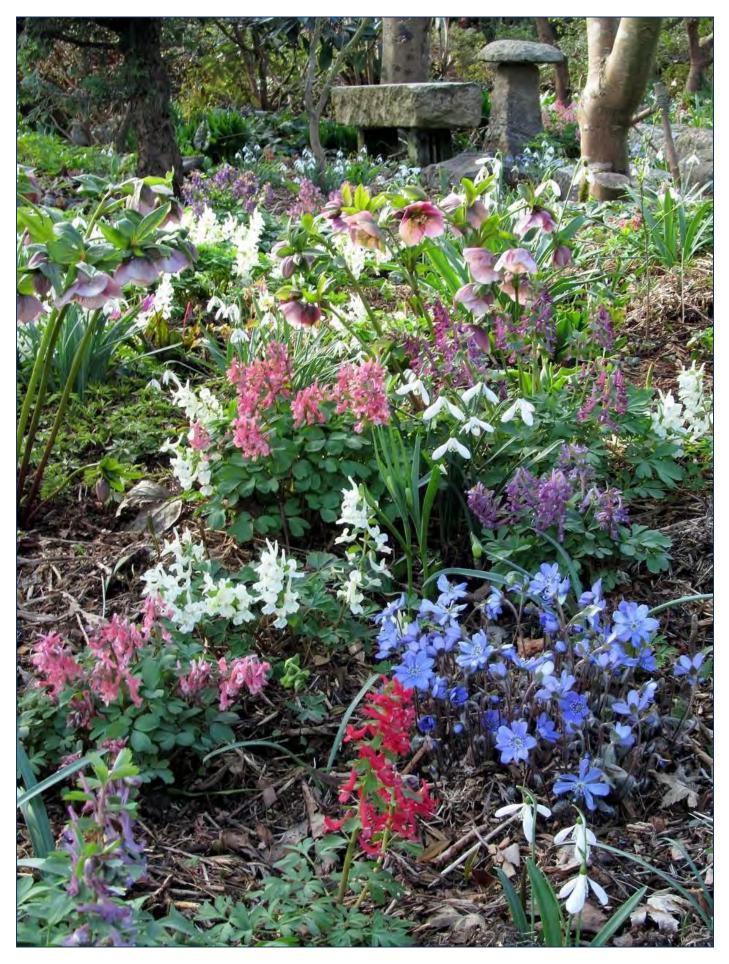
International Rock Gardener



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Ian Christie, former SRGC President has been lucky enough to travel to see plants in nature in many parts of the world but he never loses sight of the beauty that is available in his own country, Scotland. Scottish Mountains may not be the highest, but the landscape can be dramatic and plants of the mountain and woodland can be found even almost at the edge of the sea. Ian shares his delight in such plants.

Another former SRGC President, J. Ian Young, writes for the 'world of bulbs' on one of his favourite tubers, Corydalis solida and the garden forms of this plant that do well in North East Scotland. Ian has documented his experiences growing bulbs corms and tubers every week since 2003 in his Bulb Log Diary on the SRGC Site.

Cover: Spring display with Corydalis, photo by J. lan Young.

----Gardens by the Sea---

The Golspie Expedition

text and photos lan Christie

My wife and I make an annual pilgrimage, usually in June or July, to Golspie, around 60 miles North of Inverness. We stay with our son in law's parents; from this base it is easy to reach most of the area around there and on up to Wick and Thurso. We have found many interesting sites where the very best Scottish native flowers grow: these frequently bleak wet, windy and dismal landscapes are the home to some of our real treasures, too often forgotten. Our first port of call is to Little Ferry on the outskirts of Golspie where a thriving ferry once plied the waters of the inlet to Loch Fleet.



A short way before this is Balblair Wood, a magnificent tall pine forest seems to touch the sky. On a meandering path through this forest you can find (left to right below) Linnaea borealis (Twinflower) and the rare *Moneses uniflora, Pyrola minor* on the track edge with the pristine white spirals of *Goodyera* repens carpeting the forest floor.



We walk about one mile along this track then head towards the edge of Loch Fleet to a large flat grassy area partly surrounded by water. *Armeria* in abundance here, but great excitement as we also see many plants of **Centaurium erythraea** (a pink gentian relative). I am sure these will all be submerged at high tides.



Above: Loch Fleet habitat

Below: Centaurea erythraea







Orchid colony

On the raised sand dunes at Little Ferry on the edge near the sea we find a magnificent colony of early purple orchids **Dactylorhiza purpurella** which were all over this area in small numbers. Down towards the lower areas we find **Gentianella amarella** by the hundreds - this is the white form (note 5 and 4 petals). It is a biennial plant with really spectacular small starry flowers.





