



Understanding
Our Natural World

Field Nats News No. 296



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

Editor: Joan Broadberry 03 9846 1218

Founding editor: Dr Noel Schleiger

Reg. No. A0033611X

Patron: The Honourable Linda Dessau, AC
Governor of Victoria

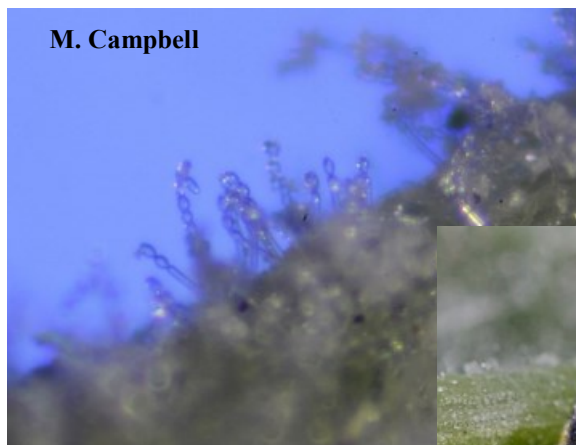
Office Hours: Monday and Tuesday 9.30 am - 4 pm.

May 2019

From the President

I was recently gathering the last of my zucchinis from the very last plant to succumb to powdery mildew (*Photo right*), when I noticed a small black and yellow ladybird, *Illeis (Leptotheca) galbula*, eating the fungus (*Photo below right*). (It's an ill wind that blows no one any good.) This small fungus-eating ladybird likes to munch powdery mildew and can usually be found on members of the *Curcubaceae* infected with the fungus.

M. Campbell



The deadline for FNN 297 will be **10 am on Tuesday May 7th**. FNN will go to the printers on the 4th with collation on Tuesday 21st May.

M. Campbell



The small larvae of this coccinellid beetle also eat fungus but there were

no coccinellid juveniles or eggs to be found. Closer inspection of the leaves revealed a large number of aphids (*Photo left*), some of which had been parasitised by tiny wasps (*Photo below left*).

M. Campbell



I would normally expect other, predatory coccinellids, such as

Harmonia conformis and *Coccinella transversa*, to turn up for the plentiful aphids but I have not seen any this summer and autumn.

The TIG excursion to Starlings Gap was surprisingly depauperate for invertebrates this year. Previously, it has always been an excellent site for invertebrates including millipedes, centipedes, molluscs, pseudoscorpions, flatworms, nemertean, insects, scorpions, phalangids and onychophorans.

Continued on page 4

M. Campbell



Contents

From the President	1, 4
Calendar of Events	2
Members' News & Observations	3
From the Office	4
Terrestrial Invertebrates Group Report: Starlings Gap	5
From the Bookshop	6
Marine Research Group Report: Field work at Inverloch	7, 14
Day Group Reports: The mysteries of Migratory Waders; The island of St. Helena.	8-11
FNCV AGM notices	12
Extracts from Council Minutes	13-14



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.

May 2019

Sunday 5th – Annual General Meeting Join in this important event in the life of our club and congratulate our new Long Term (40 year) members. Meet at 2 pm. Speaker : A/Professor Michael F. Braby. *Butterflies of the Australian Monsoon Tropics*. Details, proxy voting form and council nomination form FNN p12 or contact the office.

Sunday 5th – Juniors' Group Excursion: Cranbourne Royal Botanic Garden. Leader: Michael Gavin Cook. Meet at 1 pm **Bookings in advance essential.** Contact: Patricia Amaya juniors@fncv.org.au

Sunday 5th – Fungi Group Foray: NOTE CHANGE OF VENUE DUE TO RECENT FIRES

Mount Worth State Park Seaview. (Melway Edition 45 Map X912 U8. Vic Roads Edition 8 Map 97 B6). Meet at Moonlight Creek picnic area at 10.30 am. https://parkweb.vic.gov.au/__data/assets/pdf_file/0004/691330/Visitor-Guide-Mount-Worth-State-Park.pdf GPS reading at carpark: 38° 16' 58" S 146° 00' 28" E

Contact: Carol Page 9857 6388 Use 0438 4469 73 on day of foray only.

Monday 6th – Fungi Group Meeting: Southern Agaricus species diversity and tantalising hints about toxicity variation Speaker: Amelia-Grace Boxshall, Master of BioSciences. Contact: Carol Page 9857 6388; cpage356@gmail.com

Tuesday 7th - Fauna Survey Group Meeting: The Superb Lyrebird - farmer, firefighter or ecosystem engineer? Speaker: Alex Maisey, PhD candidate, La Trobe University. Contact: Sally Bewsher 9752 1418

Monday 13th – Marine Research Group Meeting: Field trip roundup. Join us as we review where we have been and what we have seen during our field work season. Contact: Leon Altoff 9530 4180 AH; 0428 669 773; mrg@bluering.org.au

Monday 13th Fauna Survey Group Survey in East Gippsland CANCELLED.

Wednesday 15th - Terrestrial Invertebrates Group Meeting: Speaker to be advised. Contact: Max Campbell 0409 143 538; 9544 0181 AH; mcam7307@bigpond.net.au

Thursday 16th – Botany Group Meeting: Forest succession in East Gippsland. Speake: David Cameron, Botanist, Arthur Rylah Institute. Contact: Ken Griffiths botany@fncv.org.au

Tuesday 21st—Collate FNN 247. About 10 am in the hall. All welcome. Contact Joan Broadberry 9846 1218

Wednesday 22nd – Geology Group Meeting: Reading the stories in rocks, Part 2. By popular request, a continued 'virtual excursion', this time to interesting post-Paleozoic sites. Non-geologists welcome! Speaker: Leon Costermans, Botanist and Geologist, FNCV member. Contact: Ruth Hoskin 9878 5911; 0425 729 424; rrhsoskin@gmail.com

Friday 24th to Monday 27th – Fungi Group Forays: Great Otway National Park & Anglesea. Based in Anglesea, commencing Friday afternoon and finishing Monday lunchtime. **Register to receive further information.**

Contact: Carol Page 9857 6388; cpage356@gmail.com Use 0438 446 973 only between Friday am and Monday midday.

