



# Field Nats News No.240

**Newsletter of the Field Naturalists Club of Victoria Inc.**  
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*Understanding Our Natural World*  
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Office Hours: Monday and Tuesday 9.30 am - 4 pm.

April 2014

## From the President

Easter is upon us, so I would like to take this opportunity to wish everyone a Happy Easter and may the Easter Bilby be kind. I know that two groups of members will be getting a visit from the Bilby. The Juniors' have an Easter Egg Hunt looking for eggs the 'Easter Bilby' has left. The Fauna Survey Group will be at Yookamurra Sanctuary. Hopefully the captive Bilbies there will leave also leave some chocolate.

### AGM—4th May.

It is approaching the time of year when the FNCV conducts its AGM. This year is different from recent years, in that there will be a Special Resolution to adopt a new constitution as required by the *Associations Incorporations Reform Act 2012*. This new constitution still has the FNCV flavour, but brings it into line with the Act. I would like to thank Jurrie Hubregtse, Robin Drury and Barbara Burns for the considerable amount of time they have spent over the last twelve months or so, working on the draft constitution. It has been a mammoth task to rewrite this document so that it retains the essence of our current constitution, while fitting the new Rules. It important we have a quorum, please keep the AGM date free.

Page 9 has details of where you can obtain a copy of the draft constitution and

invitation to the AGM. Page 10 includes a proxy form for the Special Resolution and a nomination form for the 2014/5 FNCV Council.

Members who have visited the hall recently will have noted that the treads on all of the steps have been repainted and are now much easier to see.

Thanks go out to Ian Kitchen for doing this. As a segway, many will also have noticed that a blind has been installed in the kitchen. This should help reduce the light coming into the hall, especially during the Day Group meetings. It will also reduce the amount of heat in the kitchen. The old saying, 'If you don't like the heat in the kitchen, get out,' could be reworded to say, 'If you don't like the heat in the kitchen, get a blind.'

My personal quest to see a bird a day continues. The best bird of the year was seen on March 1st, when I was accompanied by two other birders, Joan B being one, to Pt. Cook Coastal Park to hopefully see the vagrant American Golden Plover that had and still is, being seen there. We saw many nice birds, but the Plover was by far the best! We also had a few stops on the way home, picking up a Powerful Owl in a plane tree on Nelson Place in Williamstown.

**John Harris**

The deadline for the May newsletter will be **Tuesday 1st April**. THIS IS NOT A JOKE!. FNN 241 will be going to the printers on 8th April, with collation on the 15th.

### THE FUNGI GROUP FORAY

On Sunday 13th April the Fungal Foray will be at Camberville. See page 2 for details.

**Note this is a change from the 4 monthly COE.**



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### Juniors' excursion to Pt. Nepean—report p 6





## 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.**

### April

**Tuesday 1<sup>st</sup> - Fauna Survey Group Meeting: *Surprising Taiwan – The beautiful island.*** Speaker: Stuart Dashper (FNCV). Contact: Sally Bewsher 97521418

**Thursday 3<sup>rd</sup> – FNCV Members. Working Bee: *Tidy up & replant the gardens.*** Meet at 10.00am at the FNCV hall. There is also some paving to be done, so anyone with expertise is welcome. Barbara Burns 98462608,

**Saturday 5<sup>th</sup> - Fauna Survey Group Survey: *Bat trapping and spotlighting in Dandenong Valley.***  
Contact: Robin Drury 0417 195148; robindrury@hotmail.com

**Saturday 5<sup>th</sup> – Marine Research Group. Excursion: *Fieldwork at Point Lillias.*** Access is restricted. Contact: Leon Altoff to confirm location and time. 9530 4180 or 0428 669773

**Sunday 6<sup>th</sup> April- Geology Group. Excursion - *Day trip around the western section of Port Phillip Bay.***  
Leader: Graham Patterson, author of “*Coastal guide to nature and history - Port Phillip Bay*”. Meet at 10.15 am at Doug Grant Reserve, Queen St, Altona (Melway 209 C1). Park near the bend in Queen St. We’ll then go to Point Cook, Werribee South, Kirk Point and North Shore, Geelong (fossils). Bring lunch, water, hat, jacket, as weather dictates. Cost: \$3 members; \$8 non-members. **Bookings required** to enable car pooling to be organised in advance – contact Kaye Oddie, tel 9329 0635, [koddie@bigpond.com](mailto:koddie@bigpond.com).

**Monday 7<sup>th</sup> – Fungi Group Meeting: *Crowd sourcing of data for interactive keys to fungi.*** Speaker: Tom May, the senior Mycologist at the Royal Botanical Gardens in Melbourne. Contact: Virgil Hubregtse 9560 7775

**Sunday 13<sup>th</sup> – Fungi Group Foray: *Cambarville.*** PLEASE NOTE CHANGE OF VENUE  
Meet at Cambarville picnic ground at 10.30 am (Melway Edition 37 page X90 U12). Contact: Virgil Hubregtse 9560 7775

**Monday 14<sup>th</sup> - Marine Research Group Meeting:** For details contact: Leon Altoff 9530 4180 or 0428 669773

**Tuesday 15<sup>th</sup> Collate FNN.** Starting about 10.00 am. Some folk come earlier. Contact Joan Broadberry 9846 1218

