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# Field Nats News No.228

Newsletter of the Field Naturalists Club of Victoria Inc.  
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March 2013

## From the President

Welcome to the March 2013 Field Nats News. Autumn is nearly upon us and the exotic trees are about to lose their leaves, along with some of our natives like Australian Red Cedar *Toona ciliata*. Other signs of this season are of the migratory waders coming into nuptial plumage before they migrate to the Northern Hemisphere for their breeding season.

Dorothy Mahler's funeral took place in late January. It was a mark of the respect with which she was held within the natural history community, that many club members and friends from far and wide attended. Our thoughts continue to be with Noel Schleiger. Visits can be made to Noel. (Contact Hali.)

### From the Council Meeting

Items of interest from the January Council Meeting: all of which arose from the inwards correspondence.

Margaret Corrick advised that after twenty years of representing the FNCV on the Australian Natural History Medalion General Committee, she was stepping down from this position. I would like to take this opportunity, on behalf of the Council and members, to thank Margaret for her service on this important committee. Alan Yen has agreed to take over this position. The General Committee meet once every two years and is responsible for the running of the ANHM particularly in the appointing of the Awards Panel. Thanks are also due to Margaret for her generous donation of a microscope to the Club.

The Council received a letter from a member lamenting that the FNCV was no longer proactive in environmental issues since the role of Conservation Officer was dropped a number of years ago. It was interesting to have received this letter only a few days after the Botany Group hosted a public forum on the proposed changes to the State's Native Vegetation

Framework. Speakers from the VNPA and the Environmental Defenders Office highlighted the background of the framework and some of its current limitations and then went on to discuss the four key issues of the proposed amendment that they saw were the most detrimental to Victoria's vegetation. It was a highly successful night with 60 people attending, most of them non-members of our club.

Ian Kitchen advised that he would be stepping down from the Vice-President position and from the Council. I would like to thank Ian for his contribution to the FNCV leadership team and for ably filling in for me on the occasions when I was unable to attend meetings.

### Solar System

We were advised over the Christmas Break, that our smart meter had now been reprogrammed to allow our system to feed our excess production into the electricity grid. Up until then the me-

Deadline for April FNN is **Monday March 4th**. FNN 229 will go to the printer on 12th March with collation on 19th at about 10.30 am.

ter had been going in reverse. On some of the sunny days recently, our system has been producing well over 30kWh by mid-afternoon. To put this into perspective, 30kWh would be the amount of energy used by all of the fluoro lights in the hall, conference room and library if they were on continuously for 45 hours. As the system is larger than 5kW, we have a parity pricing agreement with AGL that means that we sell our excess for the same price as we buy it. Therefore as electricity prices rise, we will benefit from an increase in feed-in tariff as well. Each month in the FNN we will try to update the amount of electricity has been produced.

John Harris



**'Hawk-eye' quiz, part 1.** Can you spot the wild creature in this photo taken by remote camera? See p6 for instructions on the rest of this observation test.

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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.***

### March

**Sunday 3<sup>rd</sup> - Wednesday 6<sup>th</sup> – Marine Research Group.** *Field trip to the Port Fairy area.* Exact locations will be chosen on site based on the latest conditions. Contact Leon Altoff 9530 4180 AH; 0428 669 773

**Monday 4<sup>th</sup> – Fungi Group. Meeting – Towards a Checklist of Victorian Macrofungi.** Speaker: Dr Tom May, Senior Mycologist, Royal Botanic Gardens Melbourne. Contact Virgil Hubregtse 9560 7775

**Tuesday 5<sup>th</sup> - Fauna Survey Group. Meeting - Wildlife of the Central Deserts.** Hear Keith Johnson, leader of Desert Discovery, as he presents recent findings of fauna, including the Marsupial Mole and other research activities in the Gibson Desert. Contact Ray Gibson 0417 861 651

**Saturday 9<sup>th</sup> – Monday 11<sup>th</sup> Fauna Survey Group - Survey** Melbourne area, exact location to be announced. Contact Robin Drury 0417 195 148: robindrury@hotmail.com

**Monday 11<sup>th</sup> – Marine Research Group.** No meeting due to Labour Day. Contact Leon Altoff 9530 4180 AH; 0428 669 773

**Tuesday 12<sup>th</sup> – Photographic Tips Workshop - Improving your Photographs.** Speaker: Wendy Clark. Join Wendy for a workshop devoted to improving your photographic results. Wendy will share her knowledge and skills in preparation for the club photographic competition. Bring along electronic or paper copies of any photos you would like advice on. Contact FNCV Office 9877 9860; admin@fncv.org.au All welcome.

**Tuesday 19<sup>th</sup> - Collate FNN 229.** Starting about 10.30 am. Some folk come a little earlier. Contact Joan Broadberry 9846 1218.

**Wednesday 20<sup>th</sup> – Terrestrial Invertebrates Group. Meeting – Butterflies of Victoria.** Speaker: Ross Field. Ross will talk about his new book on the butterflies of Victoria. This will be followed up with a field trip on the following weekend (date and venue to be determined closer to the time). Contact Alan Yen 0409 194 788

**Thursday 21<sup>st</sup> – Botany Group. Meeting - Pulse Grazing of Goats and Weed Management of Native Vegetation.** Speaker: Colin Arnold. Contact Heather Eadon 0437 541 918: heathereadon566@gmail.com

**Monday 25<sup>th</sup> - FNCV Council Meeting** - 7.30 pm sharp. Agenda items and apologies to Hali, 98779860 or admin@fncv.org.au

**Tues 26<sup>th</sup> – Day Group. Meeting – Cocos (Keeling) Islands.** Speaker Joan Broadberry. Contact Gary Presland 9890 9288.

