Field Nats News No.314

Understanding Our Natural World
Est. 1880

Newsletter of the Field Naturalists Club of Victoria Inc.
1 Gardenia Street, Blackburn Vic 3130
Telephone 03 9877 9860
P.O. Box 13, Blackburn 3130 www.fncv.org.au
Newsletter email: joan.broadberry@gmail.com
(Office email: admin@fncv.org.au)

Editor: Joan Broadberry 03 9846 1218
Founding editor: Dr Noel Schleiger

Reg. No. A0033611X

Patron: The Honourable Linda Dessau, AC
Governor of Victoria

Office Hours: Monday and Tuesday 10.00 am - 4 pm.

December 2020/January 2021

From the President

This is the last FNN for 2020 and I would like to thank and congratulate the editorial team for a sterling effort under very trying circumstances. I encourage everyone to continue sending photos and observations to Joan for inclusion in forthcoming editions. I wish you all a safe and productive holiday season and hope to see you in person in 2021 when possible.

As this issue covers two months, December 2020 and January 2021, the due date for FNN 315 (the February edition) will be 10 am Tuesday 5th January 2021.

We will be upgrading the washrooms/toilets at the hall over the break to provide safe hand washing facilities as part of a covid-19 safety management strategy. A hot water system will be installed along with hands-free taps, hands-free soap dispensers and hands-free air dryers. Where possible, hands-free door opening will be adopted. The final procedures and overall strategy will depend upon the current regulatory requirements.

We have been running a number of successful Zoom meetings and presentations and expect to continue them as needed in 2021 and beyond. Online presentation has facilitated access to our members across Victoria as well as interstate. As the NBN improves we will be able to make even better use of the technology. The Nature Stewards Program has also been successfully running from a Zoom platform during lockdown. I believe that the potential advantages of video conferencing for the Club are significant and we are investigating the available options.

I have received a number of enquiries about UV torches and scorpions over recent months. I have prepared the following:
Three scorpions sometimes encountered on TIG Macro-photography forays.

A. The Wood Scorpion, *Cercophonius squama* occurs across the State and is probably a group of at least six or more closely-related species including *C. kershawi*. I often find this species with small red mites attached (photo 1). It usually lives in or under rotting logs or under bark. I have encountered it moving out in the open during cooler weather but never in the heat. I have detected them at night with spotlights and UV light; both on the leaf litter and crawling on tree trunks. They may also wander into tents at night.

Photo 1. *Cercophonius squama*. Wandering over the ground near midday, with numerous mites attached. See also photos 9 and 10, *page 3*

Photo 2. *Cercophonius squama* under UVA light circa 395 mm

B. The Black Rock Scorpion, *Urodacus manicatus*. A robust scorpion found to the North and west of Melbourne in Grey Box and Iron Bark areas. It is commonly found under rocks and fallen bark. They are not uncommon but

(Continued on page 2)

Index	Page

(*Continued from page 1)*

tend to be reclusive, spending most of their time under their rocks or fallen bark. The pectines and book lungs are clear in photo 5. Pectines are used to detect surface vibration and also have a chemosensory function. Sadly, *Urodacus manicatus* may be under significant threat from collectors who catch it for the pet trade. For that reason I have not included any locations.

Photo 3. *(Above) Urodacus manicatus*.

Photo 4. The same *Urodacus manicatus* photographed under UVA light a few seconds later.

Photo 5. *(Right) Urodacus manicatus* clearly showing the pectines and book lungs. This animal seemed to be playing dead and remained still for about 5 minutes.

C. The Marbled Scorpion, *Lychas marmoreus*.

A smaller, more slender species found under bark and stones across the State. They seem to overlap the distributions of the other two. They also glow under UV light. Sometimes I have found these under my tent when packing up after a camp. Using a UV lamp, I have often observed this species wandering about at night.

Photo 6. (*Far left) Lychas marmoreus*

Photo 7. *(Left) Lychas marmoreus* with its prey, a small beetle.

Fluorescing Under Ultraviolet Light.

From photographs 2, 4 and 8, it is clear that scorpions do glow under UV light (circa 395nm). The outer layer or cuticle comprises hardened minerals and proteins and has a thin hyaline layer which produces a fluorescent substance as it hardens that reacts to ultraviolet light and causes scorpions to fluoresce. The substance is thought to be the by-product of a chemical reaction involving beta-carboline and 4-methyl-7-hydroxycoumarin. It is produced after scorpions have moulted and shed their outer skin during ecdysis. Fluorescence under ultraviolet light occurs once the new cuticle hardens. First instar juveniles do not glow like their parents (photo 8) but glow brightly after the first moult. The fluorescent cuticular compounds absorb UV light and re-emit it as a vibrant blue-green light. Ultraviolet light can harm scorpions for the same reasons it can harm other life forms, including humans. Prolonged exposure to UV light will impact scorpions and may lessen the intensity of their fluorescent glow. It can cause blindness, stress and can kill them. The exposure should always be brief. Scorpions are cannibals and will eat other scorpions. Under UV light the fragments of their victims can sometimes be seen glowing in their burrows and around the entrance since the integument remains fluorescent after death. In my experience, quite a number of the victims appear to be juvenile scorpions. (*Continued page 3)*

UV Radiation - an overview

UV Fluorescence allows us to see and locate scorpions in the dark and possibly avoid unpleasant encounters. However, there are potential risks for those using UV torches so understanding the risks is essential for their safe use. There are three main types of ultraviolet rays: UVA, UVB, and UVC:

UVA has the longest wavelength (400-320nm) and is the least energetic form of UV radiation. It is the closest to visible light. UVA rays can penetrate deeply into the skin and cause long-term damage to collagen. They are the predominant cause of aging, wrinkling, loose skin and sunspots. UVA is not the principal cause of skin cancer, but can produce changes in DNA, which may eventually lead to it. UVA rays are present all year round through all seasons. They are able to bounce off reflective surfaces such as water, ice and snow.

UVB has a medium wavelength (320-290nm) and is moderately energetic. UVB rays penetrate the ozone layer and can reach the superficial layers of our skin. It is the predominant cause of sunburn. UVB also directly penetrates DNA in skin cells causing changes in the DNA and is a principal cause of the most common forms of skin cancer.
UVC has the shortest wavelength (290-100nm) and is the most energetic. It is germicidal and can cause a lot of damage to living organisms. UVC rays from the sun don't penetrate the ozone layer in the atmosphere. However, you can still be exposed to UVC through man-made sources since UVC is used in laboratories and food preparation facilities to reduce bacterial contamination.

