



Understanding
Our Natural World

Field Nats News No.290

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: fnnews@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.

October 2018

From the President

It has certainly been a very cold August this year, so the occasional bursts of warm sunlight as we move into spring are much appreciated. We are not alone in our need for warmth. Insects also respond to the sunlight and are beginning to turn up in greater numbers in our gardens, none more so than flies.

Of course flies are always present in reduced numbers in one place or another. They can usually be found in warmer places such as compost heaps or compost bins. Whenever I lift the lid of a compost bin I disappear in a choking cloud of small drosophilid flies that live and breed in the warm compost throughout the year. Sometimes large numbers of the soldier fly, *Exaireta spinigera* (Stratiomyidae) fly out when I open the lid. Their dark, flattened larvae live in the rotting vegetation and can usually be seen creeping up the inside of the bin.

Flies are far more than the annoying raison d'être for the "Aussie Salute". They are of incredible importance in the



Amenia imperialis, a spectacular blowfly.
Photo: Andrew McCutcheon

The deadline for FNN 291 will be
10 am on Tuesday 2nd October.
FNN will go to the printers on the
9th October with collation on
Tuesday 16th.

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Gynoplistia sp. Tipulidae Photo: M. Campbell

biosphere and generate an enormous global biomass. They successfully occupy virtually all habitats on Earth. Some are important vectors of disease; in particular the sucking species such as mosquitoes, march flies, horse flies, buffalo flies and midges. Others, for example, bot flies, bat flies and hippoboscids are specialised parasites. House flies and blowflies can transfer pathogens from contaminated areas directly to our food. Most flies are however beneficial, perhaps pollinating up to 70% of flowering plants and decomposing animal and plant waste. Many are predators on pest species and are important agents of natural, biological control.

The Diptera may comprise over a million species with many more to be described. They vary enormously in size, form, colour and biology. For anyone interested in flies, "The secret life of flies" by Erica McAlister is an excellent

(Continued on page 3)



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.

October

Monday 1st - Fungi Group Meeting: *Planning for 2019 forays.* Committee meeting 7.30 pm; General meeting 8 pm
Please bring a selection of photos of interest from the 2018 surveys to share.
Contact: Carol Page 9857 6388; cpage365@gmail.com

Tuesday 2nd - Fauna Survey Group Meeting: *The key findings on research into the endangered Guthega Skink (Liopholis guthega).* Speaker: Zak Atkins, PhD candidate, Latrobe University.
Contact: Robin Drury 0417 195 148; robindrury6@gmail.com

Saturday 6th – Working bee Meet at 10.00 am for tidying and cleaning up inside and outside the hall. Any help you can give will be appreciated. There will be tasks suitable for all skill levels. Please bring gloves, your favourite tools etc.

Monday 8th - Marine Research Group Meeting: *Larsen C Antarctica.* Speaker: Melanie Mackenzie, Museums Victoria. Contact: Leon Altoff 9530 4180 AH; 0428 669 773; mrg@bluering.org.au

Thursday 11th – Botany Group Extra Meeting: *The Emerald Link: East Gippsland.* Speaker: Ed Hill from GECO
Contact: Ken Griffiths botany@fncv.org.au

Tuesday 16th Collate FNN 291 starting about 10 am. Contact Joan Broadberry 9846 1218

Wednesday 17th - Microscopy Group Meeting: For details contact: Philippa Burgess 0409 866 389

Thursday 18th – Botany Group Meeting: Note this is the second meeting for the month. *The effect of disturbance on plant rarity and ecosystem function* Speaker: John Patykowski, who has now completed his PhD, and will present his findings. Contact: Ken Griffiths botany@fncv.org.au

Saturday 20th – Juniors' Group Excursion: *Mt Burnett Observatory* Evening excursion, details will be advised.
Bookings in advance essential! \$6 per person. Contact: Patricia Amaya juniors@fncv.org.au

Tuesday 23rd – Day Group Meeting: *The management of Caladenia amoena, the wine-lipped spider orchid and other rare native orchids in North-east Melbourne.* Speaker: Gary French. Gary has worked for over twenty years conserving rare orchid populations on Melbourne's urban fringe. Meet for coffee and a chat at 10.30 am. Speaker at 11 am.
Contact: Joan Broadberry 9846 1218