**Wednesday 27<sup>th</sup> - Geology Group. Meeting – The Secret Millennial History of Port Phillip Bay.** Speaker: Dr. Guy Holdgate, School of Earth Sciences, University of Melbourne. Contact Kaye Oddie 9329 0635; koddie@bigpond.com

**Wednesday 27<sup>th</sup> - Grey-headed Flying Fox Survey.** Meet at Yarra Bend Golf Course carpark, Mel 2D G7 at 7.00pm. More information from Rod Van Der Ree rvdr@unimelb.edu.au Jo Ainley j.ainley@unimelb.edu.au or Ian Kitchen-iankitchen@optusnet.com.au

**Thursday 28<sup>th</sup> – Tues 2<sup>nd</sup> - Fauna Survey Group. Easter Camp and Survey.** Mt Samaria State Park, south of Benalla. Contact Robin Drury 0417 195 148: robindrury@hotmail.com

**Friday 29<sup>th</sup> - Monday 1<sup>st</sup> – Juniors' Group. Easter Camp, Little Desert.** Contact: Claire Ferguson. Please note there will be no meeting due to Easter. Contact Claire Ferguson 8060 2474; toclaire@gmail.com

**Sunday 31<sup>st</sup> – Wednesday 3<sup>rd</sup> – Marine Research Group. Field trip to Phillip Island.** Exact locations will be chosen on site based on the latest conditions. 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:

*John Martiensen, Rosalee Davey, Facultas verlags und Buchha (Overseas Institution), Michela Mitchell, John Beekman, Leah Beekman, Lula Goodman, Dr. Belinda Timmins and Sandra Mijatovic.*

## 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

I am attaching a photo of two Spider Hunting wasps, both of which appear to be laying claim to the one Huntsman spider.

I don't know what the outcome was, as we were going out at the time we saw them, and they had gone when we returned. They were very close to a place where the wasps have been taking paralysed Huntsman spiders for several weeks now.

Cheers, Virgil Hubregtse



## Botany Group News



The forum on changes to vegetation clearing was presented by the Environment Defender's Office and Victorian National Parks Association. Laws for removal of native vegetation are being altered possibly making it easier for developers and others to clear the land. For example, native vegetation removal currently requires a net gain; this will necessarily not be the case in future. The government wants to simplify clearing by no longer requiring an environmental assessment. We had approximately 60 people in attendance. These meetings are being held across Melbourne.

Sue Bendel

## VOLUNTEER NEEDED FOR FUTURE FIELD NATS NEWS INDEXING

A four page index to the 11 issues of FNN from 2012, numbers 216-226, is included with this publication. Each year we plan to include an index to the previous year's FNNs with the March issue.

**We are looking for a FNCV member who would like to join the FNN editorial team and take over the indexing task.**

A template of the current index layout is available as well as plenty of advice and practical help. The index can be compiled month by month in stages or as one job at the end of the year. It will be due at the beginning of February 2014. We currently use the *Word* computer application, making it very straightforward.

Please contact Hali in the office or Joan Broadberry, (Editor) 9846 1218.

## 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 would love your help.**



## Geology Group

*Travels in the Arctic:  
Greenlandic and Canadian Arctic*  
- Kaye Oddie

*Franz Josef Land, Russian Arctic*  
Neil McLachlan  
October 24<sup>th</sup>, 2012

Two FNCV Geology group members, Kaye Oddie and Neil McLachlan, gave a combined presentation of their respective Arctic travels in 2012. Kaye talked about her trip to Greenlandic and Canadian Arctic and Neil talked about his trip to Franz Josef Land in the Russian Arctic. Both included many photographs to illustrate the many facets of the Arctic – ice caps, glaciers, icebergs, tundra with rocky landscapes, islands and fjords. These showed the results of water, ice and wind and the physical processes that have shaped the landscapes. And in these seemingly inhospitable lands, there was arctic life – plants, animals and the people that had adapted to these settings.

The reference point for the Arctic is the North Pole. Around it is the Arctic Ocean which is very deep (4000m at its centre). The ocean is covered by pack ice averaging 3m thick, but its extent is declining. Normally in summer, the ice retreats about 170km, however the 2012 summer saw the largest retreat in recorded history. Bordering the Arctic Ocean are the northern parts of Europe, Asia and North America with outlying islands such as Greenland and Svalbard. The extent of the Arctic is considered to be beyond the mathematical measure of the Arctic Circle at 66°33'N. The geographic measure currently and more commonly used is based on temperature – where the mean summer temperature does not exceed 10°C.

The deep waters of the Arctic are cold and nutrient poor. It is only near land that more favourable conditions support more plant and animal life. On land, strong winds, snow and frozen ground allow for only a short growing season. Animals and humans have also learnt to survive in these harsh conditions and the people have close spiritual bonds with the land and animals.

Kaye travelled on an Adventure Canada tour on the ship "Clipper Adventurer",

travelling to the arctic Greenland towns of Kangerlussuaq, Ilulissat and Ilulissat, then across Davis Strait to Canada's Baffin Island, Pond Inlet (Mittimatalik) and north to the high arctic Devon and Beechey Islands (at 75°N) before flying back from Resolute to Ottawa.

Most of Greenland is covered by a thick ice cap, 3km thick at its centre, which spawns many glaciers. Perhaps the most prolific is that near Ilulissat on the west coast. It calves 20 million tonnes of ice daily and thousands of icebergs each year. Its icebergs follow an interesting route, travelling on currents: firstly northwards up the Greenland coast to the high arctic before being turned south to travel down 'Iceberg Alley' along the east coast of Canada's Baffin Island, past Newfoundland and finally into the north Atlantic Ocean.