If you are planning to get a UV light to detect scorpions, you should choose an LED blacklight. They produce UVA and have negligible UVB and UVC output, if any at all. LED blacklights usually emit UVA at circa 395nm which barely enters the UV spectrum. They are the safest to use, and they lack the energy to cause any significant damage to most organisms if properly used. However, never look directly at the light and follow all recommended safety procedures provided with the light, including the use of a UV filter to protect your eyes. Even reflected light can be problematic and good black light models come with orange UV safety spectacles. Always ensure that other observers are also protected. It is vital to make sure that your skin and eyes are always protected from all sources of UV radiation. UV lights are not toys and are not recommended for use by children, who must only learn to use them under strict supervision of an adult.

Maxwell Campbell (*All photos M. Campbell*)

Photo 8 . White, juvenile scorpions before their first moult. They are not fluorescing like their mother

Photo 9. *Cercophonius squama* rapidly retreating from the spotlight and moving to safety under the bark.

Photo 10. *Cercophonius squama* prowling on a tree trunk at night.

Thanks to the editorial and layout team who put together FNN 314

Joan Broadberry
Wendy Gare
Sally Bewsher

Geology Group

Rivers of Gold

Speaker: *Professor Susan Lawrence* (via Zoom)

On 28th November, the Geology Group heard from a most interesting speaker, Professor Susan Lawrence, regarding the residual pollution levels still present in Victorian rivers from historical mining. Professor Lawrence is a Canadian archaeologist who is now at La Trobe University's Department of Archaeology and History. She, and a number of other specialists in their fields (particularly Dr Peter Davies, Professor Ian Rutherfurd, Jodi Turnbull, and Dr James Grove), ran a detailed study of the mining sludge remaining particularly in the Loddon, Ovens and Yarrowee/Leigh Creeks. The mining history of the mining areas associated with these waterways was discussed and Victoria was described as being politically defined as a strongly pro-mining state until at least WW1. The mining affected all sections of society and the amount and effect of sludge generated significant and widely criticised levels of protest over 50 years until the 1904 Amendment to the Mines Act and the subsequent setting up of the Sludge Abatement Board which was, however, not totally successful in managing this major problem.

Sludge in Yarrowee Creek overlaying the river flat, East Ballarat. **Photo:** Ballarat Historical Society Archives

Note sludge in distant Yarrowee Creek, Ballarat. Also showing one of the extensive water races bringing water for puddling (as the miners appear to be doing) and the pipe for drainage of waste water. Also note the erosion and lack of vegetation. **Photo:** Ballarat Historical Society Archives

To measure the pre-mining river profiles, LIDAR images of below the surface layers were taken, as well as geological examination of the waterway's banks. These were compared with measurements of the levels of pollution after mining commenced, found as thick layers in the walls. Mining used a considerable amount of water in the processing of the ore, while the mud, clay, sand and other debris after processing, was just washed down the existing creeks with long term effects on the land productivity, the quality and quantity of both drinking and industrial water and the shape of the rivers. Abatement measures often involved straightening and lining of rivers, thereby allowing both the water to flow more rapidly and causing more erosion. The originally fertile flood plains were covered to a considerable depth with sludge. Seventy-five percent of Victorian rivers were found to be affected to lesser or greater extent, with the highest level (626 times the previous-industrial level) being found in the Barwon/Leigh Rivers downstream from Ballarat.

As well as the sludge, toxic minerals were also found in the sediments – mercury and cyanide from processing and arsenic (up to 140ppm) from the ore itself which was concentrated by the processing methods and included toxic

(Continued on page 5)

Llanberis mine, Sebastopol Ballarat produced an enormous amount of waste (plus air pollution).
Photo: Ballarat Historical Society Archives

(Continued from page 4)
fumes. Bendigo in particular had a very high rate of water borne diseases up until in the 1860s. Large private reservoirs were initially set up for mining purposes only (such as Kirks in Ballarat) but, after Government intervention, they also provided water for both drinking and mining. The Colliban Reservoir was built to supply Bendigo.

The sludge continues to affect the Victorian landscape and this land continues to be less productive than it would otherwise be. Only 20% of the land dredged in the Ovens Valley is now used for cropping or farming and the remainder is less vegetated. Modern mines are more aware of the effect of their mining by-products which they now hold in settling dams with both biological and chemical techniques for removing the poisons. Regeneration is being attempted in some areas but more could be done on both counts.

Professor Lawrence and Peter Davies book, 'Sludge: Disaster on Victoria's Goldfields' provides more details of this most important study into the state of Victoria's rivers and can be purchased online. (It is highly recommended by Max). (https://www.blackincbooks.com.au/books/sludge).

This was a most interesting, detailed lecture and the 35 participants thank Professor Lawrence most sincerely for her talk. Thanks also to Max Campbell for facilitating Zoom and Kaye Oddie for introducing the speaker.

Ruth Hoskin

From the Office

COE Feb—May 2021
Due date: 27th November 2020

Dear Members, It's very heartening to be approaching a "covid normal" to reintroduce us to our usual activities for the coming months. The good news for naturalists is that we're drawing up our plans for excursions and meetings for 2021, starting with our Calendar of Events for next February to May. We hope to be offering the usual number of Special Interest Group meetings and forays, excursions and surveys which we usually schedule for you every year. Of course they'll be taking place within "covid normal" arrangements, with the rules and restrictions hopefully more relaxed by then than they are at present.

If any events are organised to take place before February, we will send you an email to let you know the details, as we have been doing up until now.

We're having our hand-washing facilities upgraded to a contactless system, complete with hand dryers, to enable you to attend the hall safely. This will be in place before our meetings restart.

Over Christmas I will be working up to and including Tuesday 15th December. The office will then be open again on Mondays and Tuesdays from 10 am till 4 pm from Monday 4th January.

I wish you a safe and uplifting holiday period, hopefully reunited with your loved ones, leading to a calmer and less stressful year ahead. Bring on the vaccines!

Warm regards from the FNCV office, Wendy

Members' news, photos & observations

Welcome

Warmest greetings to these new members who were welcomed into our club at the last Council meeting:

Emma Barnett, Eve Kolar, Catherine Tenni, Matthew Watters and Victorian Environment Friends network.

Calendar of events

Sunday January 10th 2021 *Marine research group fieldwork.* Please contact Leon Altoff as to whether this will go ahead, time and meeting place and details of the covid safe conditions which will apply. 0428 669 773 ***FNCV activities will adhere strictly to all rules set by the government. Members will be contacted by email if further club events are planned in the next few weeks.**

Congratulations to our amazing Junior Field Naturalists

An exciting email came. *"Just letting you know that a junior naturalist's film won first prize in the **Wild by Nature** short film festival last weekend. The… festival... is all about celebrating the amazing nature and natural environments in Victoria. There were three themes… Caring for Nature, Together in Nature and Dandenong Creek. The judges chose 15 finalist films (five from each age division) to screen… on 7th Nov. Phineas Wilton was a runner up in the Pobblebonk section (12 years and under) and Marlowe Wilton won first prize in the Swamp Skink section (13 to 18)."* Zoe Burton, Editor JFNCV Newsletter

All films see **https://www.rememberthewild.org.au/wild-by-nature/**

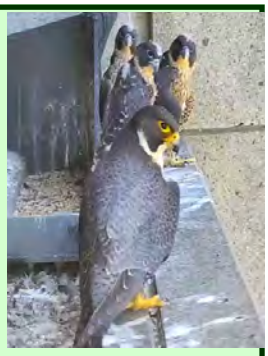
Vale Darcy Duggan

Sadly we have learned recently of the passing of Darcy Duggan. Darcy was a member of the FNCV from 1995 to 2016.

