Field Nats News No.214

Newsletter of the Field Naturalists Club of Victoria Inc.
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Understanding Our Natural World
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Patron: Governor of Victoria

Office Hours: Monday and Tuesday 9 am-4 pm.

November 2011

From the President

Welcome to the November edition of the Field Nats News. I must say how nice it has been to be out in the bush over the past few weeks. Firstly, doing community service with the Anderson's Creek Catchment Area Landcare Group, Parks Victoria and Manningham City Council. This was as part of the Year 9 Community Service program at Donvale. The time was spent removing various weeds from sensitive bushland and then revegetating the area.

Over the first week of the recent school holidays, I spent a week with the Fauna survey Group surveying the Wathe Flora and Fauna Reserve, north of Hopetoun. The report will be in FNN 215. One of the highlights was finding Mitchell's Hopping Mouse. Photo below.

What's in a name – part II?
In September, I was remarking about the Black Wallaby and its other common name, the Swamp Wallaby. Well, while doing a bit of background reading in the *Mammals of Australia*, I noticed that a Dr John Harris was responsible for the introduction of Chital Deer into Australia, from India, in the early 19th century.

"Pauls Collect-a cap"
The FNCV have registered as a community organisation for this Pauls milk promotion. If you drink Pauls milk, please keep the caps from the bottles and drop them into the box in the hall, or post them in if you are an infrequent attendee. For each cap, the club gets 10 cents. This is a good fundraiser as it requires no extra volunteer time and is a result of our everyday life, so let's fill box several time.

SEANA Spring Camp-out 29th Oct – 1St Nov.
Over a hundred people have registered and the hard working SEANA sub-committee have put together the program for two full days and two half days. However, we are still looking for more volunteers to be leaders, facilitators, assemble show bags, work on the information desk etc. If you are yet to register, please urgently email seanacamp@fncv.org.au or contact Hali in the FNCV office.

John Harris
President.

Mitchell's Hopping Mouse, *Notomys mitchellii*, Wathe Flora & Fauna Reserve *Photo: John Harris*

Due date for the combined December/January 2012 newsletter **Tuesday 1st November.** FNN will go to print on the 8th November, with collation Tuesday 15th starting at **10.30 am.**

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

CALENDAR OF EVENTS

All meetings are held at 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.

November

Saturday 29th October—Tuesday 1st Nov. *SEANA camp* at Phillip Island. Volunteers still needed. Contact Hali at the FNCV office 9877 9860, admin@fncv.org.au

Monday 7th – ANHM. *Australian Natural History Medallion* award ceremony and dinner. 6.00 pm for dinner, ($20); 8.00 pm ceremony. The ANHM will be awarded to Dr John Woinarski for his contribution to Conservation Biology. For catering purposes please contact Hali at the FNCV office 9877 9860, admin@fncv.org.au by Fri. 28th Oct. Full details FNN p5.

Monday 7th - Fungi Group. No monthly meeting.

Tuesday 8th - Fauna Survey Group Meeting – Speaker: Justine Smith. PhD student, University of Melbourne '*To run or to hide? Fire ecology of long-nosed potoroos and southern brown bandicoots*'. Contact Sally Bewsher 9752 1418 AH

Wednesday 9th – Bat Group Excursion. *Grey-headed Flying-fox count.* Meet at Yarra Bend Golf Course carpark Mel 2D G7 at 7.30 pm. Please be sure to RSVP by email or phone to Megan Davidson 9380 5062 AH; m.davidson@latrobe.edu.au

Sunday 13th – Juniors' Group Excursion – *Invertebrate Excursion.* Leader: Dr Alan Yen. Location to be announced. Contact: Claire Ferguson 8060 2474

Monday 14th – Marine Research Group Meeting – For details contact: Leon Altoff 9530 4180 AH; 0428 669 773

Tuesday 15th—Collate FNN 215. Starting about 10.30 am. Note earlier time. Contact Joan Broadberry 98461218

Wednesday 16th – Terrestrial Invertebrates Group Meeting - This will be a members' night. Please bring along questions, specimens and photos to identify and discuss. Alan Yen 0409 194 788

Thursday 17th – Botany Group Meeting - *The wildflowers of eastern Greenland.* Presenter: Neil McLachlan. Contact: Sue Bendel 0427 055 071

Saturday 19th – Sunday 20th – Biodiversity Symposium. Join us as we celebrate the International Year of the Forest. On Saturday we have a program of speakers, followed by a guided walk on Sunday. All details FNN p7.

