

International Rock Gardener

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This IRG is something of an 'Australian Special'. Jamus Stonor brings a large selection of Australian orchids; Alan Ayton takes us on a trip in the Victorian Alps and Fermi de Sousa shares some of the plants in his garden in the month of October as Spring brings its delights.

Cover image: *Olearia frostii*, photo, Alan Ayton.

We met Alan Ayton for the first time last month – when he wrote about hiking trails in Tasmania - and I think it is clear that he and his wife take every opportunity to hike in the Australian landscape that is so appealing to plant lovers and outdoor enthusiasts alike. This month he hikes nearer to home.

[Jamus Stonor](#) (right) lives with his wife and children in the hills behind Adelaide – the whole family enjoys growing plants at home but also love to get out and about to discover the natural wonders abounding in nature.



Fermi (centre) and Will (right), with a New Zealand friend of SRGC at one of the wonderful Czech International Rock Garden Conferences.

Fermi de Sousa and his partner, Will Arthur, are keen gardeners at their home in the countryside near Redesdale, in Victoria, Australia. Fermi has lived in the USA and they have family abroad and they love to travel, visiting Europe whenever possible. This has brought them friends in many countries and expanded their plant contacts widely. They are deeply involved in the [Alpine Garden Society of Victoria](#) and [Ferry Creek Horticultural Society](#) and recently Fermi, with another stalwart of those groups, Ms Viv Condon, were both awarded the [John Pascoe Fawkner](#) Medal by the Royal Victorian Horticultural Society for their distinguished service -including spreading the works of those clubs to the wider world of plant lovers by means of their newsletter, blogs and participation in seed exchanges.

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--- Australian Terrestrial Orchids ---

The enigmatic orchids of the Mount Lofty Ranges, South Australia:

Jamus Stonor, text and photos.

I've been walking in the Australian bush since before I could walk; my Dad would carry me on his back and we were always looking for orchids. I learnt the Latin names for them along with the English language, though many of those names have since changed. The native orchids of Australia have such personality; complex and captivating to a child and equally fascinating through adult eyes. Exquisite function in their form; highly specialised to deceive their insect pollinators. The harshness of their environment necessitates extremes of innovation, on a tight budget.

Australia has an estimated 1800 species of Orchid in 110 Genera, with roughly two thirds of those being terrestrial. Many non-native readers will be unaware of the diversity of climatic zones and vegetation types represented within the continent of Australia. From some of the driest and hottest deserts on Earth to alpine environments, Mediterranean, temperate, sub-tropical and even tropical with unique and specific orchids inhabiting them all.



Tall Eucalypt woodland dominated by *Eucalyptus obliqua*; high rainfall area, Mount Lofty.

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Where I live in the Mount Lofty Ranges, behind the city of Adelaide, South Australia, we have a Mediterranean type climate with seasonally hot, dry summers and cool wet winters. Because of this seasonal asymmetry in rainfall, Southern Australia is a biodiversity hot-spot for bulbous plants; underground storage organs such as bulbs, tubers and rhizomes are a feature of many herbaceous perennials. There are representatives of many well known bulb families here but often distinctly different from their Northern Hemisphere counterparts. This is especially true of our orchids; many are wildly divergent from the familiar forms. In South Australia all of our nearly 300 species of orchids are seasonally dormant, terrestrial, tuberous herbs.

Within a 50km radius of Adelaide rainfall varies from 1100-1200mm per annum around the highest peaks of the Mount Lofty ranges down to an average of 300-350mm per annum on the Murray plains East and North of Adelaide. The wetter areas are characterised by tall *Eucalyptus obliqua* forest with an understory of *Acacia melanoxylon*, *Banksia marginata* and the Australian bracken fern, *Pteridium esculentum*.



Eucalyptus obliqua woodland in moderate rainfall zone, Kuitpo Forest Reserve.

As rainfall decreases the stately *E. obliqua* is replaced by *E. fasciculosa* and *E. leucoxyton* with *Acacia pycnantha* and *A. paradoxa* plus a host of other shrubs as an understory. On the exposed Western slopes of the Mount Lofty ranges *E. microcarpa* forms the dominant canopy tree. As you

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travel away from the ranges, East towards the Murray River, rainfall falls off sharply and woodlands are defined by low growing Mallee species such as *E. incrassata* and *E. socialis*, as well as *Callitris gracilis*, a species of conifer in the family Cupressaceae. In general, as environments become drier understories trend towards more diverse and interesting, up to a point after which biodiversity falls off sharply. The same is true for the Orchidaceae which reach maximum levels of diversity in relatively drier areas with nutrient poor soils.



Dry sclerophyll woodland dominated by *Eucalyptus fasciculosa* and *E. leucoxylon*, Belair National Park.

Dry, open woodland on rocky, gravelly soil is a paradise for orchids.



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Like orchids everywhere, dependent relationships have evolved with specific insect pollinators and associations with mycorrhizal fungi are necessary for germination and growth. This means that orchid species are, perhaps to a greater degree than is true for most plants, integrated tightly within ecosystems. Very often the presence of a certain tree or shrub will be an indicator of the likely presence of a particular species. For example, the myco-heterotrophic *Dipodeum roseum* is leafless and obtains carbohydrate parasitically from *Eucalyptus obliqua* through mycorrhizal fungi in the Genus *Russula*.



Dipodidium roseum with its host, *Eucalyptus obliqua*.

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Caladenia tentaculata.

The flower structure of *Caladenia tentaculata* is an example of Pouyannian mimicry, a common pollination strategy in Orchidaceae. Male Thynnid wasps are attracted to the labellum and attempt to mate with it which results in the sticky pollinia being adhered to the wasp's back and carried with it to the next flower, (C. Bower, 2015). Part of a large complex of species known commonly as Green-comb Spider orchids, *Caladenia dilatata* was the name assigned to it formerly, along with similar closely related species right across Southern Australia. In 2001 Botanist, David Jones, proposed splitting *Caladenia* into 10 genera; *Arachnorchis tentaculata* became its new name (Jones et. al. 2001). Recent DNA work by Australian botanist and Orchid expert Mark Clements at the Australian National Herbarium is reversing some of Jones' splitting and returning many taxa assigned to the new genera back to *Caladenia* (M. A. Clements et. al., 2015). The work in progress status of the revision has left South Australia with many unnamed orchids, waiting for further study and proper classification.

