

International Rock Gardener

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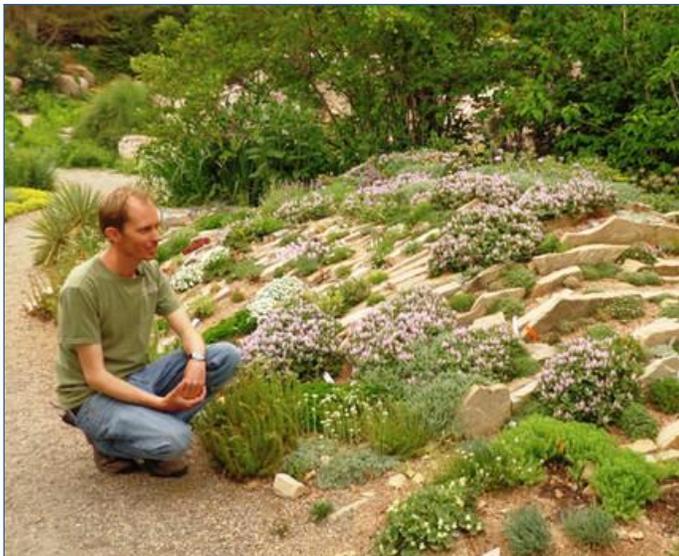


The Scottish Rock Garden Club has various funds for grant aid – for example for [student Study Grants and the Exploration Fund](#). If you know of any horticulture student who could benefit from a grant from the Diana Aitchison Fund of SRGC, please let them know about this excellent source of funding. A recent recipient of a Diana Aitchison Grant will be sharing a blog on his [UK study project in the Forum](#). We begin this month with a brief photo report of a project undertaken in 2014 by Mike Kintgen (Curator of Alpine Collections at the [Denver Botanic Garden](#)) with the help of an Exploration Grant by the SRGC. Reports from some other grant recipients can be seen on [this web page](#), where the grant application forms may be accessed.

South America and its rich flora hold the same interest for professionals in the world of botanic gardens as for the private traveller.

Cover picture: *Primula marginata* 'Wolkei', photo from Bangsbo Team.

Short photo report from Mike Kintgen on his travels with an SRGC Exploration Grant.



With my colleague, Dan Johnson, I undertook the trip to continue a project Denver Botanic Gardens has been working on to study the flora of Patagonia (which has a steppe climate like Denver) and build relationships with botanists, scientists, horticulturists and gardeners in another steppe climate. It was the third trip I have taken to Patagonia, and it allowed us to visit several areas we had not visited in the other trips. We have travelled rather extensively in the Patagonia steppe from El Chalten to the northern edge of Patagonia.

[Mike Kintgen](#) in the DBG.



Cerro Chaulualco is a lesser known mountain near Bariloche; it is more arid than the more famous Cerro Catedral.



Acaena macrocephala



Alstroemeria aurea at Cerro Chaulualco

Habitats include *Nothofagus* forest filled with *Alstroemeria* to alpine screes, meadows and rock fields.

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Above: The white form of *Chaetanthera villosa* is found here.
Below: *Nassauvia lagascae* var. *lanata* is also a specialty here on Cerro Chauluallco.



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Next we travelled to the Meseta Somuncurá near Valcheta, 500 km east of Bariloche. It is known for being one of the hottest and cold areas in the steppe. It is a remote and rarely visited high massif plateau known for several endemic species of animals and plants.



Austrocactus on La Meseta Somuncurá



Azorella* aff. *madreporica and ***Stipa humilus*** on Cerro Somuncurá

We climbed Cerro Corona the highest mountain on the Plateau and encountered an alpine-like flora found in the Andes almost 500km to the west.

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Cerro Corona on Meseta de Somuncurá



Laretia acaulis on Cerro Corona

After returning to Bariloche we drove north to Neuquen and Volcán Copahue: this area is well known by flower enthusiasts and features a smoking volcano, *Araucaria* forest and interesting alpinines.



Steppe and *Rhodophiala araucana* near Volcán Copahue



Field of *Stipa* near Riscos Bayos



Araucaria araucana near Volcán Copahue

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We continued north to Volcán Domuyo and went to the end of the road where we saw the *Chaetanthera villosa*. Yellow forms are found here.



Chaetanthera villosa, yellow form



Chaetanthera villosa in bud, near Volcan Domuyo

We continued northeast towards Volcán Tromen before passing into Mendoza province. Here we saw *Argylia robusta*, (below, left) just north of the Mendoza-Neuquen border.