Tributes to Darcy's memory are to be found on Facebook. He was a dedicated field naturalist and a committed conservationist and ecologist who fought tirelessly for the environment. Darcy was an active member of the Australian Association of Bush Regenerators and a bush management and revegetation expert. Darcy was also a committed educator and presented at last year's FNCV Biodiversity Symposium. He will be missed throughout the community.

The FNCV extends its deepest condolences to Darcy's family and many friends.

From the editor



During this once in a century world pandemic, I have continued exploring the natural world within the restrictions imposed in Melbourne. In a lot of ways I have found it a hard time, but thankfully it has been lightened by many field naturalist 'wow' moments, some of them inspired by what I have learned from FNN. *See page 18*. Another positive is that, over the last eight months I have gained a real appreciation of my local area. I have enjoyed tracking the changing seasons of the Yarra Valley and astonishingly, have found and photographed more than 30 species of native orchids, kangaroos, platypus, a koala, an echidna and numerous bird, insect, plant and fungi species. And how could we possibly have made it through without our daily dose of **falcon-cam** from Collins St? As I write this, a screen shot shows the three youngsters are getting ready for their first flight. **www.367collinsfalcons.com.au** From the emails I have received, these experiences seem to mirror the 'lives in lockdown' of many others.

Working from home on the 'new look' FNCV newsletter each month has been a further sanity saver. The last eight issues of FNN have been different— in a good way. The articles, photos and observations contributed by members have proved enormously interesting. The lockdown has allowed the FNCV newsletter to broaden and deepen. In future the editorial team, with your help, will try hard to preserve this.

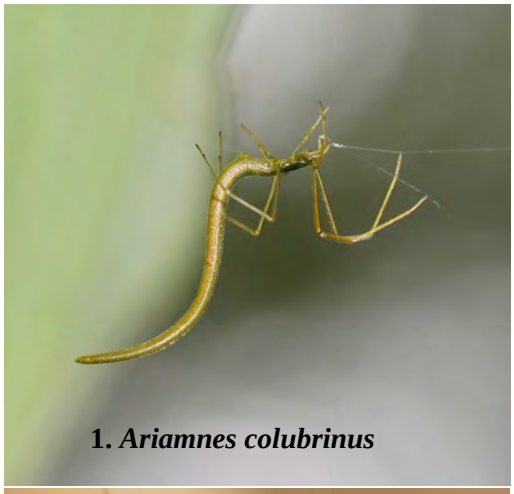
A correction is in order. In FNN 313 on p 9, I stated that koalas were the only mammal species evolved to exist entirely on gum leaves. In fact there are others, including the Greater Glider. We live to learn.

Although we have been unable to meet, we have found ways to stay connected through the magic of the digital world. However, nothing can substitute for the FNCV's 'normal' program of meetings and activities organised by its nine SIGs. No one can know what 2021 will bring, but we all hope for better days. I would like thank everyone for their magnificent support and extend to you all my very best wishes for a safe and happy Christmas. Keep your eyes and ears open for observations you can share with FNN.

Keep safe and busy, cheers, *Joan*

Getting to Know Your Garden Spiders

With the severe travel restrictions imposed this year, including limited time allowed away from home, I have spent more time in my garden. Fortunately, with a larger property in the Dandenongs than most suburban Melbournians have, with I was at least able to find enough things to keep me occupied this spring, particularly at night when the creepy-crawlies come out. I saw a lot of slugs and snails, millipedes, woodlice and spiders.



1. *Ariamnes colubrinus*

One such spider species is the Whip Spider *Ariamnes colubrinus*. I haven't seen a huge number of these before, but started seeing them regularly in the garden at night. And being the type of spider that builds traps, rather than going hunting, the same ones were sighted in the same places on consecutive days – some were brownish and some were greenish.

Quite appropriately around the outside walls of the house are a few Long Legged House Spiders *Cryptachaea gigantipes*. These are medium sized and pale but have intricate patterns on their backs. There are also lots of the tiny Social House Spiders *Philoponella congregabilis*. These have unusual, knobbly abdomens and most are a fairly plain beige colour but the one pictured was dark on the upper surfaces.

2. *Cryptachaea gigantipes*

3. *Philoponella congregabilis*

4. *Thwaitesia nigronodosa*

Speaking of patterns, one of the most dazzling is that of the Black-spotted Thwaitesia *Thwaitesia nigronodosa*. When spotlighting these glisten like tiny jewels with their colorful enamelled appearance. Although more commonly recorded in the subtropics of Australia, I first found them in the garden, but since then have also in the local cool temperate forests.

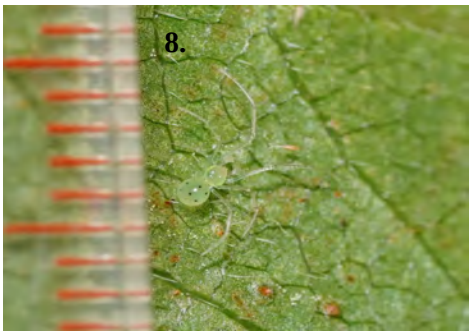
I've also been finding minute green spiders attractively adorned with black spots. These have been identified for me online as *Chrysso* sp. (Theridiidae family) **(images 5-8)** and seem quite abundant in the Dandenongs. However ,previous records from Australia are hard to find (the genus is not currently on ALA). Females carry their eggs around on their backs and I measured one at 2 mm long (head and body) and another, possibly male, at 1.5 mm.

5.

Chrysso sp.

6.

7.



8.

Reiner Richter
(*all photos R. Richter*)

Nature Quiz 6: Compiled by Barbara Burns

1. Which is Australia's largest bat?

2. Approximately when did dingos arrive in Australia?
   A. About 5000 years ago
   B. About 15000 years ago
   C. About 25,000 years ago

3. How many toes does an emu have?

4. Name this animal which occurs in the south west of Western Australia.

5. Is St Johns Wort (*hypericum perforatum*) an Australian native plant or an invasive weed?

6. What is the scale that measures the hardness of rocks?
   A. The Mohs scale
   B. The Beaufort Scale
   B. The Pauling Scale

7. What is the family of insects endemic to New Zealand which include some of the largest insects in the world?

8. Apart from spiders, which of these is a member of the arachnid family?
   A. Ticks
   B. Scorpions
   C. Mites
   D. All of the above
   E. None of the above

9. What is the name of the birds pictured right?

10. Put these five taxonomic ranks in order from highest to lowest.
   A. genus,
   B. kingdom,
   C. family,
   D. class,
   E. species.