Monday 22nd - FNCV Council Meeting 7.30 pm sharp. Agenda items and apologies to Wendy, 9877 9860; admin@fncv.org

Wednesday 24th – Geology Group Meeting: *Ballarat's Golden Mining History and Present Explorations*
Speaker: Bill Reid, Geologist and Exploration Manager, Castlemaine Goldfields Ltd. at Ballarat
Contact: Ruth Hoskin 9878 5911; 0425 729 424; rrhoskin@gmail.com

Friday 26th – Juniors' Group Meeting: 7.30 pm. *About Parks & Reserves in the City of Whitehorse*
Speaker: Lisa Maloney of Whitehorse City Council. 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 member 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:

Mark Cotter, Carole Foley, Jacinta Harrison, Chris Farrell, Robin Sinclair, Synti Ng, and Martin Lockett.

From the President, *(Continued from page 1)*

and informative introduction to their diversity and biology. It is available from our bookshop. For those with an insatiable passion for flies and a somewhat deeper pocket, I enthusiastically recommend "Flies - The Natural History and Diversity of Diptera", by Stephen A. Marshall.

There are many spectacular and beautiful flies in the Australian fauna; a few are pictured here. They are a popular subject for macro photographers participating in our TIG excursions, so watch for them in the coming months.

Maxwell Campbell



Eristalinus punctulatus Syrphidae, a native drone fly.

Oops, slipped under the radar, TWICE!



In June 2018, the FNCV Day Group passed a significant anniversary. It was 10 years old. Somehow this important milestone slipped under the radar, but luckily, thanks to the recent Symposium showcasing the club, at which I spoke, it emerged just in time for me to form the intention of highlighting it at the August Day Group meeting. However, once again, caught up in mundane but necessary tasks, I forgot.

Luckily, wearing my Newsletter Editor's Hat I can make amends and also relate a little history. The current FNCV Day Group was re-established in June 2008 by Gary Presland and the late Sheila Houghton. *(Photo right)*. The first meeting, held in June 2008, was attended by 18 members who heard Gary speak on the topic, *Reconstructing the Natural History of the Whitehorse Area*. I say re-established because there were two previous incarnations of the Day Group. The first, existed successfully for 18 years from 1971-1989 and there was an attempted resurrection of the group in 1996-7.

The original Day Group was very much excursion based. Gary Presland's book, *Understanding our Natural World*, p201 states: *In 1982 after 10 years of operation the Day Group could point to 95 outings to 58 places of interest.* In comparison, the present Day Group is primarily lecture-based. In our first ten years we have chalked up 104 presentations and only 15 excursions. The first excursion, held in September 2008, was to Yarran Dheran. It was led by Cecily Falkingham, always a wonderful supporter of the program.

Sheila Houghton retired as FNCV librarian in 2011 and also withdrew from involvement with the Day Group. Gary Presland continued as sole co-ordinator until January 2015 (a total of six and a half years) when myself, Joan Broadberry, and Sally Bewsher took over and we have been co-co-ordinators for the last three and a half years.



Happy 10th birthday Day Group!

J. Broadberry

Members' news continued from p3



A huge thank you to Claire Ferguson and others for their work with the Juniors' Group

The Juniors' Group scheduled a party night on Friday 31st August, with the theme Marine Life. Everyone was invited to wear a marine costume with fun, food and prizes on offer. FNCV President, Max Campbell attended the meeting. (Unfortunately we don't know if he came wearing fancy dress!)



Max attends as many Club meetings as he can, but this night was very special as there were some amazing people to thank. Claire Ferguson, together with her husband Scott and family, have made an enormous contribution to planning, operation and success of the Juniors' Group over the last seven and a half years. Robyn Goode and her family have also played a major role in the outstanding achievements of the Juniors'. As well, through her membership of Council, Claire has made a great contribution to the FNCV as a whole.

Max used the opportunity to convey the admiration and appreciation of the council and all club members to those who have so ably led, and continue to nurture, this wonderful group of young naturalists. It was very appropriate to throw a party and say a huge 'thank you' to these hardworking, extraordinary people.

