THE GECKO

Edition 8
July 2015

Welcome to the July 2015 edition of the Gecko.

Plants, plants and more plants. We started the quarter by pulling the weeds up and finished by planting natives in the freshly cleared ground.

We need your input. Have you taken a photo or seen something in the bush that you'd like to share with the group? Perhaps you have a question to ask. Send it in to fqpbushland@gmail.com and we'll include it in the next newsletter.

April to June 2015

26 April 2015
Being held in the middle of the ANZAC Day long weekend, not many people were expected to come to this activity. However, it was pleasing to see seven enthusiastic weeders attend.

We started by learning to identify African lovegrass, Eragrostis curvula, and how to crown the plant – cutting through the roots just below the soil surface. Everyone then set to work.

Thanks to everyone's hard work we cleared a huge number of weeds and thoroughly enjoyed the morning tea provided by Rosemary, Bev and Rob.

We'll be planting into this area soon, so it was time well spent. Take a look at the before, during and after photos to appreciate the achievement.


Before weeding.


During weeding.


After weeding.

31 May 2015
We had seven members along to weed on this day. As we always tell people, even the most boring job, like weeding, can turn into the most interesting activity. And so it was with this one.

Although only weeding an area about the same size as a large double carport, we found four south-western spiny-tailed geckos, Strophurus spinigerus. Each was examined by everyone in the group as it was moved to a safer location.


South-western spiny-tailed gecko, Strophurus spinigerus, being moved away from weeders. Photo by Ash.

One of the geckos had lost its tail and was part way through regrowing a new one. The new tail was only about 2 centimetres long and little more than a point coming out of the end of the gecko's body.


Gecko with regrowing tail. Photo by Ronnie.

We then had a discussion about regrown tails and how they are not as functional as the original. They no longer contain bone, but cartilage. And regrown tails no longer act as fat storage organs. However, they are still detachable and offer the gecko a chance of escape from a predator.


Weeding in the area where the geckos were found.

6 June 2015
This was the first of our 1 hour planting sessions. Ten enthusiastic planters braved the showers to put 202 plants in the ground. This was in the same area we cleared of weeds the previous weekend.

This area was heavy, muddy clay that took some effort to work with. There were no complaints to be heard but a longer session would have been asking a bit much.

Participants queried whether plants would actually survive in the clay as it is quite different to the sand we're used to working with. But we were all pleased to be reassured that while it wasn't where we would choose to live, the plants we were putting in the ground would think they were in heaven.

Not surprisingly, the geckos from last week had decided to move to a quieter location and none were seen.


Planters hard at work.

10 June 2015
Our first mid-week planting session saw five planters meet for an hour of planting. We also had our youngest ever participant at only 18 months old.

The heavy clay from just a few days ago had dried out a bit and was a little easier to work with. It was certainly easier to clean up afterwards.

We put 105 plants in the ground before our youngest planter demanded to be taken home for a nap. Thinking that sounded like a great idea, the rest of us stopped for a cup of tea and a biscuit.

13 June 2015
A further 210 plants were put in the ground by eight volunteers on this sunny morning. The planting was easier as we have moved to an area with a higher sand content in the soil.

The planting was so easy that Sian, who was placing the plants on the ground, couldn't keep up with the planters.

We need some rain to fall now so that these plants get bedded in and so that we can start planting our dryland plants.

18 June 2015
A mammoth effort was made by eight volunteers and three members of the City of Canning's Natural Area Team to plant more than 1,000 seedlings on this day (we started to lose track of how many we planted after we ran out of fingers and toes).

With many planters staying for more than four hours, we spent a total of 51 hours planting, watering and staking.

This was in the area we weeded on 26 April (see earlier article in this newsletter). It is also the area that was mentioned in the last newsletter (Edition 7, April 2015) that is going to receive stormwater runoff from the new development in Whitlock Road.

We planted out lots of species that can tolerate wet conditions and planted them densely so that their roots will stabilise the basins. Being densely planted also means that it won't take long before they become a barrier to trailbikes and a home to native animals.


Planting again.

20 June 2015
As we had finished planting out the new wetland area on the 18th, we moved to a new section for this day's planting. This area is one that we are revegetating with the support of the City of Canning and a grant from the Department of Parks and Wildlife (DPaW).