**Wednesday 16<sup>th</sup> - Microscopy Group Meeting:** For details, contact: Philippa Burgess AH. 9598 3231

**Thursday 17<sup>th</sup> – Botany Group Meeting: *Managing fire in Australian landscapes- a complex balancing act***  
Speaker: Tom Duff from Forest Ecosystem Science at University of Melbourne. Contact: Sue Bendel 0427 055071

**Friday 18<sup>th</sup> to Monday 21<sup>st</sup> – Juniors’ Group, Easter Camp at the Warby Ranges.** Contact: Claire Ferguson 8060 2474 or toclairef@gmail.com

**Friday 18<sup>th</sup> to Friday 25<sup>th</sup> - Fauna Survey Group. Camp and volunteering with *Australian Wildlife Conservancy*, Yookamurra Sanctuary near Sedan, South Australia. **Bookings essential.** Contact Sue Dempsey 9878 6829, 0437 172333, [suedempsey@bigpond.com](mailto:suedempsey@bigpond.com)**

**Tuesday 22<sup>nd</sup> – Day Group Meeting: *Natural history around Port Phillip Bay.*** Speaker: Graham Patterson (FNCV). Meet at 10.30 am for coffee and an chat. Speaker at 11 am. Contact Gary Presland 9890 9288

**Wednesday 23<sup>rd</sup> – Geology Group. Meeting: *Seven ‘wonders’ of the mineral world.*** ‘Unravelling the mysteries of life, the universe and everything.’. Speaker: Dr. Dermot Henry, Manager, Natural Science Collection, Museum of Victoria  
Contact: Kaye Oddie 9329 0635, [koddie@bigpond.com](mailto:koddie@bigpond.com).

(Continued on page 3)



**The policy of the FNCV is that non-members pay \$5 per excursion and \$2 per meeting, to cover insurance costs. Junior non-member families, \$2 per excursion only.**

(Continued from page 2)

**Friday 25<sup>th</sup> (Anzac Day) – Juniors' Group Meeting**—7. 30 pm. *Fungi*. Speaker: Tom May. Contact: Claire Ferguson 8060 2474 or toclaireref@gmail.com

**Sunday 27<sup>th</sup> - Fungi Group Foray: Bunyip State Park, Gembrook** Meet at Mortimer picnic ground, off the Gembrook–Tonimbuk Road at 10.30am (Melway Edition 37, page 14 R12) Contact: Virgil Hubregtse 9560 7775

**Monday 28<sup>th</sup> - FNCV Council Meeting**—7.30 pm sharp. Discussion of draft Constitution (Rules). Agenda items and apologies to Wendy 98779860 or admin@fncv.org.au

## 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 these new members who were welcomed into our club at the last Council meeting: *Sorrel Fraser, Warwick Fraser, Vicki Fraser, Mr Michael Sukkar MP, Catherine Beaton.*



### OUR LOCAL MEMBER VISITS

Michael Sukkar MP, member for the Federal seat of Deakin, visited the FNCV for afternoon tea on 18th February.

He met with John Harris, Barbara Burns, Jurrie Hubregtse, Gary Presland and Wendy Gare. Michael has lived in the area and is very positive about the work of community groups.

Michael I emailed us on 20th February:

“I thoroughly enjoyed meeting you all and found some of your work really fascinating to hear about. I will certainly be in touch with the Green Army Projects nearer to their commencement.”

From left—Barbara, Michael, John, Jurrie, Wendy, Gary. Thanks to Barbara Burns for the photo.

### RARE MAMMAL

*Sminthopsis leucopus*: The White-footed Dunnart is listed as threatened under the FFG Act

It was photographed on Dingoes Den property at Noojee in January 2012.

Photo: Peter Hendy: taken, 26/01/2012

Item forwarded to FNN by Penny Richards





## Geology Group

### “Links between the World Heritage Naracoorte Caves and the Kanawinka Fault: Insights into Australia’s large flat Tertiary Limestone sheets”

Ian D Lewis

Department of Environment, Water and Natural Resources,

South Australia

26 February 2014

Ian Lewis is a karst geomorphologist, who works as a hydrogeologist for the South Australian Government, specializing in groundwater aquifers and their usage in that State. His interest in exploring caves and as a pioneer cave diver, began in Mt. Gambier more than 40 years ago as a teenager and has now extended into researching the Naracoorte Caves and the giant Nullarbor Caves.

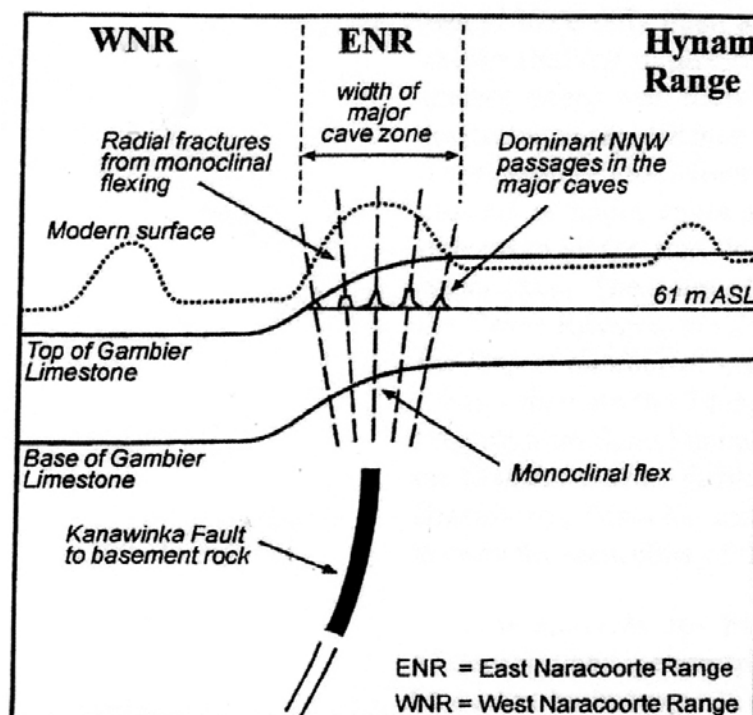
Naracoorte Caves lie just across the South Australian border, about half-way between Bordertown and Mount Gambier. They are World Heritage listed for their extensive fossil deposits of Pleistocene megafauna. These include giant kangaroos and snakes and *Thylacoleo carnifex*, the ‘marsupial lion’.