Below right: Volcán Tromen with *Mahuenia patagonica*



Cerro Aconcagua, 6960m



Looking north from Cerro Gloria west of Mendoza city

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In Mendoza we stayed at the famous Las Leñas ski area where we saw *Rhodophiala rhodolirion*.



Above: *Argylia bustillosii* seen below Las Leñas
Right: *Schizanthus grahamii* near Las Leñas



[Las Leñas, in ski season](#)

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Continuing north we took a break from driving our own vehicle and joined a tour to Volcán Maipú, an amazing place with a 5000m+ volcano sitting in a megacaldera of an extinct super-volcano. We saw many high alpiners here.



Perezia pilifera (above) and *Tarasa humilis* (below left) near Volcán Maipú and Laguna del Diamante
Below, right: *Tropaeolum polyphyllum* at Passo Cristo Redentor



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Jaborosa laciniata at Passo Cristo Redentor

North of Maipu we travelled north to Mendoza city and Aconcagua before turning around at Passo Cristo Redentor on the Chilean border. It was an amazing trip.

M.K.

Ed.: The [North American Rock Garden Society](#) awarded Kintgen in [2013 with the Dr. T. Paul Maslin Award](#). The award bears the name of the society's founder and first president, a University of Colorado biologist and professor.

---Plant of the moment---



Hepatica: assorted forms shown by Luc Gilgemyn in [SRGC Forum's Hepatica Section](#). Luc has received all these plants from his hepatica-loving friend [Chris Vermeire](#).

Forum readers have been delighted to see the photo report by [Tatsuo Yamanaka](#) of a superb show and sale of [Hepatica held at the Ueno Green Club in Tokyo, Japan](#) in February. Tatsuo normally shares his photos of his own superbly grown bulbs in the Forum - this time he was just a visitor enjoying the displays and letting us experience it too.

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---Mountains in the Garden---

Experiences growing alpine plants in sand in a crevice bed in Bangsbo Botanical Gardens by Ellen Raebild and Herluf Johansen.



Planting team: Pia, Ellen, Zdeněk and Herluf

[The Crevice garden in Bangsbo Botanical Gardens](#) was established in 2009 in collaboration with Zdeněk Zvolánek and the volunteers from [Bangsbo Botanical Gardens](#) in Denmark. The bed is approximately 400 m², built using 200 tonnes of limestone and with a core of washed sand. We have selected washed sand that is without clay particles, to give the best possible drainage. Around 3000 alpines have been planted, distributed amongst approximately 800 species/varieties.



To imitate nature in the mountains, where areas with humus between stones are very often seen, we have created areas with peat blocks, where we have the opportunity to cultivate acid-loving plants.

Building the area with peat blocks

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Before the project was set in motion, we had no experience of cultivating plants in sand, which of course does not contain any significant amount of nutrients. As the crevice bed is reserved for alpine plants, it was essential to create perfect drainage, since in Denmark we very often have rainy autumn and winter weather. As an added bonus the sand and the perfect drainage prevents the frost from moving the stones from each other which could be the risk if using other growing media such as compost/mulch. Over the top, 3cm of crushed rock is laid, partly to prevent evaporation and partly to keep plant rosettes free from constant moisture. This also has the advantage that seeds from weeds cannot easily root in it, and birds are not able to dig in it.



View from the planting area “Asia” to “Europe”

A big advantage of planting in the sand is that it is possible to plant all year round, because the sand is always damp. Here, it is of the utmost importance that the roots of the plants are cleaned and free of their previous growing medium in order to force the plant's roots to grow in the sand and get close to the stones, which are cool and humid and in time will secrete minerals. The first few years after planting the plants grow very slowly, because they spend a large part of their energy on forming a deep root system.



Then they really begin to develop the characteristics they have in the wild. We have repeatedly seen home bought plants, which have been given fertilizer in propagation phase, after planting in crevice bed changing character, and after a short time returning to their natural growth form.

It is our general impression that all plant genera, of which we have experience in the crevice bed, thrive in sand provided that account is taken of their requirements for a growth site such as sun and shade conditions.