We have tried planting here on previous occasions but failed each time. Earlier this year the City tested the soil and it was found to have very few nutrients available for the plants. The plants had been starving to death!

To help overcome this, the City incorporated some compost into the soil and each plant that we put in the ground received its own fertilizer tablet. Now that we know what the problem is we can keep an eye on this area and put more fertilizer on the plants if required.

Today, 11 volunteers put in 202 plants and then staked and watered them. We have our fingers crossed for nature to give them a good soaking tonight.


More planting!

25 June 2015
It was another huge effort by eight volunteers and three members of the City of Canning's Natural Area Team. We managed to put 653 plants in the ground as well as stake and water them.


How can we possibly fit more in?

27 June 2015
A fine day saw 10 volunteers meet to plant 195 seedlings, stake and water them. We are coming close to finishing the planting for this area – at least for this year.

We promised to plant 2,000 seedlings in the area covered by the DPaW grant. To date we have planted 1,205 seedlings (this includes 155 seedlings that were planted last year). We have around another 100 left to plant this year, which means we need to grow another 700 or so for planting next year.

The seedlings are to be grown from local provenance seed, meaning we'll be doing a lot of seed collecting, sowing and potting up later this year and yearly next year.


Nearly finished.

A big THANK YOU goes to Alexander, Amelia, Ash, Banita, Barbara M, Bev, Claire, Collette, Janelle, Jelena, John, Lee, Luke, Mandy, Naomi, Nikole, Pia, Ronnie, Rob, Rosemary, Sara, Sian, Sue and Tehlia for helping out with these activities.

Upcoming events

9 July – Planting at our National Tree Day event. Plus more planting throughout the month.
16 August – Science Expo at the Kent Street Weir, Wilson.
12 September – Birdwatching walk with BirdLife Australia.

Also this quarter

More environmental honours were awarded by the City of Canning to bushland volunteers.

Rose was jointly nominated by Wilson Wetlands Action Group (WWAG) and the Friends of Queens Park Bushland for the support she has provided. Not only did Rose volunteer her time to do on-ground work, but she was treasurer and committee member for both groups.

The honours were awarded at a ceremony on 1 April 2015 by Steve Atwell, Director of Infrastructure and Environment with the City of Canning. Sadly for us, Rose moved to Victoria late last year to be closer to her family so Sian and Russell (WWAG) accepted the award on Rose's behalf.

A plaque honouring Rose can be seen outside the entrance to the Canning River Eco Education Centre.

Sian and Russell accept Rose's honour award from Steve Atwell.

Tree Definitions were in Black Creek Reserve during June removing trees around the lake. Most of the trees were removed because they were not native to the area or because they were of a weedy nature. A few native Melaleucas were removed from in front of the viewing platform to provide a better view and the enable wind to blow across the water's surface.

Wind blowing over the surface will help to oxygenate the water and keep it healthy.

To help with the heavy lifting, the workmen had a nifty vehicle that could lift and carry a whole tree with ease. But where the men were working in amongst other vegetation they would carry each branch out by hand.


Before removing trees from in front of the viewing platform.


After removing trees from in front of the viewing platform.


Removing a whole tree from in front of the viewing platform.

A new bird species was identified as being in Black Creek Reserve – tawny frogmouth. Unfortunately, the bird was dead and had decomposed to be little more than a skeleton and a few feathers. However, this was enough to identify it as a new species for our list. We have now recorded 93 species of native bird and eight introduced bird species in the reserves.

Opposite is a photo of a living tawny frogmouth (this photo was not taken in our reserves).

Tawny frogmouth.

Galls on Bossiaea eriocarpa

Have you ever noticed galls and wondered what was inside them? Galls on the common brown pea, Bossiaea eriocarpa, can be seen during spring. They look like berries, up to 7mm in diameter and coloured green to red. They could easily be mistaken for the fruit of the plant until you see the real seed pods. Sian broke one open and inside was a black insect, but she didn't know what it was.

The galls are the round berries.
The seed pods are long, flat and hairy.

Inside a gall.