When George Mallory was asked why he wanted to climb Mount Everest, he famously replied ‘because it’s there’. Ian Lewis would go a step further if asked about his exploration of the Naracoorte Caves – he wants to know **why** they are there.

Ian Lewis has been exploring the caves for many years, and mapping them accurately has revealed that most of the cave chambers seem to be aligned with a ridge called the East Naracoorte Range. It had been suspected that the range was associated with the Kanawinka Fault which extends across the state border into Victoria towards Portland. Little evidence for this, nor of its nature, had been found in the field.

Ian proposed that the East Naracoorte Range is actually a **monocline**, a local steepening of the dip of the otherwise relatively flat Tertiary limestone layers. This monocline under the limestone where the caves are located, was formed by movement along the underlying Kanawinka Fault, which does not itself reach the earth’s surface. Flexing of the top layers of the limestone caused fissures which allowed entry of groundwater to dissolve the limestone and create the caves. This interpretation has recently been supported by the discovery of a curving limestone layer in a quarry – the shoulder of the monocline. Interestingly, this evidence also correlates with a similar analysis of the Kanawinka Fault 100 kms to the southeast of Naracoorte in the Dergholm-Casterton region by Victorian geologist

*Below: Major cave zone at Naracoorte generated by Kanawinka Monocline flexing of Gambier Limestone layer. (Diagram prepared by KG Grimes)]*



P. Kenley in the 1960s.

Mapping the caves also revealed the existence of some chambers perpendicular to those aligned along the range and that they seem to be regularly clustered along the range at intervals of about 2.8 km. Drillhole evidence shows that the northwestern end (Naracoorte end) of the underlying Kanawinka Fault abuts the deep underground granitic rock of the buried Padthaway Ridge. This would tend to block any earth movement along this part the fault. So, any pressure in this direction would cause a slight arching of the limestone layer causing regular cross-fractures. This may explain the regular clustering of the caves and the existence of chambers perpendicular to the main line.

Ian went on to mention other possible ways that surface structures could possibly give us information about what is beneath Australia’s other large flat Tertiary limestone sheets - the Murray Basin and the Nullarbor Plain. An example is large sinkholes which could indicate the presence of gas reservoirs deep underground, where gases including carbon dioxide seep up fault lines towards the surface and increase the acidity of the groundwater, dissolving large sinkholes and caves along structural alignments.

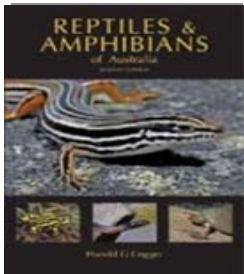
Our very many thanks go to Ian Lewis for his clear, informative and entertaining presentation. He is passionate about his topic and the large audience obviously appreciated it.

Graham Patterson

## NEWS FROM THE BOOKSHOP

Below is a range of titles that are new to the shelves of the bookshop. There is something to grab the interest of gardeners, children, herpetologists and naturalists alike. The FNCV has available book vouchers that can be made out to any amount and can be redeemed within 12 months. Perfect as a gift. Just contact me at the bookshop address or ring the FNCV office. We still have copies of *Destructive Insects of Victoria, Vol 6* (French) available, along with the recently released *Coastal Guide to Nature and history, Port Phillip Bay* (G. Patterson). Send me an email at [bookshop@fncv.org.au](mailto:bookshop@fncv.org.au) for any of your orders or book queries. There are still a couple of the beautiful Ludwig Becker 2014 Calendar that will be further reduced to **\$10!!!**

Check out our website [www.fncv.org.au/fncv-bookshop/](http://www.fncv.org.au/fncv-bookshop/) for a range of other books that are available. Happy reading.

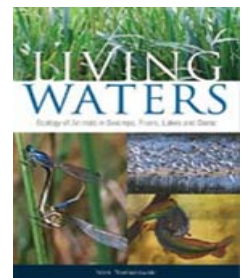


**Reptiles & Amphibians of Australia (H. Cogger)** is the long awaited 7<sup>th</sup> edition from this well known author. It has just been released in March 2014. This comprehensive, beautifully presented, hardback book provides a description of appearance, distribution and habits for each of the 1194 species. There are also 130 simple-to-use dichotomous keys.

