Field Nats News No.221

Newsletter of the Field Naturalists Club of Victoria Inc.
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Understanding Our Natural World
Est. 1880

Patron: Governor of Victoria

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

July 2012

From the President

Hello members. Welcome to the July issue of Field Nats News. Well recent rain and windy weather and of course the deciduous trees are showing us winter is well and truly here.

Solar Panels
As can be read elsewhere in the newsletter, a member of council has donated $3000 to the FNCV for the installation of solar panels on the roof. This brings our total to over $4000 to be put towards this project. While we can purchase a solar system for this price, I have some doubts as to the quality. Therefore I am asking if there are members who would like to make a donation towards this system, so that we can get it underway before the end of June. This would mean that the Presidents' Appeal that has been conducted over the past year or so could come to its full fruition. If you are willing to make a donation please contact Hali in the office or myself on 0409090955 by this Friday 22nd June.
*** (see update below)**

Noisy Miners
It is with much interest that I received a recommendation from the Scientific Advisory Council, this week, announcing that Noisy Miners havebeen recommended to be listed as a threat under the guidelines of the Flora and Fauna Guarantee Act.

Honeymoon
It was very nice to get away from Melbourne to see some more South Pacific Islands on Kathy and my honeymoon. We visited New Caledonia, The Loyalty Islands, Vanuatu and the Isle of Pines. Numerous birds were seen from the boat including Masked and Red-footed Boobies. Snorkelling in the lagoons was terrific. We also saw plenty of birds, butterflies and reptiles on the islands.

Thank you to all the members to gave us their best wishes.

John Harris

John and Kathy's wedding day
- Photo: S. Bewsher

***Update:** There has been a fantastic response to our recent emails including a donation of $2000 and several other amounts from our wonderfully generous membership. Altogether the Solar Panel Fund now totals approximately $7000.

Due date for FNN 222 is **MONDAY 2ND JULY—** Note one day earlier than usual. FNN will go to the printers on Tuesday 10th July. Collation 17th July.

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

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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.

July

Sunday 1st – Fungi Group. *Fungi Foray* - 10.30 am Bunyip State Park, Gembrook, Mortimer Picnic Ground, off the Gembrook – Tonimbuk Road (MEL Edition 37 Page 14 R12). Contact: Virgil Hubregtse 9560 7775.

Monday 2nd – Fungi Group. Meeting - *Dry-land Fungi.* Speaker: Richard Hartland. Richard works in Grassland and Woodland management. Contact: Virgil Hubregtse 9560 7775.

Tuesday 3rd - Fauna Survey Group. Meeting - *Turtle research.* Speaker: Graeme Stockfeld. Australian Freshwater Turtle Conservation and Research Association. Contact: Sally Bewsher 9752 1418 AH.

Wednesday 4th Grey-headed Flying Fox count. Meet at Yarra Bend Golf Course carpark, Mel2D G7 at 5.15 pm. RSVP as a courtesy to Megan Davidson 9380 5062; mdavidson@latrobe.edu.au

Sunday 8th – Fungi Group. *Fungi Foray* - 10.30 am Woodlands Historic Park, Greenvale (MEL Edition 37 Map 178 C6) WHP 101 entrance off Somerton Road. Meet first carpark. Contact: Virgil Hubregtse 9560 7775.

Sunday 8th – Juniors' Group. Excursion – Dingo Discovery Centre in Melton. Join us to learn about these fascinating native animals. There should be some puppies too! Contact: Claire Ferguson 8060 2474; toclairef@gmail.com

Monday 9th – Marine Research Group. Meeting - *A Voyage South – Ice, animals and adventures in Western Antarctica.* In February and March 2012 Mel Mackenzie from Museum Victoria travelled with the British Antarctic Survey on RRS *James Clark Ross* for a scientific research voyage to the Weddell Sea in Western Antarctica. The journey took her from the scenic Falkland Islands to Halley Creek on the Antarctic Ice Shelf, collecting sea cucumbers and seeing many other critters along the way. Contact: Leon Altoff 9530 4180; 0428 669 773.

Sunday 15th – Fungi Group. *Fungi Foray* - 10.30 am Dom Dom Saddle. Meet in car park on Maroondah Highway B360 south of Narbethong in the Yarra Ranges (MEL Edition 37 Map X912 S1) (Vic Roads Edition 4 Map 80 C3).
Contact: Virgil Hubregtse 9560 7775.

Tuesday 17th— Collate FNN 222. Starting about 10.30 am in the hall. Some come a little earlier. Contact Joan 8946 1218.

Wednesday 18th – Microscopy Group. Meeting—Phil Littlejohn (FNCV Member), will speak on ***The Fish Parasite Ichthyophirius Multifiliis (white spot disease***). Phil has worked for Australia's largest fish wholesaler for over 30 years and his main interest is diseases of freshwater fish. Contact Phillippa Burgess 9598 3231 AH.

Thursday 19th – Botany Group. Meeting - *Geographical origins of pan-tropical plants, their invasive status and the biogeography of their natural insect enemies*. Presenter: Karen Bell, RBGM. Contact: Heather Eadon
0437 541 918; heathereadon566@gmail.com.

Sunday 22nd – Fungi Group. *Fungi Foray* - 10.30 am Kurth Kiln Regional Park 7 kilometres north of Gembrook (MEL Edition 37 Map X912 S4) (Vic Roads Edition 4 B8). Best to download Parks Victoria Park notes with map. Meet at picnic ground off Beenak Road. Contact: Virgil Hubregtse 9560 7775.

Monday 23rd FNCV Council Meeting - 7.30 pm sharp. Agenda items and apologies to Hali, 9877 9860; admin@fncv.org.au

Tuesday 24th – Day Group. Meeting – *'Surviving the Zambesi'*. Speaker: Mary Gibson, Deakin University. 10.30 am for

(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.