Monday 27th—FNCV Council Meeting. 7.30 pm sharp. Please send apologies or agenda items to Wendy at the office.

Tuesday 28th – Day Group Know your local flora; a pictorial presentation. Speaker: Ian Moodie Whitehorse Council Meet at 10.30 am for coffee and a chat. Speaker at 11 am. All welcome. Contact: Joan Broadberry 9846 1218

Friday 31st – Juniors' Group Meeting 7.30 pm: The use of chainsaw hollows for the long term conservation of the Brush-tailed Phascogale. Speaker to be advised. Contact: Patricia Amaya juniors@fncv.org.au



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.

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.

Sonya Markowsky, Isaac Markowsky, Greg Markowsky, Juyoun Kang, Noemie Seck, Mark Anderson, Graeme Eames, Miles Cheng, James Cheng, And Marilyn Williams.

Antlions My introductions to antlions occurred in 2012 during a day tour of Palm Valley, central Australia and a stay at Exmouth in NW Western Australia. At Palm Valley a guide showed the tour group a cluster of pits, gently dragged a blade of grass down the side of a pit to demonstrate how an antlion feeds and finally unearthed the small insect with its oversized jaws. At Exmouth I saw my first adult lacewing antlion, which was attracted to the outside light of my apartment one evening.

In 2015 I discovered in my Black Rock garden pits (*Photo right*), that resembled those I had seen at Palm Valley. I was delighted to find that they contained antlion larvae. (*Photo below right*). The pits are very steep sided and when an insect stumbles into these it invariably tumbles to the bottom of the pit. The antlion larva senses the vibrations and quickly pushes its jaws up through the base of the pit making rapid biting motions in an effort to catch the insect. In 2017 I was pleased to find an adult lacewing antlion *Bandidus canifrons*, (*Photo below left*), which was attracted to my front verandah light at night. This year a second species of antlion lacewing *Myrmeleon acer*, (*Photo below right*) came to lights at my home. At an estimated 40-50 mm long, these insects are substantially larger than the green lacewings frequently seen around lights at night.



John Eichler

*All images,
John Eichler*



**Thanks to the editorial
and layout team who put
together FNN 296**

Joan Broadberry
Wendy Gare
Sally Bewsher

**Many thanks to those
who helped collate and
label FNN 295**

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

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

**FNCV Facebook
report: 12,557
followers.**

M. Campbell



From the President

Continued from page 1

Towards the end of the day I managed to photograph a mating pair of robber flies (*Laphria* sp). (Photo above).

I have been setting up bright lamps in my garden and watching them for many hours at a time to see what turns up. So far only a couple of tiny moths have appeared after many four-hour sessions. For the whole season from September onwards, the street lamps nearby have not been attracting the usual numbers of insects, if any at all, and there are no microbats fluttering about in pursuit. Over the past few weeks a few solitary field crickets and mole-crickets have been calling from cover and, it seems to me, without conviction. I hope this is not an ongoing phenomenon and that we are not facing a truly Silent Spring this year.

The AGM is to be held on Sunday May 5th. I hope to see you there so check the details on page 12.

Max Campbell

From the Office



Dear Members,

Missing books from the Bookshop. There are two titles - *Field Guide to the Mammals of Australia* by Menkhorst & Knight and *Tracks, Scats & Other Traces* by B. Triggs that went missing from the bookshop in October 2018. If anyone knows what has happened, or their payment has gone astray, please could you let us know as soon as possible.

Annual General Meeting. If you are planning to come to the AGM, please can you let me know? It would help to have an indication of numbers. We expect a big turnout this year, because of the excellent speaker which we have organised – details are in this issue of the News on page 12. Once the formalities are over, which doesn't take long, we can all sit back and enjoy! admin@fncv.org.au or 03 9877 9860.

New membership cards. We have slightly different membership cards for new members which are the right size to fit into conference badge holders. This means that they can be worn to all meetings and excursions. If you would like a new card, let the group leader know at your next meeting and they'll organise for your new card to be made available for pick up at the following month's meeting.

Reminder: The number of pages in the FNVC newsletter, *Field Nats News* has been kept to between 10 and 14. As at 2019, only about 100 readers do not receive the email version. From FNN 295 onwards the size of the digital version of FNN will be expanded as needed. This will make the editorial team's task easier and allow for greater content. *A printed version of up to 14 pages will still be sent out to those who currently receive a hard copy*, but this may sometimes not include all the articles. Paper version recipients will be able to apply to the office for these pages to be mailed out to them.

Wendy Gare
Administration Officer



Terrestrial Invertebrates Group

TIG Starlings Gap 17th March 2019

Seven members were greeted by a wonderful autumn day; partly cloudy with light winds, but not very warm. This encouraged flying insects to conveniently perch on exposed foliage right in front of our cameras and meant we only walked short distances from the campground surrounded by tall eucalypts. There were numerous male wasps of several species in the Thynnidae family. The females of these are wingless and spend most of their time underground burrowing around looking for insect larvae as victims for their own young. There are a few other wasp families with winged males and wingless females, like velvet ants (Mutillidae family), of which we saw one female and at least two male species (males are exceedingly hairy just like the females).

At one spot we discovered several scorpions carrying their babies on their back. With only a few species occur-



Cerophonius squama

Photo: Reiner Richter



Austrosciapus sp.

Photo: Linda Rogan

Vanessa itea and Common Grass-blue *Zizina labradus*, but weren't able to photograph them all (with thanks to Andrew McCutcheon for keeping a list). We also saw two dragonflies: a multi-spotted damer *Austroaeschna multipunctata* perched in the sun and a Southern Tiger-tail *Eusynthemis guttata* patrolling in the forest at a seepage. We also saw numerous other life forms.

