SRGC ----- Bulb Log Diary -----

BULB LOG 43.....28th October 2015

Featuring another chapter of Erythroniums in Cultivation.

Chapter

Erythroniums in the Garden

Erythroniums in the garden.

There is no doubt that, next to them growing in their natural habitat, the best place to grow Erythroniums is in the open garden where they can combine with other spring flowering plants to create a very colourful spectacle.
While they are often described as woodland plants, depending on your local climate, they can grow in a wide range of conditions from full sun to full shade. I often explain that when growing in Scotland, or areas with a similar cool maritime climate, that 'Scotland is in Shade' meaning that we rarely get temperatures above the mid 20 degrees C even in full sun - even that is a rare occasion so the Erythroniums need no shade to keep them cool.

If your garden is likely to have hot sunshine when the Erythronium are in growth then some shade from the mid-day sun would be desirable to prevent the ones particularly with broad leaves from being scorched. Their relatively soft leaf structure indicates to us that they need some shelter from strong winds which at their worst can shred and snap the leaves and flowering stem – so those species with the larger leaves such as Erythronium tuolumnense and its hybrids need more shelter than smaller growing species.

Erythronium tuolumnense growing under Rhododendron thomsonii

ERYTHRONIUMS IN CULTIVATION © Ian Young

Our garden soil is a light sandy loam with a PH just to the acid side of neutral which has been enriched over many years by an annual mulch of organic matter in the form of shredded hedge trimmings, tree and shrub prunings which are composted then applied on the surface during frost free days in the winter. I do not believe that Erythronium are particularly fussy about the PH as long as your ground is around the mid-range and not extremely acid or alkaline. I was surprised to see Erythronium hendersonii growing in very heavy clay soils in Oregon as I had always thought they would prefer a woodsier type of soil but obviously there are more adaptable than I had realised. I should add that they were mostly growing very close to the native shrubbery so I wonder if the tree and shrub roots opened up the heavy soil allowing air to penetrate thus making the difference.

So even if you have a heavy clay soil that should not prevent you from growing some Erythronium provided you add plenty organic matter to improve the aeration just as you would require for most other plants to succeed.

The treatment for heavy or light soils, such as we have, is the addition of plenty of organic matter. Almost all our beds have been slightly raised above the ground level, initially by digging in organic matter which is then replenished by the annual mulching – exactly the same treatment would improve the growing conditions for bulbs in heavy soils.

The one thing that may prevent you from growing Erythronium well is if your garden gets very hot and dry in summer – Erythroniums can survive quite long dry periods during the summer, provided they are in the ground, but it seems that they suffer if the ground around them heats up too much – this is part of the explanation why their bulbs grow so deeply into the ground. I have been asked how deep you should plant bulbs. There is no definitive answer it depends on your garden soil and weather because what the bulbs are seeking is not simply a definable depth of soil above them but the best environment, being a combination of moisture and temperature, they can tolerate.

If like us you garden in a region that has relatively cool summers then you do not need to worry too much about growing Erythronium in shade from the sun but you should consider shelter from excessive winds. If your garden gets a lot of heat and direct sun then planting them in shade would be desirable. Although it is not necessary to provide shade in our cool northern garden we do grow a lot of trees and shrubs that do cast shade where Erythroniums grow perfectly happily.

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Planting depth

When planting Erythronium bulbs you should always ensure that Western North American species and cultivars have at least 7cms of soil over the top of the bulb, they will grow deeper year by year until they find the depth that suits them best for your garden. As a general rule the bulbs of the Eastern North American species along with the Eurasian complex do not tend to grow so deeply but I still plant them so they are covered by 7cms and they tend to stay at around that depth.

The first Erythronium I would recommend to any one is **Erythronium 'White Beauty'**, a vigorous form of Erythronium californicum, that both increases well by offsets and thrives in most moderate gardens conditions; along with this you should try Erythronium tuolumnense and its hybrids such as Erythronium 'Pagoda' which are commonly available. Erythronium tuolumnense grows on sloping, wooded river banks hence it has evolved larger leaves to capture light; this means it will require shade from strong sunshine in many areas plus shelter in all areas from strong winds. We can grow it in the open in Aberdeen but it has the added advantage of also growing when well-shaded under the larger Rhododendrons.

