



# Field Nats News No.229

Newsletter of the Field Naturalists Club of Victoria Inc.  
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Understanding Our Natural World  
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April 2013

## From the President

Well, autumn has started and I haven't once been birdwatching at the Werribee Treatment Plant, yet! Mind you I have been out there counting Growling Grass Frogs at night on a few occasions. Last weekend, the Fauna Survey Group with the FNCV Juniors' Group were joined by Friends of the (Plenty) Gorge at Plenty Gorge Park Nioka Camping area. Survey activities included spotlighting, bat trapping, Elliott trapping, checking nestboxes and birdwatching. It was a great weekend and will culminate in an article in the *Northern Weekly*. A full report will appear in the next issue of FNN. For the moment, Joan has kindly supplied some photos from the camp. *Below and right*, processing bats. Also see p7 which has some images of a very interesting way of checking nestboxes.

### FNCV Annual General Meeting

Our next AGM will be on Sunday May 5<sup>th</sup>. An invitation will be found on p10. The agenda includes the important business of the election of office bearers for the 2013/14 FNCV Council, financial statements, annual report and environment fund presentations. A nomination form for Council appears on p12. Remember

that nominations must reach the club office no later than 2 pm Friday 3rd May.

**We are extremely fortunate to have David McInnes, the new CEO of Earthwatch, as our guest speaker at the AGM. The topic of his speech will be "Citizen Science". Not to be missed. See you there.**

Other news from the last Council meeting was that Robin Drury has agreed to fill the Vice Presidency position until the next AGM.

I would like to wish everybody a great Easter and remember the Easter Bilby, not the Easter Bunny.

**John Harris,  
President**



Deadline for May is **Monday April 1st**. No joking! FNN 230 will go to the printers on April 9th. Collation is on the 16th.

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## CALENDAR OF EVENTS

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

### April

**Monday 1<sup>st</sup> – Fungi Group.** No monthly meeting due to Easter.

**Tuesday 2<sup>nd</sup>—Fauna Survey Group—**See below, Tuesday 9th.

**Monday 8<sup>th</sup> – Marine Research Group. Meeting –** *The MRG working with the South Australian Research Divers Group assisting with the Identification of Marine Invertebrates.* Speaker Leon Altoff. Leon Altoff 9530 4180 AH; 0428 669 773.

**Tuesday 9<sup>th</sup>- Fauna Survey Group. Meeting “Drought, flood and fire and their impacts on Northern Victoria’s cryptic grassland fauna”.** Speaker: Mark Antos. Environmental Scientist – Fauna, Parks Victoria.

Contact: Robin Drury 0417 195 148; robindrury@hotmail.com

**Saturday 13<sup>th</sup> - Fauna Survey Group. Evening stagwatch and spotlighting walk.** Join us as we look for Leadbeaters Possum, gliders, owls and other nocturnal wildlife. Contact: Ray Gibson 0417 861 651

**Tuesday 16<sup>th</sup>—Collate FNN 221.** Starting about 10.30 am. Some folk come earlier. Contact Joan Broadberry 9846 1218

**Wednesday 17<sup>th</sup> – Microscopy Group. Meeting - “Manipulating shelterbelts to improve the diversity of insects beneficial to agriculture”.** Speaker: Ian Smith, PhD Student, Zoology Department, The University of Melbourne.

Contact: Phillippa Burgess 9598 3231

**Thursday 18<sup>th</sup> – Botany Group. Meeting – “Propagating native plants for revegetation using plant tissue culture”.**

Speaker: Andrea Kodym, The University Melbourne. Contact: Sue Bendel 0427 055 071

**Saturday 20<sup>th</sup> – Geology Group. Excursion - 11am – AstroTour: “Bigger than Big – A 3D Virtual Tour of the Universe”.**

Virtual Reality Theatre, Swinburne University Centre for Astrophysics & Supercomputing, Hawthorn. Cost \$10. Bookings essential. Contact: Kaye Oddie 9329-0635; [koddie@bigpond.com](mailto:koddie@bigpond.com) See notice p4.

**Sunday 21<sup>st</sup> – Fungi Group. Fungal Foray - Gembrook (fungi after fire).** Meet at the corner of Gembrook- Launching Place Road, (C424), and the Eastern side of The Pack Track, Gembrook. MEL Edition 37 Map 299 A5.