A must as a reference! **RRP \$150, Members \$120**

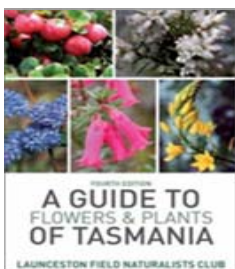
**Living Waters: Ecology of Animals in Swamps, Rivers, Lakes & Dams (N. Romanowski)**, a paperback published in October 2013. Australian wetlands are among the most varied and changeable habitats found anywhere and the many creatures that live out their lives in and around water are superbly adapted to some of the most unpredictable ecosystems in the world. This book follows the diverse common themes & patterns that link inland waters from Tasmania to the tropics.

**RRP \$39.95, Members \$33**



**Weeds of the South-East: An Identification Guide for Australia (Richardson et al)**, 2<sup>nd</sup> edition, published in 2011. This paperback provides a comprehensive photographic guide to over 2500 plant species. This recent edition has been fully updated and rearranged to reflect the recent taxonomic changes and includes many new species. I highly recommend this book to all naturalists interested in identifying weeds. **RRP \$79.95, Members \$64.**

**Gardens for All Seasons (M. Horshall)**, a paperback published in 2012. This book advises on the timing of jobs in the gardening year throughout Australia. Monthly chapters include planning, bush-fire preparation, watering, mulching, fertilising, pruning, pest control and what to plant for different climate zones. A must for any garden enthusiast. **RRP \$49.95, Members \$41.50**



**A Guide to Flowers and Plants of Tasmania (Launceston Field Naturalist Club)** is a phenomenally successful book that has been extensively revised with updated text and pictures. It is an invaluable companion and reference for bushwalkers, tourists and naturalists. A must if you are planning or considering a trip to Tasmania **RRP \$29.95, Members \$25**

**Survival at 40 C Above (D. Miller)**. This 40 page paperback book was published for young readers in Feb 2013. It's time to meet the unique creatures of the Australian desert from the sand goanna to the red kangaroo and find out just how these incredible creatures have adapted to survive in the hottest temperatures. **RRP \$14.99, Members \$12**



**The list of titles available for purchase at a member discount through the FNCV bookshop is now available on the web at:**

**<http://www.fncv.org.au/publications.htm>**

## Extracts from SIG reports given at the last FNCV Council Meeting

### Fauna Survey Group:

**February 3rd:** At our February meeting, Dr Patrick Guay spoke on the topic 'Ecology, behaviour and conservation of the Musk Duck'. Patrick spoke about the effect of the size of the bill flap and sound of the whistle on mating success. He noted that captive bred male ducks did not develop a suitable whistle, which reduced the effectiveness of this conservation strategy. Therefore a greater understanding of their ecology and what they need in the wild was essential.



**Eastern Parks Fauna Survey:** Spotlighting and bat surveys took place at Wattle Park and Koomba Park on 15 February. One Little Forest Bat was trapped and released and a number of Grey-headed Flying Foxes were seen. Common Ringtail and Brushtail Possums were seen at both parks, as were Tawny Frogmouths. Red Foxes were seen at Wattle Park and a Rufous Night Heron seen at Koomba.

There are two camera deployments to complete and three nights of bat and spotlighting ,(8/9 March and 5 April).



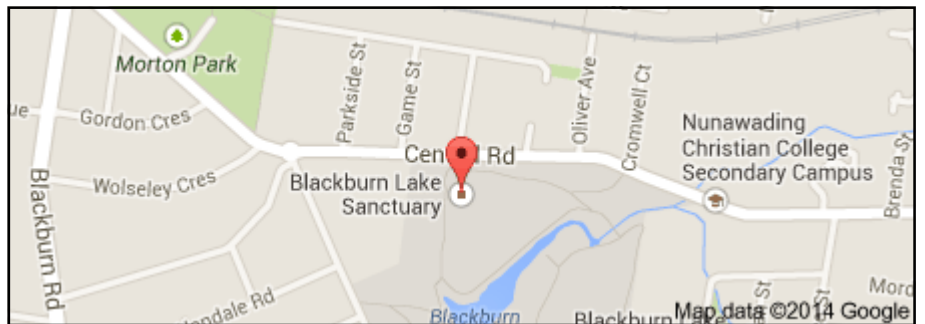
**Juniors' Group:** At our January meeting we had our Council members' talks where there is an opportunity to hear a bit about them and their interests. Daniel spoke about his love of frogs and gave some info about the Northern and Southern Corroboree Frogs. Tara spoke on 5 mammals that she had learnt about last year – the Eastern Quoll, Rufous Bettong, Tassie Devil, Feathertail Glider and Eastern Barred Bandicoot. Nick shared about the plight of Royal Park and the freeway being built through it, including the endangered animals which live there.



Our February excursion to Point Nepean on 16<sup>th</sup> was a perfect day for a walk to explore the entry to Port Phillip Bay, where there is much army and natural history. We had 15 adults and children meet for this excursion at Gunners Cottage, where we walked the Coles Track to the Point and returned along the beach. We found a blue tongue lizard, a small moth (*Asura cervicalis*, Arctiidae) and enjoyed the beautiful sea views.

## Blackburn Lake Sanctuary

Blackburn Lake Sanctuary is one of the few remaining natural bushland reserves in Melbourne. The Sanctuary is a place of protection for native flora and fauna and has special environmental and historical value. It provides the context for interactive learning, understanding and appreciation of the environment and sustainability issues.



**Education Program** Blackburn Lake Sanctuary's Education Program provides **free environmental and sustainability education** programs for children and **community groups of all kinds**, including pre-schoolers, primary and secondary students, scouts, guides and walking groups. In fact, a visit can be tailored to suit groups of most kinds! We can even plan an excursion if visiting the Sanctuary is not an option.