The geology of Greenland is old – 2.8 billion year old gneisses. Dark gabbro sills and dykes fracturing the gneiss add dramatic effect to the steep walls of the fjords. Similar geology was seen on Canada's Baffin Island across Davis Strait. This is because Greenland and Baffin Island were formerly joined, but have drifted apart over the past 62 Ma. Different geology was seen in the high Canadian arctic. Devon Island's steep cliffs had upper layers of sedimentary dolomite (450 Ma old) over lower layers of metamorphic Achaean (approx. 3 billion years) rocks.

Being summer, there were many plants to enjoy – mosses, lichens, sedges, succulents, grasses - all being prostrate and usually with very small leaves and flowers (e.g. many saxifrage species, arctic bluebells, poppy and daisy). The only tree was the arctic willow, which grows only about 0.5m high. On sea and land, the fauna seen included whales, seals, walrus, polar bears, birds, hares.

Though much of the Arctic is uninhabited by humans, coastal areas of Greenland and the Canadian Arctic have Inuit settlements – the Inuit's ancestors were Siberian eskimos. It

was interesting to learn about present Inuit lifestyles and culture: fishing and hunting, art, carving, music and their strong spiritual links with land and animals; as well as their past, at well-preserved archaeological sites.



Grey gneiss with dark gabbro sills and dykes.



Ice-filled Disko Bay, Ilulissat, Greenland Strömfjord, Greenland

Lighter coloured dolomite (450 Ma) overlying Achaean metamorphic rock (~3 billion years). Devon Island, Canada

Neil's journey to Franz Josef Land in the Russian Arctic over two weeks in August was with the company Ocean Wide, on the ship Ortelius, and was in part exploratory.

Franz Josef Land is an archipelago of around 190 islands, two day's sailing north of Murmansk in western Russia. Because of their position, 80-82°N, the islands were the staging post for a number of Arctic/North Pole expeditions in late 19<sup>th</sup> and early 20<sup>th</sup> centuries, however, like all Arctic and Antarctic regions, sealers and whalers would have been earlier visitors. The archipelago was originally discovered in 1857 by an Austrian expedition and named after the Austrian emperor; they were annexed by the Soviet Union in 1927.

There is no permanent human habita-

*continued on page 5)*



(Continued from page 4)

tion, although the Russians maintain a defence base and a run-down meteorological station. The main reason for Neil's visit was for the wildlife; especially hoping to see the elusive Narwhal and Beluga Whale, however, the geology of the islands turned out to be just as interesting.

Typical of the topography were low, flat-topped islands, many having glacial valleys and evidence of ice caps. In greater detail, the flat tops were a thin layer of basalt (? Cretaceous) on top of wider sedimentary layers (middle Triassic to late Jurassic). At the base was a flatter 'skirt' of eroded material, sometimes terraced, which is due to change in land levels as a result of retreat of ice cover. These coastal strips were frequently vegetated and very green due to the guano-enriched run-off from the cliffs.

More unusual geology was seen at Rubini Rock, which is columnar basalt right to the water level (see photo). Also at another island, Champ Island, were 'cannon balls' of sedimentary rock, formed around a nidus with surrounding sandstone concretion. Some were very large at 3m in diameter and lay exposed; others were still semi-embedded in the bedrock (reminding one of the Artillery Rocks on Victoria's Otway coast).

Sailing through the archipelago, lots of walrus were seen, frequently with calves. And sailing further north, to 82°N, beyond the islands, sea ice (frozen sea water) was reached and with it, many polar bears and cubs were seen. Polar bears use sea ice for hunting seals, however with the increasing and earlier melting of sea ice, bears are at risk of not being able to get from the land to their feeding grounds out on the ice. At all stages through the trip, a great variety of sea birds were seen. All in all, Neil enjoyed his wonderful two-week journey to the Arctic.

Kaye Oddie  
Neil McLachlan

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

*This newsletter is printed on recycled paper.*



Columnar basalt, Rubini Rock, Franz Josef Land



'Cannon ball', Champ Island, Franz Josef Land



Typical basaltic-capped island, with sedimentary base and glacier descending from an ice cap.

#### Many thanks to those who helped collate and label FNN 227

Keith Marshall  
Margaret Corrick  
Barbara Burns  
Margaret Brewster  
Joan Broadberry  
Neil McLachlan  
Andy Brentnall  
Hazel & Edward Brentnall  
Bill Fenner  
Sheina Nicholls  
Cecily Falkingham

Special thanks to those who kindly stayed behind to help Hali mail out the Calendar of Events. See p12. We plan to do this three times a year as it really demonstrated the adage, 'many hands make light work' and almost eliminated a normally arduous task for the administration.

## Library News



#### Recently catalogued books:

We have rationalised a largish collection of Reports of the Geological Survey of New South Wales, most of which were neither accessioned nor catalogued. As a result, nine reports in the 1:100 000 series, and one in the 1:50 000 series, have been added to the Library's holdings. Those reports we did not retain were incomplete, in lacking the map to which they referred. All of the reports are located at classification no. 559.44.

#### Recent publications:

The coincidental acquisition of the latest issues of journals from three state Field Naturalists Clubs has allowed a quick comparison of what each group is focusing on. *The Queensland Naturalist* contains an article that looks at each of the areas of crustacea, hydroids, amphibians, birds, and fungi. The latest issue of *The Western Australian Naturalist* presents one long paper on the vertebrate fauna of the Fitzgerald Biosphere Reserve, Western Australia. *The Tasmanian Naturalist*, which is an annual publication, conversely contains 18 papers on a wide variety of aspects of natural history, including invertebrates, birdlife, gastropods, vegetation and marine life.