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coffee and a chat. Speaker 11.00 am. Contact Gary Presland 9890 9288

Wednesday 25th – Geology Group. Meeting – *Aurora Photography Adventures*. Speaker: Mr. Phil Hart, Astrophotographer Contact: Kaye Oddie 9329 0635; koddie@bigpond.com

Friday 27th – Juniors' Group. Meeting – *The Helmeted Honeyeater, Victoria's endangered emblem.* Speakers: Bruce and Sue Tardiff, Friends of the Helmeted Honeyeater. Come and hear about this endangered Victorian bird and the efforts to save it from extinction. Contact: Claire Ferguson 8060 2474:toclairef@gmail.com

Sunday 29th – Fungi Group. *Fungi Foray* – 10.30 am Cathedral Range State Park (MEL Edition 37 Map X 910 T9). Meet at Ned's Gully car park. Contact: Virgil Hubregtse 9560 7775.

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

Warmest greetings to these new members who were welcomed into our club at the last Council meeting: Ben Sutton, Rebecca Sutton, Richard Sutton, Melody Sutton, Natalie Eldridge, Clancy Eldridge, Richard Eldridge, Tom Eldridge, Harry Eldridge, Rachel Carey, Adam Carey, Matthew Carey, Ellen Carey, Bess Mansergh, Lil Mansergh, Mahli Asirvadem, Ruby Asirvadem, Aurora Bell.

SEANA CAMP BENDIGO Friday 17th—Monday 20th August

The Bendigo Field Naturalists Club Inc. is pleased to announce that the registration period for the August SEANA Camp in Bendigo is now open. They hope you can come and share the many wonderful experiences the club has planned for the three days.
Registration closes on the 20th July.
Inquiries:
Bendigo Field Naturalists Club Inc. PO Box 396, Bendigo 3552.
info@bendigofnc.com.au

If you would like an email copy of the registration form with all details. Please contact Hali in the FNCV office.

To Mr John Harris, President FNCV
Dear Sir, **Solar Panels to the Club Roof**

This planet is in grave danger from the excess carbon dioxide gas being generated by the species, '*Homo sapiens*'. As a club we are committed to do all that we can to improve the environment, not just for ourselves but for life around us!
Last year we spent money on the club roof to remove the asbestos sheets so that solar panels could be installed. Nothing has yet been done to achieve this aim!
I am a firm believer that these panels need to be installed, in the first instance to help reduce the carbon dioxide being put into the atmosphere, and secondly to reduce our expenditure on electricity.
I therefore propose to make a gift to the club of $3000.00 for solar panels. I make this gift on the condition that an order for the panels be placed with a suitable contractor by the end of this year 2012. If this is not achieved then I require that the sum of $3000.00 be paid back to me on the first day of January 2013.
This letter may be published in the Field Nats News if you feed that additional donations can be made.

Yours Sincerely,
A.D. Brentnall, B.Sc.

Geoscience Victoria Maps Updated

Leon Costermans 28/3/12

FNCV member, geologist and author, Leon Costermans, reported on the welcome publishing in 2011, of updated geological maps for the whole of Victoria by the Dept. of Primary Industries/Geoscience Victoria. The new maps, at a scale of 1:250,000, are accompanied by a large amount of geological information and have been formatted so that they 'seamlessly' join. They can be downloaded from dpistore.efirst.com.au/maps. They are also available on DVD as *Victoria - Seamless Geology*, or in an A3-sized book as *Surface Geology of Victoria 1:250 000*.

Leon noted that topographical maps, especially at a scale of 1:100,000, are also very useful to geologists, because they include many more named features than do the geological maps (especially localities) and because the contours can indicate geological features such as fault escarpments or granite surrounded by its metamorphic aureole. Topographical maps can be sourced from the Victorian Government Bookshop www.bookshop.vic.gov.au as well as other map shops.

With the new maps, excursion leaders and others will be able to more easily avail themselves of greater information on the places they are visiting.

Thanks to Kaye Oddie for this item.

Geology Group

"Secrets in the Sediments – Evidence for our ever-changing Climate"

Talk by Peter Gell
Professor of Environmental Science
School of Science, IT and Engineering,
University of Ballarat
28 March 2012

Professor Gell is a palaeoecologist with 25 years experience examining the impacts of humans and climate on Australian ecosystems, in particular, those relating to rivers and wetlands.

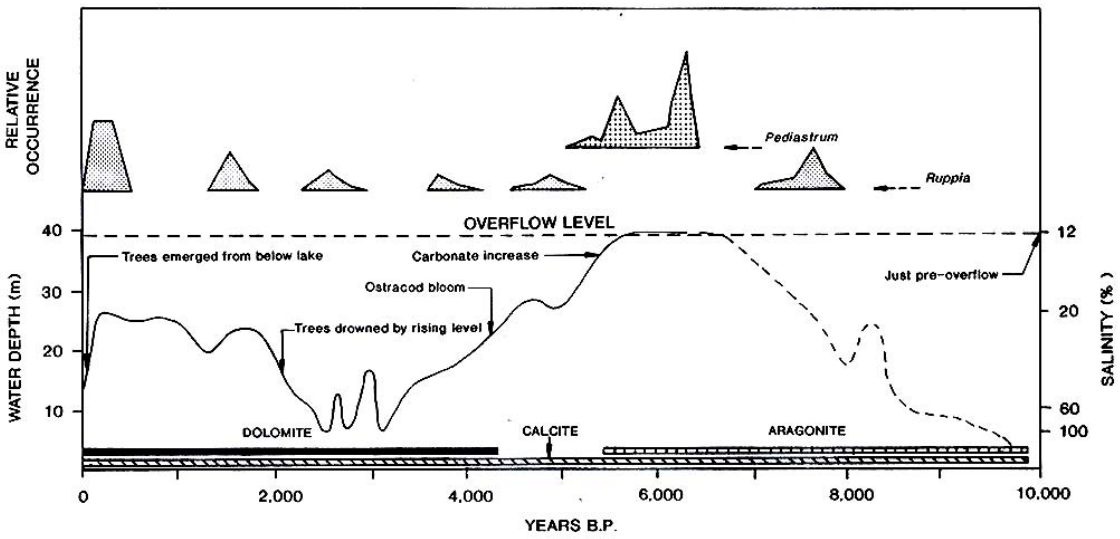
Professor Gell commenced his talk by putting forward a number of questions to be answered through palaeoclimate research into wetlands and rivers to determine past and predict future climate change impacts. Such questions included:
- What conditions have systems experienced before?
- What is the historic range of variability?
- Are past conditions analogues for future scenarios?
- What are trajectories of change?
- How does the impact of climate compare with that of catchment development?