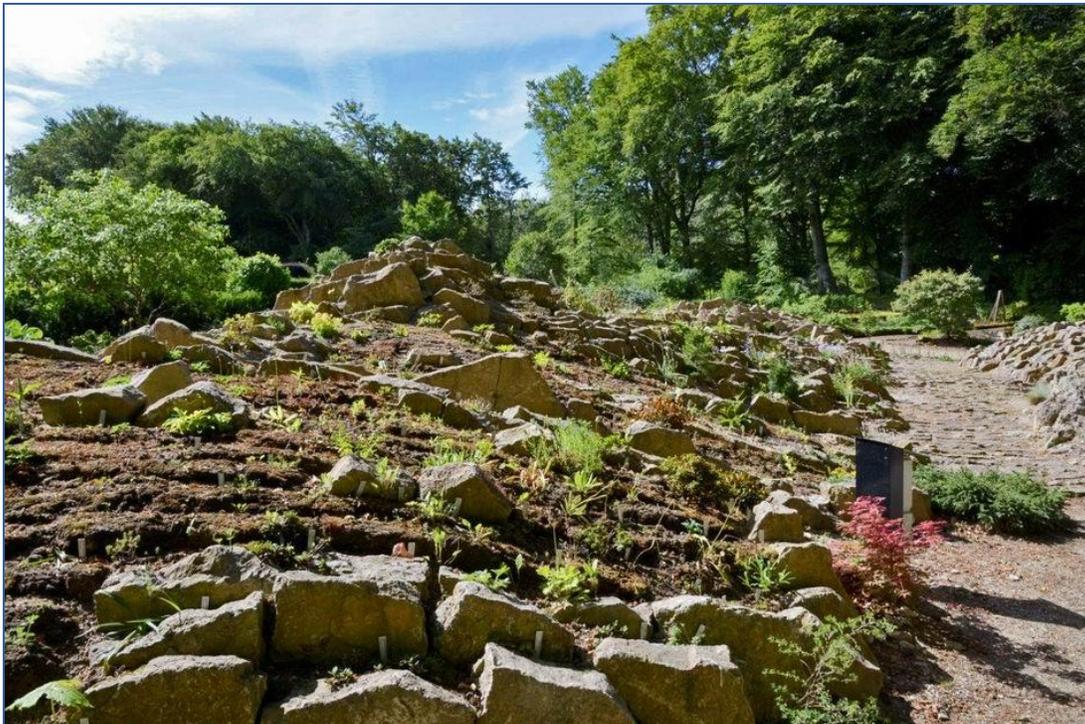
A “**witches’ broom**” **Pinus** feeling the cold

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As an experiment we used mycorrhiza on some of the plant roots, but cannot see any appreciable positive effect on the growth. In the first five years, it has not been necessary to add fertilizer to the alpine plants; however, we have added a small amount of PK fertilizer to the **evergreen witches' brooms**, such as *Pinus* and *Abies*. *Rhododendrons*, which are planted in peat blocks, are now starting to be lacking nutrients, so during the spring we will add an appropriate amount of NPK fertilizer. It should also be mentioned that we never water the crevice bed. Even in the very dry summer of 2014 the alpine plants were quite healthy without watering.



Rhododendron camtschaticum



Field of peat bricks

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The daily maintenance consists of keeping the bed free from fallen leaves and fruits from *Fagus*, *Acer* and *Quercus*, which is resolved most easily with a leaf blower. In addition, the bed is kept clean of weeds, which is relatively easy, since the annual weeds have a hard time to establish themselves and are easy to eliminate by weeding. It is more complicated in the peat block areas, where the various weed species readily germinate and establish. Any peat block areas should not be made too broad: one should be able reach the middle from the surrounding rock parts in order to avoid having to step into the area, risking compressing the peat blocks. This will facilitate maintenance significantly. Using peat blocks in a crevice bed one should carefully consider the location. A location on a south side will result in drying out with subsequent problems with soaking the peat blocks again. When placing the peat block areas correctly, you will be able to achieve a natural looking area, where different species of moss quickly establishes itself between the planting. If you experiment with different growing media in the slits between the peat blocks, there will be great possibilities to vary the plant choice for the area.

A few examples of plants that thrive in the sand in our crevice bed include *Acantholimon caryophyllaceum*, various species of *Daphne*, *Gentiana* and *Saxifraga*. In the peat block areas we feature different species of *Androsace*, *Rhododendron*, *Gentiana* and *Primula*.



Zdeněk Zvolánek working in the peat block area

Remarks of one member of the planting team (ZZ):

It is always pleasant to portray some rock garden plants which are not common in gardens and enjoy this new growing technique which brings together two modern techniques – the sand bed at the bottom and the Crevice garden at the top. This mixture of two good techniques is optimal. The finely moist deep sand and coolness of a deep crevice are ideal condition for the free run underground of ***Campanula chamissonis* 'Superba'**. It is here very distinct plant, a possible hybrid,

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which was known as *C. pilosa* 'Superba' in the golden times of great plantsman Jack Drake. It differs from the typical Japanese species with much longer flower trumpets, but its natural taste for wet soil is the same.



