



Understanding
Our Natural World

Field Nats News No. 294



Newsletter of the Field Naturalists Club of Victoria Inc.

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Office Hours: Monday and Tuesday 9.30 am - 4 pm.

March 2019

From the President

Fellow Naturalists,
this past month has been very challenging for both naturalists and the natural communities they study. The repeated high temperatures and Total Fire Bans have seen excursions cancelled and sent many of our would-be macrophotography subjects into hiding. Nevertheless, there have been some excellent TIG excursions and many excellent images of invertebrates taken. The excursions to the Cardinia Reservoir and to the Upper Yarra Dam on January 6th and 20th were very successful outings and enjoyed by all who attended. At Upper Yarra Dam, eleven species of Odonata (dragon and damselflies), were identified and many other invertebrates were photographed and recorded. See pages 6-8 for detailed reports.



Photo: M. Campbell

Locating dragonflies in the roadside swamp, Upper Yarra

I collected some samples of sediment and water from the swamp at the gates of the entrance to the Upper Yarra Dam and spent many hours microscopically examining the microbiota. It contains a rich flora and fauna of minute algae and unicellular animals. The table page 4 includes some of the genera seen in a mere two drops of sediment and in no way fully covers the extent of the diversity.

The following images are of some of those actual organisms.

Right: This *Frontonia* sp has ingested a *Closterium* longer than itself. 200 microns in length



Photo: M. Campbell

The deadline for FNN 295 will be
10 am on Tuesday March 5th, 2019. FNN will go to the printers on the 12th with collation on Tuesday 19th March.

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CALENDAR OF EVENTS

All meetings are held at the FNCV Hall, 1 Gardenia St. Blackburn at 8 pm., unless otherwise indicated. On days of extreme weather conditions, excursions may be cancelled. Please check with leader.

March 2019

Sunday 3rd - Terrestrial Invertebrates Group Excursion: *Westerfolds Park, Templestowe*

Meet in the northernmost car park at 10 am next to the Main Yarra Trail. We will walk in one direction in the morning, returning for lunch and then walk the other direction in the afternoon (Google maps <https://goo.gl/maps/ffDb9GBxw4S2>)

Melway 33 F1. Contact: Reiner Richter fncv@rnir.id.au

Monday 4th – Fungi Group Meeting: *Mining the microbiome – exploring the dark matter of fungal biodiversity*

Speaker: Dr Tom May, Senior Research Scientist (Mycology) at the Royal Botanic Gardens Victoria

Contact: Carol Page 9857 6388; cpage356@gmail.com

Tuesday 5th - Fauna Survey Group Meeting: *Biodiversity research and Museums Victoria's BioBank: stories from the vault.* Speaker: Dr. Joanna Sumner, Museums Victoria. Contact: David De Angelis 0409 519 829

Friday 8th to Monday 11th - Fauna Survey Group Survey: *Bael Bael Grassland Nature Conservation Reserve (Labour Day weekend).* Prior bookings essential. Contact: Andrej Hohmann 0410 934 779

Sunday 10th – Juniors' Group Excursion: *Point Cook Sanctuary.* Leader Andrew Christie. Meet at 1 pm

Bookings in advance essential. Contact: Patricia Amaya juniors@fncv.org.au

Monday 11th - Marine Research Group. No Meeting: *Labour Day*

Sunday 17th - Terrestrial Invertebrates Group Excursion: *Starlings Gap (near Powelltown)*

Meet at 10 am in Starlings Gap Campground car park along Big Creek Rd. (Google maps <https://goo.gl/maps/4Y5yFxicKER2>) Vic Roads 80 E7. Take Warburton Hwy to Yarra Junction and then turn right at post office to Powelltown. From Powelltown travel 6.2 Km to junction with Big Creek Road. Turn left into Big Creek Road, (also signed to the Ada tree.) Travel 10.5 Km to junction with Black Sands Rd. Keep to the right at junction and then 1 Km to Starlings Gap. Turn right into carpark watching for big, fast moving timber trucks coming down the hill. Contact: Reiner Richter fncv@rnir.id.au

Tuesday 19th Collate FNN 295 Starting about 10. am. Contact Joan Broadberry 9846 1218

Wednesday 20th - Terrestrial Invertebrates Group Meeting: *Review of images from TIG field excursions.*