Tuesday 22nd – Day Group Excursion to Antonio Park. Meet Cecily Falkingham at 10.30 am. at lower end of carpark off Deep Creek Road (Melway, 49 C8). Tables are available for those who wish to bring a picnic lunch. Contact: Gary Presland 9890 9288

Wednesday 23rd – Geology Group Meeting - Please Note: It is hoped that Dr. Rick Squire, Research Fellow, School of Geosciences, Monash University will be able to make a presentation at the November meeting - but this is not yet definite. Please contact Kaye Oddie 9329 0635: koddie@bigpond.com for confirmation in early November.

Friday 25th – Juniors Group Meeting – 7.30 pm *New Zealand Flora.* Speaker: Kath Dickenson. Contact: Claire Ferguson 8060 2474: toclaire@gmail.com

Monday 28th -FNCV Council Meeting -7.30 pm sharp. Agenda items and apologies to Hali, 9877 9860 or admin@fncv.org.au

Geology Group: October 26th, meeting. Speaker: Dr. Erich Fitzgerald, Museum Victoria Title: *"Our Lost Serengeti of the Sea: Uncovering Australia's Extinct Marine Megafauna"*

Sunday 30th October -Bat Group Excursion & BBQ From 12 noon at Belbird Picnic Area, Yarra Bend National Park, Melway 2D K6. Details FNN p5

DIARY DATE: Club Christmas Party: Sat 10th December, 6 pm.

The policy of the FNCV is that non-members families 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 are reserving a page in each issue of FNN for natural history observations, member news and photos. It is just so easy these days to let us know what you have noted in your life, your travels or perhaps your garden. So how about it? Email: fnnews@fncv.org.au

These two photos were taken on the Juniors' September orchid excursion to Baluk Willam Reserve Belgrave, led by Andrew Dilly.

Photos: *Joan Broadberry*

'The Fungi CD' 2nd edition has been very favourably reviewed in the British journal 'Field Mycology', volume 12 no. 3.

Reprinted below are some extracts from the review: "The quality of the photographs is high throughout, taken for the most part by Jurrie Hubregtse, who also did most of the work on the disc. The information is concise and provides the essential characters needed for recognition…. This disc is well thought out, very intuitive to use, beautifully illustrated and a credit to its developers. One could wish for similar products for our own mycota…. For anyone considering travelling to Australia, this would be an essential reference."

COST $15—available from FNCV office.

FNCV fund raising raffle

Help us to buy solar panels

The FNCV is holding a raffle to be drawn at the Christmas Party 10th December. We have terrific prizes and only 1,000 tickets available from the office, either individually or in books of 10.

$5 per ticket

1st Prize: Toshiba Laptop, plus software, Donated by FNCV, $990
2nd Prize: Three nights at Twitcher's Cottage. Donated by Paul and Merrin Strickland, $350
3rd Prize: $100 Bunnings Voucher. Donated by FNCV

Tickets available from Saturday 8th October (FNCV booksale) or from Hali at the FNCV office.

*Winners notified by phone or email. Results published in FNN 216 and on website.

HELP NEEDED!!
FNCV WORKING BEE
Thursday 27th October

Volunteers are needed for a few hours in the morning from 10 am to clean the outside windows and tidy up the FNCV garden
Due to the many activities taking place at the Club it was decided to hold this on a week-day morning.

Heather Eadon has offered to supply plants.
Please Contact Hali on 9877 9860 or just turn up.