11. What do spitfire larvae turn into?
   A. Butterflies
   B. Wasps
   C. Moths

12. Which of dragonflies or damsel flies generally rest with their wings open?

13. Approximately what is the percentage of salt in the ocean?
   A. 6%
   B. 3.5%
   C. 1.5%

14. What is another the common name for the perennial vine clematis?

15. Name the native plant pictured right which is common around Melbourne.

ANSWERS p16

Ancistrocerus gazella (European Tube Wasp) *A First ALA record*

Late on the afternoon of the 20th October, as I was doing a routine check for insects in my garden I spotted a black and yellow wasp in the Eremophila. It stayed for less than a minute and holding my breath to keep the camera steady, I managed to take six reasonable photos.

I found what I thought was the correct identification as far as can be ascertained from photography. This was *Ancistrocerus gazella*, the European Tube Wasp. I posted the images on iNaturalist (an online network of naturalists, citizen scientists and biologists).

What happened then really surprised me. The first response I got agreed that the identification looked pretty right, but commented that as there were no records for the wasp on The Atlas of Living Australia, but two for New Zealand, it would require further investigation.

The next comment was: 'It looks exactly like *Ancistrocerus gazella*. However, there are a few other European species that look very similar which I am not familiar with (my area of expertise is Nearctic Eumeninae). I can rule out *A. parietum* however, (another European species that was introduced to North America). Since *A. gazella* has been recorded from NZ, I think it is very likely that this is that species. I will ask some of my European colleagues what they think about it.'

A further posting clinched it:
'Ok, *A. parietinus* or *A. gazella?*
A. gazella have plenty of yellow bands (five or more), with black propodeum.
A. parietinus should have a black post scutellum, while *A. gazella* has a yellow continuous line.
Therefore, as far as the photo-based determination goes, yes, this is *Ancistrocerus gazella..*'

So that is where it stands. The information will be uploaded to The Atlas of Living Australia as the first recorded sighting. If you wish to look at the posting the link is **https://www.inaturalist.org/observations/63461**

Carol Page *(all photos C. Page)*

FACEBOOK FOLLOWERS

At the last count the FNCV had 16,936 followers.

A huge vote of thanks must go to Claire Ferguson and Andrej Hohmann who have put in many hours moderating the FNCVs Facebook page.

Life Cycles and Behaviours Revealed, Part 4
Observations at Blackburn Creeklands over an extended time

Wendy Clark
All photos: W. Clark

Parrots have so much Fun

I always love watching and listening to the parrots as they always seem like they are having so much fun. Life seems to be full of joy to them. When you see and hear a flock of Musk or Rainbow Lorikeets flying by, all calling to each other, you can't help but smile.

Corella acrobatics

The Corellas however have taken it to a new level. They hang off pieces of long bark doing acrobatics as well as on the wires and lights of the local bowling club – all the while, screeching and calling to each other. They seem to do

Long-billed Corellas arguing over a hole

Little Corellas swinging on some bark

Competition for hollows

There is also a lot of competition over nesting hollows and I have often seen arguments between different species over who gets the hollow. Sometimes it is between Lorikeets and Corellas, Lorikeets and Rosellas, Galahs and Corellas or Long-billed and Little Corellas. I was informed recently though, some of the sightings at hollows is when they are accessing a drink from a pool of water that has collected in the hollow. A bit hard to tell when it is way up high in a gum tree, but if you watch the behaviour, it does become apparent which it is. *(Continued p 11)*

Little Corellas checking for nest sites

Long-billed Corellas

Gang Gangs and Rainbow Lorikeets in competition

Kookaburras

Another bird competing for hollows is the Kookaburra. We watched some amazing behaviour one day as one flew repeatedly at a tree, hitting it with his beak. It would fly back to another tree and repeat the action. We couldn't see what benefit that particular effort did. However, the other week I observed one doing the same thing on a different tree. This time when it flew at the trunk and struck it with his beak, it sounded hollow. The next time, it flew at the trunk it put its bill into the scar and scooped out some, I presume, rotten wood. This was repeated many times. Later observations show the hollow is being worked.

Eating a yabbie

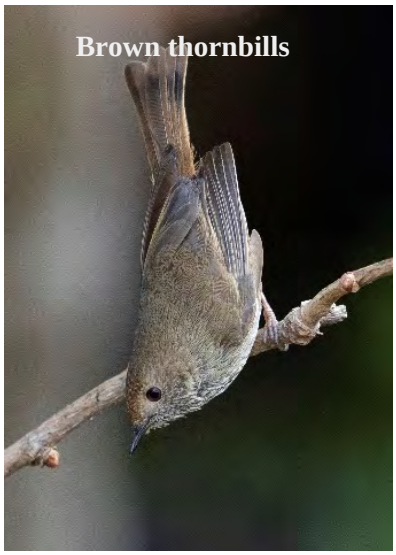
Working at nest hole

Female on left – duller blue on wing
Male on right – whiter head, bright blue on wing

The little brown birds

Many people have trouble identifying little birds and just call them LBB,s (little brown birds) and I can understand why. You can hear them in the scrub but often can't see them. Some have similar calls, they move very fast when you can see them and when they fly out, they are like a fast-moving brown streak. To top it off, the Brown Thornbill is a mimic!

I made it a point of trying to identify these in my survey area. They were the White-browed Scrubwren and the Brown Thornbill. I am getting better at identifying the calls. If they stop and perch even for a moment, I can see the difference. The Brown Thornbill is smaller and sits more upright whereas the Scrubwren is a little bigger, darker and heavier and sits more horizontally. It usually stays lower in the scrub whereas the Thornbill will forage at all levels in the trees. I have Brown Thornbills in my back garden and thought I could learn the calls from observing them at my leisure. They often came into the trees around my aviary which contains finches. These Thornbills have a huge repertoire of calls including mimicking the 'pip pip pip' alarm call of Blackbirds. However, I find the birds at the creek only use a few of those calls as well as some others that mine don't seem to use. *(Continued p12)*



Golden Whistler

The new bird on the block at the Creeklands this year was a female Golden Whistler. There are at least two birds, possibly three that have been sighted. They are pale brown, quiet, curious. They are often flanked by Thornbills. I haven't heard a call. When I have seen it in my survey area, it is usually at the same time of the day. The last time I saw it, I made some twittering noises and it stopped and looked at me before deciding I wasn't worth the effort! I really hope we get a male in the area. They are at Blackburn Lake which isn't far away.

