International Rock Gardener

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---International Rock Gardener---

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We begin 2011 with a focus on some classic plants of the European Alps. These flowers have been admired for years and their charm is undiminished for the modern rock gardener, even if they still present challenges in cultivation in the 21st Century. We also have more thoughts on Crevice gardening -this type of rock garden is in vogue at the moment and so this style is something we will follow from various gardeners in the months to come. While the plants seem to enjoy life very much in these crevice constructions it must be said that some people do not find the crevice gardens to be aesthetically pleasing. If you have a different type of rock garden that your plants are finding a happy home from home why not submit an article on your experiences to the IRG? Is it possible to be a successful rock gardener with no rock?

To get in touch please email - Editor@internationalrockgardener.org

Cover photo: *Eritrichium nanum* by Michal Hoppel

---GARDENS IN THE MOUNTAINS--

CLASSIC ALPINES IN THE SOUTHERN DOLOMITES: text and photos Michal Hoppel, Poland

In recent years there have been a lot of publications about new or little known species from Asia, South America, Africa and other distant areas. All these are far away from the classic European mountains, surely the cradle of rock gardening and known for hundreds of years. One of these well explored areas is the Italian Dolomites where it's probably impossible now to find any new species of 'shrubs on the rock' as one of my friends ironically describes rock plants.

Last year I took part in the expedition to the southern Dolomites organized by the Rock Garden Club in Prague (RGCP). It was the most beautiful time for rock gardeners – the first days of July, as most of spring plants were in full bloom, full of colours and ready for pollination. Only 4 days spent in southern Dolomites allowed us to forget about our day to day concerns and move to the fourth dimension of the rock plants' beauty.

Below: a ridge in the Dolomites

We were based in the picturesque town of San Martino di Castrozza in which most buildings, other than the stone church, are hotels, guesthouses, restaurants and shops for tourists. It's a very nice place surrounded by the high peaks of the Pala Group rising up to 3200 metres.

One of the most unusual places was Passo di Selle (>2500m), which is easily accessible from Passo San Pellegrino. It arose between two different types of rock - volcanic and limestone, so you can see within in a very short distance both calcifuge and calcicole species.

Left*: Primula minima*

Ranunculus seguieri, very compact *Thlaspi rotundifolium*, *Gentiana orbicularis* and *Androsace helvetica* all grow on one side whereas *Ranunculus glacialis*, *Primula minima* and mats of *Loiseleuria procumbens* with hundreds of pink flowers are on the other side of the pass. On volcanic rocks *Primula glutinosa* with the most violet flowers of all European species proudly showed its 10cm high inflorescences. I've tried it several times in my lowland garden with no success. Cushions of *Androsace alpina* were closely bound to limestone rocks on steep northern ridges and attracted us with their white and pink flowers. The clumps were somewhat smaller than those in Swiss Alps but still pleasing to the rock gardener.

Left: *Ranunculus sequieri*

Undoubtedly one of the most desired plants we luckily saw near Passo di Selle in full bloom was *Eritrichium nanum*, known also as the King of The Alps (and chosen for the cover of this issue of IRG). It was growing on volcanic rocks there and seemed to be very happy with many seedlings also in flower. This beauty is usually a saxatile plant looking down with its blue eyes from the steep ridges and rock outcrops. It is regarded as one of the most difficult rock plants in cultivation - as a flowering plant it is real rarity in our gardens. In the climate of Poland and the Czech Republic it is more or less growable with very careful treatment – the best position is an upper-north-eastern side of limestone

tufa rock in the open garden. I saw a nicely sized plant in full flower in garden of my friend Jiri Novak in Pardubice (Czech Republic). In my climate (hot summers and wet winters) it's impossible to grow it in an alpine house, as the plants are totally out of character, and are also attacked by fungal infections and insects. I have one quite happy plant of *E. nanum,* which has given in the last few years only 1-2 stems with a couple of flowers on each, growing in my crevice garden built of silicate slate. Other plants are grown in my tufa troughs under the roof overhang; however they do not flower because there is too little light on eastern side of my house.

left: *Androsace helvetica*

The second most stunning plant in that locality was *Androsace helvetica*, growing on vertical rock and keeping its roots in deep crevices. We saw it only in one location on a limestone ridge near Passo di Selle on extremely exposed rock surfaces. It formed very hard cushions covered with glistening sugar-like white flowers. Close photos of these cushions, as well as with many other saxatile *Androsaces,* required some climbing skills. The *A. helvetica* had shown some wisdom in growing there and avoided damage from falling rock, animals and of course, the species Homo sapiens. Making this plant happy in lowland conditions is virtually impossible because it requires so much light, cold air and wind as well.
The best option for it is a western or eastern side near the top of an exposed tufa rock, shaded somewhat with a net in the hottest summer days.