The taxonomy of our Orchidaceae is, and has been for some time, undergoing significant revision with large genera being split into multiple new genera, invoking debate within academic circles and making it difficult for professionals and amateurs alike to keep up with naming conventions.

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In some cases Herbariums in different states of Australia now have the same plant listed under different names depending on which revisions they have chosen to adopt. Orchids I've been familiar with my whole life have been through three name changes in thirty years!



Pheladenia deformis. The monotypic Genus *Pheladenia* was formerly included in *Caladenia*. The Genus *Pheladenia* was proposed by Clements and Jones (M. Clements, D. L. Jones 2001) and is now accepted. Australia has quite a lot of blue orchids, a colour rarely seen in Orchidaceae from other parts of the World but relatively common here.

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The ridiculously graceful *Caladenia capillata* grows in dry, rocky and sandy [mallee](#) scrub.

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A beautiful and very rare natural hybrid of *Caladenia capillata* and *Pheladenia deformis* shares characteristics with both its parents, demonstrating the closeness of *Pheladenia* and *Caladenia* genetically.

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Caladenia stricta grows in dry mallee scrub on very nutrient poor sand.



Caladenia cardiochila, another dry zone species.



Caladenia cardiochila, demonstrating the heart shaped labellum for which it is named.



Caladenia leptochila



Caladenia latifolia is a common and widespread species.



Caladenia behrii (Syn. *Arachnorchis behrii*).



Caladenia rigida (Syn. *Arachnorchis rigida*).

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Caladenia rigida, detail of labellum and column.



Caladenia reticulata (Syn. *Arachnorchis reticulata*).



Caladenia carnea.



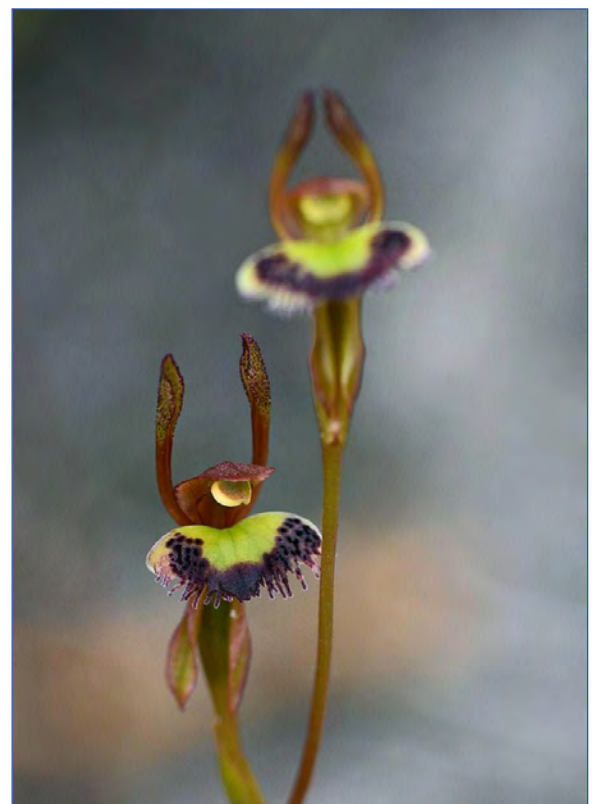
Glossodia major

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Glossodia major, described by Scottish botanist Robert Brown in 1810, has been shown by phylogenetic analysis to be closely allied with *Caladenia*. Mark Clements suggested in his 2015 paper that our two species of *Glossodia* (*G. major* and *G. minor*) should be included in Genus *Caladenia*, (Clements et. al. 2015), a suggestion which I'm sure has raised the hackles of many orchid experts.

Leporella fimbriata is another example of a pollination strategy of sexual deception. The pollinators for this species are male bull-ants, *Myrmecia* sp., very large, ferocious and primitive ants with a painful sting. The winged males are deceived into trying to mate with the labellum, despite looking nothing like a female ant to my eye.



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Bull-ants, *Myrmecia* sp. are 25mm long with a venomous sting.



Leptoceras menziesii (Syn. *Caladenia menziesii*).



Detail of *Leptoceras menziesii*.



The tiny *Eriochilus collinus* is a relatively common species and unusual in that it flowers in autumn before the emergence of leaves.



Calenana major, affectionately known as the Duck orchid, has upside down flowers compared with most orchids. The 'head' of the duck is the labellum, a petal modified for sexual deception. It is critically endangered in South Australia.



Pterostylis curta, the blunt greenhood prefers damp, shady, South-East facing hillsides in higher rainfall areas.

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The “Greenhood Orchids”, genus *Pterostylis*, have likewise been the subject of taxonomic splitting trends. In 2001 the genus *Pterostylis* was split based on morphology creating two new genera, *Plumatichilos* and *Oligochaetochilus*. The following year, David Jones and Mark Clements upset the orchid world when they published a paper proposing further separating *Pterostylis* into sixteen genera based on a combination of molecular and morphological characters. The new genera were *Bunochilus*, *Crangonorchis*, *Diplodium*, *Eremorchis*, *Hymenochilus*, *Linguella*, *Oligochaetochilus*, *Petrorchis*, *Pharochilum*, *Plumatichilos*, *Ranorchis*, *Speculantha*, *Stamnorchis*, *Taurantha* and *Urochilus*, (Jones et. al. 2002).



Pterostylis pusillus (Syn. *Oligochaetochilus pusillus*).

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Most Australian herbaria did not accept the proposed new genera due to molecular phylogenetic data in support of a single monophyletic group ([FloraOnline](#)). However, Jones published his second edition of *Orchids of Australia* in 2006, (Jones. D.L., 2006) including the new classifications. His book has been widely adopted as the most detailed and comprehensive work on Australian orchids, so many of the new names have found their way into popular usage among amateur naturalists and orchid societies alike, and there they have stuck. Botanists at the University of Tasmania and Tasmanian Herbarium have done some tidying up work with *Pterostylis* (Janes, J. K. et. al., 2010a), (Janes, J. K. et. al., 2010b) and present strong evidence for return to a single genus. We are now in a position where multiple names are in use for the same plants and differences of opinion abound. One can't so much as mention a *Pterostylis* in a public forum without attracting a barrage of impassioned rebuttals and disapproving counter-arguments. Luckily the plants themselves seem completely unfazed whatever we choose to call them!