Contact: Max Campbell 9544 0181 AH; 0409 143 538; mcam7307@bigpond.net.au

Thursday 21st – Botany Group Meeting: *South Africa, lessons from another piece of Gondwana* Speaker: David Cheal, Botanist; Federation University, Ballarat. Contact: Ken Griffiths botany@fncv.org.au

Monday 25th—FNCV Council meeting: 7.30 sharp. Agenda items and apologies to Wendy admin@fncv.org.au

Monday 25th - Thursday 28th - Marine Research Group Field Work: *Inverloch area.* Exact locations will be decided while on site. For further details contact Leon Altoff 9530 4180 AH; 0428 669 773; mrg@bluering.org.au

Tuesday 26th – Day Group 10.30 am Meeting: *A visit to the island of St. Helena.* Speaker: Rob Hamson

Contact: Joan Broadberry 98461218. Please join us for coffee at a chat. Speaker at 11 am. All welcome.

Wednesday 27th – Geology Group Meeting: *Cretaceous Odonata (Dragonflies and Damselflies) from the rich fossil bed at Koonwarra, Victoria.* Speaker: Elaine Anderson, Honours student, Swinburne University.

Contact: Ruth Hoskin 9878 5911; 0425 729 424

Friday 29th – Juniors' Group 7.30 pm. Meeting: *Celebrating & Caring for Australia's Wildlife*

Speaker: Euan Ritchie. Contact: Patricia Amaya juniors@fncv.org.au

Sunday 31st - Terrestrial Invertebrates Group Excursion: *Toolangi State Forest*

Meet at 10 am in Wirrawilla Rainforest Walk car park in Quarry Rd off Sylvia Creek Rd (Google maps <https://goo.gl/maps/fWv4wUJU7Zy>) Contact: Reiner Richter fncv@rnir.id.au



For your calendar:
Second-hand booksale
Sat/ 13th April 9.30 am
Details p8.

The policy of the FNCV is that non-members pay \$5 per excursion and \$3 per meeting, to contribute towards Club overheads. Junior non-member families, \$4 for excursions and \$2 per meeting.

Aquatic organisms found in Upper Yarra Swamp

Genus	Type	Genus	Type
<i>Vorticella</i>	Ciliate	<i>Arcella</i>	Testate Rhizopod
<i>Frontonia</i>	Ciliate	<i>Diffugia</i>	Testate Rhizopod
<i>Paramecium spp</i>	Ciliate	<i>Trimena</i>	Testate Rhizopod
<i>Paramecium bursaria</i>	Ciliate	<i>Euglypha</i>	Testate Rhizopod
<i>Stentor</i>	Ciliate	<i>Euglena</i>	Flagellate
<i>Blepharisma</i>	Ciliate	<i>Phacus</i>	Flagellate
<i>Tracheleus</i>	Ciliate	<i>Chlamydomonas</i>	Flagellate
<i>Tetrahymena</i>	Ciliate	<i>Haematococcus</i>	Flagellate
<i>Urocentrum</i>	Ciliate	<i>Peranema</i>	Flagellate
<i>Stichotricha</i>	Ciliate	<i>Docidium</i>	Desmid
<i>Euplotes</i>	Ciliate	<i>Micrasterias</i>	Desmid
<i>Spirostomum</i>	Ciliate	<i>Closterium</i>	Desmid
<i>Bursaria</i>	Ciliate	<i>Euastrum</i>	Desmid
<i>Dileptus</i>	Ciliate	<i>Surirella</i>	Diatom
<i>Colpoda</i>	Ciliate	<i>Navicula</i>	Diatom
Amoeba-like organisms	Rhizopod	<i>Pinnularia</i>	Diatom

From the President:

Continued from page 1

I recommend attendance at the excursions and the follow up discussions at meetings. Reiner Richter is developing the use of the iNaturalist site for reporting our sightings and posting images from the excursions. Workshops will be advertised over the coming weeks.

Note: The image incorrectly labelled as *Ledromorpha sp* in the previous issue of FNN is a tree hopper nymph of the family Eurybrachyidae.

