

International Rock Gardener



---International Rock Gardener---

March 2012



Readers familiar with the great Scottish Gardens will be familiar with the name of Cluny. A remarkable garden was created on a wooded hillside at Cluny House by the late Bobby Masterton and is now cared for by his daughter and son in law, Wendy and John Mattingley. They continue Bobby's love of primulas and share some glimpses of their early season plants with us. Dieter Zschummel and his wife Rosi, who have fallen in love with the annual gentians to be found in China, show us why these plants are so attractive. Gerd Knoche, from Solingen in Germany, has as one of his plant passions, a great admiration for the genus *Viola*. This month he highlights some different

yellow violets from Europe, Asia and the Americas.

Cover picture: *Gentiana curviphylla*, photo by Dieter Zschummel.

--- Mountains in the Gardens ---

Primula Promise – The season in waiting at Cluny House by John Mattingley

For all those primula boffins out there patiently waiting for their primulas to do something!



This is of one of the main *Primula hoffmanniana* beds in our woodland, and since nobody ever comes to see a garden at this time I thought it may be of interest. We have allowed the colony to expand unhindered in an area of fairly deep summer shade next to our stream.

P. hoffmanniana multiplies by sending out "strawberry runners" and these can number over a dozen causing the plant to multiply up quite rapidly. The primulas act as a blanket suppressing weeds but also creating a special habitat conserving moisture in the soil since the leaves exclude any sunlight that may get through the trees.

---International Rock Gardener---

This is ideal for other primulas such as the closely related *Primula moupinensis*, shown in the photo below, each sporting over a dozen flower buds.



P. moupinensis typically only has 3 or 4 flower buds, as shown in the photo above.

---International Rock Gardener---

The large dormant buds of *Primula sonchifolia* (below) are also very much at home in amongst the mass of *P. hoffmanniana*.



Elsewhere *Primula nana* (*edgeworthii*) is just starting to open its flowers. It has been under a polythene tent which provides it with maximum ventilation, all the cold temperatures winter can throw at it but gives it protection from the worst of the wet weather.



Ed.: We hope that John will share further photos as the season progresses to show these primulas in flower but there is nothing to compare with visiting Cluny to see them for yourself.

---International Rock Gardener---

---Gardens in the Mountains---

Notes on Some Annual Gentians in China by Dieter Zschummel

Not long ago Chinese gentians were rare in our gardens. *Gentiana sino-ornata*, *G. farreri*, and less often *G. veitchiorum* and *G. ornata*, were known in cultivation - and besides those species several named or unnamed hybrids. It changed dramatically with the ACE expedition in 1994 and the following run to SW China. Many other species came to rock gardeners by seed - to mention only a few - *G. georgei* and *G. szechenyi*, *G. stipitata*, *G. arethusae* and *G. hexaphylla*.

We owe these jewels to the activities of many seed collectors, sometimes teams from different countries (SSSE*), but mainly our friends from the Czech Republic. [Ed.: SSSE* =Sino-Scottish Sichuan Expedition which included Ron McBeath, Ia Christie, Jens Nielsen and Lars Danielson]

To see most of the perennial gentians in flower and to collect seeds it is, of course, necessary to visit the mountains in autumn. At this time spring flowering plants are difficult to find. This is true also for many annual gentians, mostly belonging to the sections Chondrophylla and Dolichocarpa. Though these sections contain many species, only a few are mentioned in the journals of the various societies. An exception is made in the Special China Edition of "The Alpine Gardener" (AGS Bulletin, Vol. 70, No.3 from 2002) and also in the book "Gentiana" by Jürgen Matschke, published by the "Gesellschaft der Staudenfreunde e.V." in 2009 (in German) where several photographs can be seen (though some names of the illustrated gentians are in doubt) and an attempt is made to give some hints for their cultivation. Such information is rare elsewhere; except for *Gentiana syringea* and *G. rubicunda*.

