



Field Nats News No.210

Newsletter of the Field Naturalists Club of Victoria Inc.
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July 2011

From the President

Welcome to the July edition of the Field Nat News. In the midst of Winter, there are already signs of the Spring to come, with bulbs such as daffodils and jonquils starting to flower and birds beginning to collect nesting material.

VBRRA Camps

In May, the Fauna Survey Group finished their three camps with Arthur Rylah Institute with the last camera collection at Lake Eildon happening. It was very interesting to see what animals were recorded across the three camps. Some of the more unusual animals and birds recorded were: Eastern Brown Snake, Long-nosed Bandicoot, Common Ring-tailed Possum, Spotted Quail-thrush and Koala.

Below: *Spotted Quail-thrush* from VBRRA survey at Lake Eildon, taken with remote sensing camera.



It has been rewarding to be involved in the project and has given the FSG members experience in a new form of fauna survey that we can use on our future camps with our own cameras.

DSE are preparing a report for the VBRRA authority and hopefully a number of articles will come out of this research as well.

SEANA Spring Camp-out Sat 29th Oct – Tuesday 1st Nov - NOW AT PHILIP ISLAND

As mentioned in previous FNN's, we are hosting the SEANA Spring Camp-out over the Melbourne Cup weekend. This camp was to be at Wonthaggi, but due to the difficulty of finding accommodation we have moved the location to **Phillip Island**. A subcommittee has been set up to organise all aspects of the campout, with many different activities being organised, to suit our various naturalist interests. It promises to be a wonderful opportunity to explore this

unique region and meet up with many like-minded naturalist friends. More details very soon.

If you would like to register an expression of interest in attending this camp-out, please email

(Continued on page 10)

Due date for August newsletter **Monday 4th July**. FNN will go to print on the 12th July, collation Tuesday 19th.

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 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 2011

Sunday 3rd – Juniors' Group. Excursion - St. Kilda Penguins. Meet at the beginning of the St. Kilda Pier at 7.00 pm. Contact: Claire Ferguson 8060 2474; toclairref@gmail.com

Sunday 3rd – Fungi Group. Fungal Foray – 10.30 am Greens Bush, Baldry Crossing, Mornington Peninsula. (MEL Edition 37. 254 G6). Contact: Virgil Hubregtse 9560 7775

Monday 4th – Fungi Group. Meeting - Review of June forays. Members may bring a selection of photos to show. Contact: Virgil Hubregtse 9560 7775

Tuesday 5th – Fauna Survey Group. Meeting. - Speaker: Geoff Williams from Australian Platypus Conservancy. Contact: Ray White 9308 3770 AH.

Monday 11th – Marine Research Group. Meeting - Speaker to be announced. Contact: Leon Altoff 9530 4180 AH: 0428 669 773

Wednesday 13th – Bat Group. Grey-headed flying-fox count. Meet at Yarra Bend Golf Course carpark Mel 2D G7 at 5.15 pm. RSVP by email or phone Megan Davidson if you wish to attend. 9380 5062; m.davidson@latrobe.edu.au

Thursday 14th – Tuesday 19th – Fungi Group. Fungimap conference in Denmark, Western Australia. Contact: Virgil Hubregtse 9560 7775

Tuesday 19th—Collate FNN 211. About 1 pm in the hall. All welcome. Contact Noel Schleiger 9435 8408

Wednesday 20th – Terrestrial Invertebrates Group. Meeting - Invertebrates in the suburban setting - remnant natives and aggressive immigrants. Speaker: Max Campbell, RMIT. Contact: Wendy Clark 9877 9266

Thursday 21st – Botany Group. Meeting - Speaker to be announced. Contact: Sue Bendel 0427 055071

Monday 25th—FNCV Council. 7.30 pm sharp. Agenda items and apologies to Hali 9877 9860; admin@fncv.org.au

Tuesday 26th – Day Group. Meeting – Gary Presland: *'A brief tour through some of America's National Parks'*. 10.30 am for coffee and a chat. Speaker 11 am. Contact: Gary Presland 9890 9288