All of these periodicals may be borrowed from the display rack; please remember to fill in the appropriate Borrowing Book.

Gary Presland  
Honorary Librarian

#### Thanks to the editorial team who put together FNN 228

Joan Broadberry  
Platon Vafiadis  
Hali Ferguson  
Sally Bewsher

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

## fungimap7

Fungimap 7 will be held at Rawson Village, near Mt Baw Baw, In Victoria, from Friday May 24 to Monday May 27.

**Registrations are now open.**

- Please register on our new website, [www.fungimap.org.au](http://www.fungimap.org.au). You can pay by credit card or cheque.
- If you do not have access to the web, please call Blanche on 03 92522374 and you can register over the phone.
- The full program is listed on our website. If you would like printed copies of the abstracts please call us on 03 92522374.

### Prices:

- Early Bird Member full conference registration (until March 29): \$250
- Friday or Monday only, member price: \$120
- Accommodation in dorms: \$200 per person
- All meals (Thursday dinner to Tuesday breakfast): \$270
- All meals but no breakfasts: \$200
- Celebratory dinner (Saturday 25<sup>th</sup>) only: \$45
- Transport from Moe Station to Rawson and back: \$40



## 'HAWK-EYE' OBSERVATION TEST

### Instructions:

Remote cameras are now used by the Fauna Survey Group throughout the year. They are set up in the bush and left for about three weeks. Photos are triggered by movement.

Once the cameras are brought in, many hours are spent sifting through the sometimes hundreds of photos to spot and identify creatures that have passed by.

The animals are often lured to the cameras by a bait station which has been set up nearby. However, not all animals are attracted by the scent of the bait. They may be just passing.

The task of looking through the photos requires time and patience; often for many hours when the cameras have been out for a long time. In addition a lot of the photos reveal only very small creatures, partly concealed animals or nothing at all. It takes a very good eye to spot them.

Put yourself in the place of one of the Fauna Survey Group team and try and spot and then identify the creatures in the 5 photographs taken at Seymour Bushland Park. They are published on page 1 and opposite on page 7.

If you read the report on the camp at Seymour Bushland Park carefully you will pick up the answers. Give yourself a mark out of five. Good luck.



## Coates Wildlife Tours

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### Tanami Expedition

13 Day Camping Tour - Departs 5th June 2013  
See the birds & other wildlife at Newhaven Station & Lake Gregory.

### Kimberley Discovery

15 Day Camping/Accommodated Tour - Departs 15th June 2013  
Explore the wildlife & gorges of this unspoiled wilderness area.

### Kimberley Wonders

12 Day Camping Tour - Departs 26th June 2013  
See spectacular gorges, Gibb River Rd, Mitchell Plateau, El Questro & more.

### Rudall River Expedition

14 Day Camping Tour - Departs 17th July 2013  
Experience the very remote, harsh yet beautiful Rudall River N.P.

### Western Explorer

14 Day Camping Tour - Departs 30th July 2013  
Explore unique highlights of the Kennedy Ranges, Mt Augustus & Karjini N.P.

### Carnarvon Range Expedition

11 Day Camping Tour - Departs 8th August 2013  
Discover wildlife, geology & indigenous culture in the Little Sandy Desert.

### Holland Track & Great Western Woodlands

12 Day Camping Tour - Departs 28th August 2013  
See the wildlife of the world's largest temperate woodland.

### Mid West Wildflowers

10 Day Accommodated Tour - Departs 7th September 2012  
See botanical hot-spots north of Perth during wildflower season.

### WA Outback Expedition

15 Day Camping Tour - Departs 15th September 2013  
Explore remote outback tracks & the Eyre Bird Observatory.

### South West Birds & Botany

15 Day Accommodated Tour - Departs 11th October 2013  
Join our specialist guides to explore this extraordinary region.

Contact us for our complete 2013 program, featuring the world's most desirable natural history destinations.

Phone: 1800 676 016 Web: [www.coateswildlifetours.com.au](http://www.coateswildlifetours.com.au) Email: [coates@iinet.net.au](mailto:coates@iinet.net.au)





## Fauna Survey Group

### Camp, Seymour Bushland Park, Australia Day weekend, 2013

Several FSG members attended the first camp of the year in a remnant patch of bush, 5 km south east of Seymour. The weather was warm, but not hot and it was very dry. Seymour Bushland was established 30 years ago as a park, but, prior to this, the area belonged to the army and it was used during both WW1 and WW11. Reminders of this history can be seen as you walk around the tracks and in the Lighthouse Memorial Park, located on the other side of the Goulburn Valley Highway. The reserve itself is 62 ha in size and is surrounded by farmland, the local golf course, a small industrial estate, the Memorial Park and a motocross raceway. The forest consists of lots of huge old Grey Box, some River Red Gums and a few Red Stringybarks (most of which were dead). The understorey is variable, with large open areas, some patches of



Hedge Wattle (*Acacia paradoxa*), Golden Wattle (*Acacia pycnantha*), a few Cherry Ballart (*Exocarpus cupressiformis*) and a smattering of other species. The ground cover is mostly sparse, with native grasses in places. Just outside the eastern fenceline there is a good cover of *Dianella revoluta*, with lovely stands of large original trees. There was virtually nothing in flower.

Fallen logs and timber occur in places, providing cover and shelter for smaller creatures, while about forty nestboxes and log hollows have been erected in the larger trees. Many natural habitat hollows can also be seen in the beautiful, big

trees. A dam is located in the north eastern section and evidence of past grazing is also evident. Our survey work all took place in the north eastern section.