The annual gentians of the sections mentioned are mostly dwarf plants with beautiful flowers in blue, violet, pink and white. Most form small tufts or even cushions with small leaves and have typically formed flowers with plicae nearly the size of the main petals like their European relatives *Gentiana pyrenaica* and *G. boryi*.



Gentiana haynaldii with *G. veitchiorum*, Zhongdian

Some of those plants are also to be found in flower in autumn. Around Zhongdian (Shangrila) *Gentiana haynaldii* is common and still in full flower in September/October. It grows in the subalpine to alpine belt and can be seen flowering together with *Gentiana veitchiorum* and *Leontopodium souliei*, to mention a few of its companions near Zhongdian.

---International Rock Gardener---



Gentiana curviphylla, near Kangding



G. squarrosa, Balang Shan

Other examples of annual gentians with blue and violet flowers, all seen by us in Sichuan, are *G. curviphylla* (one of the most beautiful), *G. squarrosa*, *G. aquatica* var. *pseudoaquatica*, and *G. nanobella*.



G. aquatica v. *pseudoaquatica*, near Dege

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G. nanobella, near Chola Pass



G. leucomelaena



G. syringea, West of Kanding, Sichuan, photo Jozef Lemmens

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Gentiana leucomelaena, a species with white flowers, is not rare and grows in rather moist places. The plant pictured was photographed south west of Batang.

In “The Flora of China”, *Gentiana syringea* is the correct name for one of the few plants found rather often in cultivation and seeds of it are sometimes found in the seedlists.

Halda, in his monograph “The Genus *Gentiana*”, does not accept that plant as a distinct species but describes it as a subspecies of *G. tricolor* and “The Plant List” follows Halda. Whatever: it is a nice little plant with pinkish flowers.

Several years ago we grew it from seed. We had a pot full of seedlings which flowered the second year after sowing and seeded themselves in the sand where the pot was plunged. We rejoiced to finally have a very beautiful new “weed”, very welcome in the whole garden, but unfortunately the plants disappeared without flowering and we have lost it now. This year’s seed distribution of the SRGC enables us to have another try.



G. rubicunda, Sichuan

One of the most beautiful species is *Gentiana rubicunda* because of its flowers which are almost red in colour. It is a plant we have seen at different places in Sichuan where it grew between rocks, sometimes even in crevices. In the Wolong/Balang Shan area it sometimes had as a nice neighbour *Primula kialensis*. *G. rubicunda* is seen sometimes at shows and there is a good description in the AGS Bulletin where it has been mentioned four times. Also, for us it is one of the few examples which we and friends have grown, but in the open garden. There, it sometimes survives after flowering and flowers again the next year. Seed is not always set and does not always germinate. It seems that the seeds do not have a long life span. In return for that, the seeds – as with most other annual gentians – ripen very quickly and so it is possible to find seed

---International Rock Gardener---

together with flowers. The seed pods open without becoming really dry and the seeds per capsule are not very numerous. In the open garden we grow *G. rubicunda* in a mixture of sand, pumice and peat with a little feeding twice a year and no full sun.

At last I want to mention an annual gentian we have seen twice in autumn near Napa Hai. It is *Gentiana delavayi*, in our opinion, and a member of the section *Microsperma*.



G. cf. delavayi, Napa Hai

We found images of it in some books and on the internet, but there is confusion regarding its name. The last photograph is published in "Guide to the Flowers of Western China" (Cribb and Grey-Wilson) where it is called *Gentiana crassula*. But *Gentiana crassula* is a quite different plant in the section *Chondrophyllae* and should have been easily distinguished from the plant shown. A keen specialist of the genus *Gentiana*, Yuan Yong-Ming (a Chinese botanist who worked in Switzerland and had his own website) displayed several images of gentians on the internet. There are two of Yuan's photographs of the plant in question with two different names: *Gentiana delavayi* and *Gentiana ?picta* on the website of the Belgian [Herman Mylemans](#). Both species belong to the section *Microsperma* in "Flora of China", but *G. picta* is a more slender plant than the compact growing *G. delavayi*.