For a full list of what we were able to catch on camera visit our project page <https://www.inaturalist.org/projects/fncv-2019-starlings-gap>

Reiner Richter

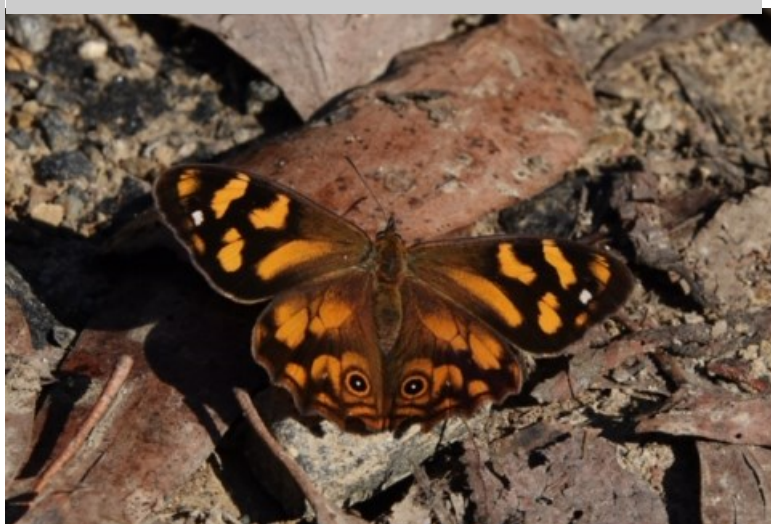
ring near Melbourne it was easy to identify these as the forest scorpion *Cercophonius squama*, which is also the most common species by far in the cool forests east of town.

In the late afternoon we stood in a patch where the sun shone at mother shield fern *Polystichum proliferum* and myrtle beech *Nothofagus cunninghamii* to watch the numerous insects circling about. Most of these appeared to be male *Lasioglossum* species bees (*Parasphecodes* subgenus) in the Sweat Bees (family Halictidae), which we managed to photograph when we occasionally saw one landing. Interestingly, immediately as a cloud passed in front of the sun the insects stopped flying.

We saw a few butterflies: Banks' Brown *Heteronympha banksii*, Striped Xenica *Oreixenica kershawi*, Cabbage White *Pieris rapae*, Varied Sword-grass Brown *Tisiphone Abeona*, Yellow Admiral

Heteronympha banksia (female)

Photo: Andrew McCutcheon

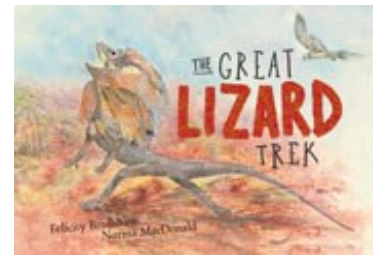


NEWS FROM THE BOOKSHOP (May 2019)

Last month we showcased *Victoria's Freshwater Fishes* by Rutie Kuiter, and incorrectly showed that it was published in 2013. The book we have in stock is actually the second, newest edition of this popular book, that was updated and revised in 2017. Many apologies for this error. This month we highlight two excellent Australian books for children, *Dingo* and *The Great Lizard Trek*, that were both released last year and the artwork in both books is spectacular, not to mention the engaging story-line and topics they explore. Two other books featured this month are expected this year in April, *Marine Plants of Australia*, and in May, *Australian Magpie*. If you have purchased a copy of *Moths of Victoria* **Part 1** or **Part 5** from the FNCV Bookshop, updates are available so please send an email to bookshop if you would like a copy of this update. 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.

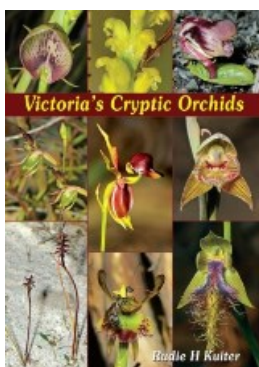
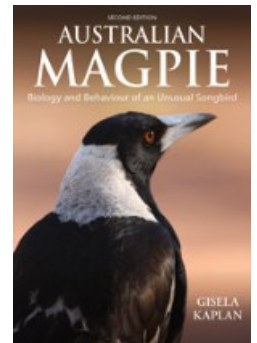
Happy reading, Kathy

The Great Lizard Trek (Bradshaw & MacDonald) is told from the point of view of an ornate dragon called Rocky who lives in the south-west of Australia. The magnificent colour illustrations provide a beautiful and intimate depiction of a group of reptiles from out-back Australia, as some of them are forced to leave their home because it is too hot. The story is engaging and the dialogue between the many lizard characters adds lots of fun to these reptiles. This book explores some of the potential effects of global warming on Australia's native reptiles. Suitable for all grades of primary readers. Teacher notes available with this book. (HB, 32 pp., Aug 2018) RRP \$24.99, Member \$20



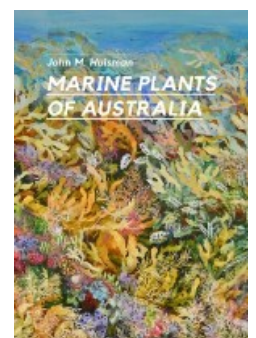
Dingo (Saxby & Harricks) is set amid the Alpine forests of Victoria and the landscapes, mountains and forests in this book are just as real and vibrant as the dingo characters themselves. Full of fun and interesting facts about dingoes, the stunning illustrations help to engage the primary aged reader with this interesting topic. The family dynamic of the dingo pack helps readers connect with this elusive canine. (HB, 32 pp., April 2018) RRP \$24.99, Member \$20

Australian Magpie (G. Kaplan) biology and behaviour of an unusual songbird provides an insight into the cognition, communication and social structure of this iconic Australian bird. This second edition of *Australian Magpie* is a thoroughly updated and substantially expanded account of the behaviour of these birds. With new chapters on classification, cognition and caring for young, it reveals the extraordinary capabilities of the magpie, including its complex social behaviour. (PB, 280 pp., 2nd ed, May 2019) RRP \$45, Member \$36



