THE GECKO

Edition 37
October 2022

Welcome to the October 2022 edition of The Gecko.

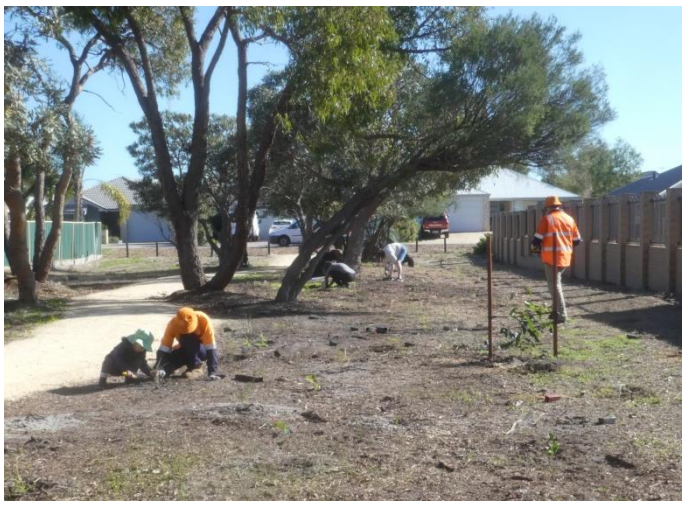
Fine weather allowed us to get stuck into the work this quarter but we also allowed ourselves a bit of fun by observing nature.

As well as a good range of wildflowers, we also saw some peacock spiders and the communal nesting site of some native bees. Native bees don't have it all their own way, though. Found with the bees were some parasitoid wasps.

July to September 2022

2 July 2022
Fine weather greeted the many local residents who came out to plant native seedlings on two vacant blocks in East Cannington.

Prior to the work day, these areas have had the weeds cleared and a limestone path laid from one end to the other, making it easy to walk from one street to another. The seedlings planted are all species native to the general area and will help support the native wildlife.

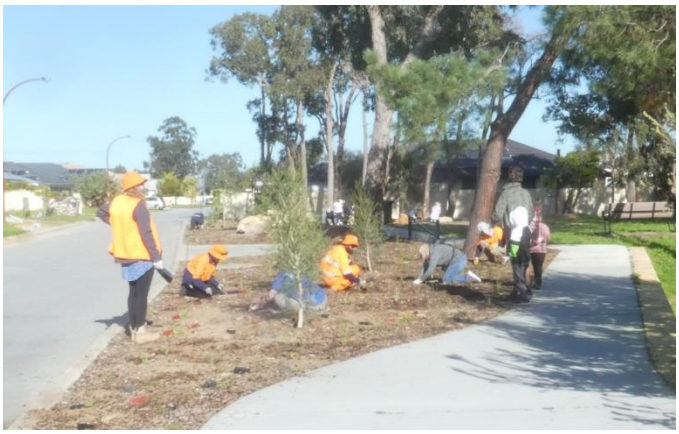


As well as getting our hands dirty it was an opportunity to meet some neighbours we didn't know we had. A letterbox drop resulted in more people attending than had word been spread by social media alone.

The day was rounded off with a lovely morning tea supplied by the City of Canning.

6 July 2022
Despite it being mid-week, about 20 volunteers (with many youngsters among them) helped vegetate another vacant block. This area has had play equipment installed and is already a hit with local families.

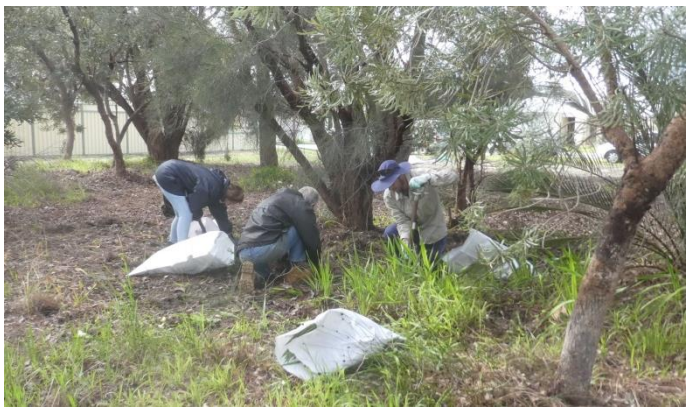
Some parents commented that it will be educational for their children to see how the seedlings grow to full size and how their small actions today can result in a better environment for the future.