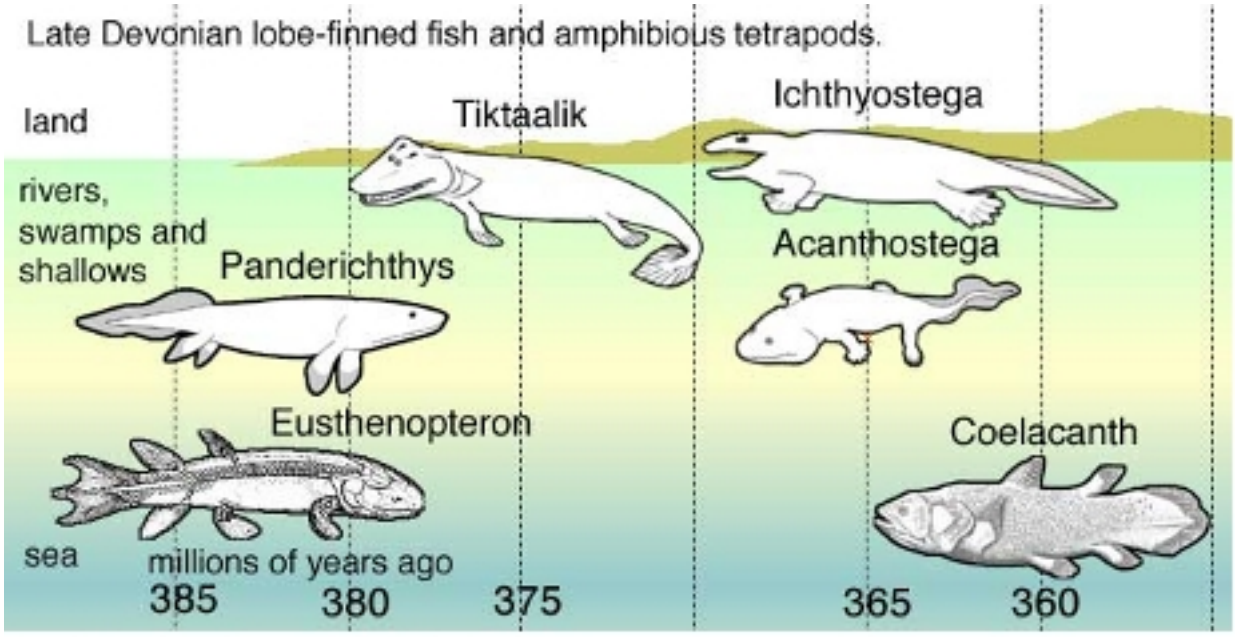
Geology Group

Australian Crawl: Evidence for the Evolution of Early Tetrapods Down under.

Talk by Dr. Tim Holland of Museum Victoria

Wednesday 27 July 2011

Tim is a vertebrate palaeontologist currently involved in research on the evolution of fish at Museum Victoria. In his PhD studies at Monash University he examined Devonian lobe-finned, tetrapodomorph fish fossils, the ancestral stock from which tetrapods (four-limbed vertebrates) are derived. Tim was also involved in work on dinosaurs while at Monash University.



Graphic by Dave Souza: Wikimedia Commons

Tetrapods (in general, vertebrates having four limbs), along with the Sarcopterygii (lobe-finned fishes), make up the clade Tetrapodomorpha. Lobe-finned fishes differ from the Actinopterygii (ray-finned fishes) in that they have fins with articulated bones resembling tetrapod limbs, whereas the ray-finned fishes, which make up 99% of the fish species today, have fins of skin supported by thin spines. The tetrapods evolved from the lobe-finned fishes.

Characteristics of tetrapodomorphs that are studied due to their importance in understanding the transition from fish to terrestrial tetrapods include:

- Choanae, which are nasal passages in the palate used to gulp air. They evolved while vertebrates still lived in water. Fish do not have choanae, instead they have two pairs of external nostrils, whereas tetrapods have both choanae and external nostrils. *Gogonasus*, a Devonian lobe-finned fish of 380 million years ago, had a choana.
- The fins of lobe-finned fishes, seen as precursors to later forms, have bones that resemble the humerus, radius and ulna, seen in tetrapods and vertebrates that later evolved from them.
- Spiracular openings on top of the skull were used for taking in air. These structures would eventually evolve into the Eustachian tube or middle ear of higher land vertebrates.

Devonian tetrapodamorphs are not unique to Australia. Earlier research was largely in the northern hemisphere, where Devonian fish and Carboniferous tetrapods were fairly well documented. Evidence of the transition between the two was elusive, but early workers thought this transition occurred in the northern Devonian continent of Euramerica as evidenced by fossils from Canada, Greenland and Scotland. Subsequent discoveries, such as *Gogonasus* in Australia indicated that the transition may have occurred in Gondwana, the great southern continent. A recent discovery of tetrapod tracks in Polish marine tidal flat sediments of early Middle Devonian age (395 million years ago), that are approximately 18 million years older than the earliest tetrapod body fossils, force a reassessment of the timing and environmental setting of the fish-tetrapod transition, as well as the completeness of the body fossil record.