Maxwell Campbell

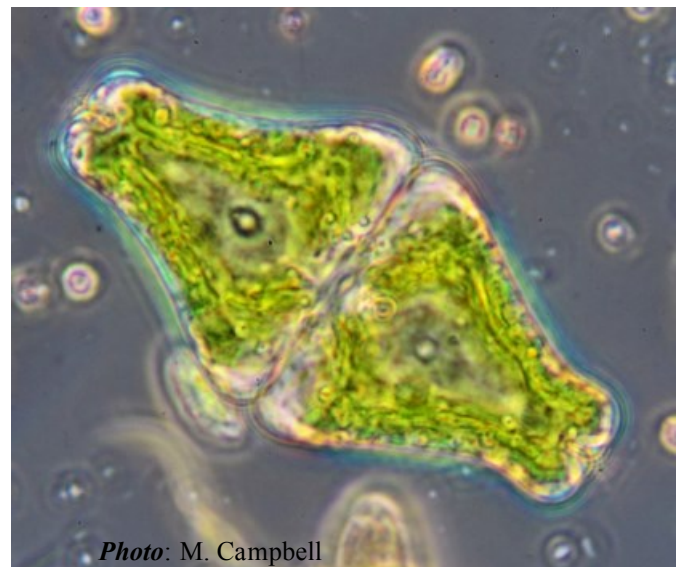


Photo: M. Campbell

Euastrum sp a desmid. 70 microns long.



Photo: M. Campbell

A desmid, *Closterium sp*. 200 microns in length

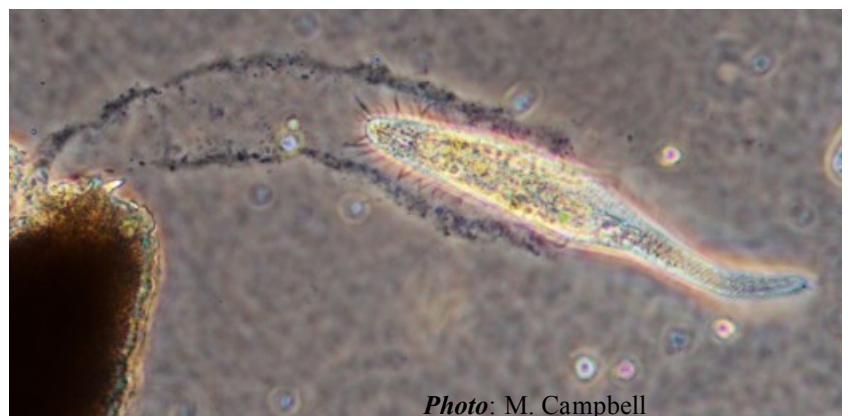


Photo: M. Campbell

Stichotricha sp feeding from its lorica/tube. 120 microns in length

Members' news, photos & observations

We always have space for members' photos and natural history observations. Please share with us what you have noted in your daily life, travels or garden. Email: fnnews@fncv.org.au by the first Monday in the month.

Welcome Welcome

Warmest greetings to the following new members who were welcomed at our last Council meeting.

Thomas Hosken, Adam Hosken, Scarlett Hosken, Heather Hosken, Malcolm Brown, Luther Grusovin, Shawn Hillen, Liam Hillen, Marc Perri, Jeff Shimeta, Marina Malenovic, Stevan Stehlik, Eliana Gelsi, Arabella Gelsi, Steve Gelsi, Rebecca Gelsi and Nerissa Crabbe

CONGRATULATIONS GARY!

Before Christmas the FNCV Council nominated Dr Gary Presland, FNCV librarian, historian, archivist and an editor of the *Victorian Naturalist* for a City of Whitehorse Civic Award. We are delighted to report that he has received a Community Achievement Award.

The awards were presented at the Whitehorse Centre by the Mayor, Cr. Bill Bennett on 26th January, as part of the Whitehouse Council's Australia Day celebrations. Our President, Max Campbell and administrative assistant, Wendy Gare attended the ceremony.

The award is more than well deserved. Gary is many things to many organisations. *Field Naturalist News* would like to acknowledge Gary's outstanding and ongoing contributions to the community and to the Club. Congratulations from us all. **JB**



Ian Kitchen photographed this Black-winged Stilt at Edithvale

Sunfish

This dead, approximately 2 metre long Sunfish washed up at Quiet Corner, Black Rock (near the Peacock Spider site) last week. It may be *Mola tecta*, a recently described species known from SE Australia, New Zealand, South Africa and Chile. Sunfish are typically oceanic species and are rarely encountered in Port Phillip Bay.