Pterostylis plumosa (Syn.
Plumatochilos extensus)





Pterostylis plumosa (Syn. *Plumatochilos extensus*)



Diplodium dolichocheilum, commonly called the mallee orchid, grows in dry mallee woodland on sandy soils.



An unnamed shell orchid, *Diplodium* sp. 'Adelaide Hills'. Experts agree, the shell orchids need more detailed study.

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Diplodium sp. 'Adelaide Hills'

Pterostylis vereenae (Syn. *Pterostylis foliata*); one species or two? It is happy to colonise plantation pine, *Pinus radiata* where the lack of understory competition seems to suit it. This species is rare in South Australia and probably in decline here, but *Pterostylis foliata* occurs in the Eastern States of Australia, Tasmania and even in New Zealand.





Pterostylis cucullata, our largest *Pterostylis*, is endangered in South Australia. It favours damp, ferny gullies in high rainfall areas, on South to East facing hillsides.



Pterostylis cucullata with rock fern, *Cheilanthes austrotenuifolia*.

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Pterostylis nutans is one of the most commonly seen orchids in the Mount Lofty ranges and can occur in large colonies.



Pterostylis pedunculata, another very common species often seen in large colonies of many hundreds of plants.

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The *Diruris* are diverse and showy and we have ten species in South Australia.

Diruris orientis

Diruris pardina





I photographed this natural hybrid of *D. orientis* and *D. pardina* on a rocky ridge not far from home where both species grow together and flower at the same time.



Diuris behrii.



Where *Diuris* grow and together and flower at the same time hybridisation is common. Above: *D. behrii* and *D. orientis*.



A hybrid of *Diuris orientis* and *Diuris behrii*.



Diuris brevifolia.



Microtis parviflora.



Thelymitra glaucophylla.



Thelymitra glaucophylla f. *alba*



Thelymitra grandiflora, our largest and arguably our most impressive terrestrial orchid, can grow to 100cm tall. It is referred to as the Giant Sun-orchid or Scented Sun-orchid.



Calochilus platychilus; known to form hybrids with members of *Thelymitra* suggesting a high degree of consanguinity.

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Corybas diemenicus



Corybas diemenicus is a tiny terrestrial orchid favouring damp, shady places and mossy banks. It is pollinated by fungus gnats.

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Corybas incurvata.



Acianthus caudatus.



Pyrorchis nigricans, quite common with a broad distribution but relatively rarely seen in flower. Like many of our orchids they flower en masse in response to the stress of a bushfire but generally a few flowers can be found every year without a fire.

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Looking ahead.

Fire in the context of Australian biodiversity is a divisive topic and becoming ever more so with the effects of climate change now clearly apparent. A long held belief that the Australian bush “needs” fire to be healthy and reproduce is being shown not to be as clear cut as many would have us believe. Ecological research is showing permanent damage being done to ecosystems with unprecedented loss of biodiversity through more frequent and increasingly intense fires (Gallagher, Rachael V. 2021). People have used fire for at least 40,000 years in Australia, as a tool to open up dense bushland and facilitate hunting. The effect of this continued burning has applied a powerful selection pressure, driving evolution of Australia's current fire-dependent (or fire-tolerant) vegetation and potentially contributing to our changing climate. Indigenous people would not have regularly burnt the tall, dense forests in Southern Australia for fear of being overtaken by the fire and killed. Fires in tall Eucalypt forest in steep country behave unpredictably and cannot be outrun on foot. Many species in higher rainfall areas have not evolved with regular burning and are unable to cope with regular fire. Most bushfires in Australia today are deliberately lit by human hands, either acts of arson or “controlled” prescribed burns, which too often escape containment lines and become uncontrolled wildfires.



Mismanaged bushland at Belair National Park, South Australia. Compared with nearby unburnt forest there is a massive reduction in biodiversity.

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Intensive clearing of Southern South Australia for agriculture and development has left us with precious little unspoilt native habitat. Introduced weeds are infiltrating our bushland, particularly after fires and competing with native species. On top of this, climate change is placing ecosystems under unprecedented stress; higher maximum temperatures, record drought and most critically more frequent and intense fires all take their toll. We are seeing alarming rates of decline of orchids and many other organisms besides. We need to speak out against mismanagement of our remaining precious wilderness areas and demand proper evidence-based management. Current “fuel reduction” prescribed burning practises are more aimed at protecting property and placating insurance companies than any consideration for biodiversity.

When I was a boy, my parents, my sister and I discovered a colony of the rare and critically endangered *Pterostylis cucullata*, in a bushland reserve near our home. My Dad reported the find to the state herbarium and the Native Orchid Society of South Australia (NOSSA). Within that colony we noticed one plant was a hybrid with *Pterostylis nutans* and this find was published in the NOSSA journal, ([Stonor, M. B., 1984](#)). In December of 2019 a large bushfire started by a tree falling on a powerline burnt 23,000 hectares, including the Lobethal reserve. In that fire the colony was killed.

At Belair National Park in 2016 I discovered a colony of 20-30 plants of this same hybrid. Country Fire Service and National Parks have since burnt the area in a prescribed burn and the colony was completely destroyed. A strange and poignant symmetry.

Pterostylis cucullata x *Pt. nutans* at Belair National Park in 2016.

Unless we can do better at looking after our precious natural environment, time may be running out for the unique, beautiful and enigmatic orchids of Southern Australia.



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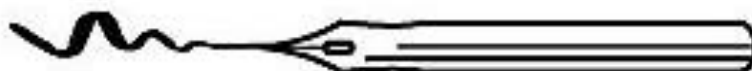
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--- Australian Outing ---

Hiking in the Victorian Alps during the Australia Day weekend 2021

Text and photos, Alan Ayton

A three day weekend this year gave us opportunity to stay at Dinner Plain and give us plenty of time to do some hiking in the Alpine National Park around Mt Hotham. This included Mt Loch, Mt Hotham and the village and 'Room with a view' at Dinner Plain.