Tuesday 26th – New Members Night. Meeting – 7.30 pm - Come and meet our newest members, or just find out more about the club. Contact: FNCV Office 9877 9860; admin@fncv.org.au

Wednesday 27th – Geology Group. Meeting - Australian crawl: evidence for the evolution of early tetrapods in Australia. Speaker: Dr. Tim Holland, Museum Victoria. Contact: Kaye Oddie 9329 0635

Friday 29th – Juniors' Group. Meeting – Australian Owls. Speaker: Annette Cook, BOCA educator. Contact: Claire Ferguson 8060 2474; toclairref@gmail.com



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

Members' news, photos & observations

We are reserving a page in future issues of FNN for natural history observations, member news and photos. It is just so easy these days to let us know what you have noted in your life, your travels or perhaps your garden. So how about it? Email: fnnews@fncv.org.au by Monday July 4th.

Galls on Lightwood *Acacia implexa*

A young planted Lightwood in our garden is hosting hundreds of galls where its flowers used to be just a few weeks ago. I think they are caused by *Dasineura acaciaelongifoliae*, a gall midge in the family Cecidomyiidae. The females lay eggs inside the acacia flowers and galls develop around the maturing larvae. Larvae pupate inside the gall and adults are said to mature in August, but this year most of them seem to have left through the hair-lined exit hole by late May.

This species was first described in 1890 from galls on *Acacia longifolia*, but nine other *Dasineura* species have had to wait for a name until as recently as 2005. This work was funded from South Africa, where the search is on for biological control agents for thirteen Australian acacias which are invasive weeds there.

Reference Kolesik P, Adair R, Eick G (2005) Nine new species of *Dasineura* (Diptera: Cecidomyiidae) from flowers of Australian *Acacia* (Mimosaceae). *Systematic Entomology*, 30: 454–479

Graham Patterson, May 2011



Above: Gall cluster, about 2 cm across

Right: Single gall, about 7 mm across, showing exit holes



CONGRATULATIONS

In the recent Queen's Birthday Honours list, Bruce Fuhrer was awarded an OAM, Medal of the Order of Australia, for services to conservation and the environment as an amateur naturalist and botanical photographer.



Hi Hali

We would like to convey our thanks to the Club for the new BBQ that Geoff won as part of the "Roof Raffle". It's the first time Geoff has won anything, so it's good to know that raffles do work!

We would also like to say how much we are enjoying the 'Goodwill Wine' that we purchased as part of the fundraising for the roof. We were hesitant about its purchase as we wondered about the quality. However in order to help support the Roof fundraising, we went ahead and placed an order. We need not have worried; we are enjoying both the reds and whites. We would encourage more members to participate. It was quick and easy to order, it was delivered promptly and more importantly it will help to fund just a little more of the roof! Finally a request.

REQUEST—Please does any member have, but is not currently using *Flora of Victoria*, Volume 3. (1996) and *Flora of Victoria* Volume 4. (1999)? Both were edited by Walsh, N.G. and Entwisle, T.J. and published by Inkata Press, Melbourne. Please I need to either to be able to borrow them for at least the next 6 months or if possible even arrange to buy them! The *Flora of Victoria* is currently being converted to an on-line resource, but it is not likely to be completed for another 2-3 years. Meanwhile the hard copies are out of print and there are no plans for it to be republished. I have been unable to source them except in libraries etc. However, we need to have access to them now for a large project we are working on and to use them for a longer period, than libraries etc. will allow. If any member is able to assist me, I may be contacted on either gacarle@ozemail.com.au or 03 95844364

With thanks
Annabel Carle

It 's always lovely to get positive feedback, so FNN took the liberty of publishing this letter to the FNCV admin. in full.

The new members' night

An evening for new members held on Thursday May 5th, was an interesting night. 12 people came, one new member and 4 non-members (one joined on the spot). Although a small gathering it was once again an informative and interesting night. I hope to see more of you at the next night on **Tuesday 26th July**.

FNCV JUNIORS , Hi everyone



Just to let you know that due to the need to bring John Harris and Robin Drury's talk forward, we have rescheduled a new speaker, Ian Moodie, for June 24th.