John Eichler



Facebook followers:
12,032

A prow around a garden by day or with a torch by night can turn up some wonderful discoveries. See Joan and Carol's finds below JB

Net-casting Spider—Joan Broadberry's garden

A common species of Net-casting Spider found in gardens is *Deinopis subrufa*. From internet images and books I recognised an adult of this species in my Templestowe garden. Its long, fawn-coloured body measured about 2cm with two small tubercles midway on each side. These slender, long-legged spiders have eight eyes, two of which are enormously enlarged and face forward like headlights. They dominate the face, leading to a common name, Ogre-faced Spider. Two much smaller eyes are located on each side of the head. The position of the other four eyes puzzled me initially until I read, "A Field Guide to Spiders of Australia" Robert Whyte and Greg Anderson p26. *Two tiny black eyes below the*

huge ones are the middle eyes of the front row. The outside eyes of the front row are in the hairy knobs on the side of the face. I was astonished to read on p133, *'they use these large eyes only at night. When daylight approaches the spiders digest their retinas (the light sensitive material in their eyes.) Each evening at dusk they regrow their super-sensitive retinas to be able to see again.'* (Can this really be so?)



J. Broadberry



J. Broadberry

Net-casting spiders are not uncommon in bushland and gardens in Eastern Australia from southern Queensland to Tasmania. By day they hide, facing downwards with their elongate front and back legs held together, giving them a stick-like appearance. Their method of hunting is unique in the spider world. After dark, Net-casting Spiders construct small nets of thick, crinkled, bluish-white silk. The animal suspends itself head down, its back legs secured by threads of silk. The folded

net is held by the tarsi (claws) of its two pairs of front legs. Its enormous eyes, 2 000 times more sensitive than the human eye, watch for movement. The net is generally positioned near the ground, above a place where prey animals such as beetles, crickets or moths etc. are likely to pass. When a prey animal comes within reach, the spider, lurches forward, expands its folded net to two or three times its resting size and with lightening speed lunges it downward towards the unsuspecting victim. The clinging, very elastic net envelops the prey, which is then bitten, paralysed, wrapped and eaten. I think both male and female Net-casting Spiders hunt in this fashion.

I first noticed *Deinopis subrufa* resting on the bricks of my house in mid-January. Well after dark, about 10.30 pm, I was rewarded by finding the spider with a crinkled, sky-blue net attached to its front legs by thin strands of silk. This extraordinary hunting device is made of cribellate silk. The cribellum is a silk-spinning organ from which the spider, hanging head up, combs out silk with a woolly texture. The whole thing looked to me like a skein of knitting wool stretched out waiting to be rolled into a ball. I watched for a long while but I did not see the net thrown

Bees photographed in Carol Page's Doncaster garden.

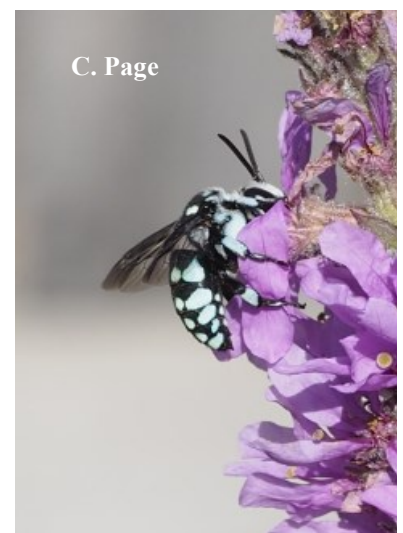


C. Page

Left is a Blue Banded Bee. It is a buzz pollinator and therefore hardly ever lands and is incredibly agile.

Right is a Cuckoo Bee, *Thyreus caeriuleopunctatus*. They are both attracted to Purple Loosestrife, *Lithrum saxicola*.

P12 another of Carol's stunning images p12.