A surprise for us occurred when we were presented in 2010 with a calendar from our host in Zhongdian. It was a calendar with 12 photographs of gentians. And one of these images was again *Gentiana delavayi*. The photographs and the calendar were made by the botanist Fang Sheng Dong who is the leader of the botanic garden in Zhongdian (now Shangrila) and who is the author of the book "The Wild Flowers in the Hengduan Mountains in Yunnan China". But in the calendar that gentian is provisionally called *Gentiana shangrila*, a new species not known before!

---International Rock Gardener---



G. shangrila from the calendar

Back to the plant itself: it was easily found beside the road which leads around Napa Lake (near Zhongdian) and on the 23rd of September 2010 was flowering abundantly on rocky steep slopes. With it were growing *Saxifraga candelabrum* (mostly past flowering), *Corallodiscus flabellatus*, ferns, and *Daphne calcicola*. The plant was not yet at its peak of flowering but a few flowers were over. We collected a little seed with very small grains (hence section *Microsperma*). These were sown in 2010 and we have not had any seedlings. Perhaps the seed was not ripe enough. The confusion with the identity of this gentian is only one example of the existing deficiencies we (and also some botanists) have noticed with the determination of obscure plants. The determination of plants only by photographs is difficult or impossible. So with some of the names in this article we could, or should, have used "cf." too.

But for the rock gardener the plant is more important than its name.

Hopefully more species of annual gentians will be introduced and a growing knowledge about their cultivation will make them durable components of our rock gardens. D.Z.

---Plant Portraits---

The Yellows: Some notes about a selection of yellow flowering violets by Gerd Knoche

Obviously the colour violet crosses one's mind when thinking about the genus *Viola*. For instance the Latin term 'violaceus' – a bluish purple - was derived from the name of that plant.

At least in Europe all shades of blue from nearly white to dark purple are dominant while other colours, such as pink, red and yellow - are rarely or never found.

The species of the section *Melanium* (the pansies) represent an exception where all these colours exist.

Conditions in eastern parts of Asia and Japan as well as in North and South America, where a considerable percentage of yellow flowering violets occurs, are quite different.

Most of them belong to the *Chamaemelianium* section (*chamae* = dwarfish, low, small and *melanium* = pansy) – in other words 'little pansies'.

Starting with two European representatives I would like to represent a selection of some yellow flowering species.

---International Rock Gardener---



Viola cf. *biflora* Western Sichuan

The two-flowered yellow violet - *Viola biflora* L. is placed in section *Dischidium*, but recent research showed that it should be united with the *Chamaemelum* section. It is distributed in the Alps, circumpolar in Northern Europe, Asia and North America.



It has creeping stems and small, kidney-shaped leaves and pairs of small, bright yellow flowers (despite its Latin name *biflora* = twin flowered, it is sometimes single), the petals are veined with dark stripes. In the garden it prefers a cool position in gritty soil.

Because it is adapted to regular snowcover in its native haunt it is frost-sensitive and needs some kind of protective covering in winter.

Interestingly *Viola biflora* is found isolated as a relic of the glacial period in North Rhine - Westphalia (Bestwig - Olsberg).

Viola cf. *biflora*, near Zhongdian

---International Rock Gardener---

There are a many closely related species, most often from Eastern Asia.

A plant hardy enough for cultivation in a trough is *Viola szetschwanensis* from the mountains of West Sichuan, Tibet and North Yunnan. It has erect stems up to 25 cm. The solitary flowers are found in leaf axils in the upper part. The densely brown dotted capsules are a distinguishing feature. As opposed to its preceding sister the flowering time extends till the beginning of summer.



Viola szetschwanensis

A violet of a completely different appearance is *Viola scorpiuroides* Coss.- the scorpion violet, which occurs in Europe solely on the islands of Crete, Kythera and Antikythera, while the main distribution ranges from Jordan and Israel over NW Egypt to Libya.



Viola scorpiuroides

---International Rock Gardener---

Together with its 'cousin' *Viola arborescens* and *Viola decumbens* from the Cape Province it is placed in section *Xylinosium*, where these unusual shrubby species are united. It has a woody, branched base and can reach a height of about 80 cm. The small leaves are spatulate to lanceolate. The tiny flowers are sweetly scented and show two funny black spots on the lower petal.