Contact: Virgil Hubregtse 9560 7775

**Monday 22<sup>nd</sup> - FNCV Council Meeting - 7.30 pm sharp.** Agenda items and apologies to Hali, 98779860 or [admin@fncv.org.au](mailto:admin@fncv.org.au)

**Tuesday 23<sup>rd</sup> – Day Group. Meeting – ‘Creating botanical illustrations’.** Speaker: Fiona McKinnon (Botanical artist and teacher). Contact Gary Presland 9890 9288

**Wednesday 24<sup>th</sup> – Geology Meeting.– Megafauna and Trace Fossils: An Alternative View of the Pleistocene Vertebrate Diversity of Australia.** Speaker: Dr. Stephen Carey, School of Science, IT & Engineering, University of Ballarat. Contact: Kaye Oddie 9329 0635; [koddie@bigpond.com](mailto:koddie@bigpond.com)

**Wednesday 24<sup>th</sup>—Grey-headed Flying Fox Survey.** Meet at Yarra Bend Golf Course carpark, Mel 2D G7 at 5.30 pm. More information from Rod Van Der Ree ([rvdr@unimelb.edu.au](mailto:rvdr@unimelb.edu.au)), Jo Ainley ([j.ainley@unimelb.edu.au](mailto:j.ainley@unimelb.edu.au)) or Ian Kitchen ([iankitchen@optusnet.com.au](mailto:iankitchen@optusnet.com.au))

**Friday 26<sup>th</sup> – Juniors’ Group. Meeting 7.30 pm – Wildlife rescue and rehabilitation.** Speaker: Sue Bendel.

Contact: Claire Ferguson 8060 2474; [toclaireref@gmail.com](mailto:toclaireref@gmail.com)

**Sunday 28<sup>th</sup> – Fungi Group. Fungal Foray – 10.30 am** The Beeches Lady Talbot Drive Marysville (MEL edition 37 ,X910 T11). Contact: Virgil Hubregtse 9560 7775

**Tuesday 30<sup>th</sup> – Marine Research Group. Field trip to Stony Point.** Meet at the car park at Stony Point boat ramp at 7:30 am. Contact Leon Altoff 9530 4180 AH; 0428 669 773.



**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.**

# 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](mailto: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: *Davina Jenner, Eric Fitzgerald, Karen Roberts, Anthea Swann, Michael Raymakers.*



## Harbinger of Cooler Weather

I don't know about anyone else, but I usually only see Eastern Spinebills in my garden in the colder months. My first sighting of three Eastern Spinebills was on Tuesday 19th February, 2013. I am lucky enough to have a few Grevillea flowers still hanging on.

*Joan*

## What have the Brentnalls been up to lately?

Edward and Hazel Brentnall had this huge, shed skin of a python sitting on the table while collating FNN 228 at the club.

When asked about it, Hazel explained it had been found in the grounds of the Yorkeys Knob State School (near Cairns). This is one of the schools at which their daughter, Jane, works as a counsellor. The groundsman brought it in to show the children and eventually, Jane, knowing her mother and father as keen naturalists would be interested, sent it down. In turn Edward and Hazel brought it to the FNCV for the Juniors' Group to admire. *Right* is a close up of the scales. It has not yet been identified to species level.

Hazel added a further nature note. Exquisite Sunbirds are regularly attracted to their daughter's Cairns garden and recently built a nest outside the dining room window. Two enchanting chicks were being raised to everyone's delight. Unfortunately tragedy struck. A Butcherbird, (pied?) was observed taking the babies. The humans were devastated, but as naturalists we do understand the Butcherbird, as a predator, was feeding itself and its family simply the way it has evolved.

*Many thanks to Emily Noble for the lovely photos.*

**J. Broadberry**



## A Living Fossil

One day recently I dipped into my shell collection and came out with a shell I had not looked at very closely before. I only had one half of it and I was struck by its beauty and formation. The exquisite mother-of-pearl on the inside made me curious to investigate further. The outside of the mollusc had 22 ribs radiating from the apex and widening towards the opening of the shell. Each rib has tiny flattened knobs (seen clearly with a hand lens).

After a short search through my books and a quick trip into the internet I discovered it was the Common Brooch Shell, *Neotrigonia margaritacea*. Interestingly the genus *Trigonia* was abundant in Jurassic times. There are six living species, all found in Australia; it is considered a living fossil.

This mollusc is fairly common in water 30-55 m deep and can be found washed up on the shore in Westernport Bay and on the NSW and Tasmanian coasts. It was discovered in 1827 by two Frenchmen in Western Port Bay.

I found my specimen at Phillip Island, a place where a stroll along many of the beaches yields shells of interest and beauty. It was also at Phillip Island that I found my first *Onchidella nigricans*, an air-breathing sea slug, in a rock pool near Smith's Beach. We are lucky that most of us don't have to travel far to see these amazing creatures that excite and educate us to the many wonders of nature

**Cecily Falkingham.**





### IMPORTANT– The FNCV has a New Fax Number - 9877 9862

Through the generosity of one of our members, the Club has been able to get a second phone line in the office. We have also purchased a new phone, with 3 handsets and an answering machine and a new Fax machine. Faxes are now able to be received at any time, not just when someone is in the office. The Club phone number remains unchanged.

#### CAN YOU HELP?

The Yarran Dheran Information Centre in Ashburton Drive Mitcham (Melway 49 B6) is open on Sunday afternoons, subject to volunteer availability. The convener of the Information Centre Roster is currently setting up the roster for 2013.