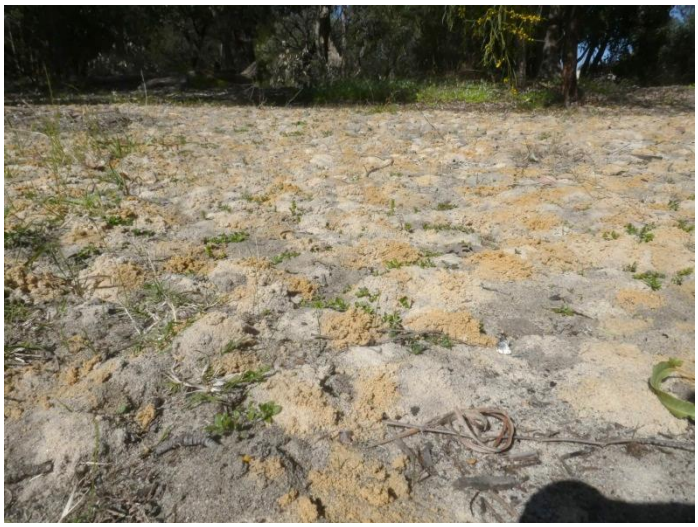
Thanks must go to the City of Canning for providing morning tea and a free plant for every participant.

28 August 2022
Clouds loomed and it rained up until the start but our weeding session was held in fine and calm weather.

Eight volunteers had a satisfying time pulling up Fumaria and Freesias from amongst the natives. Due to the recent rain the weeds came up easily with very little soil disturbance.



A treat was to find an area of access track that was being used by native bees to brood their young. Each nest site was topped with excavated soil making it look as if there were hundreds of ant nests in just a few square metres.



Some of the nesting burrows of native bees.

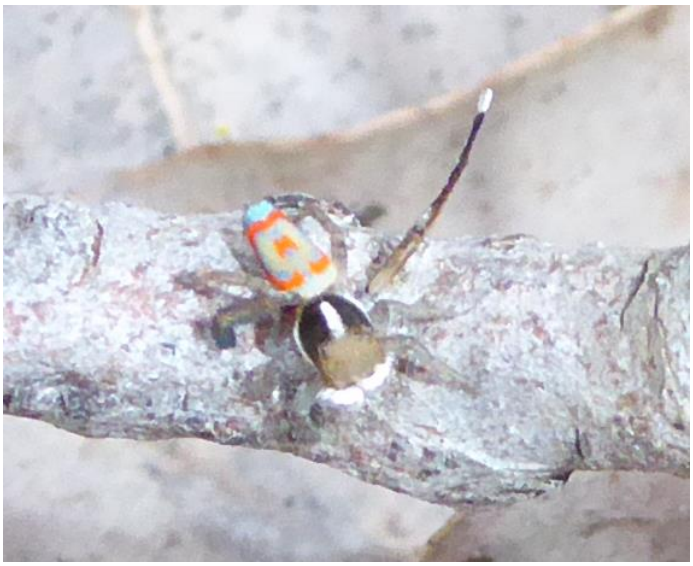
See the main article at the end of the newsletter for more information about these bees.

25 September 2022
Seven of us spent an enjoyable hour or so meandering one of the reserves, doing a spot of weeding while looking at the wildflowers. At the top of everyone's list were the orchids, of which we saw six species – Cowslip, Pink Fairy, Pansy, Common Mignonette, Dark Banded Greenhood and Scented Sun Orchid.

Scented Sun Orchid, *Thelymitra macrophylla*.

The Milkmaids were putting on a good show, too. Rosemary led us to an area where we could see two different species together. A single *Burchardia multiflora* (red centres) was growing in a sea of *Burchardia congesta* (yellow centres).

Not to be outdone by the flowers, a couple of male peacock spiders were seen by a lucky few. These tiny spiders put on an elaborate display in order to woo a female. They wave their legs around while raising their abdomen to show the female their colours.

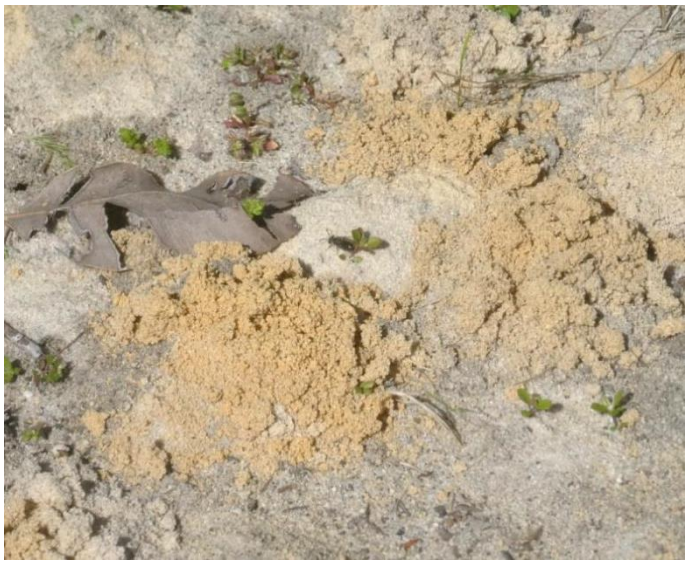


Common Peacock Spider, *Maratus pavonis*, waving a leg.