Grey Fantail

I was thrilled to see a Grey Fantail in my garden the other morning. It flittered through the trees and sat on a piece of trellis briefly before flying off. It is the first one I have seen in my garden in 26 years.

A few days later, (21st Sept) I sighted them at the Creeklands! I saw two birds flitting around the bushes hanging over the creek. I imagine they time their arrival with the emergence of insects as they are insect eaters. I was informed that they were probably Tasmanian Fantails, on their way back to Tassie. They are a bit darker and only have a very thin white line either side of its tail, whereas the local one has a lot of white feathers in its tail. When I looked at my photo of the one in my garden, I could just see the thin white line. *(Continued p13)*

Tawny Frogmouths

Most times when you see a Tawny Frogmouth during the day, they look very much like the branch they are sitting on. If they are aware you are looking, they may stretch themselves and look more skinny. It is best at this stage to back off so as not to disturb them. I found though, if you have a dog on a lead and their collar rattles, they look down at you and the expressions can be amusing. Once they have established that you are no threat, they go back to their log shape. It is very important not to distress the birds and if they look uncomfortable, to back off and leave them be.

At night, they come into their own. They will glide silently by or can often be seen sitting on the power lines waiting for moths or other small creatures to catch.

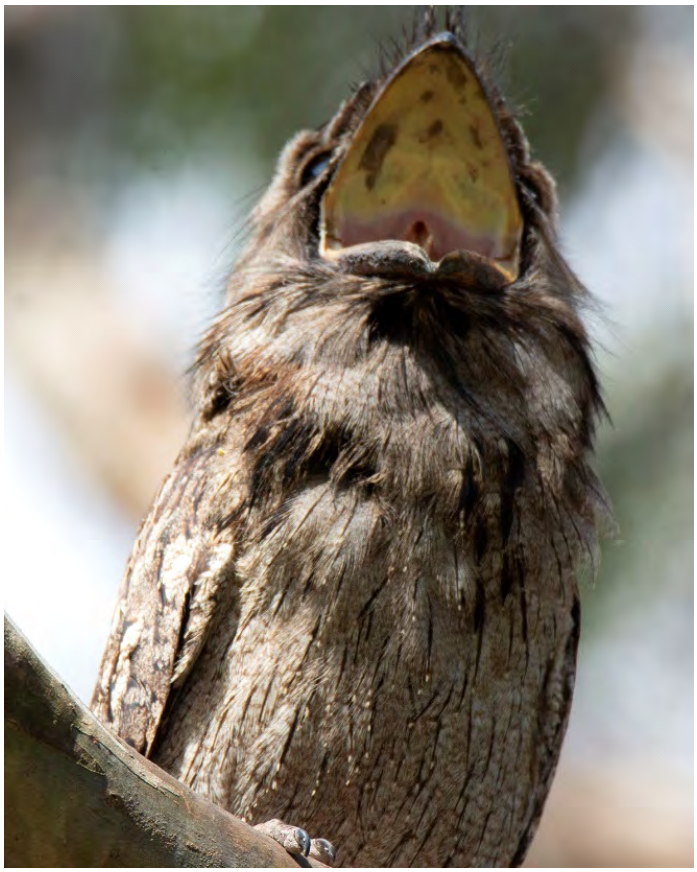
There are about five known pairs along the Creeklands that we monitor. It is a challenge to find their roosting site as they have several. Sometimes the pairs roost on the same branch for days or weeks on end and some days they are in different trees. It is also a challenge to watch for when the nests are made. Around Sept – October is when we start seeing the birds sitting on the nest. The other of the pair is usually not far away and has the nest in sight. *Cont. p14*

Tawny Frogmouths looking like a Log.

Watching to make sure all is OK.

Above: and right:
Watching the dog. They seem to not see it as a threat. However, they are more wary of people.

Good heavens, what's that!



Yawning. This is why it is called a frogmouth!

An odd sight

Occasionally, a ring-in appears. One morning after heavy rain most of the night, I was walking along the creek admiring the high, fast flowing water, when I heard mobbing calls from Grey Butcher Birds and Noisy Miners. I decided to investigate. Up in the top of the tree was a dark splodge being mobbed. On closer examination, it turned out to be a Grey-headed Flying Fox. The poor thing probably couldn't make it back to its normal roost. It would duck from attacks and occasionally lash out with its wings. It was in for a rough day! (*Continued p15)*

Above: **A Fruit Bat being mobbed by birds**
Right: **A brief respite**

Nesting time and all has gone quiet

After many weeks of loud calling from all types of birds all at once, they all seem to have gone quiet – except for the Noisy Miners and Raibow Lorikeets! I wondered about this and realised that most likely the birds have paired up, made nests, and now need to keep quiet for most of the time. It is strange to hear relatively few birds calling after the huge volume of Winter/Spring calls. I know the birds are still there though.

Many other birds

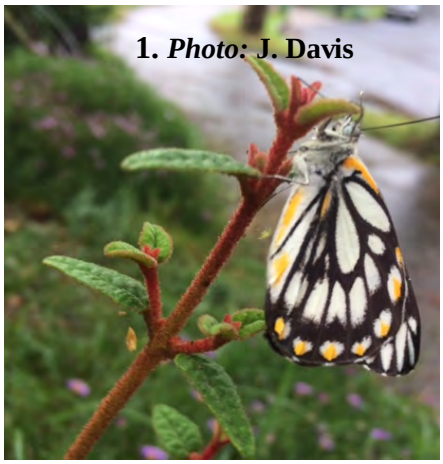
Other birds that are present in the area are Little Pied Cormorants, Mudlarks, Common Bronzewing Pigeons, Eastern Spinebills, White Faced Herons, Nankeen Night Herons, sometimes Buff– banded Rails, occasionally Powerful Owls and a Boobook Owl and more. In the past I have seen Sacred Kingfishers, Olive-backed Oriole and there are probably others I haven't found yet.

Photos clockwise:
Nankeen Night Heron
Eastern Spinebill
Boobook Owl
Buff-banded Rail

***Editor*: Many thanks Wendy for sharing your outstanding photographic and observational skills with us.**

The good news is that we can look forward to more from Wendy next year.

MEMBERS' SIGHTINGS


1. *Photo:* J. Davis

1. A Caper White Butterfly *Belenois java teutonia* resting on *Corea reflexa.* I found it while I was looking for Mars at night, three nights after the full moon. It is a migratory species. It was in the same place three nights later, having survived a heavy downpour, but was gone the next morning.

2. My grandson spotted this slime mould, kingdom Protoctista. on a tree in Warringal Parklands. It looks like *Dictydiathalium plumbeum* (3rd Sept 2020).


2. *Photo:* Jason Street

3. Bright surprise—Friends noticed a grey moth resting on an estate agent's noticeboard, then it opened up. They asked me to try and identify it, then found it themselves on Google.