Victoria's Cryptic Orchids (R. Kuiter) is a comprehensive guide to selected terrestrial genera and comprises species that usually blend in exceptionally well with their surroundings. It includes the Beard, Elbow, Onion, Midge, Duck, Horned, Tongue, Fringed Hare, Mosquito, Gnat and Helmet Orchids. Their looks serve to go unnoticed, but they emit a special scent for their specific pollinators to find them. Flowering times of the various species are in tune with the flying times of their particular insect pollinators, combined with best suited environmental conditions. (PB, 172 pp., 2016) .RRP \$70, Member \$56

Marine Plants of Australia (J. Huismann), second edition, illustrates over 600 species of Australia's underwater plant life, mostly using underwater photographs that reveal the amazing colours and intricate patterns found in this largely unknown realm of life. There are seaweeds with the consistency of jelly, or with fronds that form an intricate mesh that rivals the best lace. These plants have evolved a startling myriad of shapes, colours and patterns that will impress everyone who views them – underwater, or through the pages of this book. (PB, 2nd ed, 350 pp., April 2019) RRP \$49.99, Member \$40



Marine Research Group

Know Your Boundaries Bunurong Marine National Park



Surveys based at Inverloch 25th—28th March 2019

With low tides at the end of March, the MRG carried out four surveys, under permit, at Cape Patterson, Harmers Haven, Harmers Haven west end and Twin Reefs; all in the Bunurong Marine National Park Map above.

The weather on the first two days was, to put it mildly, inclement, note raincoats, (Photos 1 and 2), however, thankfully it improved greatly. (Photo 3.)

Invertebrate groups of particular interest were:
Sponges, Sea-squirts (Photos below) and Flat Worms.



All
images,
J.
Broad-
berry



The surveys were very successful with a big variety of species recorded and photographed including the Hermit Crab, *Pagurixus handrecki* and *Tugali parmaohodia* (below). Complete lists for each location can be obtained from Leon Altoff. **Digital newsletter only - see p14 for more images.**

Joan Broadberry



Corella eumyota





Day Group

This newsletter is printed on recycled paper.

Solving the mysteries of long distance migrants of the bird world

Speaker: Ken Gosbell (Victorian Wader Study Group and Australasian Wader Studies Group).

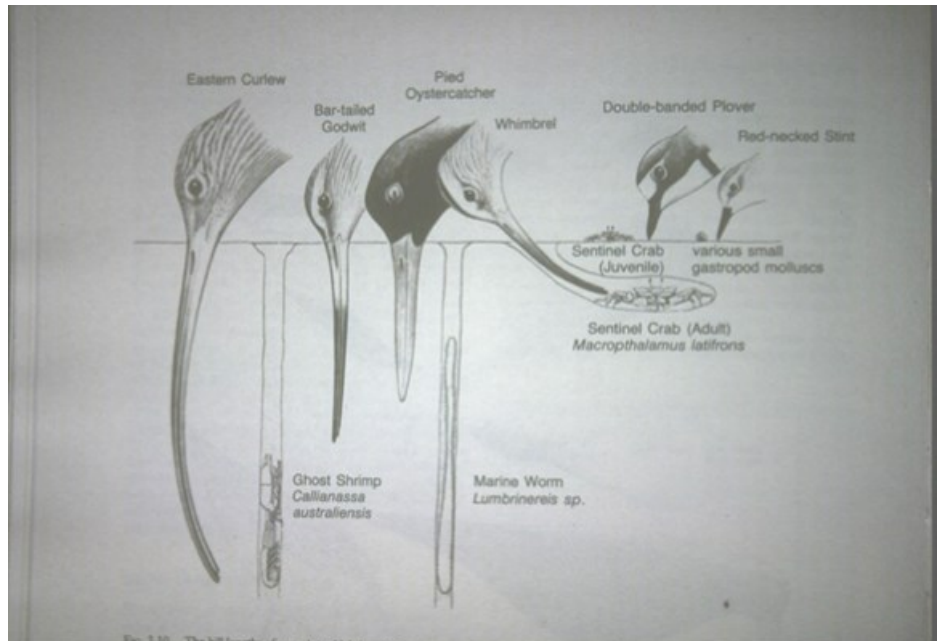
Waders or shorebirds gather to feed along sandy, rocky or muddy shorelines or on the fringes of freshwater wetlands. They do not have webbed feet and hence cannot land on water. Over fifty species of waders are found in Australia, the largest being the Eastern Curlew and one of the smallest being the Red-necked Stint, weighing in at about 30 grams. Both these species are migratory. Some waders are sedentary e.g. the Hooded Plover. Unfortunately, the future of migratory wading birds is under very serious threat.

The first part of Ken's presentation gave insight into the life cycle of waders. The bills of the various species are adapted to find specific foods e.g. crustaceans or worms. Specialised diets mean specialised habitats. Thirty-seven wader species migrate north to breed during the Arctic summer, flying a distance of 13,000k, one way. After breeding they return, mostly remaining faithful to their Australian summer (non-breeding) feeding grounds. It is estimated that these birds undertake this 26,000km round trip each year of their possible 18 – 20 years lifespan, equivalent to flying to the moon!

Before migration, waders feed voraciously to give them the resources (fat) needed for their long flight - Red-necked Stints nearly double their weight. Many species have a physiology which adapts their body for the rigors of migration by shrinking some of their internal organs to make room for fat to be laid down. Before migration,

the birds moult into colourful breeding plumage that transforms their appearance.

Right: Bar-tailed Godwit in breeding plumage. Roebuck Bay near Broome is a mecca for tens of thousands of waders. Video footage of wader flocks in synchronised flight is a delight to watch. However, the birds appear to migrate in relatively small groups of perhaps five to 30 rather than large flocks.