Left: *Pulsatilla alpina* subsp. *apiifolia*

Alpine meadows near Passo Pellegrino were also rich in alpine flora: yellow *Pulsatilla alpina* subsp. *apiifolia*, *Anemone baldensis*, *Gentiana verna*, *Gentiana acaulis*, *Soldanella alpina*, *Primula halleri* and others.

A second very interesting location was accessible easily from Passo Rolle (1980m) just above the tree line. Big clumps of *Campanula morettiana,* unfortunately some time after flowering, were hidden on horizontal layered semi-shaded and north exposed rock cliffs, just on the border of the tree line, under the rock overhangs. Very compact 1-2 cm hairy rosettes were very tightly crammed into crevices, growing practically in pure rock. This, one of the

most attractive campanulas, can be also grown on tufa rock in our gardens in northern or north-eastern exposures. Last spring my *C. morettiana*, a plant bought two years earlier in one of the German nurseries, gave me 5 big flowers.

Rhodothamnus chamaecistus, a diminutive member of the family Ericaceae

Primula tyrolensis found its home in a similar habitat, located in a safe north western position. The same species was in full bloom 800 metres higher up, showing intensive pink flowers over small rosettes. This *Primula,* almost as attractive as *P. allionii,* is easier outside in cultivation. In my climate it can be grown also in alpine house in a pot with very good drainage and occasional fungicide spray. Just 200 metres higher, not far away from San Martino, we saw hundreds of cushions of *Eritrichium nanum* growing on immense dolomitic boulders on huge screes.

Left: *Ranunculus alpestris*

We found also one white flowering plant of *E. nanum* there with only few flowers. It may be very interesting for collectors, but for me it is much less appealing than the typical blue form. It grew together with immense mats of *Rhodothamnus chamaecistus*, *Dryas octopetala*, *Potentilla nitida* and a G*lobularia* species. All these plants gave us a fabulous mix of colours with snowy-white rocks as their background.

We were lucky to spend the next day in full sun on high alpine plateau in the Pala Group at about 2600-2800m. It was the highest alpine tundra - a kind of stony desert with a mass of snowfields and very compact rock

plants among them. Ultraviolet light was also very intensive there; added to by reflection from the white surroundings. *Eritrichium nanum* occupied steep rock walls there, also stepping down to very stony soil consisting mainly from limestone grit. It grew together with other extremely compact plants: *Silene acaulis*, *Androsace hausmannii*, *Petrocallis pyrenaica* and *Linaria alpina*. All these plants gave us spectacular show with blue, white, pink and magenta patches standing out from a white limestone border.

Right: *Gentiana terglouensis*

In that harsh environment *Ranunculus alpestris* was also very compact - only 5 cm high. It was often hidden in a crevice or between rocks, not visible from a distance, as everything there seemed to be white in the strong sunshine. One of the species best visible from the distance was the intensively blue *Gentiana terglouensis* with almost 2cm flower heads over dense tufts of small leaves. This plant is difficult in my garden so I'm trying it in pure grit on a northern (but not shaded) exposure near a small pond where it can have a cooler root run. This species was also exhibited in May 2010 at the Prague Club Main Show grown to perfection by one of the Czech growers.

That real alpine tundra was a true delight and was most intriguing just after refuelling by drinking another tiny cup of Italian espresso coffee in an alpine hostelry.

The last place in the Southern Dolomites I will mention is the Latemar Group, easily reached from Predazzo by the chair lift, up to the height of 2200m. It was less attractive than the locations described before, however still worth a mention. On the trip to Cima Cavignon (2671m) I saw the most attractive cushion of *Androsace hausmannii* I've ever seen. Located in a limestone crevice it had minimum of the accessible organic nutrients and thanks to that, it was extremely compact and floriferous. Some of the slightly pinkish forms with darker leaves also occurred there. An *Androsace hausmannii* seedling, raised from the SRGC seed exchange is waiting for tufa wall in my garden, where I believe it will have the best imitation of its natural conditions with minimum organic matter and water draining quickly down the rock.

Right: *Androsace hausmannii*

Climbing up, we were also lucky to find a neatly compact yellow *Papaver kerneri*, (left) which has found its place in steep scree.

That area is also home for *Ranunculus parnassifolius*, which was found between the rocks on elevation about 2300m, slightly shaded by limestone outcrops.

The last plant, which bid us its 'Goodbye' before we went down the mountain, was a small woolly one-flowered form of *Leontopodium alpinum*, resembling small forms of *L. alpinum* var. *nivale* from the Apennines (Abruzzi Mts.)

Finally, as a beer enthusiast and an experienced home brewer, I'd like to mention that Dolomites are a quite interesting place to taste beers. I hadn't expected that I would be able to try excellent Italian bock beers, non-pasteurised lagers, and German weizen beers and buy some regional specialties. This wooden biereria located in the centre of San Martino is definitely worth of visiting. Cheers! M.H.