You may be interested in becoming a volunteer for this activity in 2013 if you

- Can spare **one** Sunday afternoon, from 1 pm – 4.30 pm, in 2013
- Have an interest in the Yarran Dheran Nature Reserve and enjoy friendly contact with members of the public

The task is not onerous. You will enjoy the lovely peaceful bushland setting of the Information Centre. Volunteers are not expected to have expert environmental knowledge, but their role is to assist members of the public in finding the information they want. The Information Centre is well stocked with informational and display materials – it just needs a volunteer every week to ensure it is open to the public.

If you would like to find out more details, or to discuss any queries you might have please contact Cecily Falkingham, Information Centre Roster Convener, Yarran Dheran Advisory Committee Phone 03 9874 1227 or email [cecilyfalkingham@bigpond.com](mailto:cecilyfalkingham@bigpond.com)

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

**Thanks to the editorial and layout team who put together FNN 229**

Joan Broadberry  
Platon Vafiadis  
Hali Ferguson  
Sally Bewsher

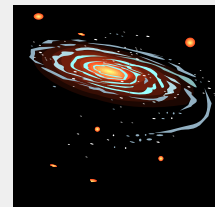
*This newsletter is printed on recycled paper.*

#### **VOLUNTEER(S) NEEDED TO HELP ORGANISE THE FNCV BIODIVERSITY SYMPOSIUM** (Date yet to be decided)

2013 is the *International Year of Water Co-operation*. The program of the Biodiversity Symposium will be based on this concept. The work of volunteers would be mainly an organisation task and ideally would be undertaken by a small committee with the help of the FNCV Council. Members of the Council will set the program and arrange speakers. However, there will be advertising, follow up contacts, catering and a variety of general tasks to be carried out.

**Please contact Hali in the office if you can assist. We promise you a fulfilling experience and we would love your help.**

## GEOLOGY EXCURSION



### *AstroTour*

**Saturday April 20<sup>th</sup>, 2013, 11a.m.**

***“Bigger than Big – A 3D Virtual Tour of the Universe”***  
by  
**Swinburne Centre for Astrophysics and Supercomputing**

**Venue: Virtual Reality Theatre  
Swinburne University, Hawthorn**

**Minimum number 20, maximum 55 persons  
Cost: \$10 FNCV members; non-members \$15**

**Bookings essential: Kaye Oddie  
[koddie@bigpond.com](mailto:koddie@bigpond.com), tel 9329 0635**

*All welcome*

## Extracts from SIG reports given to Council...

### Botany Group

Peter Symes, curator of Environmental Horticulture at the Royal Botanic Gardens in Melbourne, presented a talk on "From efficient irrigation to integrated water management."

In 1875, Guilfoyle's Volcano was planned to pump water from the Yarra to be used to water the gardens using gravity. Irrigation in the past was uniform across the garden, but since studying landscape evapotranspiration it has varied from site to site. For example evapotranspiration on Long Island is about 1mm per day, whereas in the rainforest it is 5mm per day. A change to warm-season grass has saved water with current integrated water management using 45% of the amount of water used in the past. Problems with blue-green algae in the lake led to the Canna Garden becoming a rain garden to trap nutrients before storm water reaches the lake. A floating wetland was also established to trap nutrients. UV filters are used to clean water from the lake for use in irrigation. Climate change and increased visitor use will determine the type of vegetation that can be grown in the future.

### Fauna Survey Group

The talk for the month was given by Dr Jenny Martin and was entitled 'A tale of two sites - the behavioural ecology of the Bobuck'. The talk covered the behavioural patterns of the Bobuck (Mountain Brushtail Possum) in response to the availability of food, particularly Acacia, and nest sites.

The February stagwath for Leadbeaters Possum proved an anticlimax after the stellar results of January.



On the weekend of 22-24 February, the group hosted the Juniors and the Friends of the Gorge, at the Nioka camp in the Plenty Gorge State Park. There was a range of activities including nest-box checking, the setting of Harp and Elliott traps and spotlighting. We were well looked after by the Ranger and the accommodation was a cut above the norm. 36 members attended and feedback from all parties suggested it was a successful weekend. An article will be appearing in the local paper next week.

### Juniors Group

Ray Thomas spoke about the Regent Honeyeater Project. A number of Junior families attended the Plenty Gorge Camp with the Fauna Survey Group.

### Microscopy Group

The Microscopy Group enjoyed a great evening of learning from Sabine Perrone and saw Bees as we had never seen them before.

Sabine first studied Molecular Plant Pathology, then working for DPI Victoria. She then began her own Biosecurity Consulting Firm. She is a keen bee keeper and her enthusiasm, knowledge and love for bees is evident.

Sabine led us through the anatomy of the bee with wonderful photography through the Scanning Electron Microscope.