Forty Elliott traps were set each night, however there were no captures made. Nestbox and log-hollow checking revealed numerous Ringtail and Brushtail Possums and some evidence of Sugar Gliders. We also painted numbers on all accessible boxes in reasonable condition. Four Harp traps were put up in different locations each night. Although a total of only seventeen



bats of three species were recorded, all three species were new records for the park. They were Little Forest Bat (*Vespedelus vulturnus*), Southern Forest Bat (*Vespedelus regulus*) and the Lesser Long-eared Bat (*Nyctophylus geoffroyi*). The White-striped Freetail Bat (*Austronomus australis*), the only one audible to us, was heard.

A month prior to our trip, five remote cameras were set up in different areas. These took many photos, 309 of which showed twenty three species of native and introduced fauna. Three native species, namely the Brush-tailed Phascogale or Tuan, (night image, above) Bushrat and White-browed Scrubwren were not actually seen during our visit, but were evident in some photos. Other species photographed included a variety of birds (day image, p1), European Fox, Hare (day image, left), Eastern Grey Kangaroo, Sugar Glider, Koala, Black Wallaby, Echidna, Ringtail Possum (day image right) and Bush Rat (night image right.)

No reptiles were identified or trapped over our time there, although three small skinks were seen disappearing into the leaf litter. However, a few days before our visit, a significant observation was made when a Lace Monitor was seen by a couple of members of the Friends Group.

Significant bird sightings were of an old Wedge-tailed Eagle, a Little Eagle (a feather was also found), a Painted Honey-eater, White-winged Trillers, Red-capped Robin and Little Friarbirds. Owllet Nightjars were heard calling at night, as well as in the early morning daylight hours.



This animal was out in the heat of a 45 degree day!

White-winged Choughs in a good-sized flock were observed each day.

We went spotlighting both nights, once in the park and along Telegraph Road, the other along nearby Wale's Rd. The moon was full which possibly had an impact on what we saw. The usual Brush-tailed and Ring-tailed Possums and Sugar Gliders were seen, as well as foxes and a Tawny Frogmouth.



We were joined by enthusiastic members of the Bushland's Friends Group during the survey and thank them for their participation, assistance and for sharing their knowledge of their park.

**Sally Bewsher**



## Day Group

**"Looking Past the Present. What palaeontology can tell us about the past, and the beginnings of life on earth."**  
 Speaker: **Dr Ursula Smith, Museum Victoria**  
 Tuesday 22nd January, 2013

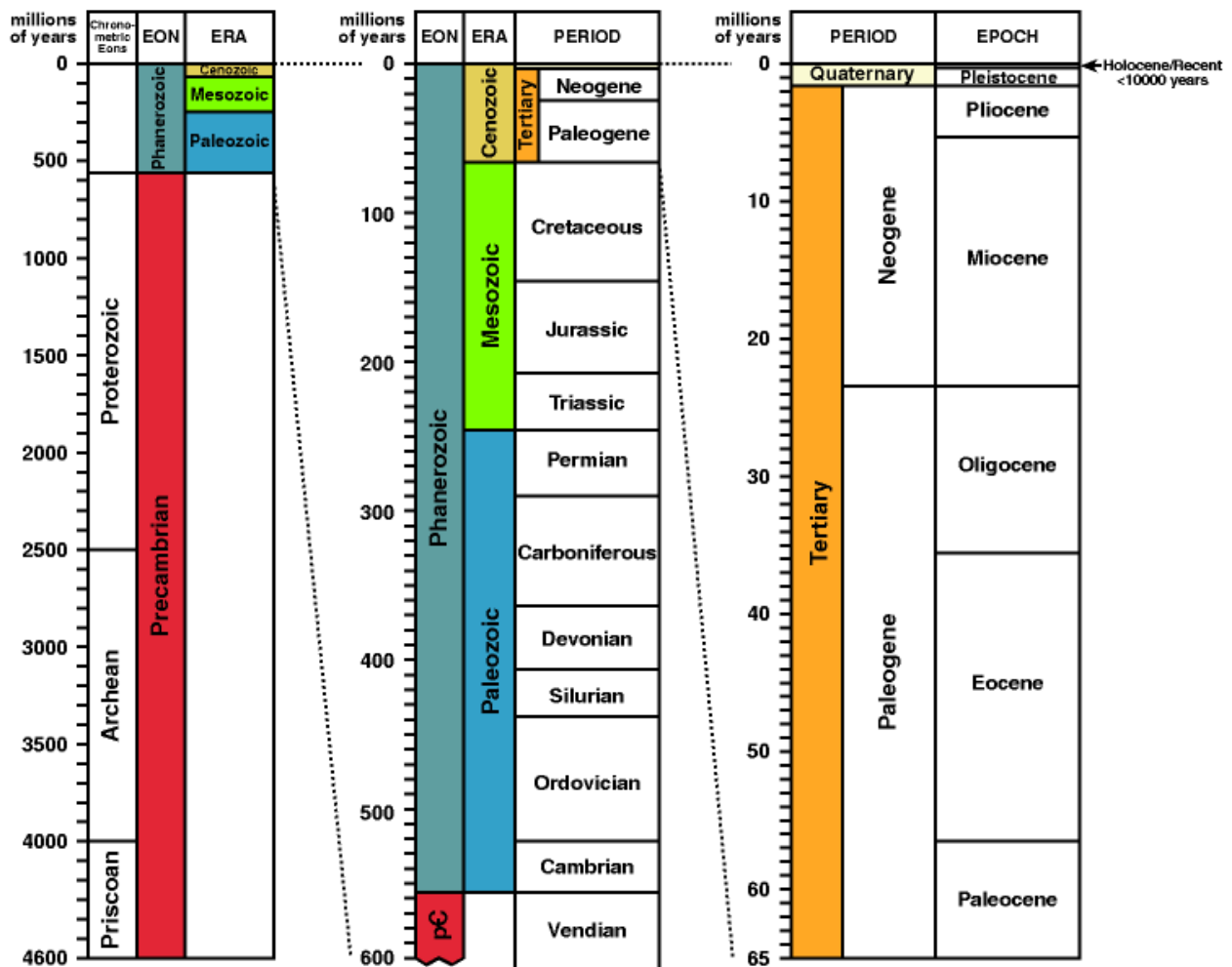
Palaeontology is the study of processes which made the world the way it is today. Key root words in the study of fossils are the Greek *palaios* meaning old or ancient and the Latin word *fossilis* meaning of digging or to be dug up. Conrad Gesner's 1565 work "*On Fossil Objects*", provided the first use of the term 'fossil'. In 1669 Nicholas Steno spoke of fossils as having been previously living, based on the principle of 'sufficient similarity' to currently living things. There are also pseudo-fossils that may resemble fossils but are in fact not fossils. Examples are concretions and dendritic patterns in stones.