There is still much to be learned about the fish-tetrapod transition from Australian sites, which include:

- The Gogo site, near Fitzroy Crossing in Western Australia, the only Devonian site in the world to yield whole complete

fishes in perfect uncrushed preservation in some specimens. The fossil fish are found in calcite nodules that weather out from a softer limestone matrix. *Gogonasus* is just one of the almost 45 species of 3-dimensionally preserved fishes from the Gogo Formation deposit.

- The source, and therefore date, of a now deteriorated paving stone found at Glenisla Homestead in western Victoria is not known with certainty and further investigation could be fruitful.
- The Genoa River Trackway near the NSW border in east Gippsland represents one of the earliest records of tetrapods in Australia. Some fossil fish material from the site has been dated as Late Devonian.
- Near Canowindra, in central west NSW, the Late Devonian (360 mya) site of a mass death event has yielded a large amount of fossil fish material.
- On the banks of the upper Howqa River, near Mt. Howitt, late Middle Devonian fish have been preserved whole in all stages of growth in lacustrine shales.
- Lower Devonian limestones from near Buchan have yielded many types of fishes.

Tim's talk was illustrated by explanatory slides, many of them showing tetrapodamorphs that demonstrate the transition from fish to tetrapod, one of the most dramatic events in the evolution of vertebrates. We thank him for his well received presentation.

David Gibson

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

Australian Natural History Medallion

Monday 7th November at FNCV Hall
1 Gardenia St Blackburn

You are cordially invited to the presentation of the ANHM to Dr John Woinarski. The medallion was awarded for his contribution to conservation biology. John was nominated by the Field Naturalist Club of the Northern Territory.

The ANHM will be presented by
Professor Lynne Selwood,
President Royal Society of Victoria.

6:00 pm Reception with buffet - Cost $20

8:00 pm All welcome—no need to book

R.S.V.P. and payment for buffet by **Friday 28th October** to Hali (03) 9877 9860 Email: admin@fncv.org.au

F.N.C.V.

Bat Lovers Halloween BBQ

Go Batty at Yarra Bend Park

Bellbird Picnic Area Melway 2D K6
Sunday 30th October

- From 12 noon to the fly-out after sunset
- BYO everything and join us for BBQ lunch
- LOOK closely at Grey-Headed Flying Foxes and their babies through telescopes
- DISCOVER how these upside-down animals live
- LEARN about the many different kinds of bats and their environmental importance
- TAKE a tour of the colony (hourly)
- MARVEL at the spectacular fly-out when 10,000+ bats leave the colony after sunset
- ENJOY the beautiful bushland setting, picnic area and walking trails

KIDS – prize for best costume –drawn from 2 pm

More information*: contact Anthea Gurr on 0487611472*

A 'Naming tree' Story.

Introduction

In 2002, two eucalypt seedlings were planted in Darebin Parklands, Alphington, as part of a ceremonial 'naming' day for six-month old twins. Eight years later, the seedlings have become saplings offering evolving habitat and amenity for wildlife and the public over future decades and beyond. Reflections on this simple private activity are explored as a potential means to enhance public good conservation.

Description

On Boxing Day 2002, seedlings of a Red Iron Bark, *Eucalyptus tricarpa* and a River Red Gum, *E. camaldulensis* (about 0.6 m high) were planted in Darebin Parklands as part of a 'naming day' ceremony for six month old twins (Plate 1). The species are both long-lived and flower at different seasons, with the Red Ironbark providing important winter flowering for a range of fauna. The seedlings were of local provenance (obtained from LaTrobe University Wildlife Reserve), planted with the permission and placement advice of Peter Wiltshire (Ranger of Darebin Parklands) and were unmarked. The young seedlings were watered occasionally over their first three years (in drought conditions) and by 2011 had become substantial self-sustaining saplings (height 8.5 m and 7.0 m with a dbh of 170 mm and 110 mm).

The private objectives and incorporated public good outcomes were to:

- provide a focal point for the family, and specifically the children, to watch and reflect upon the growing eucalypts and the changing faunal use of the trees by insects, birds and mammals over their life time;
- watch and observe peoples' enjoyment of the site over time;
- actively nurture nature in a public space and provide a small contribution to the greater conservation amenity of the site and provide decades of habitat availability for wildlife species, both residents and visitors.

The site is periodically visited and, to date, is achieving the initial private aims. The trees have melded anonymously into the overall parklands and will flower in the next few years. The trees 'belong' to two people but simultaneously to everyone – a private meaning with a tangible social and environmental outcome. Two trees are a humble symbol by any standards.