Ian has worked at The City of Whitehorse Parks Department for a number of years and has been instrumental in producing/promoting Field Naturalist type information in this region. He will be speaking on photographing flora and fauna.

I have also circulated a quick questionnaire that would be very helpful for our planning, if each family could complete it online and email it back to me. If you haven't received this document email : toclairref@gmail.com

Regards, Claire Ferguson

Welcome
Welcome

Warmest greetings to these new members who were welcomed into our club at the May Council meeting:

Zara and Marilla Guss; Gerry, Erika and Ranita Marantelli; Sabine Apel; John Message; Frans Hauwert-Swistak.

SECONDHAND BOOKSALE

The planned date is Saturday 8 October, which coincides with a scheduled Market in South Parade. It will run from 9.00 am to 2.00 pm. Some stock exists already, but members are invited to donate pre-loved books for the sale. Offers to assist in sorting and pricing the books, as well as providing assistance on the day are welcome. Please contact the office.

Renaming names

The article on common names of Australian birds (Naming names, in *Field Nats News* #209), by concentrating on issues of style, rather missed the point about common names. This is that names should be correct, short, and easy to pronounce. Very few of the common names currently in use satisfy these simple criteria.

Correctness. Names such as robin, crow, wren, thrush and magpie are relicts of colonial times, when the first European settlers struggled to make sense of what they observed. They applied names to bird species based on their resemblance in size, colour, and behaviour to birds well known in Britain. Then those later visitors and settlers interested in studying birds more closely, began to coin new names based on apparent similarities. This process produced meaningless names such as cuckoo-shrike, shrike-tit, and magpie-lark. None of these species is actually related to cuckoos, shrikes, tits, magpies, or larks.

Many common names are now known to be inaccurate because most of the birds present in Australia evolved in Gondwana and have no relationship with British birds. One solution to this is to favour the use of names given by Aborigines. As there were some 600 different languages spoken in Australia, it should be possible to find at least one suitable name for most bird species that is short and easy on the ear.

Shortness. What is the merit of polysyllabic names such as black-faced cuckoo-shrike, Major Mitchell's cockatoo or Horsfield's bronze cuckoo? Why are there not more names like thornbill, weebill and emu?

Pronounceability. Many Aboriginal names for birds are too long and complicated to be said and spelled correctly by a non-Aboriginal person. This should facilitate the selection of a short list of suitable names.

I have had a long, though somewhat desultory, interest in promoting the adoption of Aboriginal names for plants, mammals, and birds in south-western Australia. In terms of bird names, I have read 91 sources and compiled 3200 records of Aboriginal names for 177 bird species. This research built upon lead shown in the 1950s by Herb Condon at the South Australian Museum. That study found names for nearly 200 bird species occurring in South Australia. In 1981 Ian Mansergh and Luisa Hercus published a valuable paper on Aboriginal faunal names in Gippsland. During the course of my research I came across many neglected lists of names from southern Australia; these references are appended to the paper that resulted from my study.

Choosing apposite common names is too important a subject to be trivialized by debating whether black-faced cuckoo-shrike should be written as Black-faced Cuckoo-shrike, black faced cuckoo shrike, Black-faced cuckoo-shrike or even blackfaced cuckoo-shrike!

Interested readers may wish to examine my paper, which can be freely downloaded as a pdf from this website <http://www.dec.wa.gov.au/images/stories/nature/science/cswa/v7n2/213-278.pdf>

The full reference is:

Abbott, I. 2009. Aboriginal names of bird species in south-west Western Australia. *Conservation Science Western Australia* 7: 213-278.



Geology Group

Travels in Greenland and Svalbard

Neil McLachlan
Wednesday 25th May 2011

Neil, a member of the Geology Group, gave an illustrated talk on a two week trip he took to Scoresby Sund on the east coast of Greenland and Svalbard, a small Norwegian group of islands half way between the Norwegian mainland and the North Pole. Both places are north of the Arctic Circle.