PRIMULA HIRSUTA SUBSP. *VALCUVIANENSIS*

Fritz Kummert and PEPiPEDIA

A new taxon of the genus *Primula*, which is closely related to *Primula hirsuta*, was described in 2005 as *Primula hirsuta* VILL.subsp. *valcuvianensis* S. JESS. & L. LEHMANN. It is found in the district of Varese (in Lombardy, Northern Italy) where it grows on dolomitic rocks on various mountains around the Valley of Valcuvia. The new subspecies is distinct in its morphological character from *P. hirsuta* subsp. *hirsuta* and is also isolated in its ecological and geographical character. Lehmann published a very pretty portrait of this dwarf saxatile primrose photographed at the locus classicus, Monte Nudo (1235m). The new subspecies was introduced into cultivation by Gerd Stopp and is now grown in the Arktische Alpiner Garten in Chemnitz, Germany, where the herbarium type specimen is deposited.

Primula hirsuta subsp. *hirsuta* grows in the Alps from an altitude of 200 m up to 3600 m but always above silicate bedrock (*P. villosa* and *P. daonensis* have a similar taste for acid-neutral bedrock.) This newly described subspecies is restricted to dolomitic bedrock, where it grows in crevices at altitudes of 800 to 1200m, usually in a North or North Eastern exposure, together with *Potentilla caulescens, Erica carnea, Saxifraga paniculata, Polygala chamaebuxus, Asplenium ruta-muraria and Asplenium trichomanes.* This dolomite loving primrose is 3 to 10 cm tall in flower and differs in a

denser indumentum formed of longer hairs on the leaves and in details of the calyx teeth, which are ovate in shape. The leaves are grey-green with pale edges. Chromosome count is 2n = ca. 62, the same as *Primula albenensis*. The plant flowers in April and May.

Left: *Primula hirsuta* subsp. *valcuvianensis*, detail.

Three new species of *Primula* have been recently described from a small local occurrence of the dolomite bedrock with a limestone appearance in the area east of Lake Maggiore: *Primula albenensis* BANFI ET FERLINGHETI 1993, *Primula grignensis* MOSER 1998 and *Primula recubariensis* PROSSER ET SCORTEGAGNA 1998.

These *Primulas* which prefer calcareous rock have been known since the middle of the 19th century, as more detailed plant-searches took place in the Alps. There are certainly further populations of *P. hirsuta*-like primulas in the Alps, which grow on calcareous bedrock.
Those plants currently known do all form natural hybrids with *Primula auricula*, although not all of the hybrids have been formally described. Only the hybrid between *P. recubariensis* and *P. auricula* was formally described as *P.* × *vallarsae* together with the species. The hybrids between *P. grignensis* are mentioned by Moser, but not described. The hybrid between *P. albenensis* and *P. auricula* was found by a Scotsman last year.

I got my hint for *P. hirsuta* subsp. *valcuvianensis* because of a label, saying "Primula × pubescens", which was found by Robert Scheck, Salzburg, after the death of the famous plantsman and lover of alpine plants Rolf Wuerdig, Bardolino, under the shabby remains of the collection. The hybrid was dead, but the label guided us in May 1999 to one of the locations of the Valcuvian Primrose!
The district of Varese lies in the centre of the Southern Alps and is famous for its special plants. I only want to mention two of my favourites, the light yellow-flowered *Cardamine kitaibelii* (*Dentaria polyphylla*) and the aptly named *Lathyrus vernus* subsp. *gracilis* (*Orobus gracilis*).

---MOUNTAINS IN THE GARDENS---

USING PEAT BLOCKS IN A CREVICE BED
by Ellen Raebild & Herluf Johansen, Denmark

In connection with the construction of what might be the biggest crevice bed in Europe, in Bangsbo Botanical Gardens, Frederikshavn, Denmark in May 2009, Zdenék Zvolanek (ZZ) had made a rough plan of the layout of the bed. About 200 tonnes of limestone were ordered from Marktrodach (Germany) near the Czech border, and then the intention was to make a canal with water, which was supposed