We all learnt much about the branched hairs to aid in pollen collection; compound eyes; the most complex structure – the antennae - as well as the special antenna-sized cut-out in their leg designed for cleaning; pollen collection and life in the hive.

An interesting fact: bees die when they sting humans as our skin is too tough to withdraw their barbed sting from!



## Library News

### Photographic collection

John Courtney of Inverell NSW has kindly donated to the library a large number of superb photos of birds. They include birds which are rare or of restricted distribution such as the Golden-shouldered Parrot and Palm Cockatoo. The photos are in high-resolution digital form.

The library already holds about 1400 natural history slides. Thanks to the efforts of Graham Patterson, there is now a searchable list of all these items.

### Recent periodicals:

- *Proceedings of the Royal Society of Queensland* Vol.117 has a wide range of studies of Queensland's sand islands;
- *Memoirs of the Queensland Museum: Culture* Vol.6 is devoted to Andrew Goldie, a natural history collector in New Guinea;
- *Indigenotes* 24(1) looks at the question of whether ecosystems need top predators; Fungimap newsletter no.48 introduces five new Fungimap target species.

The latest periodicals are displayed in a rack in the library. You can borrow periodicals in the rack, as well as previous issues. Don't forget to fill in the borrowing book.

One periodical for which recent issues will no longer be available through the Library is the *Australasian Mycologist*. We have been informed by the Australasian Mycological Society that, henceforth, their journal will be available only by accessing their website. There are many members for whom this will present no problem. However, if anyone wishes to obtain a particular article from this (or any other exclusively-digital journal) and does not have access to the Internet, the Librarian is happy to obtain a copy for them, on request.

**Gary Presland**  
Honorary Librarian

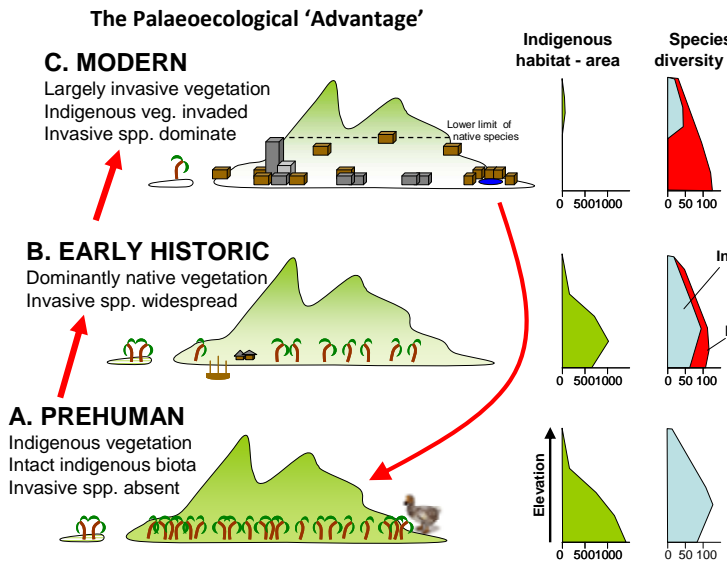


# Geology Group

## Quaternary Entomology in Australia and the Indo-Pacific. Climate, Environments and Human Impact

Speaker: **Dr. Nick Porch**  
 School of Life & Environmental Sciences, Deakin University  
 Wednesday 28<sup>th</sup> Nov. 2012

Nick opened his talk by outlining the history of scientific thought in regards to insect fossils. In the C19th, people who found them regarded the fossils as remains of extinct species, but in the 1950's Russell Coope a paleoentomologist working in the UK demonstrated that fossils were almost all modern species and that they helped to indicate the environmental conditions at the time they were deposited.



The parts of insects found in the fossil record are made of chitin while the softer parts of the insect decompose and are lost. The fossils are best preserved in anaerobic organic sediments such as peat and dry organic sands and silts and can be found in continuous sequences or as buried organic deposits which provide a snapshot of the past.

A whole range of insects can be found in the fossil record – mites, spiders, flies, beetles, scale insects, wasps, ants, and earwigs. The fossils are flattened and discoloured under pressure but nev-

ertheless can be recognized as insects which still exist today.

Nick studied insect fossils of the Stony Creek Basin near Daylesford. A 40-metre bore here revealed evidence spanning the last 1.2 to 1.8 million years. The drill core contained a rich pollen record but also plant and insect fossils. It has been estimated that the core contained 75 billion beetle fossils. Evidence in the core suggests a 21,000 year cycle whereby mesotherms of sub-tropical rainforest sometimes dominated and at other times microthermal cool temperate sclerophyll forest dominated. The temperature in the area varied but it was wetter than it is today. Insects associated with the sub tropical plant assemblages today are found on the east coast near the Illawarra region and north of Sydney extending to the

Dorrigo district and the microtherms are today found in the ranges in northern and eastern Victoria.