Mt Loch is an easy 5km hike taking about 2 hours depending on stopping time for botanising and



photography. It provides spectacular views over to the razorback ridge and Mt Feathertop and Mt Buffalo in the distance as well as looking back on to Mt Hotham Resort. The start of this walk is just before the main resort on the left if coming from Harrietville and has plenty of parking.



It is exposed and mostly above the tree line so wear appropriate clothing and always be prepared in the high country for bad weather. Altitude is just over 1800m.

Above: The Razor Back and Mt Feathertop on the right, Mt Buffalo on the left in the distance.

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In beautiful mild, sunny weather we headed off from the carpark over the undulating ground passing some ski infrastructure before soon coming upon lovely herb fields with *Craspedia* sp. and *Celmisia* sp. with the latter gone to seed.

At the edge of these herb fields were beautiful snow gums *Eucalyptus pauciflora* subsp. *niphophila* underplanted with an array of plants including *Stylidium montanum*, *Kunzea muelleri*, patches of *Trachymene humilis* ssp. *breviscapa* and *Celmisia* sp. - see photo, right.



An easily overlooked plant is *Trachymene humilis* ssp. *breviscapa* (left) also known as the Alpine *Trachymene*, which is a low mat forming rhizomatous perennial with basal leaves, flowering from December through February, the umbels are white to pale pink. This is found in moist herb fields and grasslands in subalpine and alpine habitats of the Victorian Alps.

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Not much further along we came upon a beautiful specimen of *Olearia frostii*, the Bogong Daisy bush. Endemic to the Bogong high plains and higher peaks of the Alpine National Park of Victoria. Grows to 40-80cm tall by similar width wise, greyish green leaves contrast nicely against the typical daisy like flowers. Ray florets mauve to pink in colour with yellow disc florets. Can be found in heathlands, grasslands and Snow gum woodlands.



Olearia frostii

A widespread plant across the eastern states in a variety of habitats is *Leucochrysum albicans* ssp. *albicans* (see below): this are a perennial herb growing to 50cm tall with cottony leaves giving a greyish appearance. Reflexed yellow bracts are quite showy. Can be found in the Victorian Alps on herb fields with shallow rocky soils.

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Leucochrysum albicans ssp. *albicans*



Craspedia gracilis

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Craspedia gracilis, (above) a beautiful herb with flowering scape to 8-65cm tall with a yellow inflorescence which has 25-100 capitula, with each capitula having 6-8 florets. Sounds complicated! Leaves are linear to narrow spatulate 5-20cm long and silvery in colour. Commonly known as Billy Buttons, these can be found in sub alpine and alpine environments on the Bogong high plains and elsewhere. A lovely sight when seen in flower en mass.



Ewartia nubigena, Silver *Ewartia* is a mat forming herb to 50cm in diameter or more with sessile leaves. White flowers during January until March. Confined to the higher parts of the Alps on the Bogong High Plains usually amongst rocks. A favourite of mine.

Leaf and flower detail of *Ewartia nubigena*,.

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Another favourite of mine is *Pentachondra pumila*, the Carpet Heath (see right and below). A prostrate to decumbent mat forming shrub to 10cm high. Flowers from November through January and sessile on current seasons wood, white in colour and densely bearded. Fruit is red, globose to obovoid.



Plants in flower usually have last season's fruits which have overwintered and ripened.

Can be found on the higher Alps of Victoria in moist open grasslands and heathland communities, also seen in NSW, TAS and N.Z. See photo left for flower size compared to my thumb.

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Another interesting plant we saw was *Colobanthus affinis*, the Alpine Colobanth which is a tufted herb 10cm tall forming clumps up to 9cm wide. Leaves are 18-40mm in length, peduncles are 25mm tall, 30-60mm tall when in fruit. Flowers during December-January. Found mainly in alpine grasslands and open heathland in peaty soils above 1600m altitude in Victoria. Also can be found in NSW, TAS, New Zealand and Macquarie Island. Not a super showy plant but interesting nether the less.

Below is *Coprosma nivalis*, Snow Coprosma which is a prostrate shrub that is mat forming with stems to 60cm long. Leaves are sessile and crowded on upper branchlets.

Flowers are sessile, unisexual, solitary and terminal. Fruit is a drupe, orange or red. Flowering December through February on rocky places of the Bogong high plains. Also NSW. Seen here on the summit of Mt Loch which is very rocky.



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Even though it was in its fruiting stage another stunning find was *Psychrophila introloba* syn. *Caltha introloba*, the Alpine Marsh Marigold (above) a rhizomatous perennial. Leaves rosette, flowers are solitary, sweet-scented, virtually sessile within leaves, very variable, 2–6.5 cm diameter, white or pink, usually veined darker, fruiting peduncle is thick, fleshy and elongates 10-20cm. Flowers from November to January usually at edges of receding snow drift. Locally common in areas of late-lying snow on the higher parts of the Victorian Alps and in moss-beds on the higher ranges. I will need to go back in early November to see it in flower.

*Ozothamnus
alpinus*



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Ozothamnus alpinus, the Alpine Everlasting, is a compact shrub to 1-1.5m tall.

Inflorescences are yellow to magenta in bud, opening to white flowers which gives a lovely two tone effect as the flowers open. This can be found in the margins of wet alpine heathland and shrub lands in the Victorian high country, also in NSW and ACT.

Close up of *Ozothamnus alpinus*.



Left and below is *Brachyscome rigidula* also known as leafy or cut-leaf daisy. It is a sprawling herb or subshrub up to 30cm in height. Beautiful flowers comprising mauve-blue ray florets and golden yellow disc florets. Can be found in rocky herb fields and shrub lands of alpine areas to subalpine grasslands in Victoria. Also seen in NSW, ACT and Tasmania.



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Scleranthus biflorus, Twin flower Knawel forms a dense cushion which is widely available in the nursery trade and frequently seen in the high country, can even be seen near sea level. Widespread in the eastern states, TAS and New Zealand. Here in full flower (below).



Another view of the Razorback with Mt Feathertop at the end.

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Left and below, *Microseris lanceolata*, The Yam Daisy or Murnong is a perennial herb 15-50cm tall with linear-lanceolate leaves 5-20cm in length, peduncle to 50cm with lovely golden yellow flowers during December through March.

Can be found in alpine and subalpine herb fields in Victoria, NSW and Tasmania. Was a staple food of local Aboriginal tribes.