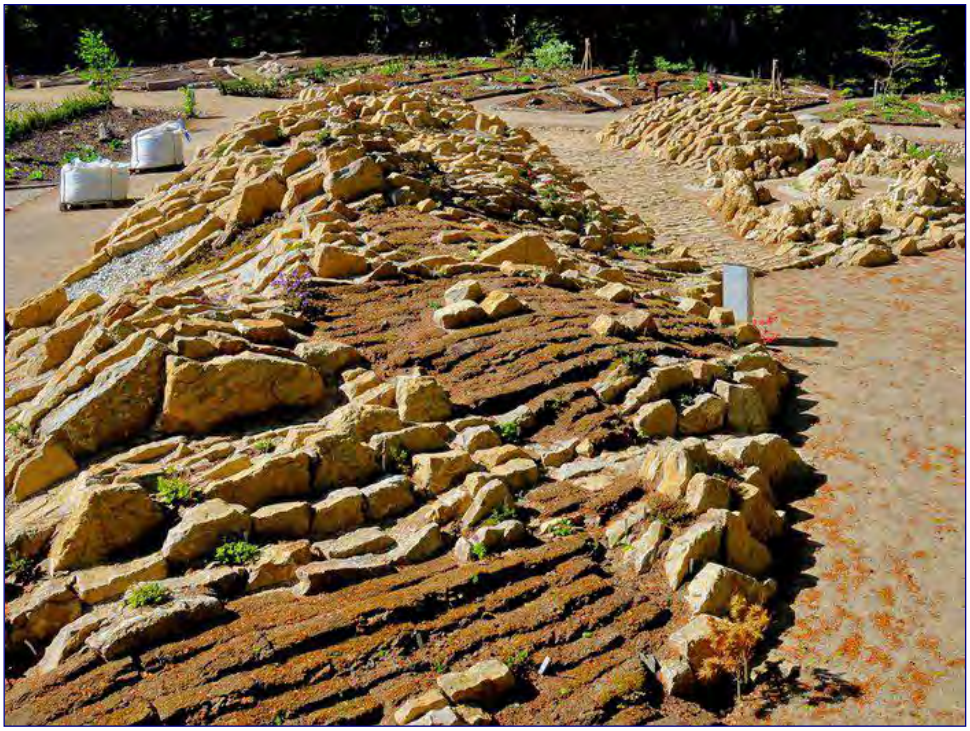
to function as a trap for snails round the whole bed (circa 500 m^2 surface area) as the bed was to be placed quite near wooded areas. The snail trap was to be constructed with peat blocks and aluminium foil. The snail trap was soon abandoned when ZZ saw the big variation of height in the ground. Therefore there was a large surplus of peat blocks when the work with the crevice bed commenced. This gave rise to creative thoughts from ZZ, and as the limestones from Marktrodach were not delivered quite on schedule, there was time for experiments. As a matter of fact ZZ rather quickly rejected the original draft as the area intended for limestone beds proved to be too narrow in the sloping area. This resulted in the whole crevice bed construction becoming somewhat larger than had been initially estimated.

Left: Hans Henrik sets western facing layers

In natural mountain scenery there is not rocky ground everywhere, actually there are areas containing deposited organic material, which look like raised bog. Therefore it was decided to try to place peat blocks in some areas among stones. This might give a good opportunity to plant inspiring moisture and humus loving plants, which you would not normally plant in a crevice bed.

The sizes of the peat blocks are 20 by 20 by 40 cm, and therefore a little too broad to match the stones. Because of that they were sawn through lengthwise, in their original dry state, with a chain saw. Thus it became much easier to form varied levels in the areas concerned. As a core of sand builds up the crevice bed, the drainage is perfect, which also goes for the areas with the blocks.

The peat blocks are always delivered bone dry in order to reduce the weight – this condition must absolutely be changed before the blocks are placed in the bed. It is extremely difficult to have the dry blocks soaked in a short time, but, of course, Joyce Carruthers had a solution to this problem. Let the blocks sit in very hot water for some minutes, and then you can be sure that they have soaked up all the water they can, and then they are ready to be placed.



Left: Peat block area in May 2010

Like all the limestone slabs in the crevice bed, the blocks were placed east/west and preferably placed on a north/west side, which for part of the day lies in partial shade due to tall beech trees. In order to be able to differentiate the choice of plants the blocks were not fully pressed together, simply because we ourselves wanted to decide the growth medium between the blocks. We made a standard mixture consisting of **4 parts of composted cow manure, 2 parts of coarse sand, and 1 part of granulated clay.** Deviation from this standard mixture depended on the soil condition and the degree of the acidity required by the plants concerned. It is important that there are no air pockets in the growth medium whether it is in the crevice bed or between the blocks, so therefore much time was spent compressing the soil mixture with small sticks. As an extraordinary arrangement the block areas were drenched thoroughly. To make the block areas as life-like as possible some single limestones were placed in the blocks to break the surface.

Far left: *Shortia uniflora* var. *kantoensis,* Honshu.

Left: *Soldanella* at Bangsbo

What plants can be used then? Well, plants from *Ericaceae* are an obvious choice. Dwarfish plants or crawling species of *Rhododendron* are superior, and they can be planted direct into the blocks. From the same family *Phyllodoce, Cassiope, Shortia, Vaccinium, Rhodothamnus*, and *Menziesia* are a real

must. But we have also tried with other species; *Androsace*, among others *A. himalaica, A. sempervivoides, A. spinulifera, A. microphylla*, and *A. mollis*, and they seem to be doing quite well on the northwest side. After a year they have already formed many new rosettes. *Soldanellas* are happy in this special bed too.