J.B.

Notes from the Office

Dear Members

First, a follow up from last month's comment about parking fines: several members have asked me to pass on that the crackdown on parking infringements is equally ruthless right across the suburbs. It includes hefty fines for unauthorised use of loading zones when dropping off items at op shops and libraries, as well as for using an empty bus bay to drop people off at railway stations. Of course we all need to obey the law, but there has been no leeway shown at all, so take care!



If you haven't already noticed, the FNCV no longer uses gas. We have installed a heating/air-conditioning unit and have removed the gas stove which will be replaced by a pie warming unit. With the microwave, this will be more than adequate. Our solar panels are of course the key to the savings we are making.

Any donations of biscuits, tea and coffee for meetings would be gratefully received. They can be left in the kitchen. Thank you!

Finally a word about microphones. We are trying to encourage our speakers to use a microphone for their presentations. We have lapel mikes or a hand-held microphone and good speakers, and using them makes a huge difference for people who are sitting right at the back, or who are a little hard of hearing. If you're having trouble following what's being said, please let the speaker know that you'd like them to use the microphone. Some speakers are reluctant to use one and are sure they can be heard, so they need to be made aware if the audience is having trouble hearing.

Wendy Gare, Administration Officer



Deakin Community Awards; congratulations Gary—

Citation: Since joining the Field Naturalists Club of Victoria (FNCV) in 2002, Gary Presland has filled a number of volunteer positions; in each of these he has been instrumental in raising the profile of the Club. Gary has been an editor of the Club's journal, *The Victorian Naturalist*, continuously since July 2002.

Gary also was the co-ordinator of the FNCV's Day Group, Secretary of the Australian Natural History Medallion, organised the digital scanning of a 90-year spread of *The Victorian Naturalist* and has written and published a history of the Field Naturalists Club of Victoria.

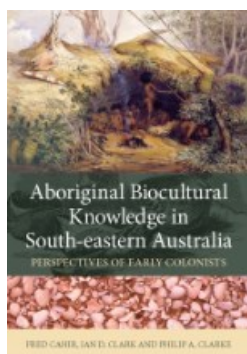
Gary has contributed significantly to the Deakin community, working with a number of different organisations and groups and volunteering his time on a regular basis.

NEWS FROM THE BOOKSHOP (October 2018)

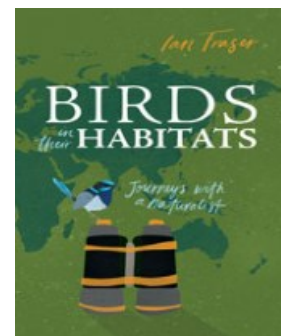
CSIRO Publishing has been busy of late, releasing a plethora of interesting new publications. This month we look at five great books that cover a range of topics, from the fascinating topic of Aboriginal bioculture to helping us identify those critically important native bees we have in Australia, of which we have thousands of species. We have a book on discovering where birds live, the not-so-good news about some of our threatened frogs and delve into the amazing life of our carnivorous marsupials. All of these books will be in stock for a limited period, but will be available to order at any time in the future while still in publication. Come into the clubrooms and have a look at the full range of books available (there are loads!) on the shelf or to order or inquire about a book, please send an e mail to me at: bookshop@fncv.org.au and I will reply as soon as I can.

Happy reading, Kathy

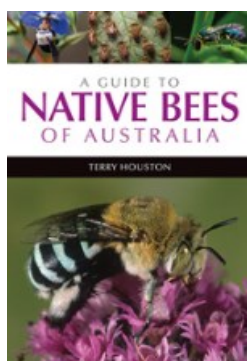
Birds in their Habitats (I. Fraser) is a collection of stories and experiences, which introduce fascinating aspects of birdlife, ecology and behaviour. Informed by a wealth of historical and contemporary research, the author takes the reader on a journey through four continents: from places that are unfamiliar to those as familiar as a suburban backyard. This is a book of discovery of birds and the places they live. And with humour and personal insight, it is a book about the sometimes strange world of the people who spend a life absorbed in birds. (PB, 240 pp., March 2018) RRP \$39.95, Members \$32