It is a Fallen Bark Moth, *Gastrophora henricaria* family Geometridae. Larval food plant, *Lophostemon confertus*

Julia Davis


3. *Photo:* Martin Hengeveldt


4. *Photo:* K. Oddie

4. A delightful photo taken by **Kaye Oddie** in the Australian native garden in Royal Park, of a mother Wood Duck sheltering seven ducklings beneath her wings.

Answers to Quiz p6

1. Grey-headed Flying Fox.
2. About 5000 years ago.
3. Three
4. Numbat
5. Invasive weed
6. a. The Mohs scale.
7. Weta.
8. d. scorpions, mites and ticks are all members of the arachnid family.
9. Spotted Pardalote
10. kingdom, class, family, genus, species.
11. b. Wasps
12. Dragonflies
13. b. 3.5%
14. Old Man's Beard (or an older term is Travellers' Joy)
15. Hop Goodenia (*Goodenia ovata)*

15


5. *Photo:* Carol Page

5. A photo taken by Cecily Falkingham, of a female Crexa moth, *Genduara punctigers*, was featured in FNN 308 p12. There was a description of the smaller male moth, including that it has semi-transparent wings. Carol Page and I were fortunate enough to find this beautiful male a few weeks ago. Another nat 'wow' moment for me, due to FNN! **JB**

ANTONIO PARK

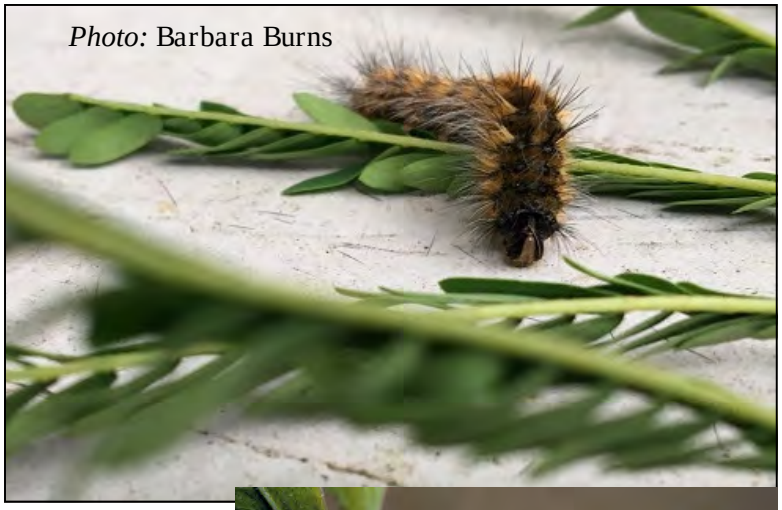


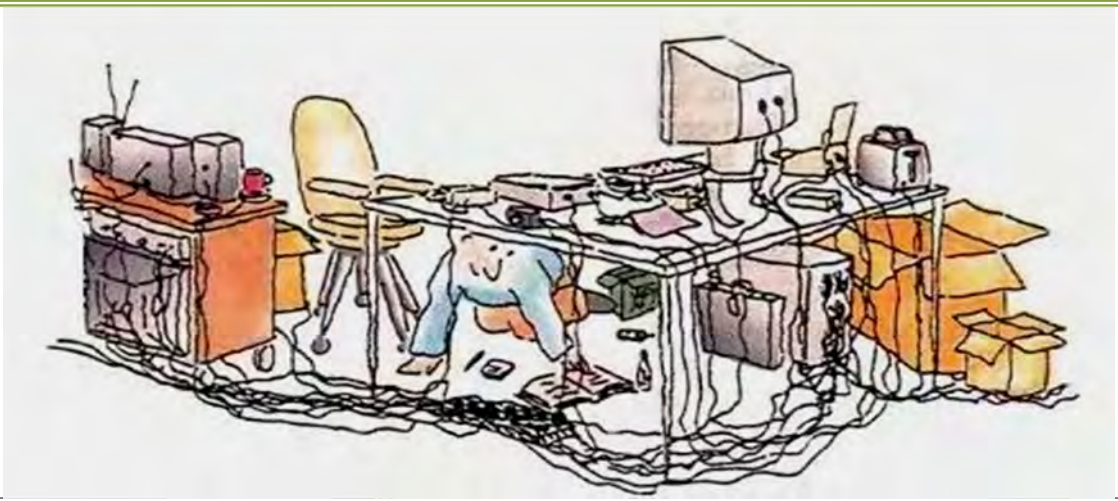
Photo: Barbara Burns

Antonio Park is a seven hectare piece of land on the corner of Maroondah Highway and Deep Creek Road, Mitcham. The park is named after the Antonio family who gifted the land to the former Nunawading Council. The northern section of the park is known as the Newlands and was purchased from Charles Schwerkolt in 1975 to replace the land sold to the Education Department for Antonio Park Primary School. The park can be a start of the walk to Schwerkolt Cottage and takes 15 minutes or to Yarran Dheran Reserve which is 45 minutes away. Car parking available in Deep Creek Road.

The narrow dirt paths that dissect the bushland are a delight at any time of the year but autumn for fungi or spring for wildflowers (including orchids) are my favourite times to visit. The nearby Newlands has a small creek running through it and some remnant fruit trees still survive from the previous tenants. Bird watching can be rewarding in this section and are attracted to the water on hot summer days. The quality of the Valley Heathy Forest in the main section of the park is surprisingly good and mostly weed free, apart from the weeds on the outer edges of the paths. This month (October) I was treated to good sightings of male and female Restless Flycatchers, Golden Whistlers, Olive-backed Orioles, Musk Lorikeets and Common Bronzewings. For a small piece of land it helps to support up to thirty species of birds, with occasional fly-overs by birds of prey and a resident pair of Tawny Frogmouths.

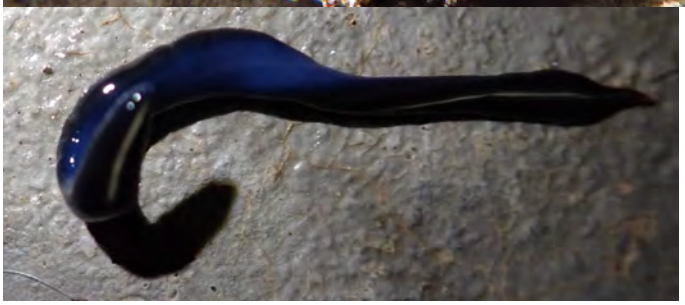
Recently I observed the larvae of The Common Anthelid Moth (*Anthela acuta)* in twelve different locations. At first glance this hairy caterpillar seems a bit drab but closer inspection under a hand lens reveals a yellow v-shape marking on its head and very pale blue spots along the sides of its body. The food plants are Olearia and Acacia species. The moth is an attractive cream, beige and brown and can be seen on page 25 of Pat and Mike Coupar's book "Flying Colours". (*Photo above from the internet).* As I have many Acacias in my garden I brought two caterpillars home to rear and I plan to release the moths back into Antonio Park when they emerge from their woven cocoons. Such are the delights found in a reserve not far from busy Maroondah Highway and Deep Creek Road. We can never take for granted the generosity of families who have donated land which forms an oasis for birds, mammals, spiders and insects etc not to mention a place to wander and explore the many delights of nature by the local residents.