Different species of *Wulfenia* are also planted and look as if they are having a splendid time. The common *Gentiana sino-ornata* and the white variety grow directly in the peat blocks in a rather shady place, and the plants are very rich in flowers.
Several species of *Corydalis* have been planted, and we are very aware of the fact that some of these seeds propagate easily.
Some of the very small species and kinds of *Hosta* have also found their way to the block areas, and with regard to *Hosta* it is actually only the size of the area which limits the range. In the crevice bed many of the European *Primula* – species have been planted out, and in the blocks it will be obvious to try selected species from the *Sonchifolia* – group. This has not yet been put into action, but will surely become a reality in the course of 2011. An obvious possibility is trying to make *Pulsatilla vernalis* thrive (shown right) – here in Denmark it is not particularly rich in flowers- if you can make it flower at all.
As the crevice bed is quite new, we have not spent much time on maintenance. The amount of weeds in the blocks is minimal; a few *Calluna vulgaris* pop up here and there, which have lain as seeds in the blocks. Most maintenance work takes place in spring when we must remove thousands of beechnuts, which have landed on the blocks from very close old beech trees. Quite the easiest solution to the problem is to use powerful leaf collector/ blowing machines. The many beechnuts are easily blown away from the bed, and the plants are not harmed. It is also remarkable how soon the blocks have developed a sort of ”patina”. The edges are no longer sharp and moss is growing on them, which successfully creates a very natural look.

Above: Overview from the air.

The peat blocks are a nice material to work with, they are not heavy in comparison to our limestones, which might exhaust you and even make masculine persons sweaty, and it is so easy to cut the individual blocks into the right shape, so it fits precisely where you want to place it.
It has been a worthwhile and interesting challenge to combine two such different materials as these big limestone slabs and peat blocks, and time will show whether we will succeed in copying nature with this experiment.
Left: Sunrise over the Bangsbo garden.

CREVICE GARDEN WITH A SUNKEN GORGE by Jaroslava Králová, Eastern Bohemia

A deep love for flowers was in me from my earliest youth but the miracle of the smallest fragile plants has really charmed me during the last ten years. My intention is to offer to my plants very natural conditions so they will be fully content and happy. It is not always an easy task; we sometimes have a failure so I keep an ongoing positive determination to take the challenge and try something new to satisfy my plants.

Here I would like to introduce you our newest part of our rock garden, which we call tenderly “Roklinka” (Chasm).
It was built in a flat terrain and belongs among crevice gardens. The stone is marl (marlstone is a sedimentary alkaline rock, 60% carbonate and 40% clay), which takes in water and evaporates it on hot days to please rock garden plants in crevices. It is not a stone for a truly permanent feature but its quicker weathering makes the rock garden more natural.

Left: The marlstone in the quarry

Left: entrance to the gorge

This crevice garden has an east-west orientation and in its half-moon shape offers all possible exposures from full sun via half-shade to some places where there is shade nearly all day.
The construction began in autumn 2009 when we dug to form the narrow canyon. The digging went 3 feet (90 cm) under the natural ground level and all the soil was piled in one side to form a tall ridge so the height of the rock garden from bottom of the gorge to the top of the ridge is 6 feet (180 cm).The first action after digging was to construct vertical walls in the gorge. The large (but able to be handled by one-man) stone slabs were firmly wedged together and partly filled with the soil from the gorge. The bottom of the gorge has a particular function (left): it becomes filled after rain and for a few following days the water is drained off giving plants the right moist microclimate. Fibreglass textiles support the bottom of the canyon for both walking on and flooding: the textile is covered with 30 cm thick layer of smaller stones. The textile slows down water drainage but also prevents the stones from being pressed into bottom soil and so blocking the drainage.

Above: the rain drainage channel in the gorge.

Left: eastern Ridge

There are steps into the two entrances to the gorge.

The ridge above the chasm was covered with a layer of smaller stones and is more decorative than functional.

Oh World, be surprised!
My first planted flowers like it!
I mix the substrates to match the taste of a plant. We have loam from well-rotted turf and I add some sand and a little bit of grit.

When I wish to give some plants the 'happiness of hogs' I will give them a more of a 'good garden' mixture.

Left: unfinished southern ridge

Crevices are filled with my various mixtures and I can then plant them up.

My plants went through their first growing season without problems and they are in top condition now.

Towards the end of this introduction I must give thanks to my husband who built this royal crevice garden for me by carefully placing 18 tons of marlstone.