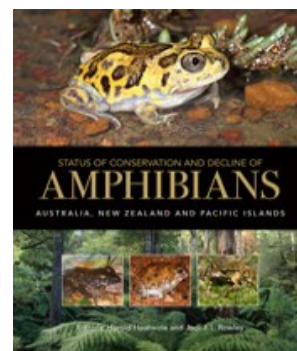
Aboriginal Biocultural Knowledge in South-eastern Australia (Cahir, Clark & Clarke) is the first book to examine historical records from early colonists who interacted with south-eastern Australian Aboriginal communities and documented their understanding of the environment, natural resources such as water and plant and animal foods, medicine and other aspects of their material world. This book provides a compelling case for the importance of understanding Indigenous knowledge, to inform discussions around climate change, biodiversity, resource management, health and education. (PB, 360 pp., May 2018) RRP \$69.95, Members \$56



Status of Conservation & Decline of Amphibians (G. Kaplan) brings together the current knowledge on the status of the unique frogs of Australia, New Zealand and the Pacific. Although geographically proximate, each region presents unique challenges and opportunities in amphibian research and conservation. This book contributes to an understanding of the current conservation status of the amphibians of each region, aims to stimulate research into halting amphibian declines and provides a better foundation for making conservation decisions. (HB, 248 pp., June 2018) RRP \$160, Member \$128



Guide to Native Bees of Australia (T. Houston) provides a detailed introduction to the estimated 2000 species of Australian bees. Australia's abundant native bees are incredibly diverse in their appearance and habits. Illustrated with stunning photographs, it describes the form and function of bees, their life-cycle stages, nest architecture, sociality and relationships with plants. It also contains systematic accounts of the five families and 58 genera of Australian bees. Photomicrographs of morphological characters and identification keys allow identification of bees to genus level. (PB, 280 pp., August 2018) RRP \$49.99, Member \$40



Secret Life of Carnivorous Marsupials (Baker & Dickman) provides a guide to the world's 136 living species of carnivorous marsupials and is packed with never-before-seen photos. Biogeography, relationships and conservation are also covered in detail. Readers are taken on a journey through remote Australia, the Americas and dark, mysterious New Guinea. (HB, 328 pp., August 2018) RRP \$140 Members \$112



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

Extracts from SIG reports given at the last FNCV Council Meeting

Botany Group: At our meeting on Thursday 16th August fifteen people heard Leah Royle of the Australian Wildlife Conservancy demonstrate the effectiveness of various strategies to fight back against both feral herbivores and feral cats, in favour of many threatened native animals. A 44 km cat-proof fence, at Newhaven Wildlife Sanctuary in Central Australia, is just one example. The many questions afterwards showed the engagement of the audience.

Ken Griffiths

Fauna Survey Group:

Meeting 7th August: This meeting was attended by 19 members, who heard John Harris speak on surveying for rare fauna on the islands of Shark Bay. Dorre Island and nearby Bernier Island in Shark Bay are refuges for four mammals that are now rare or extinct on the mainland: the Banded Hare-wallaby, Rufous Hare-wallaby, Boodie (Burrowing Bettong), and Western Barred Bandicoot.

Surveys

Warramate Hills: Cameras were collected on Saturday 28th July and the photographs are currently being analysed.

Mornington Peninsula Swamp Skink survey: The last field trip in this series was held on Sunday 12th August, and attended by 13 members. One Swamp Skink and 5 other species of skink were recorded. Some of the tiles were moved from areas where the species hasn't been recorded.

R. Gibson

Fungi Group: A change of plan was necessary for the **meeting on 6th August**. Unfortunately the advertised speaker was unavailable, and will be rescheduled to next year. Members were instead asked to bring along their most interesting photos for discussion, which proved to be an absorbing alternative.

Geology Group:

Meeting: Dr Jeff Yugovic presented a thought-provoking talk on **Wednesday 25th July** to the Geology SIG. He discussed the use of imported materials into our natural environments and how these can be either sympathetic or not to the original area. His photos certainly illustrated the topic well and it was interesting to hear some of the successful as well as invasive situations. The talk alerted the 22 audience members to some of the perhaps less obvious problems with already existing infrastructure. We should all be aware of this important aspect of our built environment.