Five-spot Burnet Moth (Zygaena trifolii) on Dactylorhiza

Gentianella amarella

A very lucky find nearby is *Gentianella campestris* (4 petals) with stunning blue flowers (below left).





Another day we visit Dunbeath: a wild windy harbour is the place to park. We walk along the pathway towards the big white castle on the cliff edge. *Mertensia maritima* (known as the Oyster plant) with its striking blue flowers and blue leaves grows on the rocky shore and also amongst the reddish brown sand (below).



Dunbeath cliffs







The beach at Dunbeath is surrounded by rugged cliffs where



Silene maritima (left) cascades over the edge with the ever-present Armeria maritima (above) and dainty yellow Alchemilla alpina, Alpine Lady's Mantle (right). [Armeria maritima, Sea Thrift, featured on the reverse of the "thrupenny bit" UK coin issued between 1937 and 1952.]



On to Glen Loth next: this is an experience to drive up and over a single track road, often with grass in the middle, very few passing places - I think we have met five cars over a seven year period.



We see the bright yellow flowers of the bog asphodel, *Narthecium ossifragum* (below far left) further along on a stony ledge is *Saxifraga oppositifolia* (below centre).

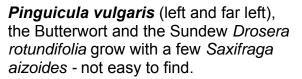


Beside a stone bridge which spans a raging torrent grows the scented orchid *Gymnadenia conopsea* (above far right) very special flowers in shades of pink, along the stony track with running water.





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Above: Drosera rotundifolia

Right: Saxifraga aizoides

Left: Water torrent





Road edged with Caithness flagstones.



'Common Blue butterfly' *, *Polyommatus icarus.*

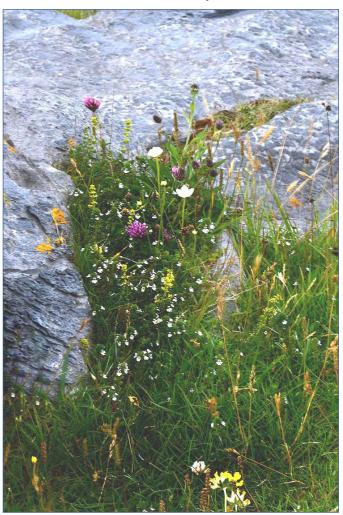
***Ed.:** We are informed that this specimen is a "slightly more blue than usual" female *Polyommatus icarus*. While the English name of this is the 'Common Blue butterfly', it must be noted that no British butterflies are 'common' nowadays. <u>This link</u> gives access to more information.

Next to Bettyhill and Strathy Point - a walk along the cliff edges - watch out you don't get blown over! Heading towards the magnificent **Lighthouse at Strathy Point** you can see *Primula scotica*, *Alchemilla alpina* and countless *Dactylorhiza* which only grow and flower a few centimetres high and the blue *Scilla bifolia*, (I never got a really good picture of that because of the wind) quite stunning natural gardens studded with colour all along the edge - watch your feet! Head towards the raging sea and if you are lucky you might see a whale or a basking shark.



Strathy Point

Primula scotica





Above: *Primula scotica*, looking to Kyle of Durness Left: Nature's garden

Back to Brora next day - near the cemetery is a field of delight like an old hay meadow which is dotted with hundreds of *Dactylorhiza* (below left) and superb *Platanthera bifolia*, the Lesser Butterfly Orchid (below right). We spent several hours here and in another area nearby to view even more Lesser Butterfly Orchids with a few *Orchis mascula*: what a fantastic day! I plan to organise a trip for SRGC members sometime in June/July - details on the SRGC Forum later. I. C.



Orchis mascula and Dactylorhiza forms.

---International Rock Gardener------World of Bulbs---

Corydalis solida as a garden plant Text and photos J. Ian Young





Ask most gardeners to make a list of the best early flowering 'bulbs' that they grow or know of and almost certainly it will include *Galanthus* (Snowdrop), *Leucojum* (Snowflake) and *Eranthis* (Winter Aconite) but unfortunately only a few will add *Corydalis solida* to their list.

I first encountered *Corydalis solida* in the 1980's and at first it did not make much of an impression on me simply because the commonly seen form then was not very attractive with rather dull purple flowers.

However soon after that, Harold Esslemont and Jack Crosland (now sadly, both deceased) gave us *Corydalis* 'Beth Evans' and *Corydalis*

'George Baker' : these did interest me - *Corydalis* 'George Baker' being a brick red colour and 'Beth Evans' a pale pink with a white stripe on the lip, they brought considerable decorative value to the garden.