His effort is worthy of my highest praise! J.K.

Left: irregular ridge

We have some photographs showing some interesting varieties of *Daphne cneorum* so to have a comment from an expert, we present, with the permission of the author Robert Rolfe, some adapted citations from his article for the RHS and AGS handbook (2001) The Smaller Daphnes.
Robert Rolfe a grower, writer, judge and plant historian is also the assistant Editor of the bulletin of the Alpine Garden Society and will be a speaker at the long awaited Alpines 2011 Conference in Nottingham in April 2011.

***DAPHNE CNEORUM* - VARIATIONS ON A THEME** by Robert Rolfe

There is a considerable overall geographical spread for *Daphne cneorum* so, taking this into account, and bearing in mind the range of habitats and of isolated pockets scattered here and there, it is inevitable that both taxonomists and gardeners have been tempted to modify the species' identity, churning out a series of varietal and forma qualifiers, some of them difficult to apply with any confidence. Instead of wading into this mire, I have opted for a partial listing that focuses on a few of the more horticulturally significant selections.

*Daphne cneorum v*ar. *pygmaea* forma *alba* photo Rudi Weiss

White forms. More than a quarter of a century has passed since Chris Brickell and Brian Mathew nailed their colours to the mast and published the monograph *Daphne: the genus in the wild and in cultivation.* They were unable to ascertain the precise precedents for labelling albino variants of this predominantly pale to dark pink species, and no one seems to have come up with the answer in the interim, for all that one sees the occasionally available, 'typical' white version *of D. cneorum* listed as forma *alba,* and a more compact clone pigeon-holed as var. *pygmaea* 'Alba'.

White-flowered examples of *D. cneorum* have certainly been recognized from at least the early part of the last century: they are exceedingly rare over much of the species' distribution, and establishing the lineage of plants presently grown is nigh impossible. One of the more cogent earlier references is provided by Henri Correvon, who first came upon an albino in June 1892, and was able to collect material ten years later, observing that ….

'…at [that] time we grafted it later and had good results. Now [mid 1920s] we have large tufts of it, flowering in profusion during May and June... The plant never grows so high as *D. cneorum,* but it seems much more floriferous than the type … In nature I do not believe it has been found elsewhere than on the very sunny and rocky slope between the Col de Marchairuz and la Vallee de Jaux (Jura Vaudoix), at 3000 feet [915m] elevation. It never sets seeds with us at 'Floraire' [Chene-Bourg, Switzerland]'.

Daphne cneorum 'Snow Carpet'

Correvon was exporting plants at this time, so his stock may well have been that which received an Award of Merit when exhibited in 1920 by Messrs Tucker (Oxon.). The 'white form' of the species currently grown is in line with this selection, forming a reduced but open mat with rather globular clusters of flowers terminating procumbent shoots clothed with oblanceolate, bluntish-tipped leaves 16x5mm. A spread of 60-100cm can be expected of a mature plant, whereas the so-called white form of *var. pygmaea* is perceptibly 'slower and lower growing'. One can trace the latter back to at least the 1960s, when Connie Greenfield (Epsom, Surrey) acquired her plant from an unknown source and later distributed material. A photograph of this appears in *AGS Bulletin* 227:58, and the plant shown is described as 'an even, low mound some 30cm in diameter and rising to some 10cm high, with the small clusters of eight to ten white flowers evenly dotted over the entire surface...'.

Left: *Daphne cneorum* var. *pygmaea 'Alba'* photo Milan Halada

Even allowing for the modifying effects of different methods of cultivation, and the relative lushness of a younger plant, I am not convinced that this is derived from the same stock as plants currently distributed under this name. These characteristically have heads of ten flowers and short (2-5cm), densely clothed shoots bearing up to six clusters of flower; the leaves are c.8-15mm long, but while averaging 3mm wide can be twice this width, and terminate in an acute, near mucronate tip.

Right: *D. cneorum* var. *pygmaea* ex Maritime Alps

***Var. pygmaea:* a terminological inexactitude.**

Very seldom is it sensible to saddle a plant with varietal status based upon the evidence of a single specimen. And the same stricture applies to the application of such a label to plants that relate only in their stature, rather than the strict limits ordained in the original description. These two circumstances, however, describe the history of *Daphne cneorum* var. *pygmaea,* a name dreamed up by Fred Stoker in 1935 to describe a plant that had been collected five years earlier at 2450 m in the mountains south of the Dolomites (Veneto). He gave it a thumbnail sketch as an 'almost exact, though smaller, replica of the type species', and so it has come about that almost any dwarf variant, but particularly those that occur in parts of the Jura, the French Alps and the Pyrenees, is embraced within the term.