Fifty enthusiastic Geologists were treated to a 'virtual expedition' by Leon Costermans on Wednesday 22nd August.

Leon encouraged us to be involved in describing and giving explanations for the geological features we saw on his photos of very early Paleozoic Victorian outcrops or road cuttings before he gave us clear descriptions of the geological forces involved. This interactive learning method certainly proved to be a great way of learning to look more closely at landscape features. We looked at examples from many Victorian sites including Phillip Island, the Hummocks near the Glenelg River, Mt William near the Macedon ranges, the Dandenongs, the Little River Gorge in the Alps and Lake Eppalock's glacial erratics. A particularly fascinating lecture. We are looking forward to hearing Leon lead us on an exploration of the later Victorian geology in 2019.

Ruth Hoskin

Juniors' Group:

For our evening meeting on 27th July we were very lucky to have John Eichler, who has been a member of the FNCV for the last 40 years, as our speaker. His expertise on the marine life of Ricketts Point Marine Sanctuary comes from 20 years of dedicated visits to the sanctuary, self-education and inexhaustible curiosity.

John has found 186 species of invertebrates, amongst them sea slugs, sea snails and many different sea stars. In particular I liked, the Eleven-armed Sea Star. John mentioned that they can grow quite large to about 30 cm in size. He has seen many species of crabs: hermit crabs and pebble crab amongst others. And of course lots of fish live there, amongst them the Port Jackson Shark. (Photo right).

John was pleased to note that the Blue Periwinkle Snails are making a comeback. A 1999 study of this sanctuary's marine life, reported they had not been found since the 1960s.



(Continued on page 7)

(Continued from page 6)

Other highlights were the presence of a Murex, more commonly found in the tropics. (This had not been seen since the 1930s according to a study from 1999.) John was also very pleased to have recorded the presence of a Doughboy Scallop and a rare marine spider, not previously recorded in this area. The children appreciated the Swellshark egg exhibit that John brought to share and were very grateful for the things they learned at the meeting. We had 14 members attending the night. Thanks to Max Campbell for attending the meeting and for his comments and contribution.

Excursion to Yellingbo:

This was the first time I had participated in a planting day, and it was really one of the best activities the Juniors have taken part in this year. I was a little anxious due to the weather forecast which predicted rain, showers, a possible storm at midday and mild winds. Close to the day Max Campbell, the leader Sue Bendel and I checked the weather forecast and then shared our findings with the parents. Fortunately the planting day was able to go ahead as planned.

Thanks for the Juniors' newsletter for the photos

After a short introduction we were hands on into the job. Several non-members, including some children, worked with us. We planted the trees so quickly (about 1000 trees) that the organizers brought in another 1000. In the end, more than 2000 trees were planted on the morning and we could not have asked for a better weather. We were happy to help improve the Helmeted Honeyeater and the Lead-beater's Possum habitats. Chaquen thought that it was the best way to celebrate his 14th birthday. It was inspiring to see Eliza, five years old and Ian six years old enjoying this activity so much.

I will keep this planting day activity as part of our excursions for the year in the future, so more families have the opportunity to enjoy and have fun helping nature the way we did.



Patricia Amaya

Marine Research Group: Activities

for the MRG for August were **our meeting on 13 August 2018 on Cone snails of the genus *Conus*: Biology and Chemistry**. The presentation was attended by about a dozen people.

Long admired for their decorative shells, the cone snails of the genus *Conus* are venomous marine predators. With over 700 species found in coastal waters across the globe, cone snails are becoming increasingly recognised as a source of chemical diversity that is showing promise for use in both basic research and medical applications.

Fresh from the completion of his Master's thesis, which analysed toxic components from the venom of the species *Conus victoriae*, aspiring science communicator Stephen Drane shared some of the biology, chemistry and future promise of this intensely studied group of animals.

Microscopy Group:

On the 15th August Max Campbell presented "Infusoria"

Videography of a huge variety of fresh water creatures. Max collected water samples from the Wimmera River, plant pot saucers, dams and ponds and mosses which he hydrated with triple distilled water, Wendy Gare's fish pond and water collecting in a drain by his grandson's kindergarten. Luckily he had specimen jars handy in his car!