### April

**Saturday 5th Breakfast with the Birds:** Our Autumn Survey 7:30am to 10am. What will we find this time? All Welcome! Bring binoculars if you have them

**Term 1 School holiday programs. Visit our website, join the email alert list or contact Lucy!**

[Lucy.menzies@whitehorse.vic.gov.au](mailto:Lucy.menzies@whitehorse.vic.gov.au) Booking is essential!

### May

**Sunday 4th Internationally recognised bird photographer, and three times Twitchathon winner, Greg Oakley,** will share his beautiful photographs, tips and techniques with us. At the Visitor Centre 2 pm to 4 pm. Free. All Welcome.

**Sunday 18th Finding Fascinating Fungi:** Walk & Talk with Cecily Falkingham, well-known local naturalist. At the Visitor Centre 2 pm to 4 pm. Free. All Welcome.

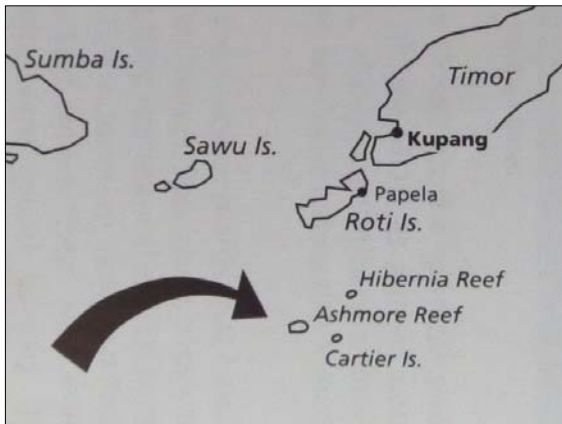


# Day Group

## Hard-core Birding on Ashmore Reef and the Lacepede Islands

Speaker: *Joan Broadberry*

In October 2013 Joan Broadberry and Carol Page went on an eight day Broome-Ashmore Reef- Lacepede Islands- Broome, birding trip organised by Kimberley Birdwatching. The trip was led by Mike Carter and Dr Rohan Clarke of Monash University. They have made the same trip at least 14 times. Mike and Rohan are permitted to visit these nature reserves, under permit, to survey and conduct research. From Broome it takes two days at sea to reach the Reef. Ashmore is only 70K from Roti Island, which is just



south of Indonesian Timor. (Map below). The boat was the 21 foot 'Flying Fish V'. In total there were 23 people on board. This included two American World travel Destination Collectors. They tick off, not birds, but difficult-to-get-to places. Having added Ashmore Reef to his list, Don Parrish shared equal place as the world's most travelled person and his friend Bob Bonifas moved into third place.

Most of those on the trip were serious birders, often known as 'twitchers'. Joan's personal goal was to take her total of Australian species to 700. Her analysis of successful pelagic (seabird) twitching was as follows:

- Must always carry binoculars, telescope and camera.
- Have 40/20 eye sight. Secure a van-

tage point with 360° views. Stay there on alert all day.

- Keep contact with fellow birders in different vantage points by UHF radio.
- By able to speedily separate similar birds using size, plumage, flight pattern, etc.
- Alternatively: hang out with those who can do all of the above. Watch, listen and learn.

Many seabirds will only be seen on the wing. In birding jargon they are 'fly-bys'. However, some will be resting on the sea and the boat may even stop and get close to them. This was the case with Joan's 700<sup>th</sup> bird species, the Streaked Shearwater. A peculiarity of addicted birdwatchers is a tendency to spend a lot of time at sewerage farms. A few birders even put their telescopes on a car roof when needing a high vantage point. Some twitchers do a 'Big Year'. This involves concentrating solely on seeing as many bird species as possible for 12 months. For example, Sean Dooley did a big Australian year in 2002. His book, *The Big Twitch* is highly recommended.