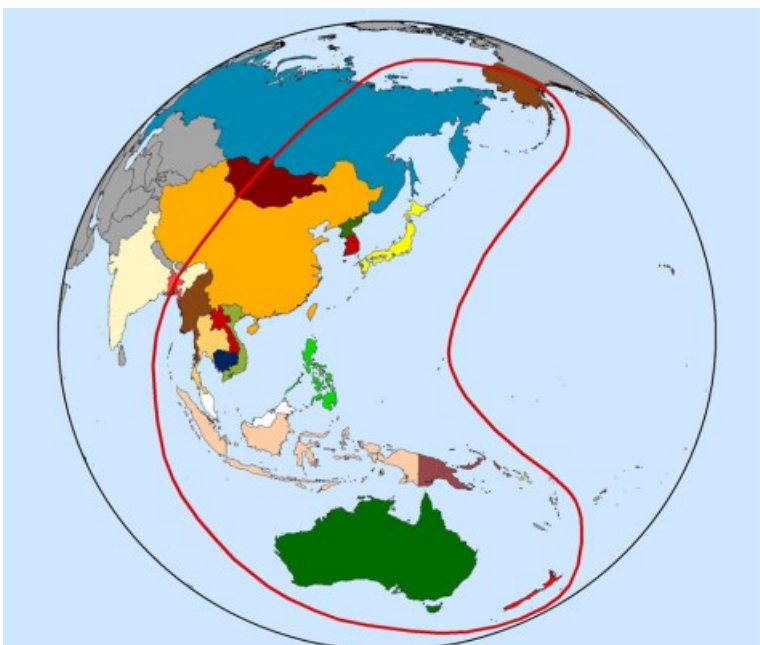


Bar-tailed Godwit Photo: K. Gosbell

The East-Asian/Australasian flyway encompasses 23 countries from New Zealand to Siberia and Alaska. *Left: map of Flyway.* Waders migrate in stages. Of critical importance are the sites where the birds stop off for several weeks to rest and feed in order to refuel for the next part of their journey. They return using a similar track to that taken to the breeding grounds; both the northern and southern migration routes generally remain constant for each species.

The timetable for migration corresponds with the short Arctic summer. Ken emphasised several times how rapid the waders' breeding cycle is. They aim to arrive just as the snow is melting to enable the pairs to nest using just a scrape in the tundra and, 5-7 days after arrival, the female lays 3-4 eggs which are incubated over about 21 days and protected from predators such as Skuas and

(Continued on page 9)



(Continued from page 8)

Arctic Foxes. When the chicks hatch millions of invertebrates have also hatched and are a rich food source readily available for the young to grow and fledge. Shorebirds do not feed their chicks; the hatchlings must find their own food. One of the adults departs for the southern hemisphere after four or five weeks, leaving the other to protect the young. That adult will then depart, leaving the chicks to grow flight feathers, leave before the first snow and find their own way to the southern feeding grounds. A truly extraordinary feat which is not yet understood.

Ken emphasised that shorebirds are in very serious decline. Some species, for example Curlew Sandpipers and Eastern Curlew, have recorded a shocking 80% to 90% decrease. Much of this decline is caused by human pressure on stopover areas in Asia, in particular the Yellow Sea region between China and the Korean Peninsula. In 2007 a major staging area in South Korea was totally reclaimed and is no longer available to the migratory shorebirds. An estimated 2 million birds rest and feed on the rich tidal flats of the Yellow Sea, but already 70% of this area has been reclaimed.

In order to better understand the migration characteristics of these shorebirds, both the Victorian Wader Study Group and the Australasian Wader Studies Group have captured, banded and studied waders over many years. Leg bands and coloured flags have the inherent limitation in that the bird must be sighted or recaptured for data to be gathered. Technology such as geolocators (light recorders) and satellite tracking, have allowed much more to be learned. Ken outlined some of the results from the geolocator program that has been ongoing since 2009. Geolocators used on Ruddy Turnstone weigh 0.7g and record light value, temperature and conductivity. A miniaturised geolocator, weighing only 0.3g can now be attached to tiny Red-necked Stints.

A map showing the track of a Ruddy Turnstone from King Island (Tas) as determined by a geolocator was shown. The first leg of this journey is from King Island to Taiwan, a distance of 7600km which the bird flies in six days non-stop - this is typical of all Ruddy Turnstones and similar sized shorebirds.

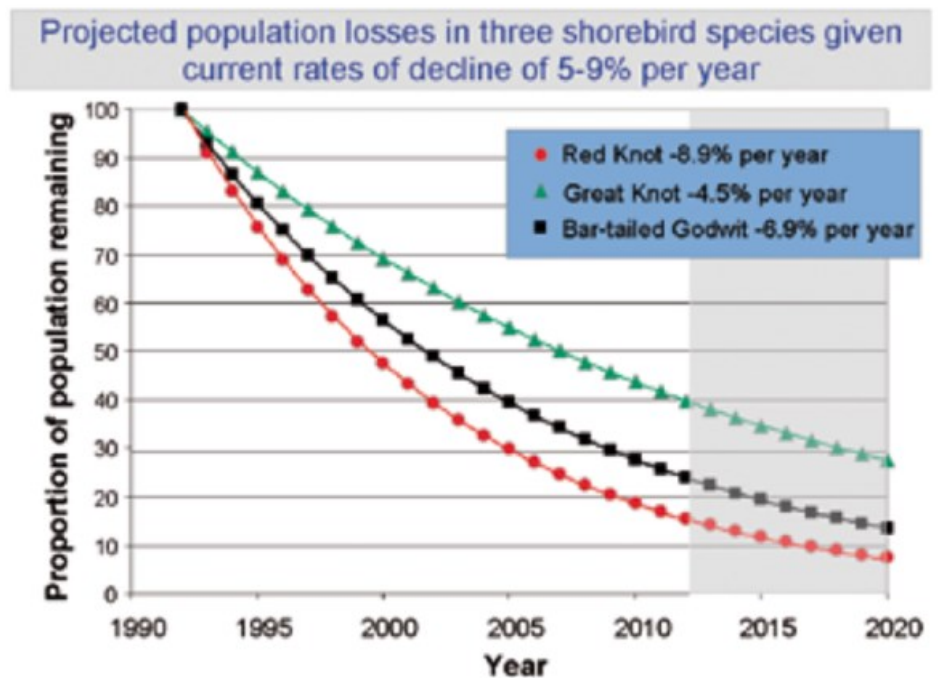
Key outcomes from this research includes:

- Understanding migration strategies for both northward and southward migrations,
- Identifying key stopover areas – critical in terms of planning conservation strategies,
- Timing of key events such as departure, arrival at breeding grounds etc,
- Identifying breeding areas for each species,
- Incubation characteristics – determining whether incubation was likely to be successful,
- Some insights into changing migration phenology – potential effects of climate change and habitat destruction.