When she got home Sian looked up galls in two of her books – 'Pests, Diseases and Ailments of Australian Plants' and 'Life in a Gall'. Both books explained that galls were the plant's reaction to a physical or chemical stimulus, usually caused by fungus or insect attack. Differently shaped galls are formed by different species. It is possible to tell what caused the gall to form by looking at the species of plant and the characteristics of the gall. In some instances, males of an insect species stimulate the creation of differently shaped galls to the females of the same species. In these cases you can not only identify the species of insect inside a gall, but what sex it is.

While the books were silent on what caused the galls on B. eriocarpa, 'Life in a Gall' discussed methods used to keep the gall and wait for the insect to emerge. Sian decided that this was what she had to do to satisfy her curiosity.

Sian collected some galls and placed them in a jar on her dining room table. In case the insects needed their galls to be attached to the plant to fully develop, Sian placed a cloth bag over a gall covered branch and secured it with a twist tie.

After five days Sian had an insect crawling around inside the jar on her table. With her eyesight not being what it used to be, all Sian could initially say was that it was three millimetres long and black. She could also tell that it wasn't very mobile. It either didn't like to, or couldn't, fly very much. It walked everywhere. The only time it would fly was when a gall bumped into it from having the jar turned. And even then it only flew enough to get out of the way.

However, having a docile subject meant that handling it was very easy. Sian was able to transfer it from the jar to another container without fear of it flying away and being lost. This also made it easy to photograph. At last she could see what it looked like. However, that didn't help much because she still didn't know what it was. It was most likely a wasp, as most insect induced galls are made by wasps, but she couldn't see a well-defined waist. Could it be a fly?

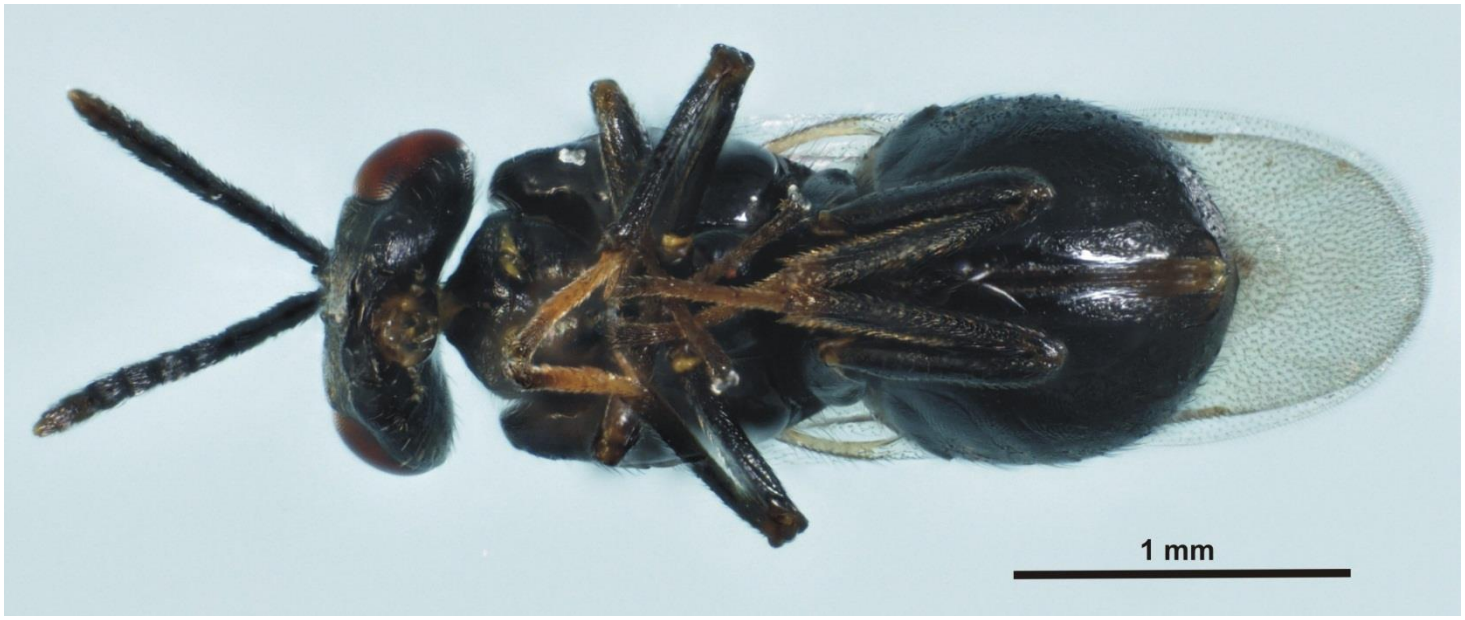
The photos were sent to Terry Houston at the WA Museum and he was able to confirm that it was a chalcidoid wasp. Wikipedia says that there are 22,000 known species wasps in the superfamily Chalcidoidea worldwide with perhaps another 500,000 to be discovered and described. While most of the known species are parasitoids of other insects, some larvae feed inside seeds, stems or galls. Okay, with those numbers we're probably not going to find out what species Sian had 'discovered'.