We enjoyed viewing the lives of the following: *Gastrotrichs*, *Nematomorpha*, *Acanthocephala*, *Monogononta*, *Collotheca*, *Trichotria* and *Tardigrades*. My favourites were: *Collotheca ornata cornuta*, *Testudinella* and *Limnias*. All definitely worth checking out the Google images for!

Max reminded us when collecting water samples that plastic specimen jars, tap water and tank water will kill your *Infusoria*. Triple distilled water should be used for any hydration. 8 members attended.

Philippa Burgess



Symposium 2018

Introducing the FNCV

The FNCV 2018 weekend Symposium was held on Saturday 25th and Sunday 26th August with the aim of introducing the FNCV to a wider audience. The work of the FNCV is of course summed up by its mission statement, *Understanding our Natural World*.

Dr Gary Presland opened the weekend with a brief history of the FNCV focusing on the formation of the special interest groups (SIGs). As in any organisation, this historical perspective was very enlightening. Speakers from the club's existing nine groups followed, each giving a summary of their past programs and achievements, current programs and plans. Barbara Burns, FNCV treasurer, took the opportunity to highlight the workings of the Environment Fund. *(Photo of speakers below)*. A absolute standout part of the program was the Juniors' presentation under the leadership of Dr. Patricia Amaya. Several young members spoke in turn about their meetings, excursions and camps, concluding with a stunning video presentation set to original music composed and played by 11 year old Sofia Beliakov Amaya. *(Photo above right)*

The FNCV is an amazing organisation and its structure, incorporating semi-autonomous sub-groups, allows it to punch markedly above its weight. However, although the SIGS co-operate and overlap and people move between groups, not everyone, including even Council members, always appreciate the breadth and depth of the work being done. The symposium was a grand opportunity to showcase and celebrate the Club's wealth of achievements. Just a few examples being: research papers, surveys, data bases, images and videos captured under the microscope, many publications and work with Museums Victoria, Parks Victoria and Fungimap.

On Sunday 26th, a visit was made to the heritage-listed Maranoa Gardens and Beckett Park in Balwyn, where we



From right to left: Max Campbell, Marlowe Wilton, Viva Wilton, Phineas Wilton, Edmond Ulanovsky, Chaquen Beliakov, Sofia Beliakov, Rachel Fysh and Lydia Fish

were fortunate to be taken on a guided tour led by the curator, Paul Birch. The Maranoa Botanic Gardens contain about 4000 Australian native plants arranged in several different vegetation zones, with many plants labelled. There is a strong historical connection with the FNCV, John Watson the creator of the gardens being a prominent club member. *Photos and commentary p7.*

A big thank you must go to all those who worked behind the scenes or over the weekend to make *Introducing the FNCV* happen. FNCV president, Max Campbell undertook most of the planning, chaired the gathering and, as always, dealt expertly with the technology. Barbara, Ruth, June and Judith provided beautiful morning and afternoon teas and a delicious lunch. Philippa did a sterling job welcoming participants and Sally very ably looked after the many people who wished to purchase books. In the weeks before the symposium Barbara put a big effort into publicity; she was also the force behind the visit to Maranoa Gardens

Joan Broadberry (including photos)



SPEAKERS

Back row, left to right:

Joan Broadberry, (with Sally, Day Group); Jurrie Hubregtse, (Fungi Group); Leon Altoff, (Marine Research Group); Sally Bewsher.

Front row: Ken Griffiths, (Botany Group); Max Campbell, (Terrestrial Invertebrates Group and with Philippa Microscopy Group); Gary Presland, (Archivist); Philippa Burgess; Barbara Burns; Ruth Hoskin, (Geology Group); Patricia Amaya, (Juniors' Group).

Robin Drury, (Fauna Survey Group) does not appear in the photo.

Visit to the Maranoa Gardens & Beckett Park. Leader: Paul Birch

There is much of interest in this hidden Melbourne gem including specimens of the Wollemi Pine, (photo 1). Paul Birch our guide, (photo 2) pointed out *Thryptomene nadjia*, (photo 3) a cultivar which he has observed flowering continually throughout the year. He also introduced us to a gorgeous, pink double-flowered form of *Epacris impressa* var. *grandiflora*. The magnificent Firewheel Tree (photo 4) native to NSW was in flower and has been adopted as the emblem of the gardens. In the rainforest area some of us spotted a male Australian King Parrot, (photo 5) very unusual for Balwyn, but I will adapt the adage: *If you plant it they will come*.