The classic and beautiful Alpine Everlasting (see below) *Xerochrysum subundulatum* is a sight to behold when in full flower. A perennial herb 5-45cm tall with terminal flower heads golden-yellow involucral bracts, yellow-orange florets as well.



Can make extensive colonies which are incredible to see. Found in moist alpine herb fields and grasslands in Victoria, NSW, ACT and Tasmania.

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Podolepis robusta, the Alpine *Podolepis* is a lovely perennial herb 20-60cm tall with basal leaves. Florets are bright yellow to orange in colour flowering from December to March. Can be found in the higher parts of the Victorian Alps in snow gum woodland and above the tree line in alpine meadows. Also in NSW and the ACT.

Podolepis robusta

There were a few *Celmisia tomentella* flowering, a perennial herb with very variable leaves 5-30cm long, 5-25mm wide. Scape to 60cm tall with typical daisy like flower- white ray florets and a yellow disc floret during December through February. Found in subalpine woodland, sphagnum moss beds, heathlands, montane bogs and lower alpine areas in Victoria and NSW. I must say this was the most floriferous I have seen the high country in all the times I have visited, not sure why but I think it was a combination of a wet spring and a cooler summer. It was certainly beautiful.





Celmisia tomentella

After lunch we headed over to Dinner plain to walk the 'Room with a view' walk. An easy in and out 2km walk at about 1550m altitude through snow gum sub alpine habitat, a nice way to finish of the afternoon.

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Of note were some beautiful *Olearia* species in full flower and the ubiquitous trunks of snow gums showing good colour.



Above, Snow gum woodland with *Podolepsis laciniata*. A perennial herb to 70cm in height, bright yellow flowers in January - February in grassy habitats near the tree line or below between 1200-1700m altitude. Also present in NSW and the ACT.

Podolepsis laciniata

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Wahlenbergia ceracea, the waxy Bluebell found in damp alpine and subalpine grasslands, heathlands and bog margins. A lovely sight, sometimes easily missed if not abundant.



Above left and right: *Olearia alpicola*, a beautiful spreading shrub to 2 metres tall, leaves 25-130mm in length, dark green above, grey-white below. White ray florets with yellow disc florets during December through February. Found in moist montane to sub alpine forests in Eastern Victoria and NSW.



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Eucalyptus pauciflora, The Snow Gum, at lower altitudes can be a tree to 30 metres tall. Usually has beautifully coloured trunks more so at higher altitudes where they are more contorted as well. There are 6 sub species present in Victoria.

Baeckea gunniana, Alpine *Baeckea*, a shrub 0.3 to 2m tall, procumbent to erect habit, densely branched with crowded leaves, solitary flowers from the axils, white in colour, flowering from December to February. Found in alpine and sub alpine areas, common along streams and bogs. Also seen in NSW, TAS and the ACT.



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Baeckea gunniana, close-up.

The following day we had some time to explore around the Village and the summit of Mt Hotham.

Asperula pusilla, Alpine Woodruff, a perennial to 10cm tall with creeping rhizomes, white flowers during October to March. Found from montane to alpine habitats in woodlands and grasslands. Also in NSW, ACT, SA and TAS. A delightful little plant.



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Gentianella muelleriana ssp. *muelleriana*, a real beauty flowering from January through to April in the snowfields of the higher peaks of Victoria in moist grasslands, bog margins and open heathland. A short-lived perennial with white flowers and delicate grey to violet veining on the inner petal surface.

These were near the top of Mt Hotham just a short sharp upward walk from the village. Altitude was about 1840 metres.



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Habitat was a mix of grasses and heaths with some *Xerochrysum subundulatum*. These were off the main track just a little way so the majority of people who I saw walking past didn't even see these magnificent beauties, although they don't really stand out unless you're nearly on top of them!

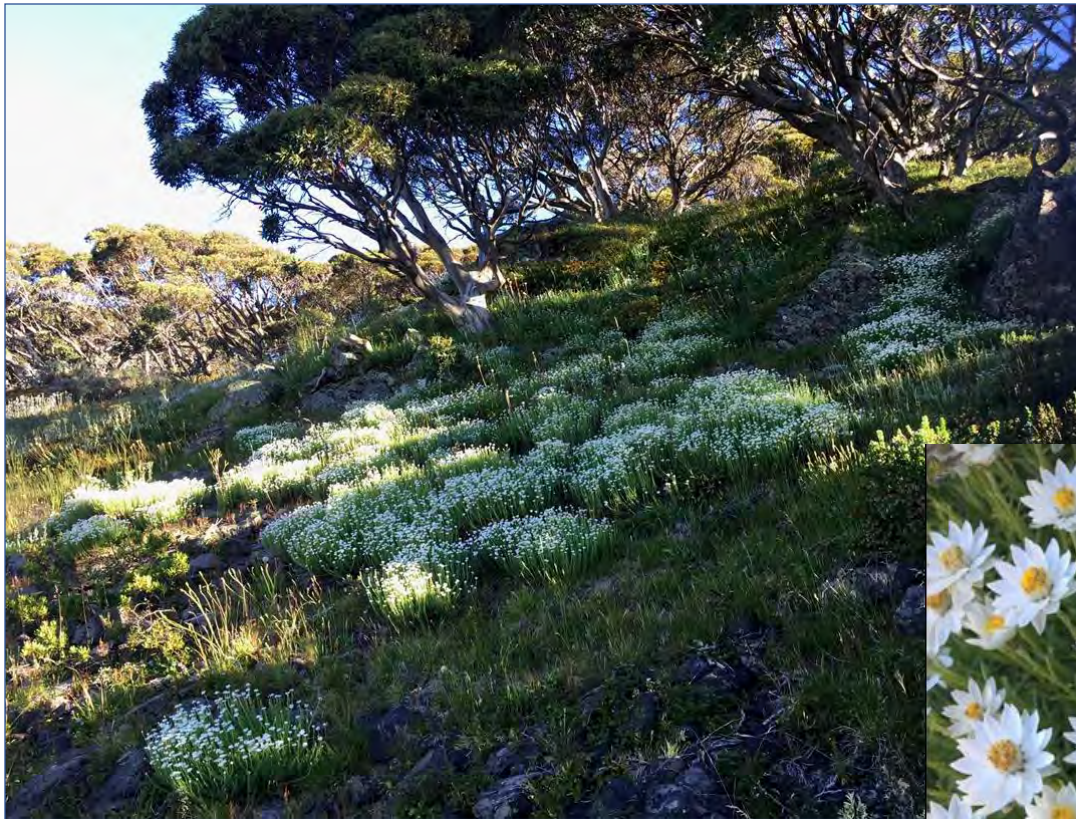


View from the summit area of Mt Hotham.