D. cneorum Dark form in Western Slovakia

But, checking on the exact terms of reference, published in *New Flora and Sylva* 7:275, I find that his diagnosis stipulates *'similis Daphne cneorum* L. *In omnibus partibus minor et perianthi tubo extrinsecus ruguloso'.* The second qualifier, requiring that the tube of the perianth should be irregularly wrinkled over its outer surface, has been generally ignored subsequently, so too the proviso that the flowers should reach only 10 mm, rather than an average of 13 mm in diameter. (He also measured the length of the tube at 8 mm, as against 11 mm in 'typical' plants, though the editor did him no service in misprinting the former measurements as 8 *cm,* which would indeed be utterly remarkable.) He further circumscribed his variant as attaining a height of at most 6.5 cm, and being 'prostrate and compact', whereas ordinarily, he opined, *D. cneorum* has 'a loose and trailing habit forming a mass about 26 cm in height'. To round off, the leaves of his var. *pygmaea* are generally smaller, 11 mm long and 3.5 mm wide, contrasting with the 15 x 5 mm allowance for more typical representatives of the species.

The best that can be said for his version of events is that *Daphne* studies have come on a long way in the 75 years since then, with a consequent enrichment of herbarium material from across the species' range, which Dr Stoker was denied.

Diligently, drearily taking my tape measure to the copious dried material in the herbarium at Kew, I came up with variations (in mm) of from 6 x 2 to 29 x 3 for Austria, 8 x 2 to 12 x 4 for the Pyrenees (where the perianth tube can be as short as 5mm), 14-16 x 2-3 for Bohemia (perianth tube 6-11)...and at that point the project was abandoned, for it was very apparent that it was akin to chasing a rainbow's end. Are all the dwarfer ones to be given taxonomic status as var. *pygmaea* (this seems to be the way of the horticultural world at present), or must we hunt for wrinkles on the perianth tube before we can pronounce confidently?

D. cneorum var. *pygmaea* 'Czech Song'

As far as can be gauged, var. *pygmaea sensu lato* has only become at all widely known among gardeners in the last 30 years; before that there are just a handful of catalogue listings, and the scattering of plants grown were propagated on a limited scale and passed round among personal acquaintances of the few proud owners.

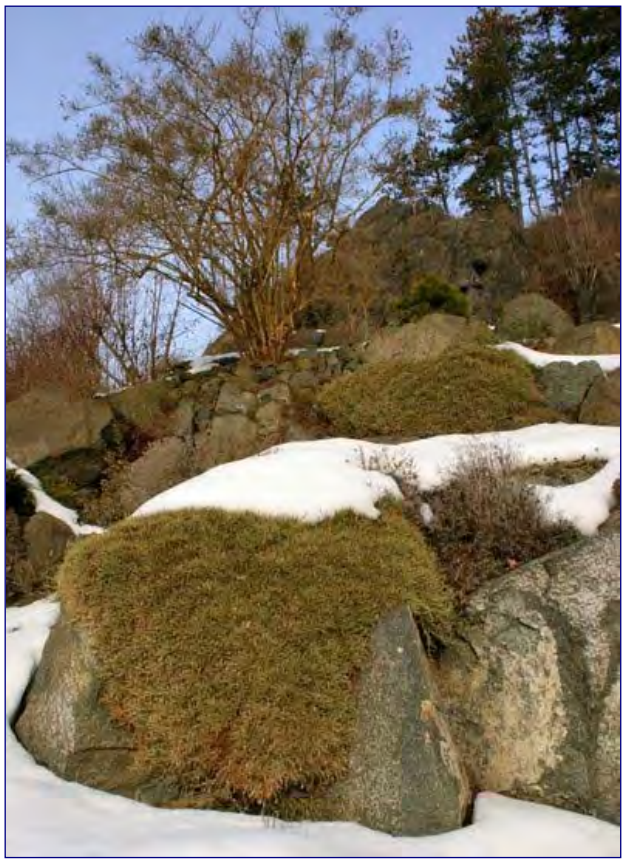
If we now enjoy more frequent sightings of such plants, on the show bench, in gardens, and (still infrequently) in nurserymen's catalogues, then part of the credit should go to Brian and Judy Burrow, who in 1980 harvested a small crop of seeds from a plant fortuitously found in fruit near Viella in the Spanish Pyrenees. These germinated well in the following spring, and were pot grown until the owners moved to north Yorkshire some five years later, when six plants, all of respectable (c. 10-15 cm) size and varying in intensity of tone from pale to mid pink, were planted out. There they grew for a further five years, setting seed for the first time in 1988.