The adjoining Beckett Park (photo 6) added to Maranoa in 1962, encompasses the highest point in metropolitan Melbourne. It is the last remnant of the indigenous flora of the area. To commemorate the centenary of the foundation of Melbourne a tower was built in 1934 from beautiful Briagalong limestone. (photo 7) We were able to climb to the top and enjoyed a splendid view. Do yourself a favour and make time to explore these magnificent historic gardens with your friends and family.

Joan Broadberry (including all photos)





Day Group

The 'Big Five' animals & more in Southern Africa

Speaker: Mark Smith

TRAVEL/WHERE & WHAT DID WE SEE? Mark and Marilyn Smith travelled extensively in Southern Africa during 2011, 2013 and 2017. For this presentation Mark focused on three areas: Kruger National Park in South Africa, the Okavango Delta in northern Botswana and Etosha National Park in Namibia. Peak wildlife viewing opportunities will usually be during each region's dry season. After an initial orientation trip, the Smiths opted to drive and cater for themselves allowing their time and choices to be their own. Such common sense strategies as: not getting out of the vehicle in the bush, carrying two spare tyres, and pulling into booked accommodation well before dark, made this a rewarding and safe way to travel. Walking safaris led by a trained guide were a special experience in Kruger NP. To date Mark's African mammal list stands at 58 out of a possible total of 350 species and his bird count is at 223 species.

THE BIG FIVE: The African animals known as 'the big five' are based on the large animals considered popular by hunters. Mark encountered White Rhinoceros in Kruger National Park. Rhinos rely heavily on their sense of smell. Their olfactory passages are larger than their brains and they have the widest set nostrils of any land-based animal. Buffalo are one of the most widespread and dangerous of African animals. Mark took an evocative photo of two rather thin, female lions in Etosha NP. In the dry season when the antelope migrate, lions

maintain their territories and food can be very scarce. Tourists need luck to photograph leopards, one of the most beautiful of all African creatures. The always fascinating behaviour of Elephants can be observed quietly, over long periods by the self-sufficient traveller.

OTHER POPULAR ANIMALS: Giraffes, once thought to include nine sub-species, have now been re-classified into four genetically distinct clusters. They only sleep for about 20 minutes a day and while splaying their legs to drink, are highly vulnerable to predators. Some of the herd will always be on watch. Mark's wonderful images of Mountain Zebra capture the effectiveness of their camouflage against a stony landscape. Attacks involving hippos can occur at night when tourists inadvertently follow the tracks they make through riverine vegetation. Other animals include: Cheetah, Brown Hyena, Baboons and a pack of rare Wild Dogs seen in Kruger National Park



Mountain Zebra

ANTELOPE: There are a numerous Antelope species in Southern Africa. Impala and Springbok are two of the most abundant with Dik Dik and Steenbok being two of the smaller. The more unusual Black Impala can be found in Etosha NP. The larger antelope species include Greater Kudu, Gemsbok, Oryx and Waterbuck. Red Lechwe keep to waterways as a strategy to avoid predators, hence they were more commonly seen in the Okavango Delta. Their hind legs are longer than their forelegs allowing them to leap readily through the shallows. The fastest antelope species, able to run at up to 80 km per hour, is the Tsessebe, also found in the Delta. Mark photographed the rarer Black Nyala in Kruger NP. The lighter coloured, striped female could be confused with a Kudu. Even rarer is the magnificent Sable Antelope for which a breeding and release



Lionesses, Etosha National Park

(Continued on page 11)

Banded Mongoose

(Continued from page 10)
program is in place.

MONGOOSE: Mark admitted to a fascination with the Mongoose family. The 13 species can be difficult to tell apart. His photo of a large group of Banded Mongooses was a standout in a wealth of fabulous images.

All photos are copyright to Mark Smith.
FNN gratefully acknowledges his generosity
in sharing them with us.