Nick then turned his attention to the islands of the Pacific and Indian Oceans to gather evidence of their pre-human environments. Previous publications regarding

the natural history of these islands had based their conclusions on the plants, animals and insects present on the islands at the time of their studies. Research into the insect fossil history has demonstrated that, since colonisation of the Pacific Islands, firstly by the Polynesians over 800 years ago and then more recently by Europeans, many indigenous fauna have become extinct, especially in the lowlands. The original insect population has to a large extent been replaced by insects usually inadvertently introduced by the human colonisers.

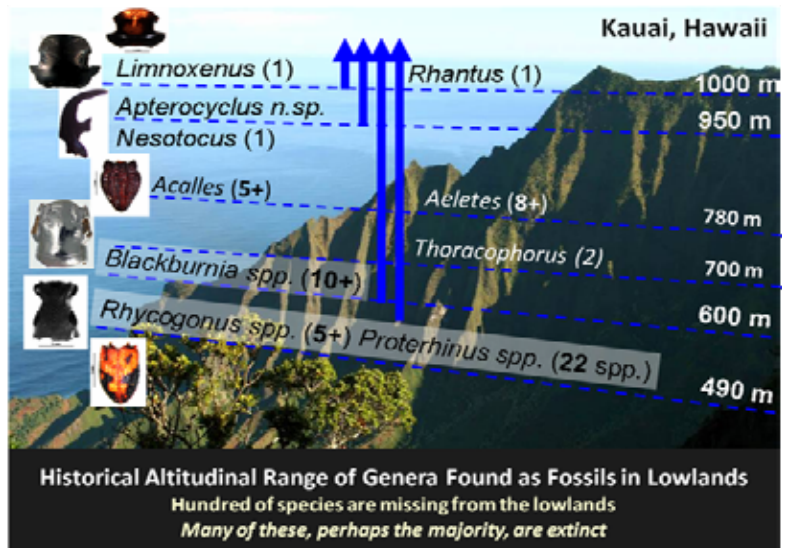
Where prior to the arrival of humans, islands had their own unique fauna, today there are about 35 insect species we know of, which were introduced by humans and which dominate most islands.

The lowlands of the islands have been hardest hit for they are the areas most suited to human exploitation, where forests have been cleared, crops planted and settlements established. In highland areas of many islands endemic species have often been able to survive, but it is estimated that up to 70% of lowland species have become extinct.

Our thanks to Nick for showing us how his study of insect fossils has challenged some previously held views and provided a new understanding of past natural environments in both Australia and the Indo-Pacific islands.

Roger Needham

**COPYRIGHTISSUE:** The diagrams here must not be reproduced without permission from Dr. Nick Porch.







# Fauna Survey/Juniors Groups



## What is happening at Plenty Gorge?



The first photo is of a camera on an extendable pole peeping into a nest-box at Plenty Gorge Parklands.

The second photo, (clockwise) is of a group of FNCV members and friends looking down at something? What is it?

The final image is of a monitor screen projecting a black and white image of what is in the nestbox— a family of Sugar Gliders.

The equipment was borrowed from Parks Victoria. It does not totally replace the time honoured FSG method of trekking through the bush carrying a ladder, placing it against a tree and climbing up to check what is in the box.. However, for nestboxes placed in the tallest trees this is a much safer way of checking for residents, especially with children in the group. A full report will appear in FNN 230.



This beautiful spider was photographed on bark at Plenty Gorge. Can anyone help with the ID?

Photos: *Joan Broadberry*

**Joan**

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





## Day Group

### AUSTRALIAN CICADAS, Harbingers of Summer Speaker: Wendy Clark

The Day Group was delighted to welcome FNCV honorary Life Member Wendy Clark, as speaker at their February meeting. Her topic "Cicadas" was well chosen. Most of the audience have had some contact with cicadas, their calls and nymph cases in particular, but few had any detailed knowledge.

Wendy's enthusiasm for and study of cicadas began in childhood when she would listen for them and hunt them on hot summer evenings. Their often very loud calls are non-directional and can seem to fill the night. Cicada calls differ with species. Wendy described them beautifully as 'screamers', 'tockers', 'whirrs' and 'tickers'. The common cicada in Melbourne is known as the 'Greengrocer'. It likes big trees and is active between late October and January. At Point Lonsdale Wendy found small black cicadas of the genus *Ciccadetta*. These were either 'tickers' or 'Tockers'. On a Mammal Survey Group trip she noticed the some large cicadas were coloured black and orange. These turned out to be a different colour form of the Green Grocer *Cyclochila australasiae*.

Especially exciting was finding hundreds



*Cyclochila (green) drying wings* W. Clark

of hairy, moth-like cicadas in a cool gully in the Otways on an Easter Juniors camp. These were later identified as from the family Tettigarctidae. There are only two species of this family extant, both in Australia. The rest are known only from fossil records in the Northern Hemisphere. They can even live in snow and do not call audibly to mates, although perhaps they transmit low level sounds. Wendy wrote up this find in the Junior Field Nats Newsletter.