A big THANK YOU goes to Barbara, Carlene, Collette, Ian, Jackie, Kade, Lily, Mia, Ronnie, Rosemary, Sara, Sian and the City of Canning's Natural Areas Team for helping out with these, and other, activities in the bushland.

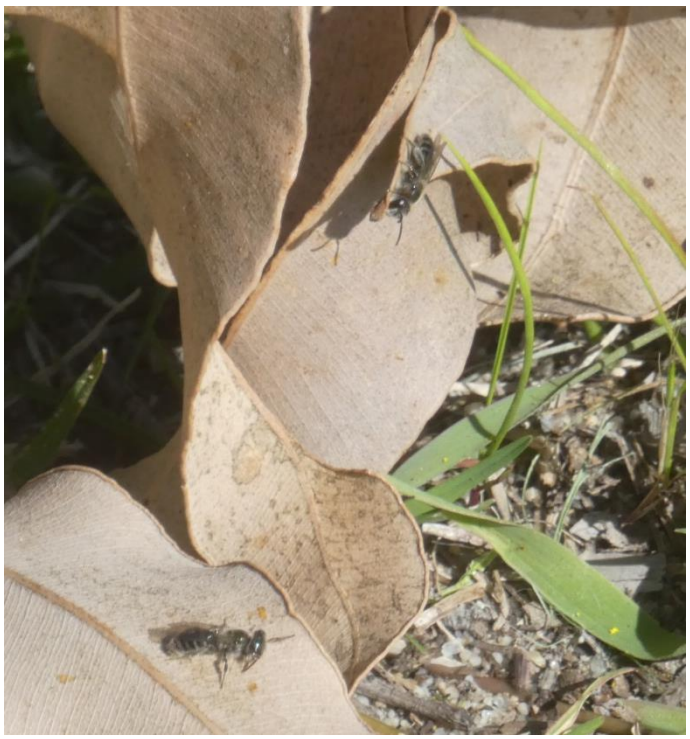
Native bee nest site

As mentioned earlier, at the group activity on 28 August, we found the nest site of some native bees. Terry Houston, from the WA Museum, identified the bees as belonging to the genus *Leioproctus*.



A *Leioproctus* sp. bee sits near some burrows (the bee is the small black insect near the centre of the image).

Although there are hundreds of nests close to each other, each female bee works by herself to dig a burrow. Some of the larger species of *Leioproctus* can dig burrows 1.8 m deep, but our bees are relatively small at 9 mm long and would have shorter burrows.

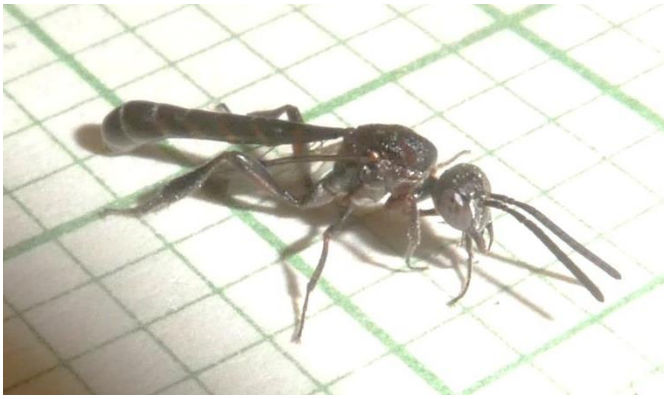


Two bees are resting on some dead leaves.

Coming off the vertical shaft of the burrow the bee constructs many egg chambers. For each chamber she collects a ball of pollen onto which she lays a single egg. The chamber is then sealed and the young develop with no further parental care. Feeding on the pollen ball, the young develop and transition through the larval and pupal stages. Once adult, they dig their way out of the nest and start the cycle again.

A *Leioproctus* sp. bee. The grid lines are 2 mm apart.

Found with the bees were some parasitoid wasps. These wasps wait for an opportunity to enter the bee's burrow and locate a nest chamber in the process of being provisioned. The wasp lays an egg of its own on the pollen ball that the bee is creating for its own young. The wasp larva hatches first and eats the entire pollen ball before the bee larva has a chance; leaving the bee larva to starve. The wasp larva may even eat the bee larva!



A parasitoid wasp found at the nest site. At 11 mm long, these wasps are slightly longer than the bees.

What's the difference between a parasite and a parasitoid? A parasitoid kills its host whereas a parasite, in general, doesn't. These parasitoid wasps kill the bee larva, either directly by eating it, or indirectly by eating its food and letting it starve to death.