The Bushland Whistler

Friends of Forrestdale Newsletter ◆ Edition 19 ◆ May 2020

FRINGED REGELIA *Regelia ciliata*

Belonging to the family Myrtaceae, *Regelia ciliata,* along with the four other species in the genus, is endemic to the south-west of Western Australia. Preferring winter-wet sandy soils, it occurs along the coast from approximately Dongara to Busselton, as well as some isolated pockets inland.

The genus *Regelia* is named in honour of a distinguished figure: Eduard August von Regel (1815 – 1892), a German botanist, horticulturalist, scientist and author, who towards the end of his career served as Director of the Russian Imperial Botanical Garden of St. Petersburg. Regel himself described and named over 3000 plant species, but in 1843 it was botanist J. C. Schauer who named the genus in his honour. The species name *ciliata* originates from the Latin word *cilium* which means "eyelash". This is in reference to the hairs fringing the leaves of the species. It also accounts for the plant's common name.

Regelia ciliata is classified by WA Parks and Wildlife as "not threatened". This too applies to *Regelia inops* and *R. velutina*. The other two species, *Regelia cymbifolia* and *R. megacephala,* both having a limited range, are classified as "Priority Four".

An important habitat plant, fringed regelia is plentiful in Forrestdale. It occurs in dense thickets in Anstey-Keane Damplands, covering large areas, and is also found on the eastern side of the Lake Forrestdale Nature Reserve.

Plants of this species are destroyed by fire, but regeneration from seed is rapid. If left unburnt for a sufficient time, shrubs can reach a height of over two metres. They can flower for many months of the year.

Many species of insect visit the flowers of fringed regelia, particularly the beautiful red jewel beetle, *Castiarina aureola,* which feeds on the flowers. Interestingly, the frass of this beetle is the identical mauve colour of the flowers it feeds on. Other insects such as native bees and wasps visit the flowers to gather nectar and pollen; some are illustrated below. ✧

Flower Wasp

Cuckoo Bee

Red-eyed Resin Bee

SOLACE IN NATURE

During this pandemic, while we are spending so much time at home, it's a good opportunity to get to know the creatures that live around us. And although the man-made world is in turmoil right now, it's comforting to know that the natural world continues to function as always.

In Edition 17 of *The Bushland Whistler* we wrote about some of the wildlife that we see on our property in Forrestdale, so we thought this would be a good time to expand on that story.

Those of us lucky enough to have some space around us, a backyard or garden, large or small, will likely find animal life of some sort or other to keep us engaged for a while each day.

But even in the absence of a garden, just a few flowering herbs in pots on a porch or balcony can be enough to attract a range of insects. Native flies, bees and wasps are a joy to observe and photograph and are especially attracted to the flowers of culinary mints. In the photo (left) are the tiny flowers of Thai mint which are a particular drawcard; in this instance, a non-native species, the European honeybee, is paying them a visit.

While in the garden, careful observation can often reap rewards, sometimes with intriguing results. Back in December, while having a cup of tea in our newly created native garden, we noticed a small bee settle on the stem of an acacia plant. It lingered a few seconds then flew to another spot in the garden a short distance away. It repeated this several times. A closer look revealed what the little bee was up to. From the acacia stem, she was gathering pulp with her mandibles (below left), then flew with it to a brood chamber she had made in the hollowed-out cut stem of a kangaroo paw. She used the green pulp to seal the top of the chamber (below right).

Western Australia has ~800 native bee species and those in the south-west are mostly solitary. Nesting sites vary between species and many, such as this one, chew out galleries in pithy stems for the purpose.

Some native bees are minute and can easily come and go unnoticed. But they can sometimes be seen snatching a quick drink at the birdbath in hot weather, or hovering around holes in timber or brick looking for cavities in which to make a nest.

A garden can be a temporary or permanent home to numerous insects and it is always interesting to observe them as they go about their daily activities. Most native species cause no harm and many are beneficial. They perform the important task of pollination, and some species help to control pest insects. The transverse ladybird (*Coccinella transversalis*) (below left) is well known for its beneficial effects in the garden, as both the adult beetle and the larvae feed on aphids. This is the most common ladybird in the Perth area. It is found across most of Australia, as well as other parts of the world.

Another insect known for the good it does in the garden is the hoverfly. The species pictured (right) is *Simosyrphus grandicornis.* Adults feed on nectar and are useful pollinators, while their maggot-like larvae are important predators and feed on aphids.

This impressive-looking mud-nest wasp, or potter wasp (*Abispa ephippium*) regularly visits the birdbaths during hot weather and its large size and striking orange and black colouring make it an eye-catching visitor to the garden.

Despite its fearsome appearance and ability to inflict a painful sting, this wasp is not aggressive and poses no threat to humans.

Potter wasps are solitary insects (they do not form colonies) and build mud nests in which to lay their eggs. They provision the nests with live caterpillars to serve as fresh food for the larvae. Adult wasps feed on nectar.

Found throughout Australia, this species is sometimes incorrectly called the Australian hornet, but true hornets do not occur in Australia. The wasp can be found in bushland as well as urban areas.

Spiders, too, are welcome visitors to the garden, as many play an important role in controlling midges and mosquitoes. Recently we were thrilled to discover a golden orb weaving spider (*Nephila edulis*) (below) high up on her web, strung between two paperbark trees in the corner of the garden. She was feeding on a honeybee when we found her and her beautiful web shone golden in the morning light.

Jumping spiders are also interesting little creatures to have in the garden and will sometimes find their way into the house where they seem to live quite happily.

Their particular appeal is no doubt due to their prodigious jumping ability, large eyes, alert demeanour and the manner in which they swivel their bodies to track movement.