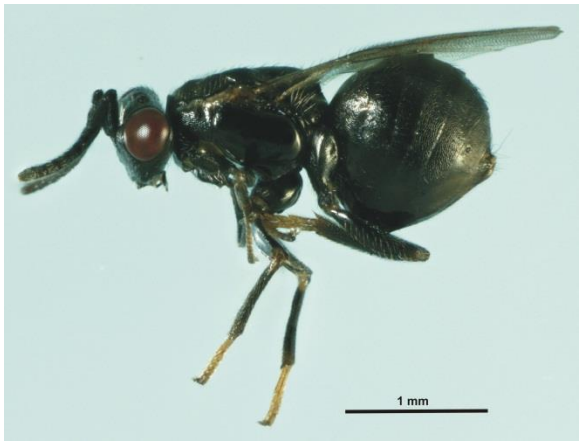
Terry also offered to see if he could narrow down the family to which the wasp belongs by examining it more closely. Sian accepted Terry's offer and set off to check the bagged branch in the field. She was pleased to find a wasp sitting on the outside of the bag just waiting for her to collect it. Inside, she found another five. They were easily transferred into a small plastic tube and delivered to the Museum.

Much to Sian's amazement, Terry was back to her the next day with not only a genus for her wasp but a possible species - Tanaostigmodes sp. (possibly T. megalarus). The book Terry was using to help identify the wasp has an index of plant hosts. Terry looked up Bossiaea and found there to be only one wasp genus listed as using this plant - Tanaostigmodes. It was then just a matter of comparing Sian's wasps to the description in the book and the identification was made. Terry says that this genus has some outstanding features, including the well-developed 'shoulders' that can be seen in the photos on the following page.

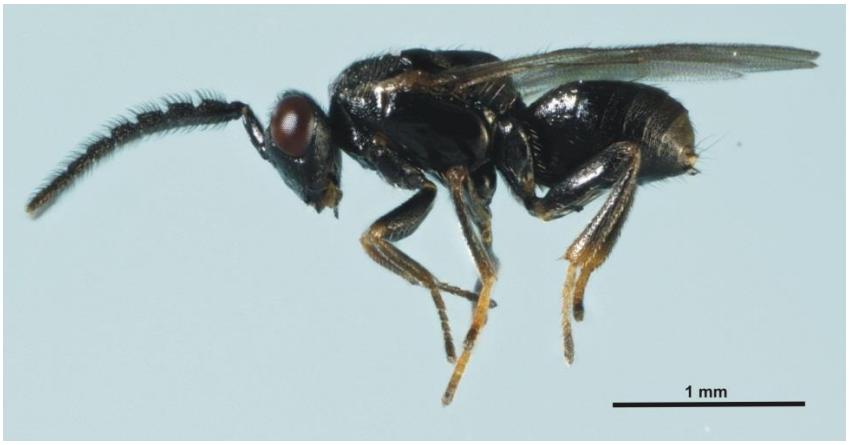
Galls can be found on many species of native plants and most do little harm to the host plant. Have a closer look at the plants in the bushland and notice all of the bumps and lumps on their leaves and stems. When you consider that each lump represents a separate individual insect, and each type of bump is a different species, you start to realise how much of our wildlife is hidden from view and how dependent the insects are on healthy plant life.

Photos courtesy of Terry Houston, WA Museum.





Female



Male