Betty Anne Spar, Chair, Awards Committee
<bettyannespar@gmail.com>

NEW PRICING FOR SEED EXCHANGE FOR OVERSEAS MEMBERS

The Seed Exchange has run a significant deficit for the last two years. Until now NARGS has been able to offer participation to overseas members in the main (first) round at no cost. With a recent increase in postal rates, we are now faced with even greater deficits. Beginning with the 2013-2014 Seed Exchange, NARGS will charge all participants \$15 (US dollars) in the main (first) round. This is the price already paid by North American members for whom there will be no change.

Charges for the second (surplus) round will remain unchanged, and the same for both North American and overseas members.

This decision was taken by the Administrative Committee, in consultation with Seed Exchange personnel, on August 11, 2013.

Ben Burr, NARGS Recording Secretary

Additional Regular Membership Level

On June 5, 2013, the Board of Directors approved a second level of regular membership:

“Any persons who live at the same address as a NARGS member, Regular, Patron, Lifetime or Honorary, may become a Regular member for \$10/year. This membership has all of the privileges of a Regular member except that it does not provide a paper copy of the *Quarterly*.”

Under the new policy, an additional member at the same address, upon paying annual dues of \$10, will be allowed to:

- * 1. vote in NARGS elections,
- * 2. participate in the seed exchange,
- * 3. attend annual meetings without paying an additional membership fee,
- * 4. log on to the new NARGS website as a member.

Only one copy of the *Quarterly* will be mailed to an address.

Additional members at the same address who elect not to pay the additional annual membership fee will no longer have the voting and annual meeting privileges and will be allowed to access the website as users only.

The policy will go into effect upon membership renewal beginning January 1, 2014.

Ben Burr, NARGS Recording Secretary

LIFE MEMBER

The following recently became a NARGS Life Member

Paul Schulze (Maine)

NARGS Donations Appeal

Donations between May 11 and July 31, 2013 - \$1,040

GENERAL FUND OR UNDESIGNATED

Daniel Holden Adams (New York)

Alan Grainger (Kentucky)

Pat Howell (Maryland)

Helen Koch (Maine)

NARGS SEED EXCHANGE

Participate in the NARGS Seed Exchange to try new plants and/or to augment old favorites. There are various ways to participate:

DONATING SEEDS

If you haven't already done so, there's still time for U.S. donors to send them to our seed intake manager by November 1st. Mail seeds to:

Laura Serowicz, 15411 Woodring St., Livonia, MI 48154-3028, USA.

For questions, email Laura: <seedintake@mi.rr.com>.

We hope that you will donate at least a minimum of 5 packets of different kinds of seeds. More variety will enhance both the seed list and your garden. As a privilege of being a donor, you may order 10 extra packets of seed and your order will have priority in filling. If you have late ripening seeds or fall blooming plants, send a list of these seeds to Laura now. However, the seeds must be sent no later than December 1st.

DISTRIBUTION CHAPTERS

We would like to thank the following chapters for again handling the all important seed distributions this year: Potomac Valley Chapter for filling the main distribution orders and Siskiyou Chapter for handling the second round orders for surplus seeds. We greatly appreciate their willingness to take on these responsibilities that keep our SeedEx running smoothly.

ORDERING SEEDS

The Seed list will appear on the NARGS website on December 15th along with instructions on how to place your order. To use the online system, please be sure that Bobby Ward <nargs@nc.rr.com> has your most current email address. Once you enter your email address on the Seed Ordering web page, your membership will be automatically verified. You will receive an email with a link in it that will take you to the Seed list and your personal ordering form where you can type in seed numbers of your choices.

Printed seed lists are no longer automatically mailed to members. If you don't want to order online, you may request a printed copy and order form from me:

BZ Marranca, 9056 County Road 142, Interlaken, NY 14847 USA.

For questions, email me <mmm10@cornell.edu>

We have learned of the death of the following NARGS members

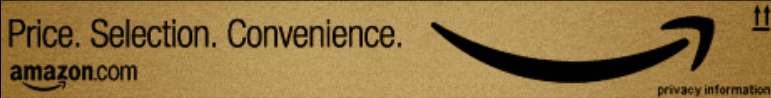
Diane Fincham (Eaton, Washington)
William Edwin "Bill" Winn (Martinsville, Virginia)



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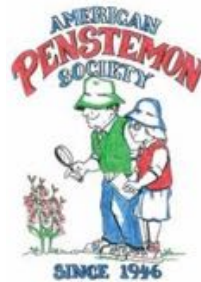
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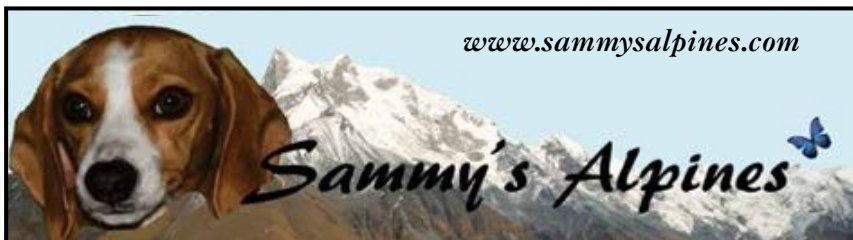
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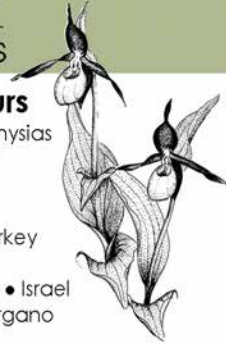
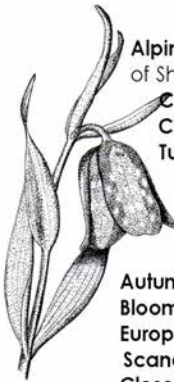
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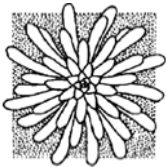
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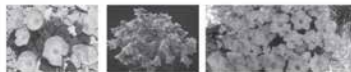


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