Methodology to do this uses a number of processes:
Assessment of the historic record.

Examination of lake sediments which have widespread distribution in the landscape and extend the climate record through time.

Cores from the sediments of lakes and wetlands can provide chemical, physical and fossil biota evidence through isotope dating (^{210}Pb, ^{137}Cs, ^{14}C) and optical luminescence (OSL) of sandgrains.

Stratigraphic diagrams can be prepared from the cores using pollen from different vegetation types which flourish in different climates. For example, sclerophyll forests are found in drier climates; rainforests in wetter climates; pine forests in colder climates (post European settlement in Australia) and grasses, daisy genera and saltbush in warmer climatic conditions. From the stratigraphic diagrams, the climate record can be inferred from the pollen/vegetation types found plotted versus time. This has been determined back to 200,000 years from the present Holocene period in a core from the Atherton Tableland (by Peter Kershaw) and back to 18,500 years in a core from Tower Hill here in Victoria (by Donna D'Costa).



Salt lakes are one of the best vehicles to reveal past climate change. They are often closed systems where geochemical indicators, such as water balance, levels, different salinities and different ionic ratios influence lake sediments. Salinity is directly influenced by water inputs (precipitation (rain)/seepage) versus outputs (evaporation/leakage). When lake level rises, salinity falls; when lake level falls, salinity rises. Another example is the relationship with carbonate geochemistry. As lake levels decline and salinity increases, a sequence of carbonate precipitates may be produced: calcite, dolomite, magnesite and halite. Past salinity levels are directly indicative of past climates.

Biological indicators can also be used to measure salinity in sediments. For example, different species of diatoms – single-celled algae that have been around since the Cretaceous period – will tolerate different levels of salt. There are 11,000 species of diatoms worldwide. Sampling of diatoms and their specific identification will indicate salinity levels. Also, the presence or absence of diatoms can be linked with other factors, such as turbidity and nutrient levels and plotted in time. Professor Gell described a number of lakes he and his students have researched for their indicative diatom records. These include Tower Hill Main Lake, Lake Surprise/Eccles, Lake Colac, Lake Keilambete and others in the Western District.

Other bioindicators such as ostracod bivalve shell chemistry can also be 'married' with diatom inferred records of salinity.

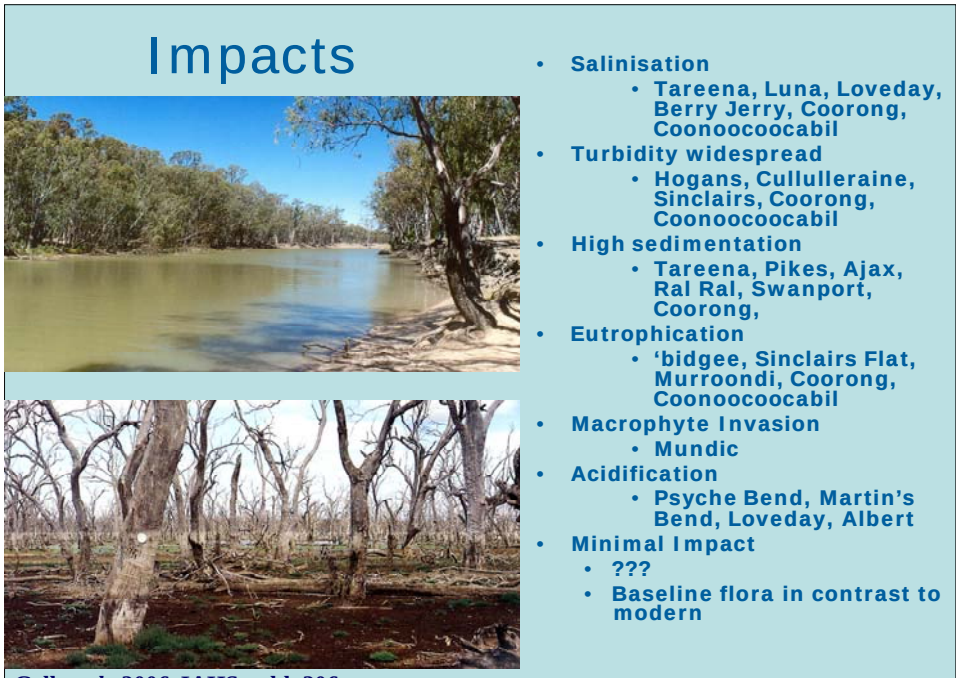
Thus a multidisciplinary approach is made possible by combining a number of bioindicators and allows the production of robust research models to derive past salinity, and so climate Professor Gell has also studied water and salinity associated changes in billabongs in the Murray Darling Basin (MDB).

From European settlement in 1840s to today, irrigation, barrages and development have resulted in over 80% of the mean annual flow being diverted. The development of this water occurred during a flood dominated regime. Now, in a drought dominated regime, we have over-

committed the available resource. At Tareena Billabong (southwest NSW), indicators of increasing salinisation have come from increases in diatom-inferred salinity and at Blanche-

tion of Professor Gell's informative and detailed talk relating to what is a most relevant issue.

Kaye Oddie



Gell *et al*., 2006. IAHS publ. 306.

town (Sinclair Flat), from turbidity-related changes.

At Sinclair Flat, whereas there was previously clear water with epiphytes, a stepped rise in planktonics has led to the current turbid, eutrophic, brackish water. A summary of such changes found in the MDB is shown in the above diagram.

Professor Gell summarised his findings by stating that available scientific evidence has revealed that SE Australia has experienced considerable climate change at a range of timescales. Whilst natural systems have been resilient to historical changes, a recent statistically significant step change towards regionally drier conditions comes at a time when the system is severely stressed by anthropocentric activities, especially from agriculture and water regulation.