Below: Fields of *Craspedia gracilis* above Mt Hotham Village, quite a sight to see.



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On the slopes of Mt Higginbotham above the village we came across this lovely scene of *Rhodanthe anthemoides*, the Chamomile Sunray.



An ascending to erect perennial to 30cm with white involucral bracts and yellow florets. Widespread across the state and abundant in the Alps, this by no means makes it less appealing!

An incredible scene to finish our long weekend in the high country... the view from Mt Higginbotham.



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--- From an Australian Garden ---

Redesdale, a valley in the western part of the county of Northumberland, in northeast England. May well be familiar to readers in the UK – however, it is another Redesdale, thousands of miles away, where this article on Spring garden flowers took root. This Redesdale is a town in central Victoria, Australia., 115 kilometres northwest of the state capital, Melbourne.

Fermiano de Sousa and his partner Will Arthur have lived there for some time – and are both keen gardeners and growers, particularly of bulbs and alpiners, as well as native Australian plants. Both have travelled widely, including in Europe, to visit alpine gardens and shows and are stalwarts of the [Alpine Garden Society, Victorian Group](#) and the [Ferry Creek Horticultural Society](#), both of which have strong long-term Scottish Rock Garden Club connections.



Earlier this year, it was both pleasing and exciting that both Fermiano de Sousa and Ms Viv Condon, such vital members of the AGS Victoria Group and supporters of SRGC, were both honoured by the award of John Pascoe Fawcner medals from the Royal Horticultural Society of Victoria, for their distinguished contributions to horticulture. John Pascoe Fawcner was an early Australian pioneer, businessman and politician of Melbourne, Australia. In 1835 he financed a party of free settlers from Van Diemen's Land, to sail to the mainland.

Fawcner's party sailed to Port Phillip and up the Yarra River to found a settlement which became the city of Melbourne and in 1849 Fawcner founded the Horticultural Society of Victoria.

Fermiano writes about the Spring awakening of flowers in his Redesdale garden, which is in September and October in Victoria, of course.

Redesdale Ramblings in Spring: Text and photos by Fermiano de Sousa in Victoria, Australia

It's been a great spring with so many daffodils and tulips and other bulbs bursting into bloom. New plantings are coming along nicely. Some daffs planted a couple of years ago have multiplied well which is pleasing to see. Not all of them increase each year and some stubbornly remain "singletons". Admittedly in the wild most species only increase by seed rather than bulb offsetting. One that has performed really well is a hybrid between 'Quickstep' and *Narcissus fernandesii*.

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I got it from the [Victorian Daffodil Society](#) and I asked on [Daffnet.org](#) if anyone knew who raised it and if it was now named; it was suggested that it's one of Glenbrook Bulb Farm's and possibly a sibling of '[Hatdance](#)'.



Narcissus 'Quickstep' x Narcissus fernandesii

To the right of the image above, you can see the DBI (dwarf bearded iris) 'Making Eyes'



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Narcissus 'Xit'

Another little daff that is doing well in the rock garden is 'Xit' a hybrid of *Narcissus rupicola* subsp. *watieri* raised by Alec Gray in the UK in the 1940s. Ours originally came from the AGSVG stall at FCHS many years ago. I remember members arguing that it should be pronounced "ex-it" which is what I prefer, but others say it like it's a pimple!

Tulipa batalinii 'Red Hunter'

Tulips have been impressive this year. I'm pleased with a re-appearance of *Tulipa batalinii* 'Red Hunter' which we got from [Lambley](#) last year. Not all tulips come back in their second year, especially some of the florists' hybrids. We've been marking out the gaps in



some of the beds where bulbs had failed or where we'd missed planting any earlier. If we can interpret the marks correctly we'll put in more bulbs in autumn. We now have quite a few forms of *Tulipa clusiana*, including the "type form" of "The Lady Tulip" with its dark purple base inside a

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white and pink flower; the selection 'Lady Jane' which lacks the dark centre; the var. *chrysantha* with yellow and red petals and its selection 'Tinka'. We also have seedlings raised from each of these selections (before the true forms were available in Australia) some of which are a little different to their parents.



Tulipa clusiana 'Lady Jane'



Tulipa clusiana 'Tinka'



Tulipa vvedenskyi



Tulipa saxatilis

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Tulipa agenensis subsp *sharonensis*

A very special tulip which we grow is *Tulipa agenensis* subsp *sharonensis* which we got as seed a correspondent in Israel, a fellow member of SRGC. The brilliant red flowers have a black blotch at the base of each petal making each anther stand out clearly.

We're approaching the "in between time" – after the floral exuberance of the early bulbs comes the time of Bearded Iris, Peonies and roses. It's the time of longer days, increasing heat and the ever-present weeds which are becoming harder to pull out. I look forward to summer with dread nowadays as the reality of bush-fires finally sank in after "Black Saturday" in 2009.



Paeonia mascula subsp. *russii*

Oh well, there are risks to living in the country but I guess we'll enjoy it while we can.

