

These giant hybrid Lilies growing in our front garden are a bit too showy for my taste. We bought them many years ago when they were growing as a pot plant then after they flowered I planted the bulbs in the front garden. Every year they appear producing their magnificent beautifully scented flowers that seem irresistible to the hover flies. This year they seem to be enjoying the hot conditions because they have as many flowers as I can remember seeing on them. Growing in the



north facing front garden they only get sun in the early morning and late evening so the ground does not heat up much, in addition to that they rise up among the trees and shrubs through the jungle like undergrowth of plants that shades the ground and typifies our garden style. Through time most gardeners learn to grow the plants that are most suited to their local weather and climate and indeed the majority of plants that we grow are suited to cool moist conditions with moderate temperature extremes. The changing climate is resulting in us experiencing hotter drier conditions which neither suits the gardeners nor many of the plants we grow; and for many, watering is not going to be an option. We have to react by building in resilience to these hotter drier conditions by way of adapting the habitat as well as seeking plants that will tolerate these new conditions; so I look to nature for lessons.



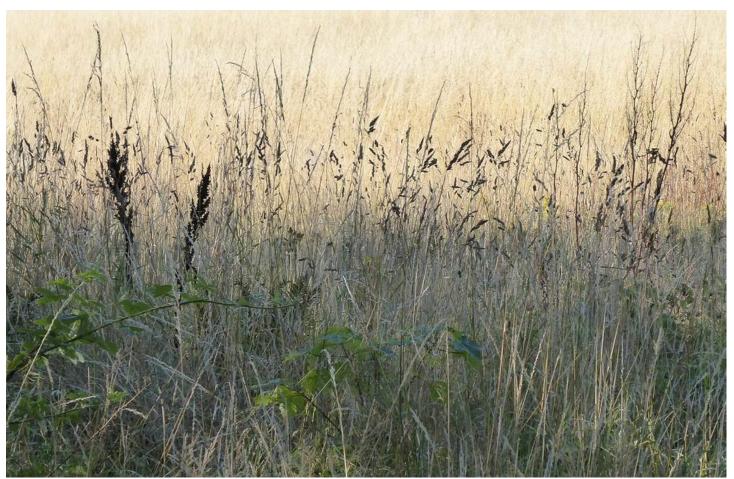
There is a cool lush look to this scene with Typha latifolia (Bullrush) that I pictured this week but there is more to this scene than meets the eye.



This is Coupers Pond, part of an old estate where I walk on a regular basis and all the warm green growth surrounding the Bullrushes should be under water – the pond is drying up. The pond is fed by a small burn that runs down from the wet fields of and while there has always been a seasonal change to the level of the pond I have never seen it this low. There is more to this than just climate change, because a few years ago a large development of houses was built on the Countesswells fields totally changing the drainage, reducing the flow of the wee burn that fed the pond. I will be interested to see how/if the level increases when we get wet weather.



This wild grassland area is part of the same estate where I can observe how plants cope in what we in the north call hot dry conditions. The first and most obvious lesson is that nature does not allow bare ground – apart from the narrow trodden path plants, mostly grasses, completely cover the ground.



Many gardeners like to keep the ground around their plants clear which is the worst thing they could do in hot dry weather as the highest evaporation rates are from the dark bare flat ground. In rock gardens plants are often surrounded by gravel which is a big improvement over bare ground but still not as good as the continuous blanket of plant growth like this field of grasses.



Although it is not the richest flora there are a some plants growing among the grasses including a number of thistles which are seeding now.



Thistledown.



There is one area where they are trialling different wild flower seed mixes and among the successes is **Centaurea nigra** which may be a suitable plant to bring summer colour and interest to the bulb beds.