On 23rd October the 'Flying Fish V' anchored for three nights just



Long-toed Stint Photo: J. Broadberry

off Ashmore Reef's West Island, a small vegetated cay. Three

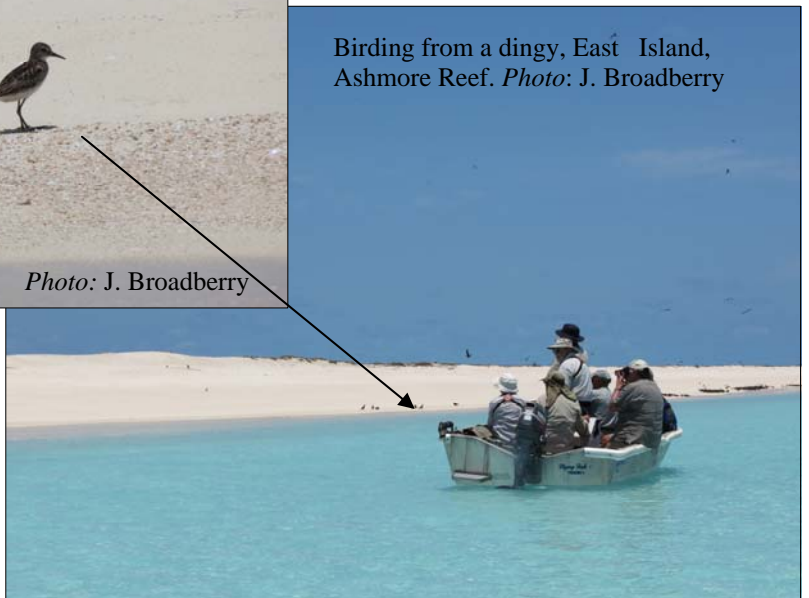


West Island, Ashmore Reef Photo: J. Broadberry

Australian Navy ships were also at anchor and a zodiac come over from the Ashmore Guardian to check permits. Ashmore Reef consists of a large lagoon, three small islands (West, Middle and East) and many sandbanks. The group developed a routine. They would be ferried to West Island by dingy early each morning, then return for breakfast. Before lunch they would head out to explore other parts of Ashmore Reef, returning for a meal. Most people would make another visit to check West Island before dark. The weather was fine but very hot. Intensive birding was always the major activity. In particular, vagrant or rare species were keenly sought after. Mike and Rohan collected data for their ongoing survey work. Joan and Carol also spent some time photographing tropical inter-tidal invertebrates.

Gray's Grasshopper Warbler was photographed and identified on the first visit  
(Continued on page 8)

Birding from a dingy, East Island, Ashmore Reef. Photo: J. Broadberry





Birding on a sandbank in the Ashmore Reef Lagoon  
Photo: J. Broadberry

(Continued from page 7)

to West Island. If accepted by BARC, (Birdlife Australia Rarities Committee), it will become the first Australian record of this species. Other notable Ashmore landbirds were, Asian Brown Flycatcher, Coloured Kingfisher, Arafura Fantail, Canary White-eye, Oriental Reedwarbler, Oriental Cuckoo, Eastern Yellow Wagtail and Black-eared Cuckoo (first Ashmore record). Another West Island highlight was breeding pairs of the elegant Red-tailed Tropic Bird. Both Middle and East Island were teeming with breeding birds and many waders were resting on sandbanks in the Ashmore Lagoon. Nesting seabirds included Masked, Red-footed and Brown Boobies, Great and Lesser Frigatebirds, Common and Black Noddies and Bridled, Sooty, and Great Crested Terns. Wader highlights included a Long-toed Stint and eight Asian Dowitchers at a high-tide roost.

Moorings were released on the 25th October to begin the three day return voyage. The last night was to be an overnight stayoff West Island in the Lacepede group. The Lacepedes lie close to the Dampier Peninsular about 120 km north of Broome. (Map above left.) The birders went ashore at 4.30 am. The very early morning landing allowed them to observe Green Turtles nesting on the beach. The island was filled with birds, including over 30,000 Roseate Terns resting in shallow water. Two highly sought after Common Redshanks were twitched. At about 8.30 am the 'Flying Fish V' weighed anchor and headed towards Broome, arriving before dark.



In total, 82 bird species were recorded in the eight days. At sea highlights included 79 Swinhoe's and 16 Matsu-daira's Storm-petrels, six Tahiti Petrels, 98 Streaked Shearwaters, 24 Bulwer's Petrels and all three Jaeger species. Cetaceans were scarcer than on previous Ashmore trips, but there were sightings of a Humpback Whale and calf, Dwarf Spinner and Bottle-nose Dolphins. Reptiles included Green, Loggerhead, Hawksbill and Flatback Turtles and various sea snakes. Flying fish, sharks and rays of various species were also observed, both at sea and in the Ashmore Lagoon.

Ashmore Reef and the Lacepedes are incredibly beautiful. Sunrise, sunset, the colours of the lagoon, the bird-life, reptiles, marine creatures and the moods of the sea and sky made the this trip an absolutely brilliant experience.

JB



## Library News

### Donations

The library regularly benefits through the donation of books to the collection. These donations come from a range of sources including reviewers of books in *The Victorian Naturalist*, members of the Club, and individuals who wish to see relevant works made available to a wider audience. Last year David Cameron, a long-standing FNCV member who works at ARI, gave the Library a large collection of reports published in the ARI Technical Report Series, which were about to be thrown out. None of the 100 reports have yet been catalogued, but Graham Patterson is presently undertaking the tedious task of accessioning them into the Library system. Other recent gifts to the Library include Hölldobler and Wilson's authoritative text *The Ants*, Eisner's *For the love of insects* and Elkins's *Weather and bird behaviour*.

### Recent periodicals

*Emu – Austral Ornithology* 114 (1) has an article about threats to native birds by introduced birds. It concludes that there is little evidence of any major threat.

Gary Presland  
Honorary Librarian

## Advertising in the Field Nats News

**VERY REASONABLE RATES**

Contact Wendy in the Field Nats Office  
admin@fncv.org.au  
9877 9860  
(Mon & Tues 9—4)



## SPECIAL RESOLUTION TO AMEND THE FNCV CONSTITUTION (RULES)

As you may be aware, the Club has been required to review its Constitution in order to comply with the new Consumer Affairs Victoria, *Associations Incorporation Reform Act 2012 (Vic)* ('the Act'). The new document is now referred to under the Act as the 'Rules'. This document takes as its starting point, the Club's 2001 Constitution and incorporates the required propositions contained in the Act. Members of the FNCV Council have spent many hours working on this revision.