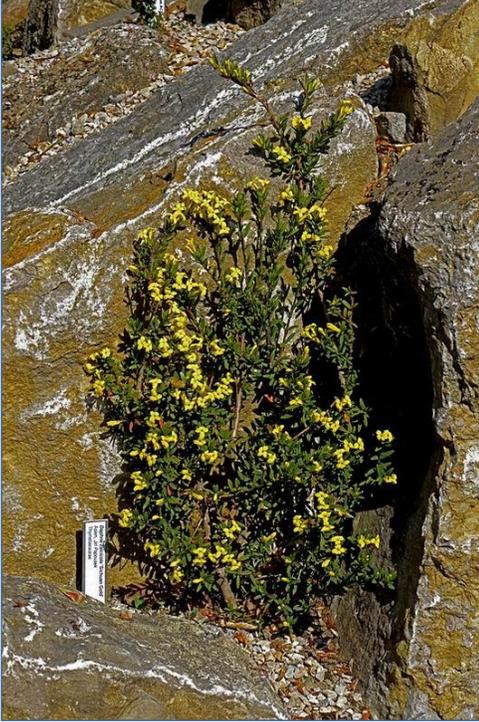
Campanula chamissonis 'Superba'



The similar cooler conditions of the Jutland peninsula with its milder weather and higher humidity of air is the basis of the visible happiness of the strange Patagonian beauty - ***Calceolaria uniflora*** (*C. darwini*), which is usually unhappy in common garden conditions.

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Clear international success has been noted in the healthy growth of the 'difficult' golden yellow *Daphne calcicola*. A fine shrub, the cultivar '**Sichuan Gold**' was planted in a nook formed of two limestone slabs, which make a nice shelter from cool winds. The white surface of the stones reflects light and stores heat.



Above: *Daphne x susannae* 'Lawrence Crocker'
Left: *Daphne calcicola* 'Sichuan Gold'



Daphne sericea

That is a substantial requirement for all warmth loving Daphnes, which need long ripening (lignification) of their new wood. The large rock garden is well decorated with low evergreen shrubs, which can cover three or four feet in diameter. Both *Daphne sericea* and *D. x susannae* 'Lawrence Crocker' grow quickly and are suitable for relatively dry gardens.

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The same is true about the need to fill the rock surfaces with strongly growing lime loving Gentians as the Spanish alpine ***Gentiana occidentalis*** and ***Gentiana angustifolia*** from eastern France. They can offer hundreds of large deep blue or ice blue trumpets and they will surely enjoy their free run in fine deep sands.



Gentiana occidentalis



The wet body of sand is also suitable for the North American bulbous plant ***Olsynium (Sisyrinchium) douglasii***, which grows in nature in shallow pockets on volcanic rocks, often standing in water during the cool spring time and then aestivating under lichens in dry summer time. Similar difficult bulbs loving these virgin sandy substrates are the American ***Calochortus*** (Mariposas).

Calochortus superbis



Olsynium (Sisyrinchium) douglasii

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We suppose that *Pulsatilla patens* (above) (known in Alberta, Canada, as Prairie Crocus) will self-seed in this environment.

Fritillaria carica subsp. *serpenticola*, (below left) is another bulb enjoying the crevice garden while the cultivar *Primula marginata* 'Wolkei' (pictured below right) loves the cool and moist fissures in the rock surface, which quickly dry after rain.



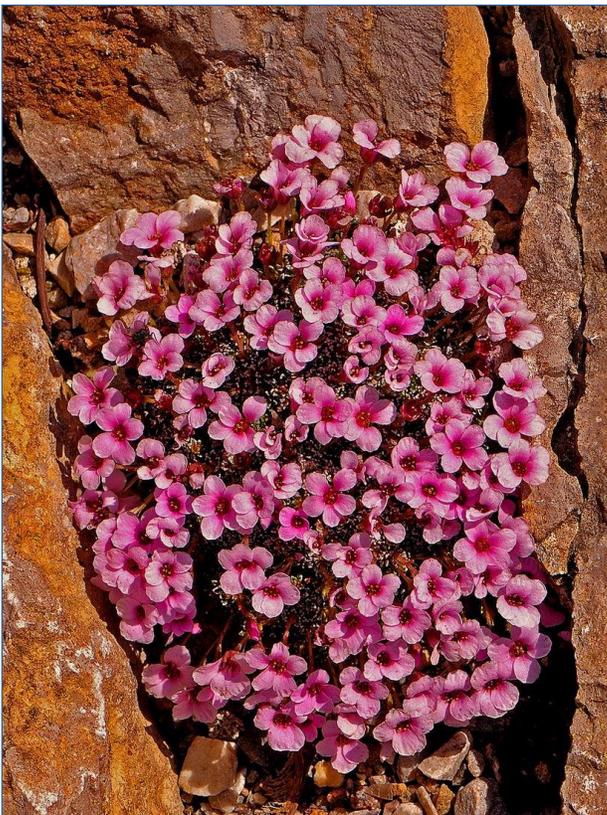
[Ed.: The use of 'Wolkei' may perhaps be a mis-nomer – there is a *Primula x wockei* (*P. x arctotis* x *P. marginata*, sometimes known as *Primula marginata* 'Wockei']