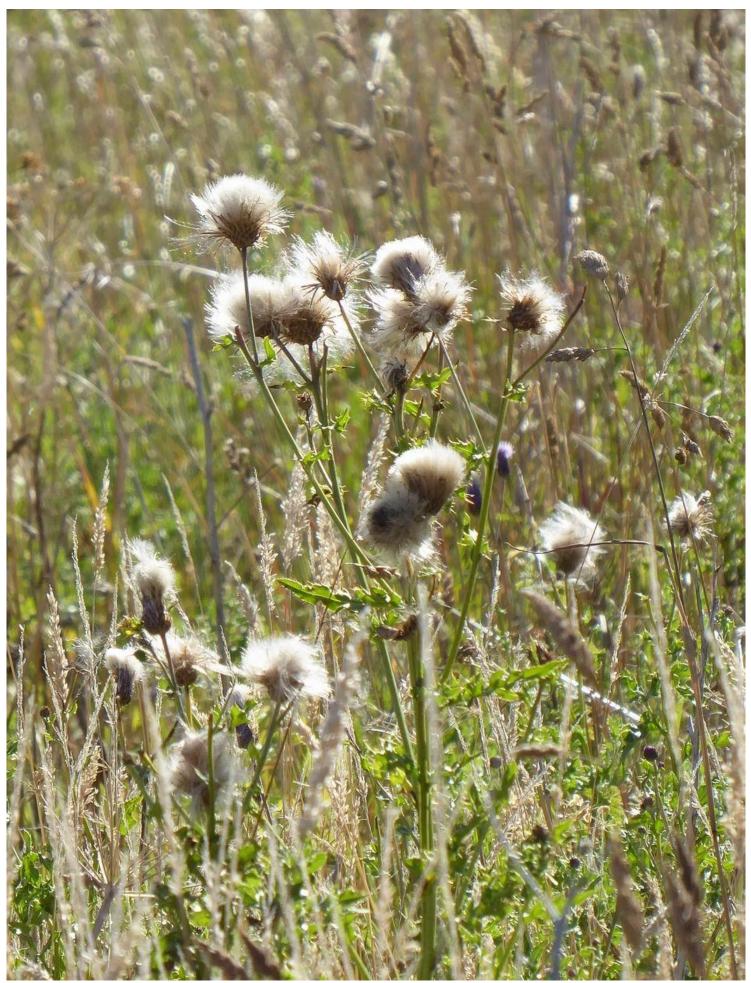


Achillea millefolium

These plants, commonly called weeds, are decorative and have evolved to cope in these hot dry conditions in addition they support a wide range of insects which in turn leads to greater biodiversity.



Senecio jacobaea - usually in dry, open places



There is obviously a lot we can learn from the wild plants that grow in our locality and perhaps we can bring more of them into our gardens to grow mixed among with the more exotic species and cultivars that we like to grow. A word of caution: you need to avoid any plants that could become uncontrollable and especially any that are on the invasive species lists for your location.



It is not just the hot dry exposed areas where I can learn from nature. In a corner of another area where I walk there is a copse of relatively young trees that I have paid little attention to until this week. When I walked towards them I spotted a carpet of foliage spreading out in the deep shade of their continuous canopy – it was so dark I had to use the flash on my compact camera to get a suitable image of this mystery plant.



There were no flowers but on inspection I found that it had a square stem which immediately drew me to the nettle family, Lamiaceae, and indeed the decorative silver markings on the leaves identifies it as **Lamium maculatum.** There are a number of cultivars of this plant available in the nursery trade and we have several areas of dark dry shade where such a plant would be suitable so a small cutting came back with me.



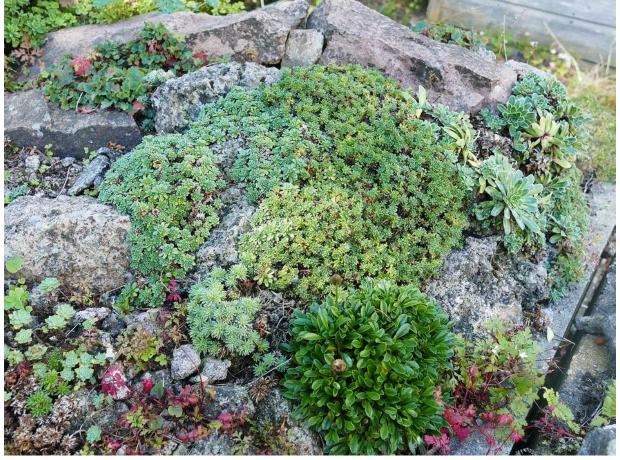
One morning while sitting looking out the window at the garden beyond I became aware that something was looking back at me. I had to shift the focus of my eyes just as I had to use the manual focus on the camera to sharpen the reflections on the glass rather than the trees and shrubs beyond where a portrait selfie sketch and a mask I carved appeared. To actually see what you are looking at is a lesson learned by most artists but it is also useful in all aspects of life including gardening.



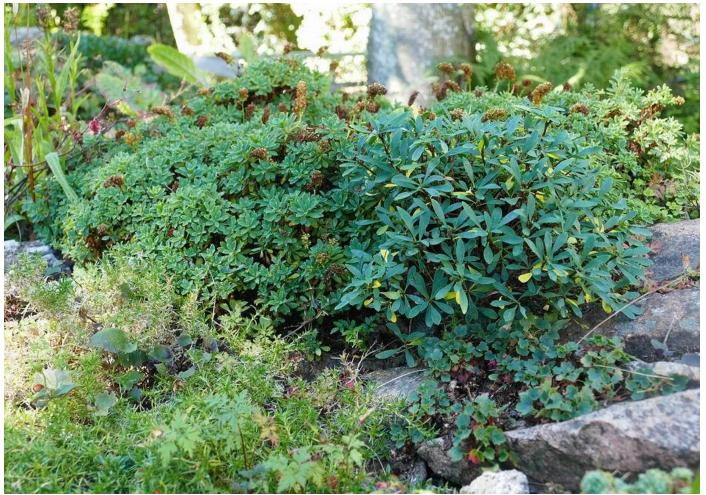
We use ground covering plants where ever we can including in the Erythronium plunge frames where we encourage Geranium robertianum to seed around, shading the ground keeping it cooler and moister than it would be with just the mulches we use.