Having wetted out appetite for more, Wendy then went on to examine cicada biology and life cycle. Cicadas belong to the group commonly known as 'bugs'. They have sucking mouth parts, soft wings and their larvae are miniature adults. There are 202 described species in Australia. All but four are endemic and there are no introduced species. Cicadas are found in a wide variety of habitats. The majority are found in the tropics but they also live in grasslands, deserts and alpine areas.

Males sing to attract females and therefore the two sexes are distinguished through the possession of tymbals, commonly called 'drums' by the male. These organs of sound production consist of a pair of ribbed membranes, one on each side of the abdominal segment. The abdomen is usually hollow, which amplifies the sound. Females have a pointy cutting tool (for egg laying), at the base of their abdomen. On the head of both sexes is the rostrum, a long narrow feeding device consisting of two pairs of needle-like grooved stylets, which lie together forming two channels. Saliva is pumped down one into the plant and partly digested sap sucked up the other. Each cicada has two compound eyes, usually positioned at extreme opposite sides of the head. Their sight is good within a few metres and especially good at detecting the rapid movements of predators. Wendy showed an image portraying three little dots located on the top of the a cicada's head. These dots or ocelli are always found in a triangular arrangement and detect the direction from which light comes. They are a primary characteristic used to distinguish cicadas from other bugs.

Cicada eggs are 1.5 to 3 mm long, cigar-shaped, pale, translucent and often with a slight curve. They are laid in a series of slits cut into the branch of a tree or plant stem by the female's spear-like ovipositor. Several eggs are placed in each slit. On average the female lays 200 to 300 eggs, but there may be up to 600. Eggs can be laid on soft green grass or on the hardest of dead eucalypt branches. The slit is sealed with a frothy material in dead wood. Softer material is pressed back into shape with the female's abdomen. The eggs hatch 70-120 days later or in cool



*Hairy Cicada—Otways* Wendy Clark

climates over-winter. In most species they hatch together or a proportion may delay a day or to reduce predation. On hatching, the pronymphs have a transparent skin which they have to shed before they can move freely. The hatchlings are long-legged, spindly and coloured white  
(Continued on page 9)

*Cyclochila australasiae* Wendy Clark





(Continued from page 8)

or cream. They drop to the ground and hide in cracks, then dig down and construct an air cell with compressed sides large enough to allow them turn over, but not turn around. The nymph is usually about 40cm below the surface, but may be up to a metre. The young cicada can now seek food from the nearest plant root. It sucks sap with its rostrum and excretes fluid which can be used in compacting and waterproofing the walls of its chamber. As the nymph grows, it will shed its skin four or five times.

They reach maturity from nine months to several years. Greengrocer cicadas take from 6-7 years. Some species have been recorded as taking 17 years. When mature, cicadas come up to just below the surface of the ground and wait. It is not totally understood what causes them to emerge. In Melbourne the Greengrocer cicadas need a run of hot and/or humid nights. Once on the surface, the cicada climbs the nearest vertical object and pumps fluid into its back until it breaks the seal of its case and is able to push its way out. At this stage the case is soft and pliable not crisp and hard as they are normally found after the cicada has emerged. The cicada must then pump watery blood into its wings and expand them. The fluid is absorbed back into the body. The wings will take several hours to harden.

Wendy then showed a number of images. These included, the Greengrocer *Cyclochila australasiae* which has different colour forms. This species can be green, yellow, orange and black or even aqua blue. Other images were of: the Cherrynose, *Macrotristria angularis*; the Little Black Cicada, *Cicada abdominalis*; The Redeye, *Psaltoda moerens* and the Hairy Cicada, *Tettigarcta crinita*. Especially intriguing were two tropical species, Bladder and Bottle Cicadas.

Wendy finished her absorbing presentation with a few more observations. The larger tree dwelling species of adult cicadas live from two to four weeks. Smaller species from three to four days. The adults continue to feed on sap from plants. Cicadas have many predators. They are particularly vulnerable to birds whilst in flight. Cicada



Newly hatched cicada Wendy Clark

das defend themselves by congregating in groups. Also their loud calls, may distress some birds. Other predators are wasps, spiders, robber flies, beetle larvae and four types of fungi, one of them being *Cordyceps*, which totally infects the nymph so that it becomes part of the fungi.

On behalf of the Day Group, I would once again like to thank Wendy for her presentation and I would like to thank her personally for kindly lending me her notes.

**Joan Broadberry**

\*A wonderful book available in the FNCV library is *Australian Cicadas* by M.S. Moulds.

Cicada hatching Wendy Clark



## REMINDER FNCV Club Camp & Excursions Policy

*It has been decided by the Council that a club-wide policy needs to exist for both Excursions and Camps.*

Non-members will be charged \$2 per person for each FNCV meeting and \$5. per person for an excursion or camp.