C. Page



Terrestrial Invertebrates Group

Cardinia Reservoir Park

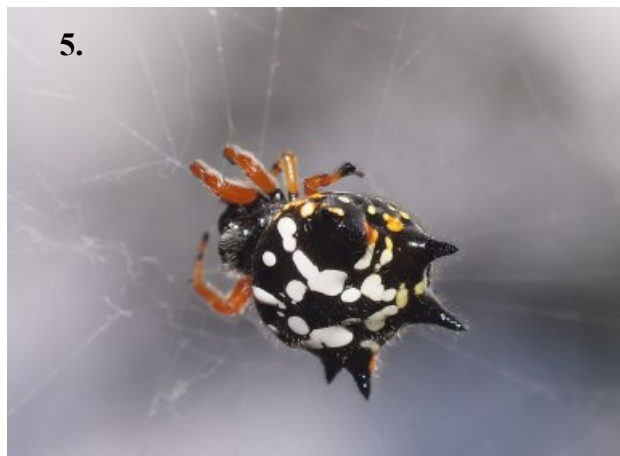
6th January 2019

Leader: Reiner Richter

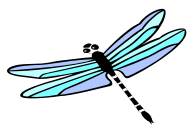
Ten members turned up but with a heatwave a few days earlier the flowers weren't as vibrant and the invertebrates weren't quite as abundant as during last year's visit. In the morning we walked up the hill from the Crystal Brook car park and finds included a jewel beetle, for which Carol Page quickly corrected my misidentification to *Castiarina octospilota*. Some *Lomandra longifolia* along the path was covered in Plague Soldier Beetles *Chauliognathus lugubris* but on the opposite side were a few *Chauliognathus tricolor*, allowing us to compare the differences. The latter doesn't have extensive black at the front of the pronotum (the plate between the head and wings). We also saw several longicorn or longhorn beetles (Cerambycidae family) and thynnid wasps (family Thynnidae).

In the afternoon we walked down to and along the creek. John Eichler again found the two-humped green orbweaver possibly on the same silver wattle as last year. These have been observed around the state by John and myself but as yet we don't have a name for it. We also saw a male jewel spider in a web near a very commonly encountered female. The males are considerably smaller, have shorter spines and aren't as brightly marked.

Reiner Richter



1. *Chauliognathus lugubris* Reiner Richter
2. *Chauliognathus tricolor* Reiner Richter
3. *Coptocerus biguttatus* Reiner Richter
4. Orbweaver John Eichler
5. *Austracantha minax* (female) Reiner Richter
6. *Austracantha minax* (male) Reiner Richter



TIG field trip to Warburton and Upper Yarra

20th January, 2019

Leader: Reiner Richter

With the trip cancelled last year due to poor weather, nature was much kinder to us this time when 14 members met in Warburton by the pleasant Yarra River. Roosting clumps of native *Leioproctus* (*Austronomia*) bees had already been spotted on vegetation beside the water. With the warm rays of the summer sun beaming upon us and them they started becoming restless, beginning to disperse. For a while we continued to hunt along the river bank in search of more insects and spiders to photograph. On gum trees big and small we found varieties of attractive Eucalyptus tip-wilting bug *Amorbus obscuricornis* nymphs (as well as the winged adults) and eggs, larva and adult leaf beetles. The striking metallic green soldier flies were sunning themselves on a white tree trunk (when they weren't chasing each other).



Leioproctus sp. Reiner Richter

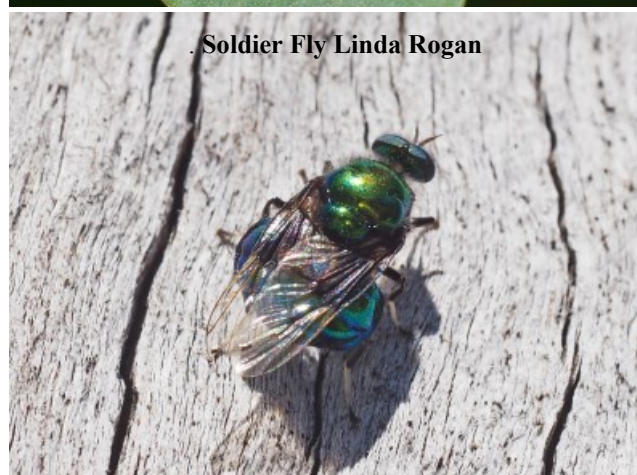
As more tourists filled up the car park we headed off upstream by car to Upper Yarra Reservoir Park for more meandering and a picnic lunch in the shade. Before lunch we had time to wander around the lawn area examining the shrubs. Some of the tea-trees were still in flower and included diners like the ubiquitous Spotted Flower Chafer *Neorrhina punctatum*. Several dragonflies sunned themselves on the grass and flew off short distances as we disturbed them when walking by. While I was trying to photograph one that had landed on a sedge, Paul George asked if it was that orange thing. That turned out to be a rather attractive jewel beetle *Castiarina bremeri*, larger than many local species encountered but this individual was quite accommodating, posing for many minutes until everyone had a good photograph.