He left us considering policy and management for the MDB, that, based on the longer-term record, should prepare consumers for a lower use future by recognising their 'living beyond their means'; that 'subsidies' help people ***not*** to change; and that a new thinking and reorganisation approach is required. The meeting expressed their apprecia-

Working with Melbourne Museum Palaeontology Collection

Talk by Ms Lisa Nink
Museum Victoria, *25 April 2012*

At our meeting on April 25th, members of the Geology SIG were inspired and educated by Lisa Nink, one of our younger members, who works as a Schools Presenter at Melbourne Museum. However, after she finishes work, she disappears into the basements of the Exhibition Buildings to volunteer in the Palaeontology Laboratory. In her holidays, she volunteers at the Dinosaur Digs at Inverloch and Cape Otway. Who says volunteers have to be retirees or have lots of spare time!

Lisa's talk described her volunteer work in great detail with an impressive PowerPoint display. She described the Melbourne Museum's rocks and minerals collection and then explained how fossils are extracted from their mother rocks, using a variety of techniques – including acid preparation and/or painstakingly


Heavy duty extraction with rock saw around the fossil site. Erich the Red Site (Otways) *Photo: Lisa Nink*

brushing and picking away the matrix (surrounding rock) from more fragile fossils until the fossil is revealed.

The Inverloch Flatrocks site is a rich source of Cretaceous fossils including dinosaurs. The first fossil was found at Eagles Nest (near Inverloch) by William Ferguson in 1903, but it took until the 1970's before the area was explored more thoroughly by Tim Flannery and John Long. More than 10,000 fossils have been found in the area since 1991. 'The Hole', which is the site where the diggers access the richest fossil layer, is filled by every tide. Hence, the emptying of the area takes some time and ingenuity at each survey. Lisa described the hard work of finding and extracting the fossil rocks.

During the Cretaceous, Australia was much further south and a gradually widening rift valley had formed between Australia and Antarctica. The volcanoclastic grey sandstone is the result of material eroding from nearby volcanoes being washed into the rift valley. Big floods periodically came through the valley at 50-100 year intervals – large tree trunks and the bodies of many dinosaurs and other animals were washed down in these floods, tumbled about, covered in mud, and thereby fossilised.

Cape Otway, at the Erich the Red West site, has fewer fossils than the Inverloch site, where most of the fossils are found in one concentrated layer. At Cape Otway, the fossils are found in dips carved out by the flow of floodwaters across the ancient river plain.

Many plant fossils of many varieties of

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(Continued from page 5)
Araucarian pines, ferns, Gingko, etc. have been found at both sites, but perhaps the most exciting fossils are those of animals – particularly dinosaurs. Lisa described a number of the most interesting finds – one of which was reported in *The Age* a few weeks after the talk (an ankle bone from a dinosaur found at San Remo described as a ceratosaur by Dr Erich Fitzgerald, Curator of Vertebrate Palaeontology at Melbourne Museum (see http://www.theage.com.au/victoria/plugging-a-gap-in-dinosaur-records-20120507-1y938.html). Therapod teeth of a massive meat-eating dinosaur, which are very like the teeth of *Australovenator Wintonensis*, a dinosaur discovered in Winton,

Late Cretaceous Bird furcul (wishbone). Flatrocks (Inverloch) *Photo: D Pickering*

QLD – have also been found and "Noddy"- a partialy articulated skeleton of an ornithopod dinosaur was found inside a nodule. The fossil has the stomach contents and possibly some skin well preserved. The finding of a *Leallyrasaura amicagrafica* with its large eyes and optical lobes of the brain has sparked speculation as to how the animal coped with the cold, seasonally dark world of the Cretaceous. Recent research on the lines of arrested growth in the bones of dinosaurs by Dr Holly Woodwood, tell us the rate at which they grew throughout the year and show that Victorian dinosaurs do not appear to have hibernated during winter.

It is not only Australian dinosaur fossils that are of interest, for some small mammal bones have been found showing that mammals were present in the late Cretaceous.

This was a most informative talk, well appreciated by the large audience and we express our thanks to Lisa.

Ruth Hoskin

Fungi Group

FNCV FUNGI GROUP FORAY

29 APRIL 2012

Badger Weir, near Healesville

Recent rain raised our hopes for a good day's foraying in an area we had not worked in before. Surprisingly, most of the species were very young and immature although some were old and past it.

In the morning, our group crossed Badger Creek and walked along the Lyrebird Track on the eastern slopes. After lunch we followed the Stringybark Track.

On forays our group can become spread out making it difficult for everyone to see interesting specimens. Glenyce found a great solution to indicate the location of these fungi; she has made red flags pasted onto wooden skewers – they work very well.

At the start of the foray we found *Mycena austrofilopes*, scattered in the litter, which had a whitish bloom on the cap. This characteristic differentiates it from the similar-looking *M. albidofusca* which has a pale spot (lens) at the centre of the cap. We also saw a few *M. cystidiosa.* This is a taller litter species with a darker cap centre and was confidently identified by white thread-like criniform stipes weaving through the litter. As this was the start of their season, only a few small criniform stipes were seen. Orange fruit–bodies of the 'weedy' *Favolaschia calocera* massed on a log attracted Jenny's attention. It has a small (20mm or more) bright orange fruit-body and rather large pores under the cap. This species has recently arrived in Australia and is spreading rapidly throughout Victoria. We are very concerned that it may out-compete our native suite of wood-rotting fungi in the struggle for food.

The tiny *Mycena* sp. 'tiny blue lights' was growing on the stem of fallen tree-fern fronds (rachises) of *Cyathea australis* (Rough Tree-fern). Many of the caps had gone whitish but the stems retained the blue colour, and the 'buds' were deep blue and furry. Now that have got our 'eye in' and know where they grow and where to look, we see them quite regularly in wet forests, e.g. Melba Gully, Bunyip State Park.

The yellow *Pluteus* sp. was found on a rotting piece of wood - a mustard yellow cap with yellow margin, free yellow gills, and yellow stem. Jurrie and Virgil had worked on this species and found that it is most likely an undescribed Australian species. In Field Guides this yellow fungus is often referred to as *P. lutescens* (syn *P. romellii*), but *P. lutescens* has a dark brown cap. Microscopic details also separate the two species. (Hubregtse, J. and Hubregtse, V. (2011) "Preliminary observations on an undescribed *Pluteus* species". *The Victorian Naturalist* Vol. 128 (3), pp. 111–115).