BIRDS: To conclude, our speaker selected just a few groups from the hundreds of birds seen on his African travels. Bird-watchers often first see weaver birds by noticing their intricately woven nests. Identification needs a lot of care as there are 31 species. Some common species of the brilliantly plumaged kingfisher family are the Pied, Malachite and the Grey-headed Kingfishers. In total there are 10 Southern African species, only four being truly aquatic. The seldom observed Giant Kingfisher is the world's largest, measuring over 30cm. Yellow and Red Hornbills are spectacular birds, with a very unusual breeding strategy. The female is imprisoned in a tree hollow behind a wall of mud, loses her feathers and relies completely on the male for food. The Southern Ground Hornbill is an obligate, co-operative breeder. Each pair is assisted by young birds which must have this experience if they are to breed successfully themselves. Secretary Birds belong to same order as diurnal raptors, such as kites, hawks, harriers and vultures, but are sufficiently different to have their own family. Pairs hunt reptiles, insects and small mammals on foot in open grassland and savannah. The African Openbill uses its unusual beak to crush giant African snails.

Mark expertly structured his talk to cover a great deal in the short time available. This report contains only a portion of its content. Many other animals were included, for example the African Fish Eagle (right). Mark's commentary was always fresh and enlightening. Each point made was illustrated with such carefully selected, stunning images I wish we could print them all. Through his keen observations and photographic skills the Day Group experienced armchair travel at its zenith. On behalf of everyone, I would like to thank Mark and wish him and Marilyn many more wonderful journeys.

Joan Broadberry

Ground Hornbills*African Fish Eagle*



Library News

Recent periodicals:

The FNCV Library holds what is probably the best collection outside the State Library or the University of Melbourne of periodical relating to the natural world. Our subscriptions and exchanges are wide-ranging, so from time to time we receive the most recent issue of many journals of interest to members. In the latest round of arrivals, we have receive the following periodicals containing papers that focus of fascinating subjects.

Australian Journal of Zoology 65(6) publishes studies of aspects of a wide range of organisms. These include burrow structure and nesting behaviour of platypus in captivity; aspects of reproduction and morphology of the penis of *Woolleys pseudantechnus* from Central Australia; ticks on echidnas in museum collections; the Pale-headed Snake and Lace Monitors in Queensland; and the Eastern Pygmy-possum in Royal National Park NSW. This is diversity, indeed.

Australian Journal of Botany 66(4) has an article refuting the suggestion that trigger-plants in Western Australia derive a significant fraction of their nitrogen needs from insects captured by their glandular hairs.

These two issues, as well as all the latest periodicals, are displayed in a rack in the library. You may borrow the periodicals from the rack, as well as previous issues, which have been put in their place — in the compactus. Please don't forget to fill in the borrowing book.

Reminders:

- (1) that you can now search the library's collections on the FNCV website. Click 'About us' à 'Library', and you will be able to download searchable lists of books, periodicals, maps and photos;
- (2) those periodicals (an increasing number) that are now received only in digital form are available on the desktop of the Library/Vic Nat computer in the office. To find a journal, click on the 'Newsletters' folder. Inside there are a number of folders, each labelled with the name of one journals. Happy reading;
- (3) if you are chasing an article from a journal that is not held by the FNCV, the Librarian is usually able—through his contacts at the University of Melbourne and the State Library of Victoria—to obtain a copy. He is happy to make an effort, so let him know if you need something.

Gary Presland
Honorary Librarian

FNCV FACEBOOK PAGE 10,469 FOLLOWERS

The FNCV facebook page would not exist without constant monitoring by Ian Kitchen, John Harris, Claire Ferguson and Wendy Gare. The number of people who post questions, photos and observations has now topped 10,000.

One of the great strengths of this method of communication is its appeal to younger people. FNN would like to express their thanks to our dedicated group of facebook administrators who put in hours and hours of voluntary time to oversee facebook. **J.B.**

Thanks to the editorial and layout team who put together FNN 290

Joan Broadberry
Wendy Gare
Sally Bewsher

Many thanks to those who helped collate and label FNN 289

Hazel Brentnall
Edward Brentnall
Andy Brentnall
Sheina Nicholls
Ian McDonald
Anne Warren

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