Cecily Falkingham



WWW web

Two field nat *'wow'* moments



Blue Flatworms: I was introduced to Blue Flatworms through a photo sent in by Val La May (FNN 308 p 12). For several months, while walking after rain, my eyes have been on the ground hoping to find one. Eventually I did. A small moment of delight that all field naturalists can relate to.

Caenoplana coerulea, the Blue Flatworm or Blue Planarian is a long narrow flatworm, which is shiny black or dark brown on the upper surface, and bright-blue underneath. It has a narrow creamy longitudinal stripe running down the center of the upper surface. The small head on some individuals has a pinkish appearance, *(see arrow in top photo*). An adult grows to 12 cm.

This planarian is not a gentle. vegetarian worm, but a voracious predator which hunts and feeds on small arthropods such as millipedes, earwigs and snails.

Sleeping bees: On a cloudy morning at about 11.30 am in Westerfolds Park Templestowe, I happened upon a group of eight native bees resting quietly on a dandelion flower. Another flower had two bees lying on their sides, apparently sleeping. A friend, Linda Rogan, who is a bee expert filled me in. Her email is as follows.

'They belong to the genus Lasioglossum, subgenus, Chilalictus. The species could be lanarium, (not sure) but this is the one most commonly found locally roosting in yellow flowers, often flowers which close up at night. All are males as can be seen by the longer antennae and lack of pollen filled scopae (hairs on their legs) amongst other things.

It is only slightly unusual to see them at 11.30 am, but yesterday morning was overcast and stayed cool. Sometimes these groups of males will regather during the day when the weather turns cool and wet, or they may rest all day when it is cold and wet. Why do they do this? No one knows but in this genus and many others, the males are generally not allowed into the nesting burrow and perhaps there is a safety element to sleeping together.

I have included in the photo an arrow to show the markedly curved vein that indicates Lasioglossum.' **Thank you Linda for great information.**

The morning I photographed the bees was actually the Melbourne Grand Final holiday. My own take on finding them sleeping at 11.30 am was that they were having a holiday lie in before starting work!

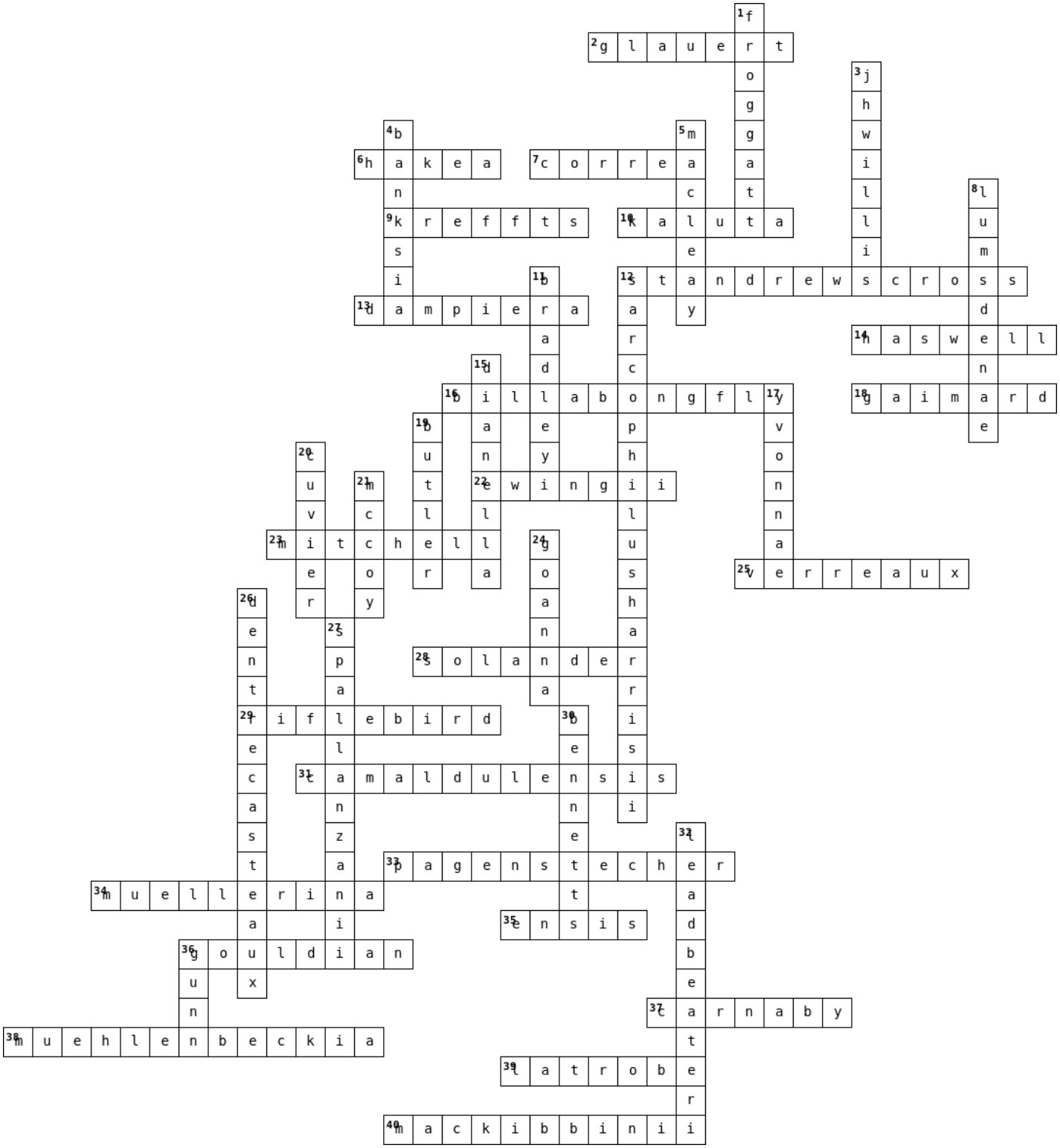
Joan Broadberry (*All photos: J. Broadberry*)

Please let FNN know of YOUR *'wow moments' for FNN 315*

Solution to crossword, *Names behind Nature* FNN 213 p 7-8

Here is the solution to the "Names behind Nature" crossword put together by John Harris from Wildlife Experiences. Congratulations to David De Angelis for being the first correct entry submitted to Wendy, he will receive a $50 gift voucher, donated by Wildlife Experiences, for the FNCV Bookshop. We hope that everybody that gave it a go learnt a little more about the names behind our natural world.