Several specimens of *Laccaria* sp. B were found and Elizabeth Sheedy, pointed out the salient features – the convex, orange-brown, striate cap, pale gills and, in particular, clusters of cells

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Pluteus sp. 'Yellow' *Photo: Pat Grey*

(Continued from page 6)
at the top of the stem (visible under hand lens). On one specimen the cluster of cells at the top of the stem was not clearly evident, but on another it could clearly be seen. For her Ph.D, Elizabeth is studying the relationships within this genera using DNA sequencing.

On the trunk bark of a *Eucalyptus obliqua* Messmate were troops of a brown-capped, dark- stemmed *Marasmius* type species. These were growing from near ground level to some two metres high. In the afternoon Bill found some more specimens and we could distinctly smell the sour cabbage odour. This species differed from the more familiar, similarly smelling Little Stinker *Marasmiellus affixus* by its whitish colour, fan-like fruit-body and its substrate of small branches and twigs. For the brown-capped *Marasmius* sp. there were two possible contenders – *Marasmiellus foetidus* (B Fuhrer, 2005, Australian Fungi no 178) (now *Micromphale foetidum)*, and *Micromphale mirramirildinum*. Samples were taken for further identification and showed the white spore size to be 8.5-9.5 x 3.0-3.5 microns. This is smaller than the 8,6-12.0 x 5.0-8.2 microns given for *Micromphale mirramirildinum* in CA Grgurinovic 1997, *Larger Fungi of South Australia* p356 and matches the size for *Micromphale foetidum*. A collection will be made for RBG.

At the end of the foray, just off the track in a clearing, a pile of logs and litter grew several more common fungi: *Schitophyllum commune* (Split Gill); *Panellus stipticus*; *Polyporus melanopus* (Black Leg); *Calocera sinensis*, again just single spikes, and another troop of the grey-capped *Coprinus* sp. In the mulch beneath the log was *Leratiomyces ceres* (*Stropharia aurantiaca*) and *Cruentomycena viscidocruenta (Mycena viscidocruenta).*

During this foray, since the larger specimens were not in evidence, we got down to looking at minute fruit-bodies usually on a woody substrate. The yellow of the 0.5mm hairy discs and stem of *Lachnum lachnoderma* was seen on a small piece of eucalypt bark and some minute white *Mycena* sp.(cap diameter to 1mm) were seen as well as others. Samples of some were taken to look at under the microscope at home.

In the car-park area Ivan found a couple of examples of the gold *Gymnopilus junonius* growing together at the base of a eucalypt. They looked typical of the species. Earlier we had seen what we thought was another *G. junonius*, but it was only a single body and growing a long way up a tree (so we couldn't get close enough to see!). Also in the car park, but close to the toilets in a constructed garden bed, Cecily, as the result of a determined search, found *Cordyceps taylori* under an *Acacia dealbata* Silver Wattle. J H Willis (Victorian Toadstools and Mushrooms 1963, p85) says of Cordyceps, 'The largest of all, and in many ways the most extraordinary member of the genus is *C. taylori*, which occurs only in Victoria and NSW on Big Ghost Moth caterpillars, but is rarely collected. Here a fruiting body divides into numerous stout, roughened branches which suggest the antlers of a stag and this is what we saw. It wasn't that big (120mm tall), but it was dark with two white tips. *Cordyceps taylori* was originally discovered in 1837 on the banks of the Murrumbidgee River, 10 miles from Yass in NSW and parasitizes the larvae of moths in the genus *Trictena*. This is the first time that Pat and I have seen this species.

Thank you to everyone.

Ed and Pat Grey

Mycena sp. "Tiny blue lights'.
Photo: Ed Grey

Thanks to the editorial and layout team for FNN 221

Joan Broadberry
Noel Schleiger
Platon Vafiadis
Hali Ferguson
Sally Bewsher

Library News

With winter fast upon us, book borrowings have been brisk in the past month, with members stocking up for a bit of indoor activity during the cold weather. Given the season, it is not surprising that a large proportion of the volumes borrowed are about fungi and none are about insects.

Recently-received periodicals show no such seasonality, of course. Some of the more interesting articles to be found in the latest journals include:

- *Australian Geographic* 108 has an article about Christmas and Cocos Islands, and also looks at the Australian settlers who emigrated to Paraguay in the 1890s to found a utopian settlement.
- Australian Journal of Botany 60(3) is devoted to pollen morphology in Myrtaceae.
- *Records of the Queen Victoria Museum* (Launceston) 116 reports on the survival of endemic invertebrates of Lake Pedder in Tasmania after it was inundated. The good news is that, despite concerns at the time that these animals faced extinction, all the invertebrates studied have held on.

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.

Gary Presland, Honorary Librarian

FNCV FUNGI GROUP FORAY UPPER YARRA RESERVOIR

6th May 2012

Early drizzle had cleared to a fine day when 10 people met in the car park. Unusually, for this site, our morning was spent between the car park and the bridge over the Yarra River. We were surprised at the number and variety of fungi and this kept us all busy.

Interesting finds included the orange-capped, pale gilled *Lactarius clarkeae,* which exuded a tiny amount of white latex when the gills were scratched. This was followed by a stately group of *Macrolepiota clelandii* at all stages of development and with the typical straight stem plus ring and brown scales on the cap.

By this time we had almost reached the river and were searching on the flat area where Manna Gums and Silver Wattle dominated with an understorey of Prickly Current Bush and Kunzea. The first sighting was of several fruit-bodies of *Xerula australis* (Rooting Shank) from very young to tall mature specimens. *Mycena* species were abundant – *M. albidofusca* with conical radially striated cap and a clear disc-shaped umbo, *M cystidiosa* with numerous white rhizomorphs weaving through the litter (one or two examples lacked these!) and numerous small unidentified white species. A beautiful large example of *Podoscypha petalodes* with a number of rosettes attracted the photographers.

A fallen dead Messmate grew several species – *Fistulina hepatica* (Beefsteak Fungus) with the characteristic radially-ribbed red upper surface and pinkish pores, the white jelly *Tremella fuciformis* (White Brain) and bright purple splashes on the decorticated wood and a piece of bark. These were most likely Corticioid fungi with over 1700 species world-wide. Most have effused (spreading and flattened) fruit-bodies with the spore-bearing surface smooth to granular or spiny and colours range from white to brown although some are brightly coloured as in these specimens. The specimen on the wood was finely spiny (hand lens) and the one on the bark was smooth.