Rock gardeners are used to building habitats that mimic those we observe in wild mountainous areas and many of the rock structures we build help plants cope with the harsh dry conditions. The shade cast by the trees ensures that nowhere in the garden is in full sun all day and as we notice a marked difference in temperature and atmosphere as we pass in and out of shade while walking round the garden.



Gardening in the north we have not worried about growing plants in full sun until recent years when we have started to find some of the saxifrages dying when exposed to the full sun. Uneven rocky landscapes will cast shade and the plants often grow into that shade but the rocks also heat up and I find the plants do best where they start to merge into each other forming a continuous mat covering the rocks.



**Petrophytum hendersonii** and a dwarf, white flowered Daphne cultivar that we were given: both of which seem to be able to cope with the warm dry conditions.



These silver and European saxifrages, growing on the shaded north side of the rocks, can take the heat a lot better than the Himalayan forms and cultivars.



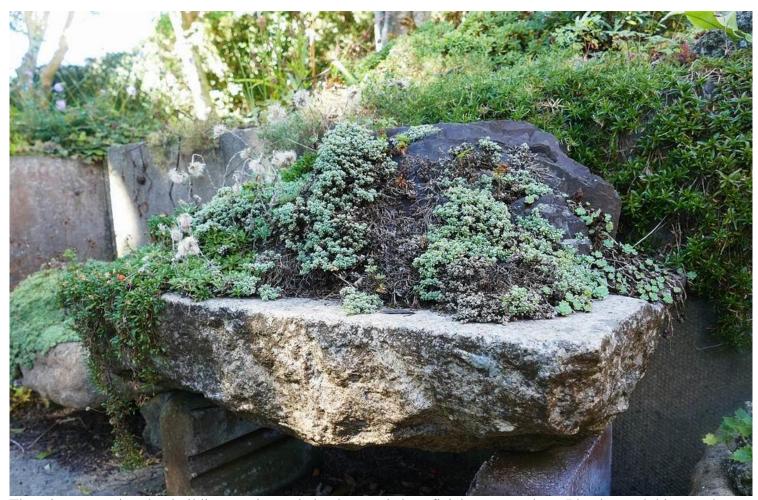
To improve the look of the saxifrage I removed its old dried flower stems as you will see in the next picture. However looking again as I write I cannot help but wonder if these old stems could provide an element of shade if the plant was exposed to the sun – hypothetical as this trough is mostly in shade.



This trough illustrates a dilemma I face when these mat and cushion forming plants start growing over and hiding the rocky landscapes that I create. There is a point when the balance between exposed rock and plant is at its most attractive but the plants keep growing forming a mound on top of the trough to the extent that you would not know there are rocks there at all. The rock crevices are still benefiting the habitat even though we can no longer see them and the green carpet keeps the habitat cooler reducing the evaporation rate benefiting the plants.



There is a nice balance between rocks and plants in this trough.



There is no question that building crevice style landscapes is beneficial to many plants I landscaped this trough using old roofing slate around 1990 and most of the plants are original to that time. Creating the height greatly increases the volume of soil encouraging the roots to explore the cooler depths and I rarely ever water it.



I first planted the **Raoulia australis** in the right hand corner at the level of the rim and through the intervening years it has spread out and moved around as you can see. In cool moist years it forms an almost complete mat over that quadrant while some areas suffer die back in hot dry seasons, such as this year, some parts always survive.



Erigeron scopulinus spreads out across the other half of the trough covering the landscape and the sides.



**Androsace studiosorum** is another plant that has moved around a slate crevice trough for many years. The new rosettes form at the tip of stolons and we occasionally help those that cannot find a home by placing them in a suitable crevice.



It is the plants that select us rather than the other way round and I am always looking to propagate from the forms that thrive in our garden such as the Saxifragas that form a continuous mat over this side of the trough while others planted at the same time have died out.



The Urtica dioica the stinging nettle is a valuable host plant for many insects here it is in full flower.



There is a certain irony while I write about what we can learn from nature to assist our plants and gardens survive in the hot dry conditions that it has been raining for the last two days. So under today's grey skies I will end with these two pictures of wild plants set against the clear blue skies from earlier in the week............