Amorbus obscuricornis Reiner Richter

After lunch we crossed the bridge over the river and walked along the track finding many things to keep us busy. From a distance we saw some striking blue Whitewater Rockmasters *Diphlebia lestoides*, larger than your average damselfly and also relatively strong flyers. I saw a Southern Evening Darner *Telephlebia brevicauda* land in the scrub but it was very difficult to spot, its mottled brown pattern blending in quite well. Large scarab beetles were also buzzing around but Linda Rogan saw one land and was able to photograph it well and identify it as

(Continued on page 8)



Soldier Fly Linda Rogan



Chondropyga dorsalis Linda Rogan

(Continued from page 7)

Chondropyga gulosa (and not the Cowboy Beetle *Chondropyga dorsalis* I thought they were in flight).

After the excursion was officially over some of us stopped at the swamp near the gate to observe an amazing 11 damselfly and dragonfly species and some attractive flies.

Reiner Richter

To view more of the photos we took and species we saw visit the following iNaturalist project page:

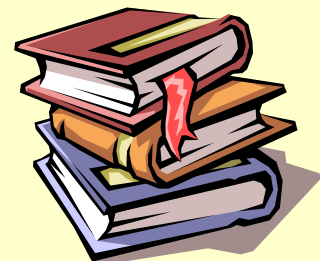


Castiarina bremeri Paul George



Plebs bradleyi Reiner Richter

Field Naturalists Club of Victoria SECOND-HAND BOOK SALE



Saturday 13th April, 9.30—3 pm.
FNCV Hall, 1 Gardenia Street, Blackburn



Assistance is urgently needed for this important biannual Club fund-raising event. Preparations a few days beforehand will include unpacking and sorting boxes of books, pricing and setting up. Several helpers will need to be attendance on the sale day. If you can assist, please let Wendy know the days and times you can help. Preferably as soon as you read this newsletter. All help appreciated.

Donations of CLEAN, good quality books of all types - novels, non-fiction, children's - can be left in the hall from Monday 18th March 2019 either when you attend meetings, or when the office is open on Mondays and Tuesdays, 9.30 to 4 pm. **Please no magazines or journals.**

Extracts from SIG reports given at the last FNCV Council Meeting

Marine Research Group:



Honeysuckle Pt.

Photo: Carol Page

The first field trip for 2019 was held on Monday 28th January 2019 at Honeysuckle Point, Shoreham on Western Port Bay.

The group met at 10 am for a morning low tide. Ten people attended.

The weather was fine and warm but hot weather in the days leading up to the survey meant the pools were warm. The rock platform (photo left) was relatively level with many loose, worn basalt rocks. With the help of all participants, a species list was compiled in the afternoon. Unusual finds are always photographed, with images of difficult-to-identify species held over for later study. Audrey Falconer and Leon Altoff have extensively revised the previous list including many name changes and have printed a new pictorial guide. **JB**



Fauna Survey Group

Meeting: 13-11-2018 Speaker for the night was Birgita

Hansen from Federation University, on the topic of Latham's Snipe Project, habitat use, movement and migration.

Latham's Snipe is a wader that utilises freshwater wetlands and breeds in Hokkaido, Japan and nearby Russia. The current research seeks to fill knowledge gaps in its movements and habitat. Research commenced at the Powling St. wetlands in Port Fairy where the birds rested during the day and moved out to night time feeding in grasslands. Both habitats are under some pressure from housing development and wetland loss on farms. The research has expanded to a national survey with leg flags and geo-locator trackers being employed to understand the movements of the birds. Birgita has also led study tours with students to Japan where Latham's Snipe breed.



Surveys: Rushworth Forest, 3-6 Nov. 2018. This was our second trip to Rushworth this year to check 130 nest boxes, and this time the five members who attended found one female Brush-tailed Phascogale with at least two young that were visible. Although greater numbers of Brush-tailed Phascogales (17) were found in the nest boxes in May, it must be remembered that adult males are absent from the population in November. The number of Sugar Gliders was also lower, but we did see a higher number of reptile species this time including Bearded Dragon, Marbled Gecko, Jacky Lizard and many Bougainville's Skinks.

Lonsdale Nature Conservation Reserve, 25-28 January 2019

The main aim of this survey is to find further evidence of Brush-tailed Phascogale and Squirrel Glider. We set remote cameras on trees and the results from these will come back in a couple of months. Spot-lighting transects produced low numbers of Common Brushtail, a Sugar Glider and a Tawny Frogmouth. In the hot dry conditions few bush birds were present but we were happy to see Rainbow Bee-eaters and Whistling Kites. One new activity for the 13 who attended was to do systematic vegetation structure descriptions at each camera site, (photo right). We finally checked nest boxes in Lonsdale and also Jalluka NCR but only a few have had any activity and no animals were present.