Ken went on to outline some of the conservation initiatives that have been undertaken over the last two decades. Foremost of these is the East Asian-Australasian Flyway Partnership to which 37 Partners are signed up to including the majority of the 23 governments of countries making up the flyway. On a positive note, both the Republic of Korea and China have recently placed controls on further tidal habitat destruction in the Yellow Sea although we must wait to see the subsequent effect of these. There is a need for continued emphasis by governments and communities on conserving habitat so important for all our shorebirds. This can be assisted by education and public awareness of the problems and ensuring that all governments place a high priority on these needs. With several of our shorebirds now listed as Critically Endangered it is up to us all to do what we can to preserve these amazing frequent flyers so that future generations can enjoy their wonders.

As I have said in an email to Ken, the story of shorebirds was as clearly told and as well illustrated and documented as any presentation I have ever attended. On behalf of the Day Group I would like to thank him for an engrossing talk, for the effort he put into helping me complete this report and especially for the years he, with others, has spent learning the secrets of migratory waders with the aim of making a difference to their survival.

Joan Broadberry and Ken Gosbell





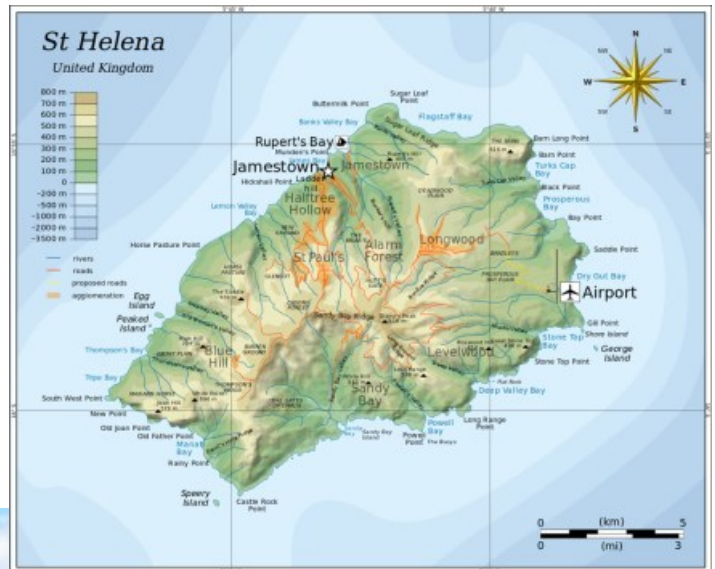
A Visit to the Island of St Helena

Speaker: Rob Hamson, 26th March

St Helena lies in the South Atlantic Ocean some 1931 km east of mainland Africa and as such is one of the most isolated islands in the world. Together with the islands of Ascension and Tristan da Cunha, it is a British overseas territory with its governor, at present Lisa Phillips, based in St Helena. All three islands owe their existence to volcanic eruptions over separate geological hotspots: St Helena erupted from 12 to 8 million years ago, Ascension's last eruption was about 500,000 years ago and Tristan da Cunha's volcano was active as recently as 1961-2.

The island is difficult to get to. For many years it was serviced by the Royal Mail Service (RMS) St Helena which carried passengers and cargo; it was retired in 2018 and replaced with a cargo-only vessel. Visitors from this date were to be brought in through the new international airport built at considerable expense - estimated to be as much as 500 million pounds. However, as the runway is at the top of a cliff there is often dangerous wind shear and larger jets have been unable to use it. Instead Brazilian-built Embraer 190s (with 99 seats) fly once a week from Johannesburg. If landing is impossible they carry enough fuel to fly on to Ascension, 1293 km to the north. We were fortunate to be able to visit as a shore excursion from the cruise ship MV Astor on 5th April last year. Even so it was touch and go whether we would land as Jamestown, the capital, has just an open quay and the swell made it impossible for our tenders to tie up despite several attempts. It looked as though we would have to make do with a cruise around the island but the captain negotiated with the harbourmaster and we were able to land at the nearly complete new jetty in Rupert's Bay which affords some shelter from the ocean.

The island was discovered by the Portuguese in 1502, claimed by the Dutch but occupied by the British East India



View of Jamestown with cruise ship in the distance

Company in 1659. The British Crown took over in 1834. The population of about 4000 is descended from British planters and soldiers, African slaves and Chinese workers brought in from about 1810. Napoleon was exiled here in 1815 after Waterloo and for the first few days stayed with the Balcombe family at their home: Briars Pavilion. Much later the son of the family, Alexander, settled on the Mornington Peninsula and named his house The Briars. Napoleon moved to Longford House, now owned by the French Government, where he died in 1821. He had chosen the spot for his tomb but because of a dispute over the inscription there is no