Some of you will enjoy solving the crossword now you have the answers to hand. Zooming in will make the solution clearer.



WILDLIFE EXPERIENCES

"SOUTH-WEST FAUNA - 2021"

Join John Harris of Wildlife Experiences and local naturalists as you discover the fauna diversity and beauty of Western Australia's Internationally recognised biodiversity hotspot.

9 - 19 March 2021* from **Perth**;

Min 6 & Max 10 people

Cost: $3,700 pp (including meals, transport, shared accommodation, boat tour & other activities)

Highlights;

- Boyagen Rock and Dryandra (Numbats, Woylies and Red-tailed Phascogales)
- Barna Mia sanctuary
- Stirling Ranges (bird walk and botany walk)
- Bremer Canyon (Killer Whale and marine fauna boat trip)
- Cheynes Beach (Noisy Scrubbird, Western Whipbird and Western Bristlebird)
- Two Peoples Bay NP
- Perup Nature's Guesthouse (Chudditch, Tammar Wallaby, Western Ringtailed Possum)

For more information, or to reserve a place

Contact: John at admin@wildlifeexperiences.com.au or mobile 0409 090 955

Payment: 25% deposit on confirmation of tour, with balance due 1 February 2021*

*Subject to Western Australian CoVid-19 travel restrictions (deposit refunded if tour doesn't proceed)

Wildlife EXPERIENCES

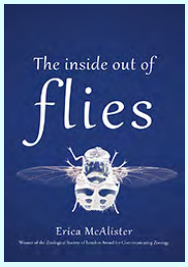
JOIN US FOR AN EXPERIENCE, OR TWO, YOU WILL NEVER FORGET!

"Wildlife Experiences provided a unique opportunity to discover the fauna and floral diversity of the region which was greatly appreciated. You both went out of your way to ensure everyone got a great experience" – Ann, KD18

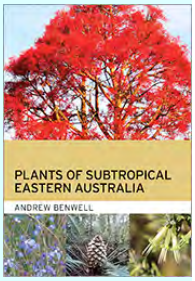
NEWS FROM THE BOOKSHOP (December 2020)

Looking for just the right gift for Christmas? The FNCV Bookshop has a wide range of books that would be perfect for a wide range of ages and interest groups. A book can be the perfect gift. The FNCV Bookshop is packed with so many options, it will be difficult to choose just one book. The catalogue for 2020 is available on the website at http://www.fncv.org.au/wp-content/uploads/publications/bookshop_catalogue.pdf . Have a browse through it, lodge your order by sending me an email and I will do my best to have it available before Christmas. Be sure to get in early so that you are not disappointed. To all that have sent through an order over the Covid lock-down period, I apologise for the delay – it has been a really challenging time. Many thanks for your patience – I am making my way through your emails. To order or inquire about a book, please send an email to **bookshop@fncv.org.au** and I will reply as soon as I can. Remember, it is not just members that can purchase from the bookshop, but it is only members that get the 20% discount. **Happy reading, Kathy**

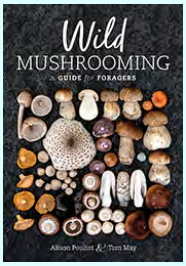
More Hands-On Science (ed. Shaw, Fellows & Kovac) presents 50 more amazing kids' DIY science activities. You will be blown away by interesting experiments, reactions, inventions and coding. It's jam-packed with fast facts and has fascinating quiz questions to test your knowledge! With step-by-step instructions and illustrations, as well as real-world examples, these new activities use easy-to-find materials to help you discover the answers to amazing science questions. Suitable for readers aged 8-14. Teachers notes are available. **(PB, 152 pp., Oct 2020)** . **RRP $29.99, Member $24.**



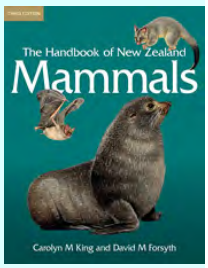
The Inside Out of Flies (E. McAlister) is a look under the bonnet at the astonishing mechanics of fly anatomy. The author reveals the engineering miracles embodied in each species of fly and some of the fascinating implications they hold for human technology. Discover the physics of the mysterious 'scuba diving fly', marvel at the venomous horsefly larvae which prey on frogs and glimpse the golden ratio in these creatures' spiral flight patterns. At every juncture the author uncovers unique and surprising science lessons encapsulated in the form and function of the humble fly. **(HB, 288 pp., Sept 2020) RRP $34.99, Member $28**



Plants of Subtropical Eastern Australia (A. Benwell) describes the rich flora covering the north coast of New South Wales and coastal South-East Queensland. This guide presents a selection of common, threatened and ecologically significant plants found in the region's major vegetation habitats including rainforests, heathland, grassy forest, wetlands and rock outcrops. More than 500 plants are featured, with photographs and descriptive features enabling the reader to identify these species if encountered. Interesting biological, cultural and historical characteristics of each species are included, along with notes on the plant's biogeography and a map of its distribution. **(PB, 400 pp., Dec 2020) RRP $49.99, Member**



Wild Mushrooming: A Guide for Foragers (A. Pouliot & T. May) melds scientific and cultural knowledge with stunning photography to present a new way of looking at fungi. It models 'ecological foraging' – an approach based on care, conservation and a deep understanding of ecosystem dynamics. This book is an extensively illustrated guide that takes a 'slow mushrooming' approach – providing the necessary information to correctly identify a few edible species of fungi, for their safe collection and enjoyment. The book also takes us into the kitchen with cooking techniques and 29 recipes. **(PB, 320 pp., Mar 2021) RRP $49.99, Member $40**



The Handbook of New Zealand (C. King & D. Forsyth) is the only definitive reference on all the land-breeding mammals recorded in the New Zealand region (including the New Zealand sector of Antarctica). This third edition lists 65 species, including native and exotic, wild and feral, living and extinct, residents, vagrants and failed introductions. It describes their history, biology and ecology, and brings together comprehensive and detailed information gathered from widely scattered or previously unpublished sources. **(HB, 576 pp., 3rd ed Jan 2021) RRP $160, Member $128**

Plantastic! (C. Clowes & R. Gyan) A gorgeous A to Z exploration of some of Australia's most unique and incredible native plants. Discover and identify native plants found in your local park, bushland, or even in your very own backyard. With its perfect balance of fun facts, activities, adventurous ideas and gorgeous illustrations, this book will prove just how fantastic Australia's native plants really are! Suitable for readers aged 6-12. Teachers notes are available. **(HB, 64 pp., Feb 2021) RRP $29.99, Member $24**