Plate 1. Bess and Lil Mansergh in front of the Red Gum seedling (9 months old), Darebin Parklands, autumn 2003.

From private to public

In the context of quite constant social change, a solid sense of place and connection to nature and landscape may become an increasingly important facet of intergenerational transfer and equity. In Australia in 2010, there were 291,240 births. Thus, if taken up by only a small percentage of new parents each year - there exist many opportunities for 'naming day' trees in appropriate public spaces to enhance both amenity and personal lives.

Single tree plantings are often associated with public commemorations and many Australians plant trees in their backyards, some of which may have private symbolic meaning. Native seedlings are often provided at other ceremonial occasions (e.g. formal citizenship) for private plantings, not necessarily associated with public places. It appears that there are substantial opportunities where private planting in strategic public spaces could enhance local/ regional environments across Victoria.

Permutations on the abasic idea are easily envisaged. Here, local provenance was consciously used, but eucalypt populations on many small public reserves and remnants are becoming, genetically impoverished and may benefit from (controlled) introduction of new genetic stock to add to local genomes. If carefully selected, this could help natural self-adaptation to climate change, as future pollinators would facilitate cross breeding and more robust 'local stock'. Multiple plantings in biolink zones is another variant of the theme where urban families could establish a lasting connection with a specific locality in rural Victoria. As Paul Kelly observed about people, landscape and mutual respect: 'From little things big things grow.'

Plate 2. Wider view of seedling site with the trees atGum – 9 years old (Red Ironbark – left, Red right) in autumn 2011. Milo the kelpie also in attendance.

Acknowledgements

A big thank you to Peter Wiltshire, Darebin Parklands, for allowing the trees to be planted and for advice on the best position.

Ian Mansergh

FNCV Biodiversity Symposium

Saturday 19th November ***Seminar***
Commencing at 10.30 am at the FNCV Hall, 1 Gardenia St. Blackburn

Sunday 20th November ***Guided bus trip to Central Highlands:***
leaving from 1 Gardenia St Blackburn at 9.00 am. Places limited

This years FNCV Annual Biodiversity Symposium is set around the theme of *Forests* to coincide with 2011 being the International Year of Forests.

Our guest speakers include: Steve Mueck, Ecology of Forests, David Cameron, Plants of the Forest, Dan Harley, Leadbeater's Possum.

REGISTRATION FORM

Name_____Organisation_____

Address_____P'code_____

Phone_____Email_____

COSTS - ***Saturday*** ***(includes light lunch, tea/coffee):*** - ***Sunday*** ***(includes morning &afternoon tea)***

$35 (FNCV members/ Students/concession)	$50 (FNCV members/students/concession
$45 (non FNCV members)	$60 (non FNCV members)

PAYMENT: (Please make cheque payable to: *Field Naturalists Club of Victoria Inc.)*

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Cardholder's name _____*Signature:*_____

Expiry date: ___ / ___ Total $_____ enclosed (includes GST)

Return registration form by ***Friday 11th November*** to:
Biodiversity Symposium, F.N.C.V., Locked Bag 3, Blackburn, 3130.
Phone- Fax: 03 9877 9860, admin@fncv.org.au

EXTRACTS FROM SIG REPORTS TO THE SEPTEMBER COUNCIL MEETING

FSG Meeting, 6-09-201: Speaker: Sarah Garnick, Melbourne University. 'The *Ecology of the Grampians Macropod Community'*. This talk explored the ecological niche and resource partitioning of the Eastern Grey Kangaroo, Western Grey Kangaroo, Red-necked Wallaby and Swamp Wallaby. The research was centered on the Victoria Valley Airstrip. The research methods to discover broad scale habitat use included direct count, faecal pellet accumulation plots and camera traps. Animals were also captured and radio-collared to gain further information on range and habitat use. The habitat preferences for the Eastern Grey Kangaroo is forest and pasture and grassland, Western Grey Kangaroo low heath, Red-necked Wallaby herb rich woodland, and the Swamp Wallaby scrubby woodland.

Fungi Group At the meeting on September 5: Bruce Fuhrer gave and entertaining and informative talk about tropical fungi. Nineteen people attended.

Juniors' Group: The August meeting celebrated 68 years of the Juniors' SIG with the annual party night on the theme of "Pond Life." There was a great turn out with interesting costumes, yummy food, competitions and prizes.