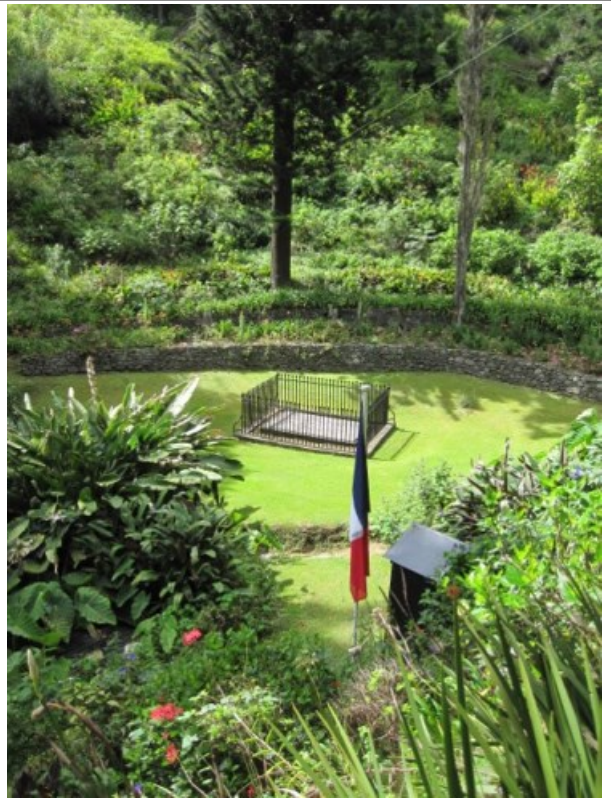
(Continued on page 11)

(Continued from page 10)

name on it. (Photo right) The French wanted the imperial *Napoleon* but the British Governor insisted on the family name *Napoleon Bonaparte*. His body was disinterred in 1840 and taken to Paris. The island's function as a prison continued with the holding of 6000 Boer prisoners in 1900. On a more humanitarian side, the Royal Navy landed 26,000 slaves rescued from slave ships between 1840 and 1872; 5000 of them died on the island.

St Helena formed over one of the oldest hotspots known, dating back 145 million years to the end of the Jurassic when the Atlantic Ocean started to open. A chain of seamounts may connect with extinct volcanoes in Cameroon. The first eruption occurred 12 million years ago and then a second eruption some kilometres to the southwest 11 million years ago. Volcanic activity ceased 8 million years ago. The lava is mainly basalt but there is some trachyte, a more felsic lava with quite a high proportion of potassium feldspar. This points to there being some oceanic crust in the magma mix and one reference suggests the incorporation of continental material may

be one of the causes of hotspot formation. Interestingly, Ascension has a full range of lava types from mafic to felsic, i.e. basalt to rhyolite. Geological features that can be seen on St Helena include the cliffs of layered lava flows and phonolitic dykes known as Lot and Lot's Wife which stick up as rocky outcrops. Phonolite is a rock with a similar composition to trachyte.



Jacob's Ladder with Jamestown below.

The island's climate is tropical marine and mild - the temperature was 24C on the day we visited. There are constant SE Trade Winds and the temperature is also moderated by the cool Benguela current. On approaching the island from the sea the bare basalt cliffs give an impression of aridity but the vegetation of the interior is quite lush. The native vegetation has been much altered, particularly through the planting of exotic trees but there are still hundreds of endangered native plants. New Zealand flax covers many slopes and there is some debate about whether it should be removed as it is protecting against soil erosion.

The only endemic bird to survive is the wirebird or St Helena Plover which is featured on the flag. (Photo below). We saw Fairy or White Terns nesting in trees near Napoleon's tomb and a Red-billed Tropicbird flew by beneath us at the top of Jacob's Ladder. There are no native animals but about 400 endemic invertebrates. One non-native attraction is Jonathan, a giant tortoise and the oldest animal in the world

at approximately 187 years old. He resides at the governor's residence, Plantation House, with five other Aldabran giant tortoises. (Photo left)

Our visit ended at the top of the 699-step Jacob's Ladder which connects the town below with the fortifications on the cliff-top. For an island just 10 by 17 km in size there is a great deal to interest the visitor.

Rob Hamson

A huge thank you is owed to Rob for his many contribution to the Day Group including writing this summary of his captivating presentation.

All photos Rob Hamson





FNCV AGM Sunday 5th May 2019 at 2 pm

*You are invited to attend the Field Naturalists Club of Victoria Inc.
Annual General Meeting*

to be held at the FNCV Hall, 1 Gardenia Street, Blackburn.

Agenda: *Minutes of previous AGM; Annual Report; Financial Statements;
Election of Council; Environment Fund; Other Business*

Guest Speaker: A/Prof Michael F Braby

“Butterflies of the Australian Monsoon Tropics”

Afternoon tea will be served All welcome

Nominations for Council must reach the registered office of the Club no later than 48 hours before the AGM, i.e. Friday 3rd May 2019, by 2 pm

FNCV AGM Proxy Voting Form



I, _____

Current member of The Field Naturalists Club of Victoria Inc.

appoint (full name) _____

of (address) _____

or in their absence, the AGM Chair, to be my proxy at the 2019 Annual General Meeting to be convened on Sunday 5th May 2019 at 1 Gardenia Street, Blackburn and authorise them to vote on my behalf.

This form must be given to the FNCV Secretary before the start of the AGM.

Signed: _____ Date: _____ May 2019

NOMINATION FORM FOR FNCV COUNCIL 2019/20

The FNCV AGM will be held on Sunday 5th May, 2 pm at the FNCV hall, 1 Gardenia Street, Blackburn



Name of Member nominated.....

Position Nominated*.....

Signature of Member Nominated

TWO MEMBERS SUPPORTING NOMINATION

Name Signature Date.....

Name Signature Date.....

*Elected members of the FNCV Council are: President, Vice-President, Secretary, Treasurer, a Councillor representing each Special Interest Group (SIG) and up to six other Councillors. All must be FNCV members.

All nominations, including SIG Councillors, must reach the FNCV office no later than 48 hours before the AGM, i.e. Friday 3rd May at 2 pm

Extracts from SIG reports given at the last FNCV Council Meeting

Botany Group: Meeting: Thursday 21 March: Botanist David Cheal recounted aspects of scientific evidence consultation by the Victorian government with respect to its current review of the Regional Forest Agreement (RFA). In addition David reflected on life on the land in regional Victoria. An audience of 18 listened intently and asked questions. David incidentally had to switch his topic due to a technology failure..

