



BULB LOG 45.....7th November 2018





While so many plants are retreating underground in preparation for the advancing winter I was delighted, on a November day, to spot an open flower on this **Crocus laevigatus**. Growing here in the rock garden bed, far away



from its native Mediterranean homeland of Greece, it got me thinking again about how adaptable some plants can be. It fascinates me that this Crocus is flowering here in Aberdeen growing through the remains of Roscoea foliage alongside Meconopsis, both from the Himalaya, with an old established plant of Helichrysum (Ozothamnus) coralloides from New Zealand.

Of course as gardeners we have facilitated this international gathering by introducing these plants into the garden in the first place but we also contribute by manipulating the habitat where they are growing in this case improving the drainage by raising the ground and adding large quantities of gravel to the natural soil.

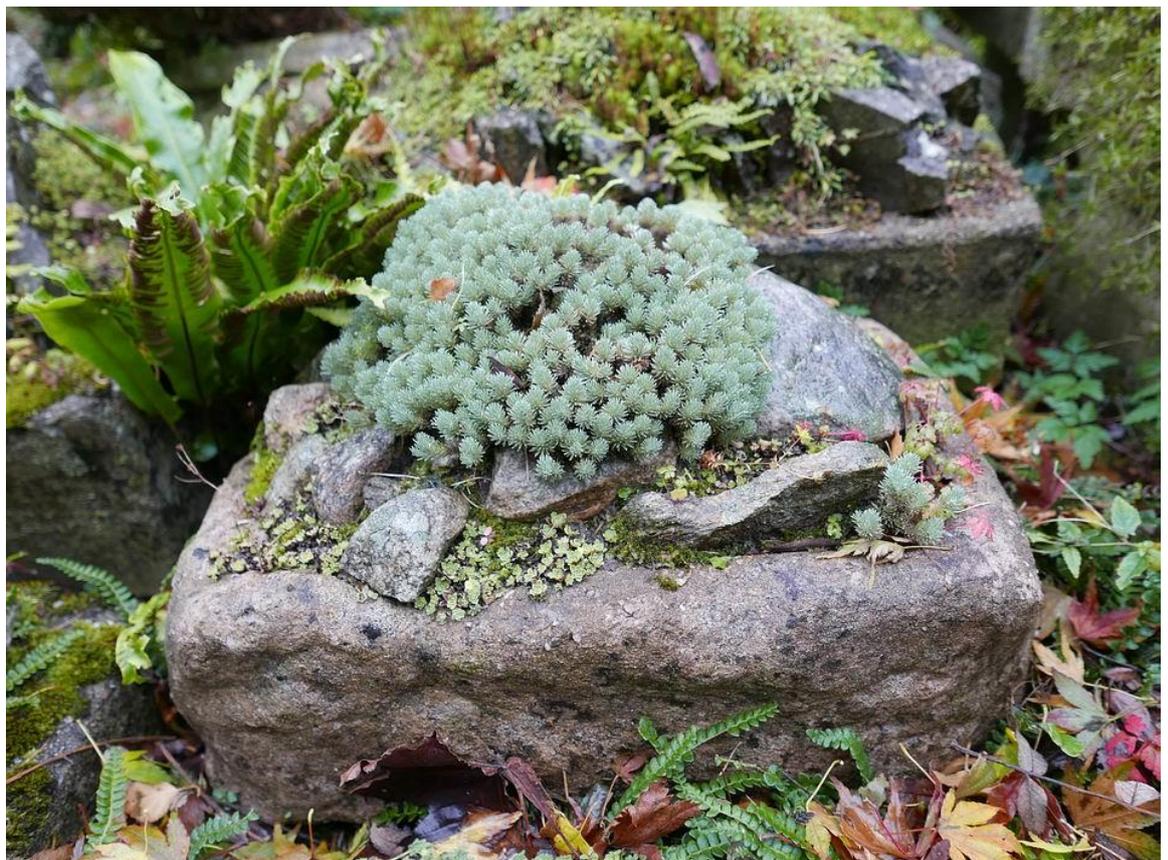


Walking round any garden you are likely to come across plants from a wide range of countries but you will find an even wider range in what is loosely described as a rock garden. Rock gardeners have an interest in plants, mostly but not exclusively, from the mountainous regions of the world for two reasons; one is they tend to be small in stature allowing you to grow many more in a given space making them ideally suited to those with smaller gardens. The second reason is they more likely to be hardy due to them having adapted to the climate of their high elevation home.

There are many ways we can manipulate the habitat within our gardens and one of the most used in a rock garden situation is the use of raised beds and troughs.

These containers, of varying sizes, allow us to adjust and fine tune the soil mix to suit a range of plants – mostly this involves improving the drainage by adding grit but we can also adjust the PH of the soil.

In this trough is another plant from New Zealand - a ten year old plant of ***Celmisia argentea***.