Fungi Group

FORAY-CORANDERRK BUSHLAND, Healesville

15 May 2011

A grey morning greeted the group who were joined at the Bush Hut by members of the Upper Yarra Landcare Group. Because of the large numbers of people, the group split into two and set off to explore the *Eucalyptus viminalis* flood plain.

Many of the group were keen photographers and soon busy photographing the fungi. An amusing image was that of those trying to photograph the puffball *Geastrum triplex* when it was puffing spores. This required quick accurate shutter speeds. We spotted large, almost dinner-plate sized *Leucopaxillus eucalyptorum* in their typical substrate of thick, fallen bark at the base of Eucalypts and with copious white mycelium. The minute *Marasmius alveolaris* was a contrast – the 3mm diameter white cap supported on a fine, but tough, black 'horsehair' stem was a challenge to photograph. Looking through a hand lens it was possible to see the 'scoops' in the cap, thus identifying the species. A similar-looking species, which we didn't see this time is *Marasmius crinisequi*, which has a dimple in the middle of the cap, within which is a black 'pyramid' type structure, also best seen with a hand lens. It was fun to scratch the underside of *Fomitopsis lilacinagilve* to make cryptic red signs. If scratching the pore surface produces a red mark, the fruit-body can be identified as this species (if all other characters such as the colour, shape etc. are there).

The Vermilion Grisette *Amanita xanthocephala* with its orange cap and patches of orange veil remnants was a bright showing in the grey morning. It is one of the Fungimap Target species (ie those fungi that can be identified in the field without the need for collection or microscopic examination). This species is identified by its cap colour and patches, pale yellow stem without a ring and a bright orange rim on the top edge of the volva at the base of the stem. An outstanding large mass of tiny orange *Xeromphalina leonina* was found on a rotting eucalypt log. The dense colony of tiny fruit-bodies is pale at first, but becomes orange as it dries out.

Leucopacillus eucalyptorum Photo: Ed Grey

Another feature was the number and depth of puddles in the bush – the hidden ones seemed the deepest - Ed Grey mentions this because he had to splash through the undergrowth to find and collect *Hypoxylon howeianum* which had been pointed out for him. He is studying this group to try and sort out which of the *Hypoxylon* spp.are actually here in Victoria. Genevieve Gates in Tasmania has done a lot of work on the group. *Hypoxylon howeianum* consists of red-brown cushions that release orange pigments immediately with KOH. This is a characteristic for the genus and the subsequent microscopic study confirmed the species.

Penelope Griffin found an interesting truffle *Radiigera* sp. half-buried in clay soil. It had round pale chocolate-brown fruit-bodies and was white within. The thin outer skin covered a thick white fleshy or gelatinous peridium within and Paul George took the specimen home for further study. He discovered that this truffle is related to *Geastrum* spp. but the outer skin does not split into rays like the Earth Stars.

In the afternoon cries of amazement brought members to the 'giant' *Geastrum triplex*. While a number of these species had been seen during the day, this specimen at approximately 90mm across was outstanding. It was good to be able to see from the track a largish *Tremella fusiformis* on a log. This has been a rarity for several seasons but was the typical white convoluted mass.

One of the group – Alannah Matheson – spotted a bracket high up on a living Eucalypt. Her photo had us puzzled and this specimen became 'the lost bracket' when the thick bush made it impossible to get to (Alannah had found a different path).

Thanks to Virgil Hubregtse for her input.

Pat Grey & Ed Grey

FORAY- GREENS BUSH 2,

22 May 2011

Baldry Crossing, Greens Bush, Mornington Peninsula National Park

Two weeks earlier there had been a lot of rain, but the last week had been sunny and windy and dried out the area so that the fungi retreated until more favourable times. However, we did see quite a lot of interesting specimens, although not a lot of species or fruit-bodies.

Keen eyes spotted *Barya agaricicola*. This is a minute but distinctive, yellowish flask-shaped species, found growing in large numbers on a small host agaric. The host always seems to be the tan-coloured *Galerina hypnorum* which has a small bell-shaped cap (to 10mm diameter), supported on a slender stem. This species always grows in moss, usually on a wood substrate – and this is where we have found *B. agaricicola*.

One of the group found the red-brown cushions of an *Hypoxylon* on a decorticated (de-barked), fallen eucalypt. Some members descended on them for photographs and samples. Subsequent testing showed these to be *Hypoxylon howeianum*: the spore print colour was black; orange pigments were released immediately with KOH, indicating that it was an *Hypoxylon*; microscopic work on the spores and asci confirmed the species.