The draft FNCV Rules will be available for members to peruse from 11th April. The final version will be emailed out as a locked PDF by 11<sup>th</sup> April to provide at least 21 days notice before the AGM on 4<sup>th</sup> May. The draft can be obtained in the following ways:

- It will be emailed to every FNCV member whose email address is on the Club's data base
- A locked PDF copy will appear on the FNCV website
- A hard copy will be available in the office during office hours or during scheduled SIG meetings. (Please ask your SIG representative to open the office).

If you have not already done so, this is a great opportunity to supply the office with a contact email address.  
admin@fncv.org.au

In order to change our Rules to bring them into conformity with the new Act, we need to pass a Special Resolution at the AGM which will be held in the FNCV Hall, 1 Gardenia Street, Blackburn. A Special Resolution is carried if at least three-quarters of the votes cast are in favour of it.

To make it possible for FNCV members who are unable to attend the AGM to exercise a vote on this resolution, we have included a proxy form on p10, according to section 87 of the existing constitution. This must be delivered to the Secretary before the commencement of the AGM.

Please feel free to contact the office or any Council member should you have any queries as to the procedure for amending the Rules.

**John Harris, President**




## 2014 FNCV AGM - Sunday 4th May, 2 pm

*You are invited to attend the FNCV AGM, FNCV hall,  
1 Gardenia St. Blackburn.*

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

**Special Resolution:** 'That this General Meeting of The Field Naturalists Club of Victoria Inc. adopts the draft Rules of the FNCV, as previously circulated'.

**Guest Speaker:** *To be confirmed. See next month's FNN.*

*Afternoon tea served. All welcome*

*Nominations must reach the registered office of the Club no later than 48 hours before the AGM,  
i.e. Friday 2nd May by 2 pm.*

See p10 for Council nomination form and Special Resolution Proxy Form



**The Field Naturalists Club of Victoria Inc.**

Established 1880  
*Understanding our Natural world*

Postal Address: PO Box 13, Blackburn, Vic. 3130  
Club Address: 1 Gardenia Street, Blackburn.  
Email: [admin@fncv.org.au](mailto:admin@fncv.org.au)  
Website: [www.fncv.org.au](http://www.fncv.org.au)  
Phone: (03) 9877 9860

**Special Resolution  
Proxy Voting Form**

I, \_\_\_\_\_ current member of The Field Naturalists Club of Victoria Inc  
appoint (full name) \_\_\_\_\_  
of (address) \_\_\_\_\_

or in his/her absence, the AGM chairperson, to be my proxy at the 2014 Annual General Meeting to be convened on Sunday 4th May 2014 at 1 Gardenia St. Blackburn and authorise him/her to vote on my behalf on the Special Resolution to be put:

*“That this General Meeting of The Field Naturalists Club of Victoria Inc. adopts the draft Rules of the FNCV, as previously circulated”.*

**Special resolution: In favour of / against / use his/her discretion \***  
(\* delete which ones do not apply)

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

Signed: \_\_\_\_\_ Date: \_\_\_\_\_



**NOMINATION FORM FOR FNCV COUNCIL 2014/15**

*Understanding Our Natural World*  
Est. 1880

**The FNCV AGM will be held on Sunday 4th  
May,  
2 pm FNCV Hall, 1 Gardenia Street, Blackburn 3130**

Name of member nominated .....

Position nominated for\* .....

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 and six General Councillors. All Councillors must be FNCV members. (Council also consists of Immediate Past President, and a representative nominated by each Special Interest Group.)

**Please return this form to the FNCV office  
PO Box 13, Blackburn 3130  
Phone 9877 9860; Fax 9877 9862  
The scanned form can be emailed to: [admin@fncv.org.au](mailto:admin@fncv.org.au)**

*Nominations must reach the registered office of the Club no later than 48 hours before the AGM,*



## Marine Research Group News

**Report on the MRG meeting Mon. 10/2/2014. Dr. Hugh MacIntosh** of Museum Victoria spoke on the topic of **“Boring bivalves: Shipworms”**. (‘Boring’ refers to their burrowing behaviour, not to an uninteresting group!)

Shipworms are a **highly specialized group of bivalve molluscs** whose main food is comprised of woody plant tissue. The **valves** are small and highly modified and possess cutting teeth to allow the animal to burrow into wood, and the body is elongate and worm-like. They possess a wood-storing caecum, and **pallets** at the posterior end are used to seal the burrow, which itself is lined with calcium.

**Identification** is based on pallet morphology, which is reliable to species level. Valve morphology is unreliable, with marked intra-specific variation, as well as morphological similarities across genera.

There are about 70 species worldwide, with 30+ in Australia and the following 13 in Victoria: •*Lyrodus pedicellatus*, *Lyrodus floridanus*, *Lyrodus bipartita*, *Teredo fragilis*, *Teredo clappi*, *Teredo furcifera*, *Teredo parksi*, *Teredo navalis*, *Nausitora dunlopei*, *Bankia australis*, *Bankia campanellata*, *Bankia carinata*, *Bankia neztalia*

Shipworms cause considerable damage to wooden marine structures, often with little or no external sign of damage. Before humans came along with wooden ships, the habitat was numerous natural wood sources washed into the ocean from storm damage and coastal tree falls, and also mangrove forests, niches which boring bivalves evolved to take advantage of. The **distribution** is worldwide, and human activity has undoubtedly increased the potential habitat and distribution.



Shipworm-related damage to wood.