Ken Griffiths

Fauna Survey Group: Meeting: 5th March 2019. The speaker for the evening was Dr Joanna Sumner, Senior Manager of Genetic Resources, Museums Victoria on '*Biodiversity Research and Museums Victoria's Biobank: stories from the vault*'. The Melbourne Museum currently has nearly 50,000 registered genetic samples, and has a capacity of 160,000 samples, all stored at -190° under liquid N2. Bioscans and Bush Blitz surveys and collecting trips have targeted gaps in the collection. Analysis of genetic samples of *Uperoleia martini* and *U. tyleri* from East Gippsland showed none were actually *U. tyleri*, indicating that this may be a NSW species only. With the help of students at the Gene Technology Access Centre (GTAC), investigations have uncovered misidentification of Garden and Delicate Skinks; diversity in Black Rock Skink but not separate species; and studies of Common Scaly-foot showing the diversity between the eastern and western form.

Survey: Bael Bael Grassland NCR, 8-11 March. This was the third in the series of surveys searching for Plains Wanderers and other grassland fauna. Conditions and fauna seen this time were different than last year, with Curl Snakes and Fat-tailed Dunnarts being prominent, with few House Mice and Barn Owls absent. A longer report will appear later.

Raymond Gibson

Fungi Group: At our meeting on 4th March Dr Tom May spoke on *Mining the microbiome- exploring the dark matter of fungal biodiversity*.

Geology Group: The speaker on February 27th was Associate Professor Ian Rutherford, a geomorphologist from The University of Melbourne. His most topical talk focused on Melbourne's rivers and creeks. He talked about the Yarra River's previous course during the last of the Ice Ages until about 2000 years ago through the Lake Phillip (now Port Phillip) to a possible waterfall at The Heads.

The Mullum Mullum Creek was described as cutting across the grains of the Silurian bedrock of Melbourne which shows clear evidence of being formed partly from undersea landslides (turbidites) which have since been tipped and folded. Professor Rutherford talked about the creek's deep gorge which has grown substantially as housing development has increased around its catchment. With the 80,000 people now in the catchment area, run off from this pressure of housing has increased to ten times greater than its original flow, resulting in a heavily incised and eroded creek bed. The MM Creek also shows a particularly interesting stream capture of a previous bed of the Dandenong Creek. This is where the Creek makes a right hand turn upstream in Ringwood. This Creek (and a small section of Gardiner's Creek after Blackburn Rd) was stressed to be very important to preserve, being the only Melbourne creeks that have remained in their original beds without extensively manmade alterations which are now seen as not appropriate or 'healthy' for the waterways.

Our speaker made an interesting comment about the Yarra River – he described Melbourne as lucky to have such a 'clear river'! It may look muddy but this is really a thin top layer of Silurian muds that have the property of reflecting any sediment back to the eye. It is also tidal so only the top is turbid.. It was a most interesting talk about the health of Melbourne's waterways. Dr Rutherford has offered to follow up his talk with a walk along the creek on Saturday 4th May. Further details will be emailed from the FNCV office.

Ruth Hoskin

Juniors' Group: On the 10th March we visited Point Cook Marine Sanctuary, with 22 members taking part. Our leader Andrew Christie was excellent, answering all the juniors' and parents' questions and also sharing with the children interesting facts about the fauna and flora of the rock pools of Point Cook. The highlight for me was to see a beautiful and elegant nudibranch, and a Southern Fiddler Ray. The weather was not in our favour and we finished the excursion early.

Patricia Amaya

Marine Research Group: No meeting due to Labor Day. Field work reports will be made in due course.

Microscopy Group: Max Campbell presented a talk on Owls, and the main topic of the talk - owl pellets. We learnt of the feeding habits, and differences in digestive systems from other birds, resulting in the need to regurgitate the indigestible parts of their prey, their gut pH being too low to digest bones and hair.

Surprisingly many other birds also produce pellets or castings; Eaglehawks, falcons, vultures, herons, cormorants and ravens. The bird's gizzard holds back indigestible matter, grinds it up with swallowed grit and small stones, compacts it, and coats it with mucus for ease of expulsion following internal spasms. This occurs approximately 10 hours after a good night's feed. The owl cannot

(Continued on page 14)

(Continued from page 13)

feed again until regurgitation. Pellet-casting birds do not have a crop. These pellets can give us a detailed story of their feeding habits, and the effect of extreme weather conditions on diet. We looked at a study involving nearly 620 pellets that were dissected and all bones and hair identified.

70% of the remains were identified as arboreal mammals: possums and sugar gliders as well as magpies, parrots, budgies, rosellas, frogs, pigeons, insects, beetles, geckos, mice, antechinus and carrion eg. wallabies. Owls are not aware of course, of the lists of endangered and threatened species, and are quite keen on them too! There are over 200 owl species worldwide. Australian owls we looked at were - Rufous, Barking, Southern Boobook, Morepork, Eastern Barn, Eastern Grass, Sooty and Lesser Sooty.

We recently, excitedly received a donation of 5 owl pellets, not so easy to find. We are keen to dissect these and identify what we can. Our recent donation of over 25 dissecting microscopes will give us a great opportunity for this. We can also do hair impressions and see what we can discover there.

These pellets can contain bacteria, salmonella, chlamydia and lespira. Some of their prey may also carry pathogens. These should be sterilised at 240 Celsius for 4 hours. They can also be immersed in alcohol or method; this process softening the pellet and allowing ease of separation of the contents. We are all looking forward to proceeding with the actual dissection and identification of our pellets at a future meeting. Ten members attended. Thank you once again to Max for sharing his knowledge and enthusiasm.

Phillipa Burgess

Terrestrial Invertebrates Group: The meeting held on 20th March was about iNaturalist and included photos from our recent excursions. It was presented by Reiner Richter and thoroughly enjoyed by all.

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.

Dr Mark R Cabouret
Level 4
No. 2 Collins Street
MELBOURNE VICTORIA 3000
(03) 9654 7549

Email: heathercabouret@yahoo.com.au



Continued from page 7



Polybranchia pallens a very cryptic nudibranch

J. Broadberry



Tesseropora rosea

J. Broadberry