Ray Gibson

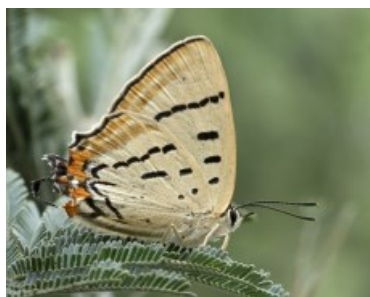


R. Gibson

Juniors' Group:



The Juniors did not have any meetings or excursions organised in December, but we accepted a kind invitation from Wendy Clark to see the Imperial Blue Butterfly hatching. Information was sent to all the juniors and different days were proposed. We attended on 29th December with eight members present. It was a great activity and Wendy made sure we all improved our photography skills. She has kindly shared photos of the butterfly, caterpillar and pupa cases with ants with FNN. **Patricia Amaya images Wendy Clark)**





The FNUV Environment Fund has the following purposes:

- The FNCV Environment Fund is administered by a committee consisting of Malcolm Calder (Chair), Barbara Burns, (Secretary & Treasurer), Bob Rogers, John Harris, Ian Moodie and Cathy Willis.

Requests for projects between \$200 & \$1,000 will be considered.

Applications for this round of funding close **Monday 8th April 2019**. All applications will be acknowledged and results of applications communicated by 17April 2019. Late applications will not be accepted.

Additional information about the Environment Fund is available at www.fncv.org.au.

- Project title.
- Project description (max 250 words).
- How the project meets the aims of the Fund.
- Budget (include GST on all relevant items). (Also indicate other sources of funding)
- Indicate if the application is from an individual or organisation and give the name of the individual or organisation.
- Applicant name and contact details (including mailing address/phone/fax/email).
- Signature of applicant.
- Endorsement of organisation (signature of responsible person such as President, Secretary, Manager, Head of Department, include name and position held).

**Applications should be sent to:
Secretary FNCV Environment Fund
Field Naturalists Club of Victoria
PO Box 13,
Blackburn Vic 3130
or emailed to admin@fncv.org.au**

Donations to the FNCV Environment Fund
are **tax deductible**.

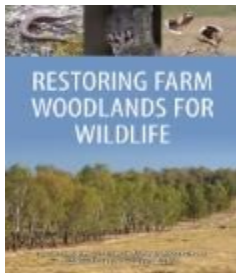
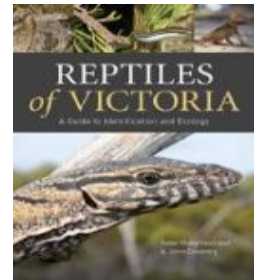
Donations are needed. Donation forms can be down-loaded from the website www.fncv.org.au or are available on request from the FNCV Office. Phone 98779860 or email admin@fncv.org.au

NEWS FROM THE BOOKSHOP (March 2019)

Welcome to 2019! This month three of the featured books are due for release in February/March this year, one of which is the long-awaited *Reptiles of Victoria*. This book will be stocked on the shelf when it is released, whilst the other two titles may have to be ordered in if they are of interest to you. The other two books featured this month were released in mid-2018 and are available from the clubrooms. There is a chapter in *Australia's Birdwatching Megaspots* on birding in Norfolk Island that was written by our own John Harris so check that book out for other recommended places to visit. Come into the clubrooms and browse through the huge range of books available on the shelf. To order or inquire about a book, please send an e mail to me, at, bookshop@fncv.org.au. I will reply as soon as I can. Many thanks to all that supported the Bookshop throughout the year.

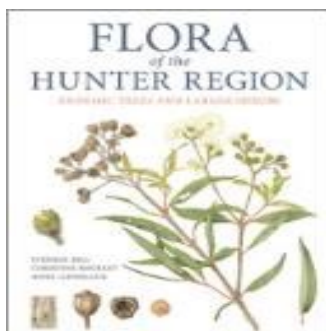
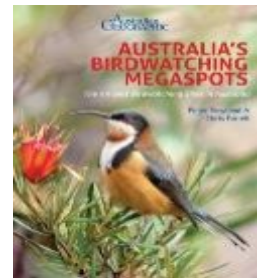
Happy reading, Kathy