Photo: Hugh MacIntosh

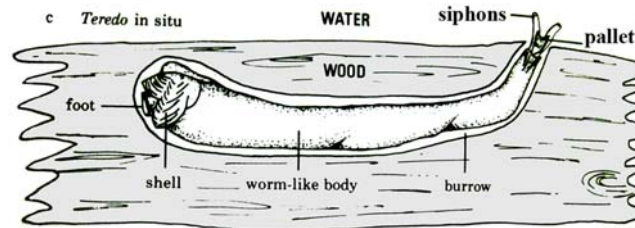
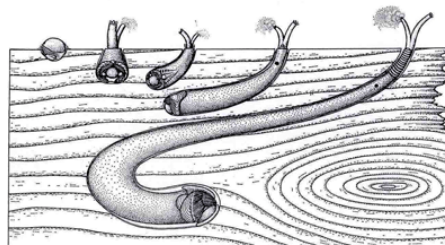


Fig. 11.54. (c). *Teredo* in situ.

The dangers posed to unprotected wood structures are considerable and were recognized and recorded in ancient historical accounts. Ancient remedies and preventions included application of pitch, bitumen mixed with other oils, and chemicals like sulphur. On the positive side, humans have used shipworms as food.

In terms of **settlement and growth**, swimming larvae find a wood habitat, settle down upon it, grow boring valves and start boring into the wood, along the wood grain. The body becomes stretched out in the process and the siphons maintain communication with the water column through the entry hole.



Stages of growth of a shipworm after settlement. Diagram from H. MacIntosh.

Once mature, the species **reproduce**. Free-spawning forms release eggs or sperm, and larvae are usually ready to settle in ~30 days. Short-term brooding forms release larvae that settle in about 14 days and long-term brooding forms release more mature larvae that settle within about 1-3 days. Reproduction is restricted to summer months. A 10cm long *Bankia carinata* can release 1 million eggs at a time! The larvae are small, about 250 micrometres in diameter.

Shipworms are found on every continent except Antarctica. Different species are limited to temperate, sub-tropical, and tropical waters. Reproduction, settlement & growth are much more active in the tropics. In temperate waters, the reproductive cycle is restricted to warmer months, when growth is also much

At left: diagram showing an in-situ shipworm of the genus *Teredo*, slightly modified from Ibrahim (Marshall), 1989: 690.

faster. Although reproduction is limited by temperature, adults will live for years.



Release of gametes/larvae (at left) & settlement on substrate (at right). Diagram from H. MacIntosh.

Although shipworms are predominantly marine, they are very hardy and can survive low or high salinity for extended periods (although larvae are vulnerable). Certain species thrive in low salinities; the genus *Nausitora* is known for its brackish habitat and large size, and has caused damage in the Gippsland Lakes.

In summary, then, shipworms occupy an extreme niche, requiring a highly specific substrate and forming patchy, ephemeral communities. They are sessile organisms with planktonic larvae and have direct inter and intra-specific competition for substrate.

After this general introduction, Dr. MacIntosh discussed his own research on shipworm biogeography. This will be summarised in a subsequent MRG FNN page. We thank him for a very interesting presentation and for providing his powerpoint presentation to assist with compilation of this summary.

### Reference:

Ibrahim (Marshall), J (1989). Family Tereididae (Shipworms), p. 684-699 in: Shepherd SA & Thomas I (eds). *Marine Invertebrates of Southern Australia*, Vol. 2, S.A. Govt. Printer, Adelaide.

**P. Vafiadis**

## From the Office...



**Calendar of Events:** Could items to be included in the next Calendar of Events (June to September), be emailed to me BEFORE the deadline of 11<sup>th</sup> April. If people can manage to send it earlier, I'd be grateful, because Easter is between our deadline and the printer's deadline.

**Supplies needed for the hall:**

Toilet paper.  
Donations of biscuits are always welcome.

Thanks, Wendy Gare



F.N.C.V.

**Thanks to those who helped collate and label FNN 239**

- Peiter Boschma
- Bill Fenner
- Barbara Burns
- Margaret Brewster,
- Hazel Brentnall
- Edward Brentnall
- Andy Brentnall
- Keith Marshall
- Joan Broadberry
- Ray Power
- Margaret Corrick

*Apology:* Sheina Nicholls

### Good Will Wine – fundraiser

The FNCV in partnership with Goodwill wine raises money for the Club. This fundraising endeavour will be going and will benefit the Club for many years to come.

Goodwill wine is a fundraising website, which offers Charities and Not for Profit Organisations the opportunity to raise money through wine sales. Simply go to the website: [www.goodwillwine.com.au](http://www.goodwillwine.com.au) or call them on

03 5348 2848 and order either half a dozen or a dozen bottles of wine. Most of the wine is sourced within Victoria, Yarra Valley, Mornington Peninsula etc, with the rest coming from elsewhere in Australia.

For every dozen bottles sold the Club will receive \$20.00 (\$10.00 per ½ dozen). The wine comes with a 100% money back guarantee and will be delivered to your door. These bottles of wine, with our FNCV label, would make a great gift and are a wonderful way to advertise the Club. So drink up, enjoy a good wine and raise money for the FNCV.



**Thanks to the editorial and layout team who put together FNN 240**

- Joan Broadberry
- Wendy Gare
- Sally Bewsher

*This newsletter is printed on recycled paper.*

The capture and handling of all animals on FNCV field trips is done strictly in accordance with the Club's research permits.

## Field Nats News 240



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