Even within a small trough there can be multiple micro-habitats. This is especially the case if you have a landscape of rocks raised well above the sides; then you will have North, South, East and West aspects, with drier conditions for plants near the top and moister for those planted near the rim. The roots of all the plants can explore down into the cooler moist conditions deep below the rim.



Ramonda (and Haberlea) can adapt to a trough where I have manipulated broken paving slabs to mimic the conditions, if not the looks, of its rocky Pyrenean habitat.



I always have a number of fish box troughs filled with only sharp sand which provide the ideal habitat where I can place cuttings to root - in addition I will occasionally scatter some seeds such as some *Erinus alpinus* (from a particularly nice colour form) seen above.



This is one of a number of raised beds in the garden where in addition to the plants on the top level I have also planted into the gaps between the rocks of the wall which provide alternative environments.



The stylish silver leaves of **Celmisa semicordata** stand out against the autumn leaf fall.



This time it is the narrow silver leaved **Celmisia Iyallii** also from New Zealand.



Celmisia hectorii tumbles down the face of another raised wall in which a range of plants from many countries are successfully growing.

Unintended habitat

Originally I laid the bricks used to edge this bed on their long side but with regular mulching the soil level built up and to contain the extra depth I turned the bricks onto their short edge.

I saw the bricks as a practical way to keep the soil from spilling onto the paths however some plants, mainly ferns, saw the narrow crevices between the bricks and slabs as an opportunity to be exploited





a pine growing in a concrete container.

When given the freedom to seed around plants choose their own habitat and sometimes with surprising results.

Regular readers may remember in [Bulb Log 3318](#) I showed pictures of a plant of *Epipactis helleborine* that I discovered growing in the garden which was a surprise because we have never knowingly introduced this plant into the garden.

One possibility was that the seed had arrived in with the compost of another plant however I did wonder if the fine seed cloud have been carried by the wind.

Some weeks after discovering the first plant I was again surprised and delighted to find another *Epipactis helleborine* at the base of



Epipactis helleborine

This pine has been in this pot for thirty years and apart from adding an occasional granular feed the only growing medium is the original gritty loam so the only way I can think this seed could have arrived is with the wind or rain which also means there is the possibility that I may find more appearing around the garden.



I do have to manage or manipulate some of the habitats in the garden such as the moss covered rock in the pond.

Having decided to allow the moss to grow and then sowing **Pinguicola grandiflora** I discovered that the some birds were also attracted to this feature.

They started to tear away the moss, whether they were gathering moss for nesting or searching for food I am not sure but to retain this feature I have to protect it with some chicken wire.

Pinguicola grandiflora flowering in June.





The pond and its surroundings offer many habitats that can be exploited such as this narrow marginal bed.



It is said the one thing gardeners cannot change is the weather but that is not entirely true: with the use of glasshouses we can take control of the watering and if your budget runs to it you could also have temperature control and even artificial lights to supplement the daylight.



In the bulb house we still grow the bulbs in plastic pots where each pot can receive individual attention especially regarding watering. In some pots the leaves are well advanced and it is important to keep sufficient moisture available to support this growth.



Crocus laevigatus



Crocus ochroleucus



Narcissus buds are also appearing and depending on the temperature they could soon be in flower – if it stays on the mild side the flowers will open soon if it drops closer to or below freezing they will stay tight in their buds.



The sand beds offer a more communal habitat where all the bulbs get approximately the same treatment however even in this single bed there are slight differences where some areas stay moister longer. The reasons behind this are the amount of direct sunlight causing evaporation varies, also the differing amount of leaf growth use up the moisture at different rates, then in some places drips of condensation and or leaks from the joints on the roof add to the moisture levels.



Some of the *Tropaeolum azureum* seedlings that germinated last year have come back into growth but I am disappointed not to see more as many more had germinated. All seedlings have a variation in the timing of growth so I may be premature and they may yet appear however they also have a variation in the conditions that they can tolerate so they may not all have survived in this sand bed. Growers can take advantage of this natural variation in tolerance by collecting and sowing seed from the plants in your garden then in turn collecting seed from those surviving seedlings –then every subsequent generation you raise will have further adapted to your weather and growing conditions.



Various Crocus species in flower.



I am taking advantage of the milder conditions to water the sand beds with the hose one more time before I turn off the outside water supply for the winter.

After that I need to carry watering cans from the kitchen.



As I water I notice a clump of seedlings germinating. I only sowed packets of seed we received in clusters like this and took a reference picture at the time of the seed packet in position so I will need to check back to identify what these are, alternatively I can wait until they flower in a few years' time.



Seed is also germinating outside here are some appearing through the gravel – I think they are from one of the Allium species we grow there – again I can confirm the identity when I see the true leaves and flowers.



A late **Crocus speciosus** basks in some late autumn sunshine.



Crocus laevigatus



That so many plants from around the world can grow in our garden is not so much a testament to the gardeners but to the remarkable ability of plants to adjust to these conditions something that only improves with each subsequent generation of seed you collect and sow from your garden.....