If you can get these plants to grow then you stand a good chance of succeeding with some of the other species and cultivars. Initially you could try acquiring some of the Erythronium that are available as bulbs for sale or swap but I have no doubt that the best way to get Erythronium into your garden in quantity is by raising them from seed. Seed is available through a number of sources, primarily the SRGC Members' seed exchange (and the seed exchanges of other similar groups) then are various commercial seed lists run by both small specialist collectors and the larger seed companies.

When you first have Erythronium flowering in your garden you should always encourage them to set seed – it is often said and written that you should not let your bulbs set seed because it weakens the bulb. I have done many trials and that is simply not true. A bulb that is making seed will grow on for a further four or more weeks longer than one that has no seed forming - this additional period of growth more than makes up for the extra energy required to make seeds and I have often found that the largest bulbs were on plants that also produced seed. Apart from this, seed is your insurance of keeping a good healthy stock of plants growing on in your garden and you should collect and sow some of your own seed every year.

One of the big advantages of raising from seed is that you can gradually acclimatise plants, especially as you collect and sow your own garden seed. The survivors of each successive generation become more selected to your garden conditions and weather – to put it the other way; those seedlings that cannot tolerate your conditions will die. Erythronium sibiricum is one of the plants that, after a number of generations, we have managed to establish in the garden. This one shown here was formerly **Erythronium sibiricum** but has recently been classified as **Erythronium krylovii**.

Another success is with **Erythronium montanum** which is shown here growing in the rock garden bed.

Erythronium revolutum

To achieve maximum increase it is best to sow and raise them in pots for the first three years before planting them out into the garden but as you start to get large numbers of Erythronium flowering every year you can choose to leave them to shed their own seed naturally - I do sometimes improve the distribution by gathering a handful of seed and scattering it in other areas.

In this bed (above) Erythroniums are allowed to self-sow and on the left are a group of **Erythronium revolutum** seedlings that have self-sown into the edge of a gravel path.

Erythronium revolutum in one of the best species for self-seeding around in our garden and indeed many of the resulting offspring have hybridized, most often with Erythronium californicum forms.

An open pollinated hybrid between Erythronium revolutum and ‘White Beauty’

I much prefer to group plants in communities rather than having a clump of a single plant surrounded by bare ground. In nature plants rarely grow in isolation and this more natural style of planting looks much better. In addition the plants become a supportive community forming a beneficial environment by shading the ground, helping to retain moisture and suppress weeds.

Erythronium dens-canis

Erythronium dens-canis and the other Eurasian species tend to be lower growing and are best teamed up with plants of a similar stature – one combination we have is with Trillium rivale which flowers around the same time. The paler-coloured group in the foreground are self-sown seedlings from the main clump which is a single pink clone.

Erythronium dens-canis with other low-growing spring bulbs.

Erythronium japonicum

Erythronium japonicum flowering with Dicentra cucullaria.

Erythronium japonicum is a very beautiful species which, since getting a few bulbs some years ago, we have been raising from seed, collected from these few plants, this both builds up our numbers as well as helping to acclimatise them to our growing conditions

The pink **Erythronium revolutum** greatly extends the flowering season in one of our early spring beds picking up the flowering interest from Eranthis, Galanthus, and flowering happily through Corydalis solida and Anemone ranunculoides.

The taller species and cultivars work well growing through a carpet of Dicentra or Corydalis foliage along with Fritillaria, Lilies and Trillium, etc. - they add great colour and interest to the spring garden. There are so many combinations of plants that can be enhanced by the addition of Erythronium. It is up to your own imagination what you might try out, the only limitation is that the plants must enjoy similar environmental conditions and be in scale so none will out-compete the others. They say a picture is worth a thousand words so the best way to share some of our plantings is to show you this series of pictures.

Many of the species are very slow to form clumps in the garden often staying as a single stem for many years while most of the cultivars and hybrids form clumps relatively quickly, such as the creamy white Erythronium ‘Minnehaha’ a superb garden hybrid of Erythronium oregonum raised by the late John Walker from Kent.

Erythronium ‘Minnehaha’

One of my own hybrids with Erythronium helenae as the seed parent is **Erythronium 'Craigton Cream':** the clump shown above has formed from a single bulb in just two years' of growth.