Fossils may be classified as: 1. Body fossils, e.g. trilobites, ammonites - 2. Trace fossils, eg. footprints, burrows - 3. Chemical fossils, are residual chemical traces left over from metabolic processes, usually found with specialised techniques.

Ursula then spoke of the geological time scale and discussed some of the key highlights in the evolution of very early life.

See <http://www.geo.ucalgary.ca/~macrae/timescale/timescale.html>

( Note: The representation of the geological time scale below is depicted in its traditional form with the oldest at the bottom and youngest at the top. The present day is at the zero mark. Because of the vast differences in scale, the younger intervals have been successively expanded to the right.)



The earth is 4.6 billion years old. Most of the recognised fossil record begins from the Cambrian era in what is known as the 'Cambrian Explosion', around 550 million years ago. In the geologically remarkably short period of only 29-30 million years, there was a sudden appearance and diversification of all nearly all phyla. Ursula showed images of unusual organisms found in the Burgess Shale, Canada, including *Wiwaxia* a possible ancestor of snails, *Hallucigenia opabinia* of unknown affinities and *Anomalocaris*, an arthropod.

### Highlights in the early evolution of life.

Darwin himself recognised it was problematic for the fossil record to be recognised only from the Cambrian era. Life must have been evolving in pre-Cambrian times, but until the mid 1960's there was little or no trace of this. Part of the problem is there is not much pre-Cambrian rock to study. However, some does exist in Canada, Siberia, South Africa and The Pilbara, Australia and

(Continued on page 9)



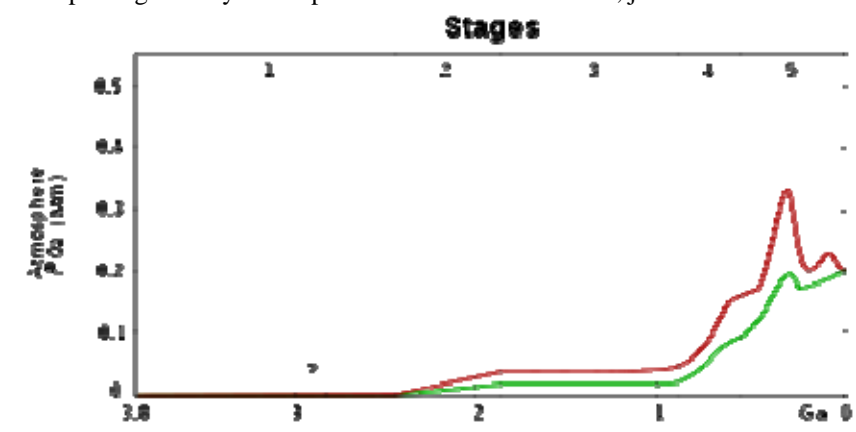
(Continued from page 8)

slowly, further discoveries have been made. The oldest known rock, the *Acasta Gneiss*, in the North-West Territories of Canada, is about 4.3 billion years old. Fossils found in Gunflint chert, Minnesota USA, approximately 1.96 billion years old, showed that life on earth existed well before the Cambrian era and stimulated the search for further pre-Cambrian fossils.

In the last 40 years palaeontologists have started to fill in the missing evidence of pre-Cambrian life. 2.1 billion year old fossils of large colonial organisms have been found. Cyanobacteria chemical markers in rock from the Pilbara, Western Australia, have been dated at 2.7 billion years old. Definite organic walled microfossils from South Africa have been dated at 3.2 billion years old. Rocks from the Strelly Pool formation in the Pilbara, dated to 3.49 billion years exhibit traces of bacterial mats. This finding is as yet unchallenged. In the 1990s cyanobacteria-like organisms from the Apex Chert, Pilbara were dated to a (debatable) 3.465 billion years old. This seemed to be a point at which oxygen was being produced. Ratios of C12 to C13 isotopes from 3.85 billion years old rocks from south-eastern Greenland suggests the possible presence of cyanobacteria to account for these observations. A conclusion from this evidence is that organic life was likely present from before 3.8 billion years ago. Considering the age of the earth is 4.6 billion years, this is a startling idea and has significance for the possibility of life evolving on other planets.

Ursula discussed *Bangiomorpha*, red algae from 1.26 billion years ago, the first known example of sexual reproduction in the fossil record. The oldest known skeletonised organisms, *Cloudina*, appeared about 550 million years ago. No-one really knows exactly what they are, but they were widespread and also exhibit bore holes within, raising the question as to whether skeletons were an adaptive response to predation.

A key process in geological history was the Great Oxidation event. From about 2.1 billion years ago the level of oxygen in the atmosphere gradually built up until it reached a threshold, just before the Cambrian Explosion.