Viola scorpiuroides habitat

The accompanying photos were made near the Toplou Monastery in Eastern Crete and surprisingly, I found this species also on coastal hills close to the famous palm-fringed beach of Vai. Cultivation in deep pots in an alpine house is not too difficult although the plants seem to lose their stunted habit which is a reaction to the arid conditions which it experiences in nature. Propagation by means of half-hardy cuttings works well.



Viola brevistipulata

Now I would like to consider two East Asian species, both typical representatives of the *Chamaemelanium* section.

Viola brevistipulata W. Becker has a wide distribution in Japan, from Hokkaido to southern Honshu and also in Korea, where, in light shade, it often covering large areas. It has fairly thick rhizomes and erect stems up to 30 cm. The leaves are broadly ovate to rounded, wavy toothed. There are several really

---International Rock Gardener---

nice varieties, such as the compact-growing var. *hidakana* with lanceolate leaves and rich yellow and scented flowers and var. *laciniata* with deeply cut leaves. It seems *Viola brevistipulata* is best kept in the shelter of an alpine house at least during the cold season. Several attempts with outdoor cultivation failed in the long run, although some moderate winters were survived.

Viola aff. xanthopetala

The second example which I would like to represent here is an exceptionally attractive plant which I received via a friend. This plant was originally acquired from a Czech nursery as (incorrectly named) *V. collina*, Ussuri River Region. Later on, after consulting a violet specialist who was familiar with the area mentioned above, the most fitting name to choose seems to be ***Viola aff. xanthopetala*** Nakei. This is a plant with relatively big sized bright yellow flowers which appear together with the unfolding foliage. Later the leaves



became broadly ovate and relatively large. In autumn a pronounced winter resting bud is formed similar to those of some primula species. Knowing that the Russian Far East experiences a maritime climate with snow cover on a regular basis I did not dare to try this species outside in winter. Unfortunately multiplication via seeds failed until now, so there was no chance for an experiment with some test plants. Concerning this species I want to note that (especially) East Asian violet species at large are incompletely explored and lack a revision on a basis of transnational cooperation. There is a lot of confusion, for instance *Viola xanthopetala* is also listed as a synonym of *V. orientalis*.



Also in section *Chamaemelanium* is ***Viola sheltonii*** Torr. - Shelton's Violet - from northwestern North America. Only 10–15 cm in height. Lovely blue-green, dissected leaves. Flowers yellow, the upper petals purple-brown on the backs, and the lower three with brown-purple veining, appearing from March to June.

Cultivated in the alpine house it seems to be the

easiest species within a group of closely related species (subsection *Chrysanthae*) occurring in arid regions from Washington to California. In its vegetation cycle and growth habit it is similar to *Anemone nemorosa*. Just as some early flowering bulbs, this violet requires a soil that is on the dry side during summer dormancy. The species seems not to be very persistent.

---International Rock Gardener---

From Patagonia (Argentina and Chile) comes *Viola maculata* Cav. which is placed in the predominantly yellow-flowering section *Chilenium*. It has creeping rhizomatous non-blooming stems, rooting at the nodes. The leaves are broadly lanceolate to ovate, crenate to serrate with black marginal glands which are lacking in the superficially similar looking *Viola reichei*. The long stalked flowers are of a rich yellow, often with brown guide lines.



Viola maculata

The specimen pictured here was found near the Termas de Chillán (Chile) growing under *Nothofagus* trees in black volcanic ash.

Outdoor cultivation with some kind of rain protection during winter seems to work, but to be on the safe side the shelter of an alpine house is even better. Seed set and germination are excellent.