A very small, dark coloured fungus growing on the ground proved to be *Craterellus australis*. This was ca 20mm high with a black-brown, funnel-shaped cap with a ragged edge and grey decurrent gill folds. We are familiar with *Craterellus cornucopioides* which differs by being larger to 200mm high. C. australis has been seen here before.

We found numerous *Cortinarius fibrillosus* in all stages of development. They all had whitish fibrils on the brown cap. Of interest were very young specimens which had pinkish-brown, deeply convex caps, totally covered with white fibrils. The white veil (cortina) was intact and clearly visible.

Hygrocybe graminicolor up to about a certain age has a green glutinous cap with a dark green centre and paler margin; gills are white with a grey-green glutinous thread along the edge, and run slightly down the green stem which is yellowish at the base. One of the identifying features is the glutinous edge on the gills, but Paul George has noticed that this can be absent as a result of drying out. This is often when the colours change to 'straw-coloured or with orange tints', but the greenish-yellow tints in the stem remain. A.M Young, Fungi of Australia, Hygrophoraceae writes: 'This variable taxon is the most common green, viscid species in eastern Australia.', and they were numerous throughout our foray.

Lactarius clarkeae had a dark orange velvety cap and stem, and white gills. It looked very similar to *Russula flocktoniae*. However, the gills exuded white latex, indicating that it was a *Lactarius* sp, not its counterpart *R. flocktoniae*. In both species the flesh is crumbly and the stipe will snap like a piece of chalk. Another orange-gold species was *Gymnopilus allantopus* which can easily be identified by a couple of features - the characteristic 'stitching' around the orange-brown cap margin and horizontal banding of white fibres on a whitish stem.

A large whitish gilled fungus had us confused - was it a *Leucoagaricus*? It had numerous pendant veil remnants around the margin of the creamy-white cap, creamy-white gills that were finely attached and a stem that widenened towards the base. Virgil Hubregtse took it home and did microscopical work which suggested that it was some sort of *Amanita*. Dr Tom May had commented that the finely attached gills can be the case with some *Amanita* spp.

Thanks to Virgil Hubregtse for her input.

Ed Grey & Pat Grey

Young specimens, *Cortinarius fribrillosus* Photo: Ed Grey

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Tanami Expedition
13 Day Camping Tour - Departs 15th June 2012
Join us to see the birds and other wildlife at Newhaven Station and Lake Gregory.

Kimberley Discovery
16 Day Camping Tour - Departs 2nd June 2012 & 26th June 2012
Explore the wildlife & gorges of this unspoiled wilderness area.

Rudall River Expedition
14 Day Camping Tour - Departs 7th July 2012
Experience the very remote, harsh yet beautiful Rudall River National Park.

Western Explorer
14 Day Camping Tour - Departs 21st July 2012
Explore the unique botanical highlights of the Kennedy Ranges, Mt Augustus & Karijini National Park.

Lorna Glen Expedition
11 Day Camping Tour - Departs 4th August 2012
See the diverse flora and fauna at remote Lorna Glen Station north east of Wiluna, Western Australia.

Holland Track & Great Western Woodlands
12 Day Camping Tour - Departs 28th August 2012
See the wildlife of the world's largest temperate woodland.

Midwest Wildflowers
10 Day Accommodated Tour - Departs September 2012
See the botanical hot-spots north of Perth during wildflower season.

Western Australian Outback Expedition (Recce)
15 Day Camping Recce - Departs 22nd September 2012
Explore remote outback tracks and the Eyre Bird Observatory.

South West Birds & Botany
15 Day Accommodated Tour - Departs October 2012
Witness the beauty and biodiversity of WA's South West during wildflower season.

Costa Rica Wildlife Safari
15 Day Accommodated Tour - Departs October 2012
See the most environmentally friendly country in the world!

Christmas & Cocos Islands
9 Day Accommodated Tour - Departs 15th November 2012
Explore the remarkable wildlife and botany of the islands - they are a naturalist's paradise.

Lord Howe Island
8 Day Accommodated Tour - Departs November 2012
Join Ian Hutton - Lord Howe Island's resident expert to see one of the world's most fascinating natural history destinations.