Dr. Ursula Smith Photo: S. Bewsher

*O<sub>2</sub> build-up in the Earth's atmosphere. Red and green lines represent the range of the estimates while time is measured in billions of years ago (Ga).*

*Stage 1 (3.85–2.45 Ga): Practically no O<sub>2</sub> in the atmosphere.*

*Stage 2 (2.45–1.85 Ga): O<sub>2</sub> produced, but absorbed in oceans & seabed rock.*

*Stage 3 (1.85–0.85 Ga): O<sub>2</sub> starts to gas out of the oceans, but is absorbed by land surfaces.*

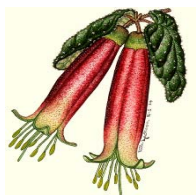
*Stages 4 & 5 (0.85–present): O<sub>2</sub> sinks filled and the gas accumulates.*

The Ediacaran Biota, named after the Ediacara Hills in South Australia, 610 to 540 million years ago, contains fossils from the period just before the Cambrian Explosion. The multicellular organisms found here include *Dickensonia*, *Cyclomedusa*, *Mawsonites*, *Tribrachidium* and *Prvancorina*. One theory proposes that they are not ancestors of any life forms we know of. They appeared and then disappeared. This raises the very interesting question as to whether multicellular organisms could have arisen independently twice on earth. This idea has important implications for the increased likelihood of life evolving elsewhere in the universe. However, recent thinking suggests many Ediacaran organisms do show similarities to those of the Cambrian period.

The fascinating Brachina Gorge Geological Trail in the Flinders Ranges is a 20 kilometre self-guided route that passes through 130 million years of earth history. Trail signage provides an insight into past climates, the formation of the ranges and in particular, points out examples of Ediacaran fossils.

Ursula's material was complex, but her excellent presentation attracted one of the largest audiences the Day Group has yet seen. There was great interest and many follow up questions and discussions. In thanking her, Gary Presland commented that a presentation on the earliest life forms was appropriate for the first meeting of the FNCV in a new year.

While attempting to report on some aspects of Ursula's talk I was delighted to find that she had given a very similar presentation to the Marine Research Group on 13/8/12. Dr. Platon Vafiadis' scholarly write up of this is to be found in *Field Nats News* 224, page 11, October 2012. My attempted summary could not have been compiled without major borrowing from Platon's work. I thank him for generously giving me permission to do so.



FNCV Reg. No. A0033611X

# The FNCV Environment Fund

## Call for Donations

The Environment Fund of the FNCV has been set up for the purpose of supporting the objectives of the Club in relation to the environment. **Donations to the fund are tax deductible.**

From 2003 to 2012 the Fund was able to support forty-three applications for grants from \$200 to \$1000. These were from the FNCV Special Interest Groups and other organisations. Donations are needed in order to enable further grants to be made in the future. Please use the form below to donate to this worthy fund. A receipt will be provided.

More information about the Environment Fund can be found on the FNCV website at [www.fncv.org.au](http://www.fncv.org.au)

Barbara Burns (Secretary)

The projects supported were:

2011

- ◆ FNCV Fauna Survey Group, 2 sets of electronic scales, \$160
- ◆ Wildlife Victoria, Grey headed Flying Fox rescue kits, \$522
- ◆ Friends of the Helmeted Honeyeater, Garmin GPS62S unit, \$465
- ◆ Patrick-Jean Guy, Victoria University, Two taxidermed ducks – One Black Duck and one Mallard Duck - to be used in talks discussing the hybridisation of these two species, \$885.

2012

- ◆ FNCV Fauna Survey Group, 2 little Acorn Cameras, \$568
- ◆ Mange Management Inc., Notebook computer and screen, \$992
- ◆ FSG Bat Group, Bat Flyers, \$300
- ◆ Maryborough FNC, BenQ MX710 projector and bag, \$1,000
- ◆ John Patykowski, Research into Pomaderris vaccinifolia, \$1,000

**Yes I would like to support the FNCV Environment Fund. Please find enclosed my tax deductible donation of:**

☐ \$25    ☐ \$50    ☐ \$100    ☐ \$200    ☐ Other \_\_\_\_\_

Name: .....

Address: .....

.....  
Please make cheques payable to Field Naturalists Club of Victoria. If paying by credit card provide the following details.

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Card No.

Expiry Date \_\_\_\_/\_\_\_\_ Card Holder's Name:

Signature:

Please return to : Environmental Fund, Field Naturalists Club of Victoria, Locked Bag 3, Blackburn 3130.

Enquiries can be made to Hali, FNCV Administrative officer, 03 9877 9860

Email: [admin@fncv.org.au](mailto:admin@fncv.org.au)

Website: [fncv.org.au](http://fncv.org.au)





## Marine Research Group News

### Summary of MRG members night, Monday 10th December, 2012:

**Leon Altoff** reported on a recent trip to Beachmere, Queensland that he undertook with Audrey Falconer. They looked for nemerteans and cnidarians for Audrey's current research and whilst not finding any, made other interesting finds, many of them molluscan.

**John Eichler** showed some images taken while travelling around Australia, including Darwin and Broome and Monkey Mia in Western Australia

**Barbara Hall** presented images from near Tooradin in Westernport Bay where she led a walk for the Melbourne Women's Walking Club. Images shown included *Phallomedusa solida*, *Heloccius cordiformis* and a marine worm.

**Cecily Falkingham** showed some of the tropical shells from her collection.

(My apologies for the brevity of this report, based on a summary that Leon Altoff has kindly forwarded—I missed the meeting—PV).