On the 2006 foray, a collection was made of a *Hebeloma – H. victoriense.* There were a number of groups of this species growing on the ground in association with native plant species. The large size, cream to buff cap, pink gills, ring and torn veil remnants on the cap margin helped with identification. This collection was made in response to the request from Dr Bettye Rees, a NSW mycologist, for specimens and photos to help with her study into this genus. *Hebeloma* spp.usually have cream-coloured somewhat viscid caps and resemble Agarics in general appearance. Some species e.g. the Poison-pie *H. crustulinoforme* are imports and are known from overseas descriptions. However, our local species are not well known – one exception being the Ghoul Fungus *H. aminophyllum* which is associated with decaying animal carcases. On this occasion we found a brown-capped, pink-brown gilled fungus which we identified, using field characters, as *Hebeloma aminophyllum*. This is usually associated with animal carcases, bones or urine-soaked ground and, in this case, it is most likely that feral deer activities would have provided the nutrients needed for the fungus to fruit.

Fistulina hepatica Photo: Pat Grey

After lunch we finally crossed the

Macolepiota clelandii Photo: Ed Grey

bridge into the wet forest along Doctors Creek Track. Two specimens of the whitish bracket *Ryvardenia campyla* with golden droplets on the surface were at the base of a Manna Gum. Further along we found numbers of Marasmioid fungi – the white *Marasmiellus candidus* on a dead standing sapling, the white *Marasmiellus affixus* (Little Stinker) on a log and the brownish-capped dark-stemmed *Micromphale foetidum* with its distinctive odour of rotting cabbage. These added to our days tally which also included *Marasmius alveolaris* with scooped-out parts of the cap, and lots of the 'horse-hair' species which included what we call *M. crinisequi* with the pimple in the dimple on the cap .

Finally Jenny added to our finds by seeing a Platypus swimming in Doctors Creek. Thanks to all our keen forayers for a good day.

Ed Grey

FNCV AGM 6.5.12
Aspects of FNCV History

Gary Presland spoke about the history of FNCV, focusing on three aspects that he thought characterised the club. He introduced his talk with a brief history of the founding of the club, in May 1880. An advertisement was placed in *The Argus*, inviting interested people to attend a meeting at the Athenæum on 6 May 1880; 30 people responded to this notice ad the club was formed in the following weeks. Professor Frederick McCoy was the inaugural president.

Some aspects of the club emerged at the very beginning, and Dr Presland focused for the remainder of his talk on three of these — women, excursions, connections to the National Museum of Victoria, and conservation.

Women had been encouraged to join at the very beginning and took part in the early excursions and camp outs. Two women were elected to the Committee as early as 1885, although it was 1947 before the first female President was elected. This could be compared to the Linnean Society of NSW, where women were first admitted as associate members 11 years after the Society was formed, and were not enrolled as full members until 1909, 35 years after the Society was formed.

Excursions have been a fundamental part of the FNCV since the beginning, and there have been thousands of them in the 132-year-history of the club. While the vast majority of excursions have been local and small scale, there have been a number of larger expeditions to places outside of Victoria, including King Island in November 1887 and the Furneaux Islands in 1893. The 1905 trip to Wilson Promontory was of major significance. Gary pointed out that the newly extended railway lines were of inestimable value to the Field naturalists in providing greater access to their usual areas of interest, and in opening up new areas. The intent of excursions and the ways in which they were conducted have changed through the history of the club. In the many years that Marie Allender was Excursion Secretary, there were many outings organised using buses, and even a trip to New Zealand.

From the beginning of the club it was closely connected to the National Museum of Victoria. These connections had benefits for both parties: for the scientists, it often provided the means by which they were able to extend the range of their collecting activities; for the naturalists, the benefits were essentially twofold: firstly they gained through association with professionals in the natural history areas; and secondly the work of the professionals helped to give meaning to the research and collecting activities of the amateurs. This shared history of the two institutions was apparent in at least three ways.

Firstly, the links were between senior staff of the Museum and the executive of the Field Nats. The first three Directors of the NMV—Frederick McCoy, Baldwin Spencer and James Kershaw—served terms as president of FNCV. Many other prominent members of FNCV had connections with NMV, including CJ Gabriel, AS Kenyon, SR Mitchell, AG Campbell and FA Cudmore. All of these men were Honorary Associates at the Museum. In the 1980s Brian Smith was a curator at the Museum as well as president of FNCV.

Secondly, Museum collections were greatly augmented through the collecting activities of FNCV members during numerous field trips and excursions. Many private collections ended up at the NMV, including the Cudmore collection of Teritiary fossils (1937); the Gatliff collection of more than 35,000 mollusc specimens (1935); Gabriel shell collections (1962); as well as thousands of Aboriginal artefact collected by FNCV member RH Croll, AS Kenyon, and SR Mitchell.

Thirdly, FNCV members have been responsible for a great deal of value-adding to Museum collections. The best example of this is in the area of marine studies. Members of the Marine Research Group, led by the late Clarrie Handreck have put in tens of thousands of volunteer hours working on the museum marine invertebrate collections. Clarrie and a band of volunteers and staff registered approximately 18 900 lots of specimens. In total, he was directly or indirectly involved in the registration of approximately 29,300 lots.

The FNCV has had a long and enduring impact on many aspects of Victoria's conservation and preservation movements. In a number of phases, this work has been central to the push for legislation to protect the flora and fauna and landscape of Victoria. The movement to permanently reserve Wilsons Prom in the 1880s and '90s was led by FNCV. In the 1930s, '40s and '50s Crosbie Morrison and FNCV led the campaign for better management of Victoria's national parks. This resulted ultimately in the creation in 1957 of the National Parks Association, with Morrison subsequently as Director. The FNCV has been involved in many other conservation issues. Locally, the Club's advocacy of public nature reserves has left a legacy that includes Wattle Park and Maranoa Gardens. In addition the club has spawned other organisations with specific concerns, including the VNPA, the Native Plants Preservation Society, and the Society for Growing Native Plants, now Plants Australia.