Junior meetings are free to non-members, however, non-members on Junior day excursions pay \$2 per person. All those who wish to attend Junior camps must be members.

Attendance books need to be signed at every SIG meeting and excursion. This is vital for insurances purposes.

The club recommends that people with a medical condition, eg. anaphylactic or heart conditions, carry written medical information with them. They should inform the excursion/camp leader of the whereabouts of this information on each outing, (for example, "it is in the pocket of my parka.")

Parents or designated guardians are responsible for all medical needs on Junior camps or excursions.

## Advertising in the Field Nats News

**VERY REASONABLE  
RATES**

Contact Hali in the Field Nats  
Office

admin@fncv.org.au  
9877 9860

(Mon -Tues 9-4)



## FNCV AGM Sunday 5th 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

**Guest Speaker:** David McInnes, the new CEO of Earthwatch  
The topic of his talk will be "*Citizen Science*".

*Afternoon tea served, all welcome*

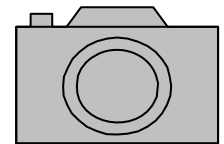
*Nominations must reach the registered office of the Club no later than 48 hours before the AGM, i.e. Friday 3rd May by 2 pm.*

## Photographic tips:

Here are more tips to help you prepare for the competition:

**Composition and quality:** Has your photograph been cropped so the image has the ability to hold the eye? Is the exposure and use of light correct? Also remember to print your image on quality paper; this will improve the overall look of it.

**Interest and relevance to the Club:** Does your image show some significant or interesting aspect of our natural world? Does it have relevance to the FNCV's various groups?



## From the Office.....



### Calendar of Events (COE), June—September: Due Friday 12th April:

I will be contacting each of the Special Interest Group (SIG) representatives shortly. This is a general reminder that the details of the program for the next four months, the backbone of our Club, are due very soon.

### Hall Use:

Several times over the past few months, I have come into the hall after Club use to find a mess. I have found the lights, fan and/or boiling water unit left on. The kitchen and hall has been left a mess and sometimes the alarm is not turned on. It is very important that the hall is left clean and tidy after meetings, as the Club derives an income from the hire of the hall. Safety and security are also issues that we should be aware of, particularly after the fire in 2011. I have put a reminder "Checklist" up in the kitchen to enable everyone to help leave the hall in a state that makes us proud.

### For Sale:

I hope everyone has taken the time to peruse the Sale Table in the Hall, as the items on it will be changing regularly. I have several larger items for sale that have not appeared on the table: Fax/phone/answer machine plus toner \$30.00 (includes instruction book), Wooden cupboard in the hall \$10.00, Trekking Stick \$20.00 (Used 4 times). If you wish to purchase any of these items, contact the office and we can arrange pickup.

### Display cabinet:

When you are next in the hall, please take the time to look at the new display in the display cabinet in the hall. It encompasses most of our SIGs and is a wonderful addition to our hall décor.

### Donations for Hall:

This month we need: Coffee (Nescafe or Moccona), Biscuits (always needed), Paper Towel, Peppermint Tea, Toilet Paper, Gift cards from Coles, Safeway or Officeworks.

*Thanks, Hali*

**ADVANCE NOTICE of  
FNCV Photographic  
Competition**

Get your entries ready for the second FNCV Natural History Photographic competition.

**Entries open 8th April. Final date Monday June 3rd**

**Exhibitions of photographs: 12th—14th July**

For details of terms and conditions and entry forms contact the FNCV Office. More information next month





## Marine Research Group News

### Report on the MRG meeting Monday 11 Feb. 2013. Hugh Kirkman spoke on the topic "Victorian seagrasses"

Hugh was formerly with the CSIRO specialising in seagrasses. Commencing in 1973 as one of only two people working in this field in Australia, hundreds of scientists are now engaged in seagrass research owing to the ecological importance of these plants. Hugh has also worked with the UN environment program in Bangkok and is a private consultant in his field.

**Seagrass features:** Seagrasses are complex flowering plants, usually bearing male and female flowers and pollinated underwater (with a few exceptions). They possess underground rhizomes, small roots and leaves. Adapted from land plants, there are about 50 worldwide species, 30 of which are found in Australia. They inhabit sandy and muddy bottoms, are salt tolerant and not eaten by many animals (but black swans and dugongs feed on their rhizomes). A number of images were shown: seed pods (seeds are very small); man made drains (problematic in that nutrients are washed straight out to sea rather than being uptaken by plants before reaching the ocean); *Ruppia* (tolerating a wide range of salinities); *Posidonia* (occurs in Victoria only at Wilsons promontory and Corner Inlet, northern Tasmania, NSW bays, South Australia and Western Australia in large quantities; it grows very slowly and may take decades to regrow a denuded patch). *Amphibolis antarctica* (small leaves, and anchor-like seedlings).