Two years later, when the collection was dispersed, a spade was taken to the by now well-established plants in the autumn; the largest was some 60 cm across and thriving (aged 20) in a Warwickshire garden; a second, pot-grown in gritty loam as an alpine house plant, had twice won the Farrer medal at AGS shows for its owner (Nigel Fuller, Kent), a third had resettled in Cleveland, and the fate of the remaining three is unknown. It may well be that the dwarfed forms are easier to transplant simply because there is less bulk involved: the sheer practical difficulties of first sapping, then lifting, and then transporting a plant up to 2 m in diameter are nigh insurmountable. R.R.

---International Rock Gardener---

---Report from the Beauty Slope---

By ZDENĚK ZVOLÁNEK



We have had a classic Czech White Christmas and my rock garden has been sleeping under a thick white sheet since the end of November. Only the vertical southern faces of boulders are naked and showing samples of some plants like the large Spanish broom *Genista horrida.* In a large rock garden we must have some substantial specimens in strategically important places because an army of small and different plants always looks too “busy”.

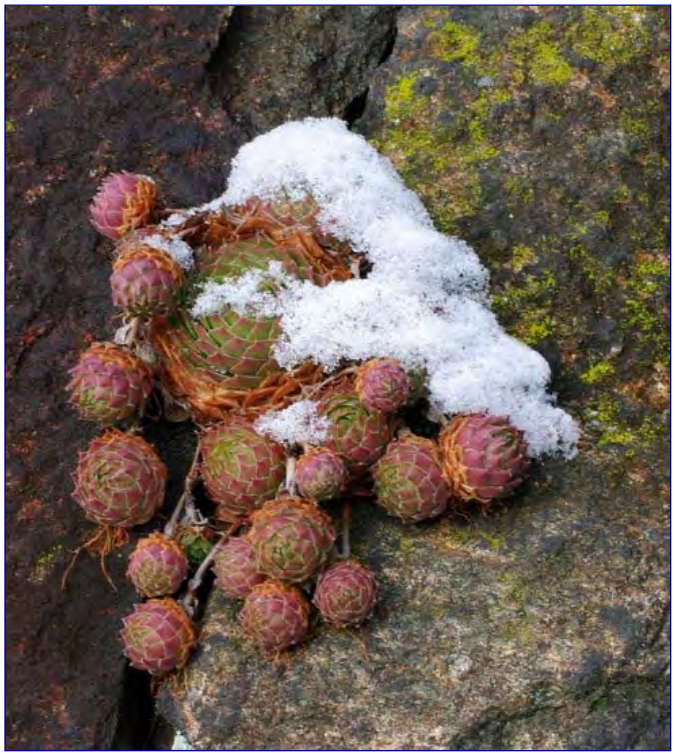
Left: *Genista horrida*

I can show in this short report only one kind of sub-alpines: the Sempervivums. I have many of them but they are usually hybrids with no label, being used to fill or close vertical crevices.
I can name only a few species: three forms of *Sempervivum arachnoideum, S. kosaninii* and their attractive cousin *Jovibarba heuffelii.*
If you are a Bohemian, you must be partly a happy ignoramus!

Solid rosettes of Sempervivum calcareum

This partly neglected extensive rock garden is fortunately not a part of the Natural Memorial Reservation called Beauty slope which is distant about 500 m east. This reservation comprises 20 hectares of steep stony steppe, in altitudes from 215 to 347m, well known for a green lizard, *Lacerta viridis,* the biggest Czech beetle *Lucanus cervus*, the rose coloured and pungent herbaceous *Dictamnus albus*, and shrubbery of *Cornus mas* with an intensive yellow spring show. Plenty species of butterflies can be seen here. The extremely steep slopes there are formed from acid grey slates and alkaline mudstones.

Above left: *Lucanus cervus*



Above right: *Sempervivum* hybridum

Left: eroded marble post

I felt a need to show our readers two different characteristics of this part of the Czech Karst protected area. So I took my monopod to support myself in slippery snow and to support my new camera with brand new lens (Pentax K 20D + 35 mm Macro Limited lens). Behind my rock garden area is pine forest with nice, slightly alkaline, dolerite outcrops forming 200 m long southern ridge.

The ridge was a boundary of the land of monks until 1946 and there can still be seen one very eroded post of the monastery made from soft rose marble. The top with the crusaders' cross and star under it is lost.

I took one photograph here in the shade of oak woodland to illustrate the shape of the local volcanic rock. The last picture is from the top ridge of the Natural Memorial Beauty Slope where the slate is radioactive and we can admire some patches of *Calluna vulgaris* under the winter rock oak- *Quercus petraea* (leaves are still decorating a dwarf local specimen).

This high ridge has the local name Plačtivá (The Weeping Tears) because it was the place for women to say good-bye to their menfolk and go to stay in the small castle of Karlík. This splitting was a law: no woman was permitted to stay in the great state Karlštejn castle, where the crown jewels of the Czech Kingdom were kept.
The Beauty Slope is a Sleeping Beauty now collecting its power until the time when our early spring is sprung.