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Saxifraga burseriana, Wisley form

We planted the easier species and cultivars of *Saxifraga* from the Porphyron section, so called kabschias, just to gauge the possible qualities of this sand and stone construction. The Wisley form of ***Saxifraga burseriana*** is seen in full flower in crevices with eastern exposure, together with ***Saxifraga x poluanglica* 'River Thame'**. Easier, larger hybrids as ***Saxifraga* 'Yellow Rock'** are very suitable for covering surfaces on sunny eastern slopes of this rock garden.



Above: *Saxifraga* 'Yellow Rock'
Left: *Saxifraga* 'River Thame'

Right: *Saxifraga* 'Allendale Hobbit'

With the English [Allendale hybrids](#) of *Saxifraga* we were more careful because they have more Himalayan blood in their small thirsty bodies with heavy lime incrustation on their tiny leaves. Because of this they were accommodated in fissures between peat block. One good result of this experiment is visible in the sweetly blooming ***Saxifraga* 'Allendale Hobbit'**.



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The trial with difficult alpines planted in crevices between two narrow peat blocks has had positive results. Denmark has an excellent nursery propagating dwarf rhododendrons so we planted many species and a few cultivars. All are evidently happy with a sunny northern exposure and special mixture with sand and expanded clay. The first in place was the deciduous ***Rhododendron camtschaticum*** in a lovely pink form (see page 12) and its white-flowering sister. This is still a rarely seen shrub deserving our admiration and regular attention to propagation.

Androsace carnea var. *halleri*

It was natural to try small classic alpine *Androsace* in the peat crevice bed. Our illustration shows the Western European ***Androsace carnea* var. *halleri*** in good health and a young Himalayan aristocratic ***Androsace muscoidea*** enjoying the surface at the dry upper side of two peat blocks.



Androsace muscoidea

Ed.: For a pictorial reminder of the original work on the Bangsbo Crevice Garden, see [here](#).

Many thanks to Ellen, Herluf and ZZ for this Bangsbo update.



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Scottish Rock Garden Club Show and Main Event Dates 2015



N. B. Full SRGC Show Schedules, as a pdf, are available to download [here](#) and there are links to maps to some of the venues on this page of the main site: [Show Dates.](#)

Early events were:

Dunblane Early Bulb Display with talks by Kit Strange 21st February

Kendal SRGC/AGS show 14th March

“Stirling Show” (at Kincardine) 21st March – reports and photos from these events can be found in the SRGC forum and website.



Forthcoming events:

Northumberland SRGC/AGS show at Hexham
28th March

Edinburgh and the Lothians Show 11th April

Perth Show 18th April

Highland Show in Nairn 25th April

Glasgow Show in Milngavie 2nd May

Aberdeen Show 16th May - New Venue at the
Duthie Park Winter Gardens, Aberdeen

The Scottish Rock Garden Club will again have a display at the major [‘Gardening Scotland’](#) show at Ingliston near Edinburgh 29th to 31st May

SRGC Summer Event at Dunblane 22nd August. Our speaker will be Susann Nilsson who will be talking on ‘Pulsatillas’ then ‘Mongolia and Eastern Russia’

SRGC Late Bulb Day at Scone 19th September. Speaker, Julian Sutton will give two presentations: ‘Making Sense of the Iridaceae’ and ‘From South to North - Southern hemisphere bulbs in the garden & cool glass house’

Discussion Weekend Show 3rd October in Grantown-on-Spey

Newcastle 10th October - New Venue -
Cowell’s Garden Centre, Main Road,
Woolsington, Newcastle upon Tyne NE13
8BW

Scottish Rock Garden Club Annual General
Meeting – Scone 14th November

Remember: Full details of all events are in
the [2015 SRGC Show Schedules](#)