We can get snow when the Erythroniums are in flower but as you can see within a day or two the snow has melted and the plants sit back up, undamaged. A prolonged cold spell and/or wet conditions when the plants are in flower will greatly reduce the amount of seed we can get.

Erythronium hybrids growing up through the foliage of Corydalis solida and Dicentra cucullaria with Trillium rivale in the foreground.

Erythronium americanum, E. revolutum and E. dens-canis (flowers just gone over) are in perfect harmony with Trillium rivale and Anemone x lipsiensis – all growing under some dwarf Rhododendrons.

Erythronium californicum and Erythronium revolutum catch the light, standing out against the shaded background.

Pink and white Erythronium hybrids flowering along with Fritillaria meleagris rise above a carpet of low growing spring plants.

The taller growing **Erythronium 'Susannah'** (above) - which in my opinion is the most beautiful of the yellow hybrids, was also raised by John Walker - combines well with some Trilliums.
Here mixed colours of Erythronium are growing through Arum leaves. Although large clumps of a single form are impressive I always prefer mixing up the colours when I get the opportunity.

A group of **Erythronium hendersonii seedlings** shows how promiscuous this species can be as the largest flower is a hybrid.

On the right- **Erythronium revolutum** growing in the gravel area of our driveway. Along with all the other plants growing there it was introduced by me just scattering some seed. The seed of these plants is left to shed back into the gravel.

The same section of driveway photographed a few months later on shows the ripe and open Erythronium seed pods, I do sometimes take a handful of seed and help distribute it along the length of the gravel area. The other plants you see all grow in perfect harmony illustrating how you can grow suitable plants perfectly successfully in the same place as Erythronium.

Two views of the same bed taken around eight weeks apart show how well Erythroniums fit into planting schemes.

Even in our cool moist garden the Erythronium leaves will disappear by late June/ early July with just the stems holding the ripening seed capsule remaining so other plants such as Arisaema, Dactylorhiza and Lilies can share the same space and extend the flowering interest of a bed.

ERYTHRONIUMS IN CULTIVATION © Ian Young

When growing plants so intensely as we do we have to consider feeding– for the most part we do this the natural way by recycling all the seasonal growth, deciduous leaves, prunings, etc, even weeds, through the compost heap then returned to the soil with the annual mulch so we are not removing the goodness from the ground. I will only add fertiliser where I think there is evidence that the plants are suffering a deficiency of some sort. Weak growth or chlorotic leaves indicate that I should add some nitrogen which I will apply sparingly as a N-P-K, 7-7-7 granular , preferably one that also contains trace elements, just as the first signs of growth appears in the early spring. If the Erythroniums are not flowering well then you should apply a soluble form of Potassium (K) as the flowers fade.

Other reasons the plants can lose vigour is if they form congested clumps - the increased competition means that none of the bulbs can get sufficient moisture or nutrient to grow well- so it is then time to lift and divide the bulbs. The ideal time to lift and split most bulbs is as the foliage dies back at the end of the growing season. The old leaves act as a guide to where the bulbs are located but not at what depth they might be. It is best when digging up the clump that you assume the bulbs will be much deeper than you think so dig carefully, in from the side where possible, until you locate the bulbs. Inevitably some bulbs will get damaged or broken when you lift them but do not discard them, plant all the bits back as some if not all of the broken pieces are capable of forming a new bulb.

Here a group of Erythronium oregonum seedlings are about to be overgrown by a shrub, Vaccinium numularia, so I decided to move them.
There are two ideal times to move a plant: the first is the ideal time for the plant which is as it enters its dormant period however the other ideal is when it suits or when the gardener remembers. I had intended to move this clump as the leaves yellowed the previous year but forgot - now it is better to move them in full growth than risk leaving them to be overgrown.

I dug a hole adjacent to the clump and worked carefully in from the side until I located the bulbs - I could then remove them with minimum damage. Erythroniums do not make extensive root systems - I suspect that they can absorb moisture and nutrients directly through the bulb as well as their roots.
In idea circumstances I would not suggest that you lift Erythroniums in full growth but **with care** they can be lifted and replanted at any time of year. With a bit of extra watering this group grew and flowered with no apparent ill effects.