### Report on MRG field trip to Point Addis, Saturday 12 January, 2013:

This excursion commenced in the late afternoon, the impressive coastline cliffs creating some lovely scenery in the falling light of the evening.

We focussed on the rocky shoreline just east of the point, with many loose rocks, sandy and rocky pools, algae and sea-grass providing diverse habitats to survey.



Pt. Addis, Vic. Sat. 12/1/2013. Photo: P. Vafiadis

The beautiful, but deadly, blue ringed octopus *Hapalochlaena maculosa* was spotted in the mid-littoral amongst rocky rubble, and carefully admired-

Note this species must never be handled owing to its lethal neurotoxin.



*Hapalochlaena maculosa*, Pt. Addis, Vic. Sat. 12/1/2013. Photo: P. Vafiadis

Other notable molluscan finds included the chitons *Ischnochiton lineolatus* (generally uncommon) and *Bassethullia matthewsi* (rare, and only a single specimen seen) on the under-surfaces of lower littoral rocks.



*Bassethullia matthewsi* (above) and *Ischnochiton lineolatus* (below), both at Pt. Addis, Vic.



The small limpet *Asteracmea stowae* was present on the *Amphibolis antarctica* seagrass as were the nudibranchs *Trinchiesia* sp. 14 and the uncommonly seen species *Cratena multidigitalis*, the latter all-orange with black tips to the papillae on its dorsum and rim.

Further slug finds included *Ercolania margaritae*, *Spurilla macleayi*, several specimens of *Palliola cooki*, and the attractive, but not uncommon, *Polycera janjuka*.

Notable non-molluscan finds included very large *Plagusia chabrus* crabs, and an unidentified and very minute polychaete worm holding a light-blue cluster of eggs, amongst many other species. Overall, a very rewarding day was had by all.



Unidentified polychaete worm, Pt. Addis, Vic.

Sat. 12/1/2013. Photo: P. Vafiadis

### 'Monograph of the Little Slit Shells'.

Recently (late 2012) Daniel L. Geiger, Curator of Molluscs at the Santa Barbara Museum of Natural History, California, published this two volume series on these groups, of which he is the world's foremost authority.

Volume 1 presents a detailed introduction and also covers the Scissurellidae. Volume 2 covers the Anatomidae, Larocheidae, Depressizonidae, Sutilizonidae and Temnoclinidae.

Both volumes are sizeable, high quality works that are methodically researched and lavishly illustrated, covering all known species in detail. Published by the Santa Barbara Museum of Natural History, these are must-haves for anyone interested in these groups and can be purchased over the internet.

### 'Abalone: World-Wide Haliotidae'.

This is a monograph on world-wide abalone by Daniel L. Geiger and Buzz Owen, published by Conch Books and released early in 2012. It updates Geiger & Poppe's (2000) work *Haliotidae* (In: Conchological Iconography, Conch Books, Hackenheim). This work is also methodically researched and beautifully presented, with outstanding illustrations and a detailed introductory section preceding a coverage of all of the world's abalone species. Again, it is a must for anyone interested in this group.

Platon Vafiadis

## From the Office.....



### FNCV Bookshop:

When you wish to buy a book at a meeting, please ensure that the sale is written up in the blue Book sales folder and the money placed in the cash tin. Both of these items are kept in the middle drawer of the desk in the middle of the office. To pay by credit card, fill in a credit card form from the book sales folder and place it in the cash tin. If we do not have the book in stock, leave a note on my desk, fill out a book order form, telephone me or send me an email. I will contact you when the book arrives.

### Photographic Competition:

I hope everyone is looking through their photos so our photographic competition is bigger and better this year. The photographic competition will run from 8<sup>th</sup> April until 3<sup>rd</sup> June this year. The exhibition will be held from 12<sup>th</sup> to 14<sup>th</sup> July. Remember Wendy Clarke will be holding a Photographic workshop and information session to help you improve your images on Tuesday 12<sup>th</sup> March. Don't miss it.

### Original paintings:

Need a gift for a "hard to buy for" person? On the wall in the conference room are some A4 sized drawing and paintings of native wildlife. Each one is an original piece of art and costs only \$50.00. Take the time to have a look next time you are in the hall.

### Calendar of Events:

I would like to give a huge thank you to the volunteers who stayed behind at last month's FNN fold up to help send out the Calendar of Events mail out; Margaret Corrick, Hazel and Edward Brentnall, Margaret Brewster, Barbara Burns, Keith Marshall, Neil McLachlan and Andy Brentnall. Next COE mail out will be May 21st.

### 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.

Many thanks to everyone for their help, Hali

### More Photographic tips

Tips to help you in the competition: *more next month.*

**Degree of Difficulty:** As we know some aspects of our natural world are more difficult to capture on film than others. Capturing a fast moving organism in it's natural habitat would score very highly with the judges.

**Technical ability:** Lighting, cropping, clarity and exposure are all ingredients for an excellent photograph. The way that the light is used to enhance and emphasise the significance of the subject is also important.

### Botanical Drawing & Painting Art Classes

This course is an intensive introduction to Botanical Drawing and Painting.

Develop observation skills and learn about tonal values, pencil and ink rendering, composition, colour, watercolour and gouache'.

Explore, develop and understand a variety of techniques to create your own detailed botanical studies.

**Venue:** George Tindale Gardens,  
33 Sherbrooke Road Sherbrooke.

**Time:** Sunday 17th February - 17th March,  
5 x 4.5 hours = 20 hours  
10.00 am - 2.30 pm (.5 hour lunch)

**Fee:** \$240.00 per course.

For further information or registration forms for this course please contact:  
Susie Parry on 97546157

[www.susieparry.com.au](http://www.susieparry.com.au)

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