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Some of Fermi and Will's bearded iris collection



DBI 'Toy Clown'



DBI 'Moon Sundae'



MBI 'Blue Flirt'

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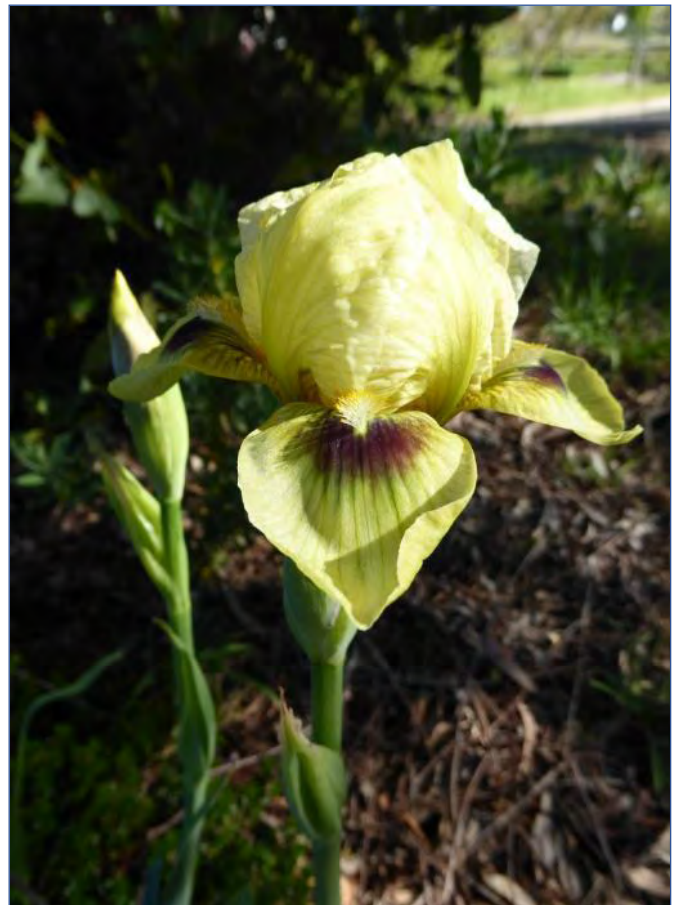
In October, Spring is rapidly fading into the warmer months heading into summer. We have had a pretty good showing of tulips. *Tulipa clusiana* var. *chrysantha* (below) is an interesting bulb.



Initially we only had the form 'Tubergen's Gem' which Marcus Harvey sold; and it stayed put. A friend said that hers "runs" terribly – so we arranged a swap and hers is now infiltrating the sandy raised-bed where we planted it along with other forms. The brightness of its flowers when the sun is shining makes it worth growing despite its attempts at world dominance.

Staying with a yellow theme we had the first flowering of an *Oncocyclus* Iris hybrid which we got years ago from Marcus Harvey. It was raised by Pat Toolan in South Australia. We planted it in a raised sand-bed thinking that it would enjoy that, but it hasn't until this year – perhaps needing more moisture in the late winter than it usually

gets. The pale yellow flower of Pat's hybrid (right) is unassuming but attractive with the dark basal blotch distinguishing it from the usual Bearded Irises.



Yellow dwarf bearded *Iris*.

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Other irises flowering now include the kaleidoscopic Pacific Coast Iris hybrids raised by crossing species from the West Coast of America. They do well under deciduous trees and once established look after themselves, even self-seeding gently. The only problem is that they should only be divided or transplanted while in active growth in the winter. There is a secondary problem – sourcing them! I used to see them at the Mt Macedon Plant Expo but there were none the last couple of times that I attended. That seller did offer mail-order for a little while which is how we got a few. They have clumped up well but I never remember to dig up some at the correct time to spread them around.



Un-named Pacific Coast *Iris* seedlings: one shown (below, right), with *Pelargonium triste*.



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Scilla vicentina (syn. *Hyacinthoides mauritanica* subsp. *vicentina*).

A relative newcomer is little *Scilla vicentina* we got a couple of years ago. It's flowering well this year and we might try it out in the open garden as we did with its relative, *Scilla italica* which was grown from seed sent by Betty Clarke in NZ.

October has to be one of the best times in our garden. After the flash and fury of the early bulbs there is something more settled with the flowers as the weather warms up. More of the South African bulbs are in bloom starting with some of the species gladiolus such as *Gladiolus meliusculus*. Ours came

from [Greg Boldiston](#) when he used to have his "Longinomos Nursery". They are slowly increasing and we now have a different clone grown from seed which is a bit paler in flower and didn't open till the other had finished – if they coincide I'll try to cross them to get a better seed set.

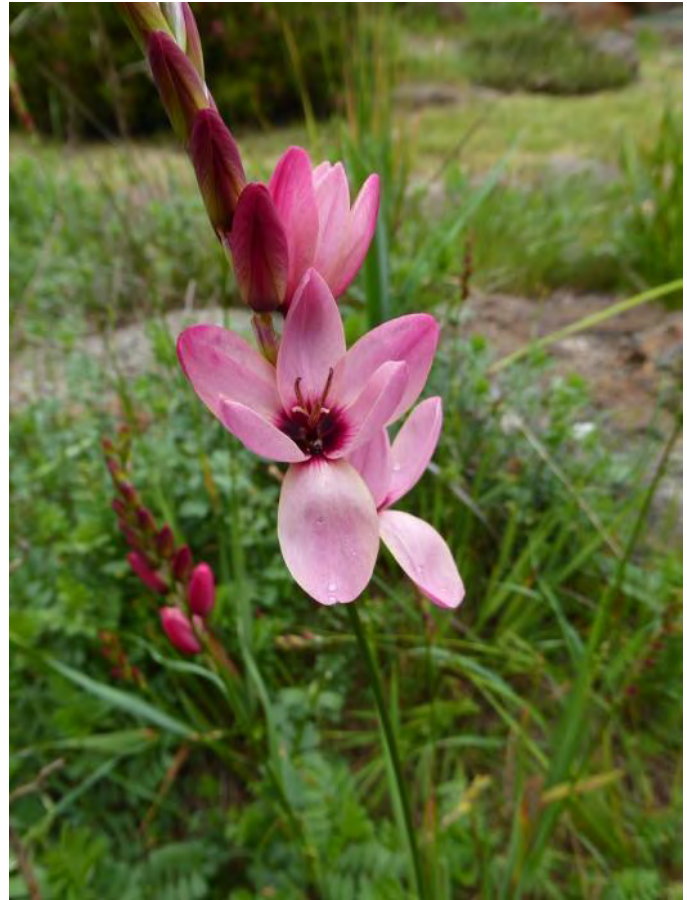


Gladiolus meliusculus

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Ixia trifolia



Ixia – red-eyed pink



Yellow ixias

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Ixia – red-eyed yellow

The ixias are also starting and should last into November.



In the rock garden the wonderful *Paeonia cambessedesii* has put on its brief but dazzling performance. We have to be lucky not to get a frost while the flower buds are young or that's it for another year. I must try raising

some more from seed as it's a desirable plant and I won't hazard splitting it up.