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Marine Research Group News

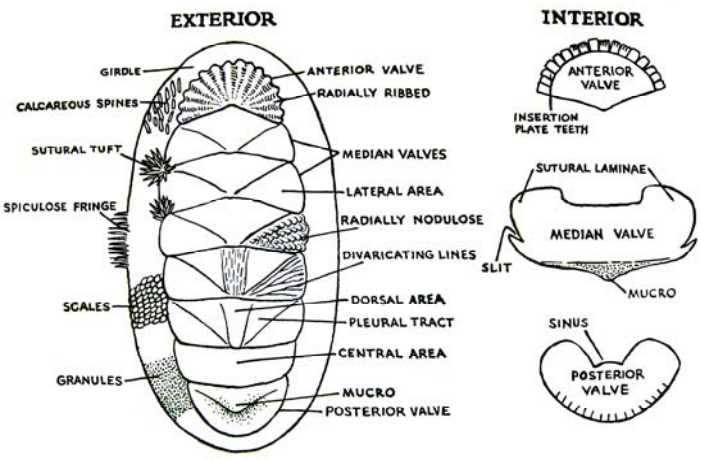
Report on MRG meeting Monday 12 September, 2011: Mr. Leon Altoff, Secretary of the MRG, spoke on 'Identifying Victoria's intertidal chitons'

This talk was based on a presentation to the MRG made by the late Clarrie Handreck on Mon. 13 August, 2001 (see FNN 103, October, 2001), with Clarrie's notes expanded by Robert Burn, Audrey Falconer and Leon Altoff. To these notes Leon and Audrey added field photographs and locality records to produce a detailed booklet entitled "Guide to Victoria's Chitons", which was distributed at the meeting. Many specimens were also brought for some "hands-on" examination of key features. This summary is based on Leon's talk and data from this booklet and the selected references.

Leon began his talk with an overview of chitons. They have eight plates (or valves) surrounded by a muscular girdle. The class name Polyplacophora is derived from the Greek words *poly* (many), *placo* (plates) and *phora* (bearing or carrying). There are some 800 species of chitons worldwide with about 70 occurring in Victoria, grouped across seven families. The MRG has field records of 61 Victorian species. Leon then went on to discuss the key external features of chitons including valve sculpture and girdle form and features, all essential aspects in identification of species. The valves articulate with each other via insertion plates which often bear teeth or slits and constitute important higher taxonomic characters, but are features that are not evident in live specimens. Fortunately, however, species identification can generally proceed reliably on purely external features. This summary will focus on the higher taxonomy, with individual species well outlined in the selected reading. The seven families represented in Victoria are:

Lepidopleuridae: small chitons; valves lack insertion plates, are usually uniformly coloured, thin and fragile with often pustulose sculpture; girdle narrow and may bear scales or glassy spicules.

Choriplacidae: tegmentum much reduced, with a fleshy and microscopically spiculose girdle. The family is monotypic, represented by the small species *Choriplax grayi* (H. Adams and Angas, 1864,



External and internal features and range of orna-

Chitonidae: a large family, characterised by insertion plates with slits on all valves, insertion plate teeth scalloped or pectinate.

Acanthochitonidae: a large family of small to large chitons with insertion slits on all valves (insertion plate teeth never scalloped), usually five slits in anterior valve; tegmentum reduced, often with pustulose sculpture; no radial ribbing on anterior or posterior valves; aesthetes absent; girdle spiculose usually with spiculose tufts.

Cryptoplacidae: elongate, vermiform chitons with reduced valves that seldom articulate in adults; valves sculptured with granules sometimes forming lines in dorsal area; central and lateral areas often show no differentiation; insertion plates on all valves, with insertion plates never pectinate; aesthetes absent; girdle well developed, leathery, covered by spicules and scales and usually with sutural tufts.

We thank Leon, Audrey and Robert Burn greatly for their considerable efforts in producing an outstanding talk with many photographs, specimens for exhibit, and a beautiful booklet.

Selected references:

Altoff L, Burn R, Falconer A, Handreck C (in alphabetical order) (2011). *Guide to Victoria's chitons.* Privately printed booklet, September, 2011.

Gowlett Holmes K (2001). Polyplacophora. pp.19-84, in Wells A & Houston WWK (eds). *Zoological Catalogue of Australia. Vol. 17.2. Mollusca: Aplacophora, Polyplacophora, caphopoda, Cepahalopoda.* Melbourne, CSIRO Publishing, 353 pp.

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