For many years these were the only two forms in the garden where they added splashes of red and pink to the spring flowering bulb beds.



We grew them in lattice pots plunged in the soil to make it easy to lift and divide them. We did that each year just as they went dormant, in mid May.



Corydalis solida likes a moist humus rich soil in which the tubers can, in a good year, increase by as much as 400 percent but most years they at least doubled in numbers. We find that clumps will start to lose vigour and become less floriferous if they are not divided at least every three years.



After a number of years I started to notice self sown seedlings appearing around *C*. 'George Baker' and the resulting seedlings displayed a mix of colours from dull purple to dark reds close to the colour of the seed parent – I have never found seedlings around *C*. 'Beth Evans'. Both these cultivars have become mixed up in cultivation as many stocks are contaminated with the mixed colours of the seedlings.



My big break through was when I first got some of Janis Ruksan's Penza forms of *Corydalis solida* these introduced a much wider colour palette to our plants and the resulting seedlings are wonderfully variable. I found that in our garden seed is not set in great quantities on these plants and perhaps the

reason for that is that there are few insects around in March to pollinate the flowers. When you study a flower, it is well worth pulling one apart to study the amazing form, you can see it would require a specialised pollinator to effectively pollinate them. We have few insects flying insects around at that time, just the occasional bumble bee – not designed to fertilise the flower properly, it breaks in, chewing a small hole in the back of the flower to rob the sweet nectar reward.



I found that I could easily pollinate the flowers with a paintbrush by gently stroking the top lip of the flower downwards, this revealed the anthers, picked up some pollen then passed over the stigma, transferring some pollen on its way. This may sound a fiddly tedious task but it is quite quick and simple to do cross pollinating between different clones is always going to give better results.

If you want to collect the seed you need to be vigilant as the seed capsules can be very deceptive – in the morning they can look quite green and unripe but by afternoon the seeds can be shed. The seed is not dispersed gradually - the two sides of the seed capsule just 'let go', spilling its contents. Some care is advised to direct the seed into a container.



Stored Corydalis seed seems to lose its viability quite quickly and I have had little success with sowings of seed in the winter months. If you do want to store seed do not put it into the fridge immediately but store it at ambient temperatures for around six weeks because it is still maturing inside the seed coat and cold temperatures can arrest that late development. Also handle it very carefully as the shiny black seed coat is quite brittle and easily cracked – perhaps this is partly why stored seed does not germinate well.



I sow my *Corydalis* seed as soon as it is shed from the plants. Because the seed has eliasomes, the fleshy white attachment seen in the photo above, it indicates to me that it has evolved to be distributed by ants or other insects and that is why I sow the seed around 3 to 5 cms deep down the pot. The seed will germinate if you surface sow with just a covering of grit but because the young tubers form close to where the seed lies they will be very exposed near the surface for the first few years before they can work their way down. By sowing deeply the young tubers form deeper in the compost.

I do not repot the seedings until after the third year of growth but give regular dilute liquid feeding with a low nitrogen and high potassium plant food. After three years many of them have reached flowering size and are ready to be planted directly into the garden.



The resulting seedlings varied in colour from white, through pinks, reds to deep dark royal purple and also a muddy purple similar to those of the first form I ever saw.



The seedlings also contain a number of beautifully bi-coloured flowers that deserve our close attention to appreciate all their detail.



Pink Clone
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Many can be selected out and for a number of years I did grow all the clones on separately, building up the numbers in clumps around the garden or in polystyrene fish box troughs as above.

One in particular drew my attention being the best red I have ever seen – almost pillar-box red when the flowers first open - so I named it **C. 'Craigton Red'** (left).



Now my preference is to have plantings of all the colours mixed up together like nature intended. White forms are most valuable as they act like a catalyst helping the many divergent, sometimes clashing colours, to blend into a harmonious planting. Good white seedlings are less common and it will take some time to build numbers so we use the creamy white *Corydalis malkensis* in our mixed plantings.

Pure white *C. solida* seedling

Corydalis malkensis mixture





Corydalis solida is a wonderful plant for the early spring garden coming into flower as *Galanthus, Leucojum* and *Eranthis* are starting to fade and continuing to blend with the early flowering *Erythronium, Hepatica* and *Fritillaria* in wonderful mixed plantings. They come into flower early often starting in late February peaking in March and April then by mid May the foliage dies back as they go back underground for a long rest - leaving the space for other bulbs to use.



I can think of no other plant that brings such a display of hot colours to the early season in the garden. Janis Ruksans offers a wide range of named forms as well as mixed bags of unselected tubers which are wonderful for naturalising in your gardens. J.I.Y.