Gary Presland

Many thanks to those who helped collate and label FNN 220

Andy Brentnall
Edward Brentnall &Hazel Brentnall
Margaret Brewster
Margaret Corrick
Keith Marshall
Bill Fenner
Bob Rowlands
Noel Schleiger
Joan Broadberry

Special thanks to **Ray Power** who made a special trip to the hall on Monday to set up the post office trays and do the paperwork**.**

Day Group

Birdwatching & Nature on Christmas Island

22nd May

Christmas Island, (CI), is familiar to us all. However, beyond its sad and difficult association with the detention of asylum seekers, most people know little about it. I recently visited Christmas Island as a tourist and discovered a remarkable place.

Holidaying on CI is similar to visiting Norfolk or Lord Howe Islands. Simply buy a ticket, book accommodation and hire a car. The flight, originating from Perth international airport, takes about four hours. I was on a bird-watching trip which included four nights on the even more isolated Cocos (Keeling) Island, and eight nights on Christmas Island. Having a passion for nature, it was a trip that ticked all boxes for me. This remote tropical island, of which 63% is National Park, has been called "the Galapagos of the Indian Ocean". It was uninhabited until the late 19th century, so its wildlife evolved in isolation over millions of years as has occurred in the Galapagos Islands. It is now an Australian Territory, full of natural wonders including abundant birdlife, stands of primary rainforest, the world's largest land crabs, beautiful coral reefs and surprising marine creatures. David Attenborough has spoken of the annual migration of its Red Crabs as one of the great wildlife spectacles of the world.

Robber crab ***Photo: J. Broadberry***

Ten degrees south of the equator, CI is the tip of an ancient, submarine volcano. It is surrounded by jagged limestone cliffs, which rise gently to a forested central plateau. Apart from one sheltered harbour, Flying Fish Cove, the ring of cliffs is broken by only a few tiny beaches. Coral gardens cling to the steep sides of the island, with the drop off into deep water being only metres from the shore. I was lucky to strike a week when the sea was flat and snorkeling, either from a beach or boat was very easy and truly spectacular. Not only were there exquisite corals and fish, but rays, dolphins and to my great surprise Whalesharks. It appears Whalesharks, being filter feeders, regularly appear when the Red Crabs release their eggs. Swimming alongside these gentle goliaths was an indescribable thrill.

Red crab migration

CI is a kingdom of crabs. Twenty species, of which thirteen are land crabs, have evolved to fill almost every ecological niche. CI contains the largest remaining population of Robber Crabs, (also known as Coconut Crabs), in the Indopacific. Robber Crabs are the top land predators and can live for over 50 years. Their leg span can exceed a metre and their claws are strong enough to husk and break into a coconut. It is a unique experience to be walking along a jungle track and meet a crustation larger than a baby. Robber Crabs are characters and fun to observe. Although protected, sadly, many are killed on the island's roads.

The supreme event in CI's natural history year is the Red Crab migration. This species of land crab inhabit the forest floor, peacefully consuming fallen vegetation. Around about November at the start of the wet season, they march out of the jungle in their millions to mate and spawn on the coast. The migration is a complex event lasting several weeks. It goes through a number of stages, for example, the males migrate first and, after dipping in salt water, excavate burrows to receive the females. Temporary barriers are erected along some of the island's roads to try to control the crab's route, but for a few weeks they clamber everywhere and it is amazing how easy it is to adapt to and enjoy their harmless, persistent presence.

The CI sky is crowded with frigatebirds, terns, boobies and tropicbirds. The Golden Bosun or White-tailed Tropicbird, with its elegant tail streamers, is one the most beautiful sights in the bird world. Eight species or subspecies of seabirds nest on the island. The most numerous are Red -footed Boobies. Their colonies can be seen in the forest just behind the settlement at Flying Fish Cove. Some birds such as Abbott's Booby are very rare. Seven of the thirteen species of land birds are endemic including the inquisitive Christmas Island Thrush.

Being only a few hundred kilometres south of Java, quite a few vagrant bird species turn up, creating a magnetic pull to serious bird watchers.

As well as a wealth of natural and historic attractions, CI enjoys modern infrastructure and a wonderful Malay-Chinese cultural heritage and cuisine. Despite the unsettling presence of the detention facility, it retains the unhurried pace and lifestyle of a place as yet unspoiled by mass tourism.

Joan Broadberry

Marine Research Group News

Report on the MRG meeting Monday 14 May, 2012: Review of 2012 field trips.

Introductory comments: The recent passing of prolific naturalist and underwater photographer **Neville Coleman** following a long illness was noted with sadness. The MRG had the good fortune to be accompanied by Neville on a field trip to Point Danger, Torquay on 14 December, 2000 during his quest to add Victorian opisthobranchs to his then upcoming book '1010 nudibranchs'. The list of finds on the day was impressive (see MRG news, FNN 96, p.9, March 2001). Neville was also good enough to give the MRG a talk at the FNCV on Monday 11th December 2000. In his uniquely energetic and enthusiastic style, he shared some of his wide-ranging observations on a variety of marine (and terrestrial) animals; this talk is summarised in the MRG news of FNN 95, p.13, February, 2001.

His books show that he was deeply moved by what he saw in the field and the general awareness of the beauty, complexity and fragility of the natural world raised by his many publications has served to inject some urgency into the push for conservation. Neville will be sadly missed by all - rest in peace.

Preliminary items: **Audrey Falconer** showed an impressive book she recently acquired entitled 'Marine benthic flora of Chilean Patagonia'.

Joan Broadberry showed carapaces of the giant spider crabs *Leptomithrax gaimardii* washed up near Swan Bay, southern Port Phillip Bay.

Main presentations, listed in order of progression: **Margaret Rowe** showed images of plakarthriid isopods from Honeysuckle Point and Cape Paterson, and an array of amphipods from multiple localities , highlighting some of the features that can help to identify animals in the field.