Jumping spiders are typically small and do not construct webs to catch food. Instead they use their powerful hind legs to pounce on live prey.

When in the house, they can be quite useful, as I recently discovered in the kitchen: a pesky housefly that was able to dodge the flyswat wasn't quite quick enough to outmanoeuvre the resident jumping spider, who pounced on it with lightning speed as it sat sunning itself on the kitchen bench.

One of the reasons for creating the above-mentioned native garden was to provide extra habitat for three baby bearded dragons we discovered living in a narrow strip of garden along the front fence.

To create the new garden, the adjacent patch of lawn had to go, and rather than hire a machine to do the job, David opted to dig out the grass by hand—part of his reasoning was that the daily workout would give equal if not better results than a visit to the gym!

Once the grass was removed, we filled the new garden with native plants and placed a number of rocks and boulders between them.

The dragons now have room to spread out and it is always a thrill to see them basking on the rocks in the native garden that was created especially for them.

Quenda

The quenda (*Isoodon fusciventer*), also known as the south-western brown bandicoot, has long been regarded as a subspecies of the southern brown bandicoot (*Isoodon obesulus*) of eastern Australia. But research by Dr K. J. Travouillon, Curator of Mammalogy at the Western Australian Museum has since revealed that the quenda is a species in its own right, related more closely to the vulnerable golden bandicoot (*Isoodon auratus*) of the Kimberley region.

Quenda visit many gardens in the Perth suburbs, particularly those with suitable habitat or native bushland nearby, and, as described in a previous newsletter, they visit our garden too. Full-grown adults, tiny babies and all sizes between, they are great company and fun to have around, especially in times of social isolation.

For quenda to be able to live safely in the suburbs, they need to be protected from threats such as dog and cat attacks, swimming pools (in which they drown) and vehicle strikes. A further threat to quenda living near human habitation is toxic chemicals such as rodenticides, commonly used by householders to control rats and mice. These products are a major risk not only to quenda, but also to a range of other wildlife that directly or indirectly ingest the toxins. Slug and snail baits are also highly toxic and can kill wildlife such as quenda. The toxins in these products are mixed with palatable ingredients to attract the garden pests, but it means also that the bait is attractive to non-target animals such as quenda.

In our garden, quenda spend much time digging for food in the lawn and flower beds. Even the babies dig deep holes, often completely disappearing inside them. To watch a baby quenda dig a big hole in search of food, can be very entertaining. I once watched a baby in the garden as it worked furiously, digging deeper and deeper, kicking the soil out behind it. Every few seconds it popped its head up to check for danger before resuming its frenetic quest: down there somewhere was a treat to be had! Then triumph at last! I didn't quite see what it finally uncovered. But whatever it was, it was devoured with relish.

Being omnivorous, the quenda's diet is varied and includes invertebrates and their larvae, worms, fungi, plant tubers and seeds.

When quenda, and other small marsupials, dig the soil in search of food they perform an important ecological role. The soil they dig up buries leaf litter, which not only reduces fuel loads on the woodland floor, but also promotes decomposition of organic matter, thus improving soil nutrition. Furthermore, their diggings break up the hard, water repellent, soil surface, allowing rainwater to penetrate and reach plant roots more easily.

Due to habitat loss and feral animal predation, most small native marsupials, that have traditionally cultivated the soil, have declined significantly since European settlement. The quenda—a priority listed species in WA—seems to be adapting a little better to human encroachment. It is hoped this happy outcome will continue. ✧

A baby quenda reaching for a drink in the garden

TIGER SNAKES AND DUGITES

This summer we have had several encounters with two types of reptile that we would rather not have in the garden. We refer, of course, to snakes.

Dugites (*Pseudonaja affinis*) and tiger snakes (*Notechis scutatus*) seem to find our garden to their liking, probably because of the abundance of frogs, which are a major part of their diet, especially tiger snakes.

It must be said that some frogs in the garden are particularly adept at finding spots to rest by day where snakes and other predators can't get them, and we are always amazed at their ability in this regard.

High on a narrow ledge above the front door is where a frog will often sit, or up on the light switch on the front verandah post (right). But the more novel hideouts include hanging baskets, gumboots and watering can spouts.

Where possible, and when it is safe to do so, David catches the snakes we see in the garden and we release them in the nearby Lake Forrestdale Nature Reserve. Being native animals and an integral part of biodiversity, snakes are protected and it is illegal to kill them.

Pictured (top left) is a tiger snake in a bucket, having just been caught in the garden. The lower image shows one of the snakes being released in the nature reserve.

Another big part of a snake's diet, particularly dugites, is rats and mice, so they play a useful role in controlling vermin. The photos below show a dugite coiled around a rat it has caught, engaged in the laborious process of swallowing it.

Incidentally, these photos were taken, not in our garden, but on a bush track in Kings Park. The snake was well camouflaged in the shade amongst the leaves and, concerned that other walkers would fail to see it and tread on it, David flicked it with a stick off the track. The snake, either unwilling or unable to let go of the rat, hung on tight, coiling itself even more around its prey (bottom left).

Also called the spotted brown snake, dugites are confined to south-west WA and their colouring varies considerably: pale or dark brown, black, yellowish or olive are just some colour variations. They can be either heavily or sparsely marked with black spots. Females lay up to 30 eggs between late spring and summer.

More tolerant of cold weather than dugites, tiger snakes are found in southern parts of Australia, including Tasmania, and occur especially around wetlands. They are very common in the Lake Forrestdale Nature Reserve. Tiger snakes also vary in colour; variations include solid black upper parts with minimal or no banding, or individuals with prominent yellow and black bands—hence their name. Female tiger snakes give birth to live young with up to forty per litter.

Dugites and tiger snakes are highly venomous and should be treated with extreme caution. ✧