Reptiles of Victoria: A Guide to Identification and Ecology (P. Roberston & A. J. Coventry) is the first regional guide to all reptiles known to occur in Victoria. It contains keys and illustrated descriptions to allow identification of the 123 native, introduced and vagrant reptiles species and describes their biology, ecology, distributions and the habitats in which they live. It also indicates the level of risk that venomous snakes pose to humans and includes a brief section on first aid for snake bites. (PB, 332 pp., March 2019) RRP \$49.99, Member \$40



Restoring Farm Woodlands for Wildlife (D. Lindenmayers, D. Michael, M. Crane, D. Florance & E. Burns) focuses on why restoration is important and describes best practice approaches to restore farm woodlands for birds, mammals and reptiles. Based on 19 years of long-term research in temperate agricultural south-eastern Australia, this book addresses practical questions such as what, where and how much to plant, ways to manage plantings and how plantings change over time. (PB, 136 pp., Oct 2018) RRP \$39.99, Member \$32

Australia's Birdwatching Megaspots: The 55 Best Birdwatching Sites in Australia (C. Farrell & P. Rowland) is a lavishly illustrated guide that describes 55 of the best sites for viewing both common and rare species in Australia. Alongside a map of the area, detailed descriptions of each site cover the type of terrain, climate and specific spots at which certain species are likely to be encountered. A fact file for each site lists road and rail access, entry fees and permits, facilities, nearby services, accommodation and GPS co-ordinates. Key species for each site are also listed. (PB, 328 pp., Aug 2018) RRP \$41.95, Member \$33.50

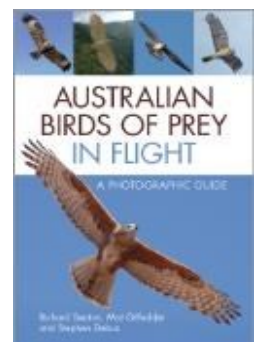


Flora of the Hunter Region: Endemic Trees & Larger Shrubs (S. Bell, C. Rockley & A. Llewellyn) describes 54 endemic trees and large shrubs in the area between the Hawkesbury and Manning rivers in eastern NSW. Species accounts provide information on distribution, habitat, flowering, key diagnostic features and conservation status, along with complete taxonomic descriptions. Each account includes stunning botanical illustrations that depict key diagnostic features and allow complete identification of each species. (HB, 136 pp., March 2019) RRP \$79.99, Member \$64

Australian Birds of Prey in Flight: A Photographic Guide (R. Seaton, M. Gilfedder & S. Debus) is a photographic guide to the eagles, hawks, kites and falcons flying high above you. Individual species profiles describe distinguishing features and the text is supported by detailed images showing birds at six different angles and poses, using photographs from many of Australia's leading bird photographers. Annotated multi-species comparison plates highlight key features that can help differentiate birds of prey in flight.

(PB, 144 pp., Feb 2019)

RRP \$39.99, Member \$32



WANTED TO EXCHANGE OR PURCHASE:

INDIVIDUAL ISSUES AS PUBLISHED OR RUNS OR COMPLETE WORKS IF BOUND TO INCLUDE ALL WRAPPERS AND ANY RELATED EPHEMERA:

The Southern Science Record 1883–1886

The Victorian Naturalist January 1884–December 1893 as well as April & May 1926, September 1927, September 1935, January 1937 and May 1960.

I would be pleased to consider outstanding copies by virtue of condition or association or other issues with a view to further enhancing my sets. Thank you.

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Thanks to the editorial
and layout team who put
together FNN 294

Joan Broadberry
Sally Bewsher
Wendy Gare

"All fauna captured in accordance with
the FNCV's DELWP Wildlife Research
Permit and National Parks Act Permit
and animal ethics approved Standard
Operating Procedures".

INDEX to FNN 2018

From 2019 the yearly FNN index will
be in digital form and will be emailed
to all members with the February
newsletter. Those who would prefer a
printed copy should contact the office.

Once again the newsletter team would
like to express their thanks to Pat Grey
for her dedication and hard work in
compiling the index.

*Many thanks to those who
helped collate and label
FNN 293 and send out the
February –May calendar of
events.*

Hazel Brentnall
Edward Brentnall
Andy Brentnall
June Anton
Joan Broadberry
Sheina Nicholls
Barbara Burns
Neil McLachlan

The views and opinions expressed in this publication are those of the authors and do not necessarily reflect those of the FNCV.

Sunset from the back veranda. Image: Carol Page