Left: *V. altaica*, pale yellow Above: *Viola altaica*, yellow

Finally I don't want to ignore the *Melanium* section (the pansies) where, as mentioned above, the colour yellow is widespread, even as a variety of a species which usually flowers in different shades. So, for instance *Viola altaica* Ker Gawl. occurs in cream, yellow and violet. Its distribution extends from NW China, Mongolia and Siberia to the Caucasus and the Ukraine. It is a typical pansy with slender rhizomes, the short stems are densely covered with numerous leaves. The plant shown here from the Zigana pass in NE Turkey often is classified as *Viola altaica* subsp. *oreades* or *Viola oreades*. This plant is well suited for the garden where it prefers a sunny position in humus-rich, well-drained soil. Just as with the majority of the pansies there are some losses to be expected after hard winters. Propagation by means of cuttings is easy. So it is recommended to keep some rooted young plants inside to replace missing ones if necessary. G. K.

---International Rock Gardener---

---Gardens in the Mountains---

In the UK we are enjoying the crocus at the moment but in the mountains their season can begin much later. **Kata Jozsa** sends us some pictures, taken by her husband **Ferenc Zoltan**, of *Crocus vernus* subsp. *albiflorus*, taken in the Dolomites where in some places these grow en masse. Kata writes: It's interesting that we found only two places rich in crocus; one below the Zahnkofel not far from the Sella Pass and the other above the San Pellegrino Pass. Here there were large fields of crocus but we found them nowhere else.



Crocus vernus subsp. *albiflorus* – Zahnkofel

---International Rock Gardener---

The first "crocus field" was near the track as you go from the Sella Pass to the Rifugio Sandro Pertini. As we paused there on all fours to photograph, a couple came along the track and the man shouted in English - 'What plant is that, please?'

- 'Crocuses', I told him.

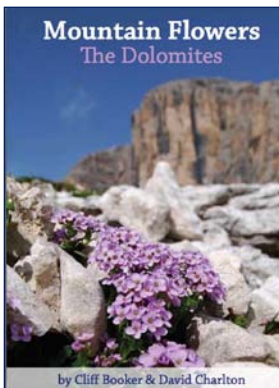
- 'Ah, crocuses' - he sounded a little disappointed - 'I thought it was Edelweiss.'

I should have told him it was a little too early for the edelweiss, but he went on by. It was 22nd June. The crocus monopolized a large area with no other flowers blooming nearby at that time. On the other side of the rather wide track were no more crocus, but there we found *Gentiana verna* in blue and lilac forms, *Pulsatilla vernalis*, *Primula halleri* and *Trollius europaeus*.



Crocus vernus subsp. *albiflorus* San Pellegrino Pass

The second land of crocus was above the San Pellegrino Pass. We wanted to go to the Sella Pass which is the upper end of the famous Monzoni Tal. There is a cablecar from the San Pellegrino Pass to some height, but being 24th June it wasn't yet running, so we had to walk. This was lucky because otherwise we would have missed that crocus field. It was even more luxuriant than the first. Nearby there grew also *Ranunculus kuepferi*, *Gentiana acaulis*, again *Trollius europaeus* and later on *Soldanella alpina*. None of these were mingling with the Crocus flowers. We did see some other crocus-like leaves, much broader than the *Crocus vernus* subsp. *albiflorus* leaves, with broader whitish midvein. These grew also in abundance but no flowers at all. I don't know about any other Crocus species growing in the Dolomites so, for now, this remains a puzzle. K.J.



Ed.: For those of you enthused to embark upon a mountain flower holiday by Richard Green's article last month and captivated by Kata and Ferenc's photos from the Dolomites, a new book from two friends well used to the flora of those mountains is now available. Cliff Booker, known to so many readers for his superb articles on the SRGC website, "[The Dolomites Land of Coral mountain of Dreams](#)" has collaborated with [David Charlton](#), who is also an experienced holiday guide in the region to produce a truly pocket-sized book which covers more than 140 plants from the region. This is well laid out, simple to use and just the thing that any visitor needs to help them make sense of the plants they find. Collett's of Saffron Walden in Essex are the named suppliers for [retail sales of the book](#) available for £9.95 plus £1.65 p&p. ISBN Number: 978-0-9571628-0-8.