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Some photos of other Spring delights in the Redesdale garden.....



Left: *Moraea spathulata*

Below: *Moraea atropunctata*



Moraea bipartita

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Allium aff. *neapolitanum*



Anemone pavonina

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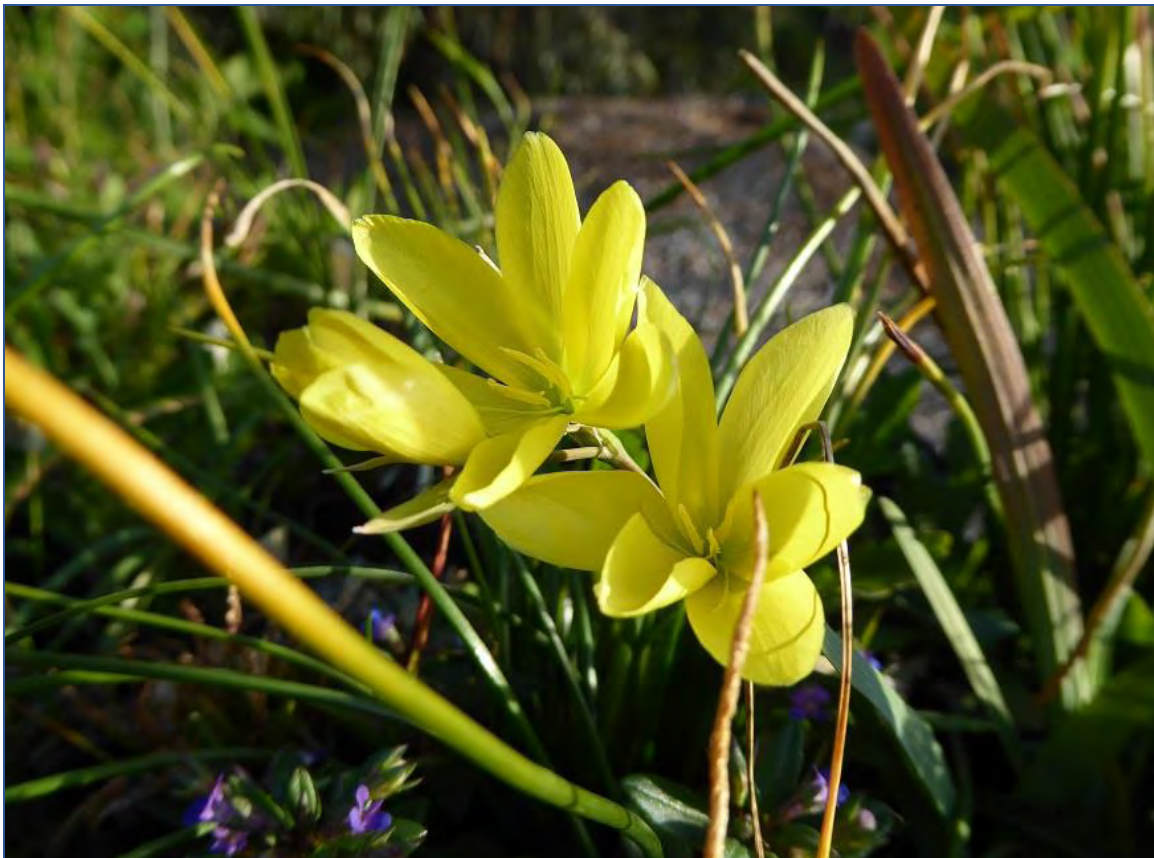
Cyclamen persicum - ex Rhodes



Dichelostemma capitatum, native to the Western United States and northwest Mexico.



Gladiolus virens



Hesperantha vaginata v. *stanfordiae*

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Hypericum species



Lachenalia splendida, looking good in spite of having its foliage chewed badly by slugs.

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Some of the Australian native plants are also making a show especially the emu-bushes, the wonderful Eremophilas. The range of colours in this genus is tremendous from vibrant red to acidic green. Some of the best ones we cosset by growing them in pure sand over our local adobe-clay.



Eremophila glabra 'Kalbarri Gold'



Eremophila glabra

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The tiny flowers of *Eremophila debilis* are so tiny that they are often overlooked, but in April, their berries are much more “showy”.



Diuris chryseopsis - an orchid endemic to south-eastern Australia – pictured in the bush on the way to Bendigo rather than in the garden.

Glossodia major, regarded as a synonym of the name *Caladenia major* is another Australian orchid. Again pictured in the bush on the way to Bendigo rather than in the garden.



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Hibbertia maybe *H. exutiacies* - an Australian endemic, species of flowering plant in the family Dilleniaceae, found in the bush nearby.



Isopogon growing in a sand bed - about 30cm of coarse sand on top of the “native” soil with rock borders.

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Isopogon cuneatus is a species of plant in the family Proteaceae and is endemic to the south-west of Western Australia. The pattern of the buds are a feature even before they open!



Other *Isopogon* in the garden.



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One of the less glamorous plants most of the year is *Calytrix tetragona*, another Australian plant, but in spring she covers herself in pink stars and cannot be ignored. We have two forms and one is absolutely ground hugging providing a carpet under taller growers.



Phebalium bullatum is a genus of shrubs or small trees in the family Rutaceae, endemic to Australia.

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New to flower this month is *Tritonia deusta* grown from seed from [Silverhill Seeds](#). They are eye-searingly orange and there is a slight variation in the inner markings as might be expected from seed-raised plants.



Tritonia deusta



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In August we noticed not one but two spikes emerging from the ferocious cluster of *Puya* rosettes in the lower rock garden. This *Puya chilensis* came from Roy Pavelin at least 15 years ago and had only flowered twice before, each time a single spike. After a couple of weeks as the spires started to tower over us, a third spike emerged! By late September they had reached their full height and then the lateral branches started to shed the bracts which covered them and the flowers finally started to open in mid-October. They are a source of nectar for bees and the New Holland honey-eaters which flit in quickly to avoid the more domineering Wattle-birds!

Puya chilensis flowers.



Phylidonyris novaehollandiae, the New Holland honey-eater, on *Puya chilensis* flowers.