**Seagrass functions:** Seagrass beds provide habitat and are also nursery areas for fish, crustaceans and other invertebrates; they stabilise sediments, filter overlying seawater, are an important part of the food chain, and provide nutrients when washed upon beaches.

Seagrass drifts harbour amphipods, insects and other animals and form important food for birds. Slides shown included an excellently camouflaged green pipefish and also majid crabs with seagrass on their carapace.

**Seagrass epiphytes:** Epiphytes on seagrass include seaweed, diatoms and sessile animals. These shade the seagrass and can cause an opportunistic nutrient

sink (if they cover enough of the seagrass they eventually kill it, with the decay causing an anaerobic bottom that is barren of life. Slides shown included hydroids, turf algae and diatoms on seagrass; red algal blooms washing onto seagrass and killing it; blooms of the bivalve *Electroma georgiana* on seagrass leaves; and *Oscillatoria*, a blue-green algae covering seagrass—its presence is a bad sign.

**Fauna in seagrass:** A beam trawl is one method of sampling seagrass and detects herbivores, carnivores, sessile organisms and benthic organisms, but does not adequately sample pelagic organisms and algae. Beam trawls are performed at night at high tide against the current flow (and at full moon to provide natural light so as to avoid use of artificial light that may bias results). Each trawl occurs over 50 metres at 0.4 metres/second, and may contain from 125-1030 individual specimens representing 47-65 species per trawl (in *Posidonia*). In Moreton Bay there may be 70 species per trawl. The beam trawl is 1 metre across, runs along a roller (thus preventing digging up of the bottom), and has a 2 millimetre mesh (note: sampling of Victorian seagrasses in this way has not yet been done). Images shown included a beam trawl in operation and some of the samples derived from it.

**Threats to seagrass:** Threats to seagrass include: sedimentation and smothering (seagrass beds can withstand a 4 millimetre build-up per season); turbidity; dredging (needs to be done in winter when plants metabolically 'shut-down', however in the tropics need to dredge in summer in the rainy season when increased sediment is already present); anchoring; overfishing (removal of top predators upsets local ecosystems and causes algal increase in seagrass beds and seagrass death); development (secondary to changed hydrology and drainage causing increased nutrient flow to the sea); climate change (with rising sea-levels, deeper edges of beds will die off first due to less light, whilst shallow edges may increase; increased storm activities will also affect seagrass); pollution (nutrients increase turbidity and promote phytoplankton and epiphytes); aquaculture (pellets and fish faeces increase nutrients and promote epiphytes; cages also cause shading); disease (no

records of such in Australia but has been seen overseas); invasive species (uncertain of precise effects of the Northern Pacific seastar; consider also *Codium* and *Undaria pinnatifida*). Slides shown included destruction of seagrass due to boat anchors and propellers, and the *Queen of the Netherlands* dredger in Port Phillip Bay leaving a turbid plume in a trial dredge. Readings taken of decreasing light intensities at different depths allowed an experimental recreation of the reduced light conditions over kelp and seagrass over extended periods of time to observe the effects. No effects were noted on kelp growth; *Heterozostera* beds were damaged after 140 days but the dredging project took 90 days. It has had no known effect on seagrasses to date.

**Seagrass research:** This must be strategic, tactical and appear in international conferences and peer-reviewed journal papers. Work is occurring in restoration (at present are only just able to get some *Posidonia* rhizomes to grow), in genetics and taxonomy, in light physiology, rapid assessment of threats and monitoring.

**Managing seagrass:** This involves mapping, monitoring, evaluation, reporting and managing. Mapping of seagrass beds in suboptimal in Victoria. Monitoring requires effective methods and programs need to be well designed with clear research questions and expert monitoring and evaluation. Community support is also essential. Hugh noted that most environmental impact statements for proposed developments are poor in quality.

**Marine protected areas (MPAs):** Can be no-take zones and sanctuary zones. Australia is a signatory to the convention on biological diversity, aiming to protect 10% of coastline by 2012. Victoria has 5 bioregions and 24 marine national parks encompassing 5.3% of its coast. It needs several MPAs to cover each bioregion. In Victoria, MPAs are good for education but evaluation is lagging (must be comprehensive, adequate and representative). Each MPA ideally must be at least 35 square kilometres—Victoria's are all smaller than this.

We thank Hugh very much for his very interesting talk.

P. Vafiadis



Understanding Our Natural World  
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# NOMINATION FORM FOR FNCV COUNCIL 2013/14

The FNCV AGM will be held on Sunday 5th May,  
2 pm FNCV Hall, 1 Gardenia Street, Blackburn 3130

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, two Vice-Presidents, Secretary, Treasurer and six Councillors. 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  
Locked Bag 3, Blackburn 3130  
Phone 9877 9860; Fax 9877 9862  
E-mail: admin@fncv.org.au**

*Nominations must reach the registered office of the Club no later than 48 hours before the AGM,  
i.e. Friday 4th May by 2 pm.*

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