Joan Broadberry showed scenic photos from various localities including The Jawbone, Williamstown, Honeysuckle Point, Inverloch and Cape Paterson, noting that for historic purposes some images occasionally need to be taken of members during MRG activities (because of this, Joan was able to contribute photos of the late Clarrie Handreck for the commemorative Vic Nat issue in his honour (vol. 127, no. 6, 2010).

John Eichler showed a variety of well-taken images including the giant barnacle *Austromegabalanus nigrescens*; the sand octopus *Octopus kaurna* from Portland; the shrimps *Alpheus novaezelandiae* and *Alpheus villosus* from Shoreham; the nudibranchs *Dendrodoris maugeansis*, *Discodoris paroa*, and *Rostanga calamus* from Murrells beach, Portland region; the snail *Fusus reticulatus* from Portland; the beautiful blue nudibranch *Phyllodesmium macphersonae* from Twin Reefs, and the very uncommon sea stars *Meridiastra nigronota* and *Meridiastra fissura* from Flinders Ocean Beach. Large and variably coloured specimens of the sea star *Petricia vernicina* from Shoreham were also displayed, individuals ranging in colour from orange, brown-orange and red-purple. The uncommonly seen crab *Ebalia (Phlyxia) dentifrons* from Shoreham was also very pleasing.

Alpheus villosus at Honeysuckle Point Shoreham. 12 April, 2012. Photo: P. Vafiadis

Barbara Hall showed a variety of images from The Jawbone Williamstown including the bivalve *Katelysia rhytiphora*, the burrowing opisthobranch *Philine angasi* and the creeper *Zeacumantus diemenensis*. From other localities, the shrimps *Alpheus richardsoni*, *Alpheus villosus*, *Alpheus novaezelandiae* and various other shrimps were shown.

Leon Altoff showed very many images covering a wide variety of groups, which included sponges (*Tethya* sp., *Cliona* sp., *Clathria* sp.), anemones (*Cricophorus* cf. *nutrix*, *Oulactis muscosa*, *Phlyctenactis tuberculosa*, *Isanemonia australis*, *Phlyctenanthus australis*), ctenophores (*Coeloplana willeyi*), polychaete worms (sabellids, terebellids, syllids amongst others), flatworms (*Notoplana australis*, *Thysannozoon* sp. and others); nemerteans; barnacles; pycnogonids (*Anoplodactylus evansi* and others); crustaceans (*Dromia* sponge crab, *Actaea peroni*, *Pagurixus handrecki* and others); opisthobranchs (*Philinopsis taronga*, *Phyllodesmium serratum* and others); chitons (Rhyssoplax diaphora); sea stars; holothuroids (including *Neoamphicyclus mutans*, *Chirodota gigas*) and echinoids (*Amblipneustes ovum and Holopneustes inflatus*).

Tosia australis at Honeysuckle Point Shoreham. 12 April, 2012. Photo: P. Vafiadis

Thanks to all who presented and also to all who attended for a very good evening.

Reference and further reading:

Edgar GJ (2008). *Australian marine life. The plants and animals of temperate waters.* Second edition. New Holland Publishers, Sydney.

P. Vafiadis

FROM THE OFFICE..

Speakers Database:

The FNCV Speaker Database is being set up to help promote the club to other interested groups and the wider community. You may have a talk that you are prepared to give to groups outside of the FNCV to educate and stimulate interest in Natural History. Please consider filling in the form and returning it to the office. All talks will be booked at the convenience of the speaker.

Printers Blocks:

We have some very beautiful printer's blocks from *The Victorian Naturalist* dating from the early 1900's up to the 1970's for sale. These blocks are individually priced and on display in the book cupboard and display cabinet in the main hall. We have more than can be displayed, so stocks will be replenished as needed. All money raised from the sale of these blocks goes towards the running costs of the club.

Fungi CD 3rd Edition:

The 3rd Edition of the Fungi CD is now on sale for $15.00, if you wish to purchase a copy please contact the office. We have quite a few of the 2nd Edition in stock so these are being cleared out for $5.00 a copy. These are displayed on the Sale table at the back of the hall.

Donations for Hall

This month's donations are:
Biscuits (packets of biscuits are always needed)., Long Life Milk, Pine o clean wipes (for bin) orGift vouchers from Office Works, Coles or Safeway.

Thanks, Hali

Microscopical Group

The last meeting was a members' night with plenty to look at. Roger Pierson showed prints of microslides of "Bee Poo" and spoke of the conflict between the USA and Russia. In 1970 the USA accused Russia of releasing a toxin over SE Asia against US forces and it became known as 'The Yellow Rain affair'. Accusations and denials continued for over 30 years. In the early 21st century it was proved beyond a doubt that it was honey bee excreta. Even now the US has not accepted this argument.

Roger showed samples of "Yellow Spots" taken from car windows, mounted on microscope slides with a cover plate and viewed under a transmitted light microscope. This showed that the "Yellow Spots" consisted of mainly pollen.

Six rock sections from the Postal Microscopic cCub of Australia were shown. If a crystalline rock is reduced in thickness to 30 microns it becomes translucent. If viewed under a microscope lit with polarized light and under a polarized analyzer, each crystal in the section will show its shape and characteristic colour.

Some plant materials were studied; ferns, spore and fungi. Water from the Latrobe University wet lands were also studied. These samples were filled with very abundant water life, much of which was easily named, although some still remain unidentified.

Philippa Burgess

Fauna Survey Group

Our May excursion was to Rushworth to check out the nest boxes in the State Forest. We saw a bumper crop of Sugar Gliders and Phascogales, probably brought about by the favourable weather conditions

We purchased two new cameras with our money from the Envirofund, bringing the working total to five. They are currently in service at Rushworth. We plan to have them out most of the year, either at the location of our field trips or elsewhere if we are not going away. We have been given Ethics Comm. approval for a permit to be granted for the next 3 years. We are awaiting the formal permit from DSE and Parks Vic.

The Victorian Biodiversity Atlas is being redeveloped to allow web-based input and reporting. The input side is progressing faster than the reporting side

FSG is looking at its web-page and will develop a format with more pictures, more info on our activities and data outlining our results.

Our May talk was by Natalie Briscoe on "Predicting response of arboreal mammals to climate change" **Robin Drury**

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Reg.No. A0033611X

PRINT POST PP333964-0003

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