The voyage commenced from a port near Reykjavic in Iceland, a volcanically active area at the junction between the North American Plate to the west and the Eurasian Plate to the east.

The first part of the journey was west to Scoresby Sund, on the North American Plate, where three days were spent in the world's largest fjord system. Steep cliff faces, (photo right), formed by glacial action on the walls of the fjord and the harsh climate causing active erosion and restricting vegetation growth, have exposed the rock formations and structures in magnificent splendour. The mountains inland were



capped by the Greenland Ice cap and glaciers which flowed down into the fjord. At various locations the passengers were unloaded from



the ship to explore, as one of the photos shows.

There were two groups, one explored in kayaks and the rest were escorted in rubber boats. Neil was part of the second group

Leaving Greenland, two days were spent at sea, travelling north-east. They crossed the plate boundary in the process. The destination was Svalbard, a Norwegian archipelago on the Eurasian Plate. The route taken was around the north of Svalbard's largest island, Spitzbergen,



then southward, passing between the islands of Barentsoya and Edgeoya.

Once again the ice sculptured landscape was spectacular. As in Greenland, many of the rock formations seen were Pre Cambrian and highly distorted and metamorphosed. Of particular interest was a blue coloured rock,

Those who receive the digitised copy of Field Nats News will be able to see this colouring for themselves, but those who have the printed copy, will have to take my word for it.

The picture has a polar bear in the centre., (bottom left).

The trip ended in Bergen, Norway.

Thank you Neil, for your interesting presentation.

Photos: Neil McLachlan

David Gibson

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10 Day Accommodated Tour - Departs 8th September 2011

This early wildflower season tour is designed to allow you to see the beautiful flowering plants north of Perth at a time when they should be at their best. See spectacular landscapes including the station country around Mt Magnet and Yalgoo and enjoy the highlights of the Kalbarri National Park.

For our 2011 tour program or further information contact:

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South West Birds & Botany

15 Day Accommodated Tour - Departs 16th October 2011

The South West offers breathtaking beauty and diversity. The region is renowned for its spectacular wildflowers - an extraordinarily colourful scene during the spring months with an abundance of birdlife.

Abrolhos Islands

6 Day Accommodated Tour - Departs 1st November 2011

The Houtman Abrolhos is an archipelago of 108 islands and rocks located about 80 km off the mid-west coast of Western Australia. They are renowned for their extensive array of marine life and colourful history, and they are also a breeding ground for many tropical seabirds. The Flying Fish Five, a purpose-built charter boat, will be our base for four nights and will ferry us around to observe some of the 95 species of bird that are found on the islands.

Costa Rica Wildlife Safari

15 Day Accommodated Tour - Departs 20th November 2011

Join our comfortably accommodated tour of this pristine wildlife paradise. On one of the most exciting wildlife expeditions we have offered, you can expect to see a diverse array of bird life, plants, mammals and reptiles.



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Fungi Group

Fungal Foray to Upper Yarra Reservoir, Doctors Creek Walk, REFTON 17 April 2011

It was a warm day and had been fairly dry. As a result there were not as many fungi as we had hoped. Luckily for us, the track had been cleared a few days before and the bridge open to Doctors Creek walk. Last year we visited this location in July and found 99 species. This year we went there in April, and found 64 species. As we discovered at Greens Bush, April was a bit early in the season for many of the fungi species that we had expected to find.

The round *Morganella subincarnata* species of puffball found growing on a log had a bristly pimply surface and pinkish tones appeared quite different from that illustrated in McCann (p101, top r) which look brown and smooth. However, the ones we saw were very young specimens which have spines and warts in groups when young, and can grow to about 30mm across. In SE Australia this is the smallest of the *Morganellas* that grow on wood. The other is *M. pyriformis* (*Lycoperdon pyriformis*) that are club or pear-shaped and have fruitbodies that grow to 40 mm across.

One of the *Entoloma* species resembled *E. albidocoeruleum* (the one we used to call *E. "Fawn Bluey"*) but because its stipe was not blue there was doubt about its identity. Unfortunately no one had time to examine the specimen's microscopic characteristics.

A single specimen of the orange *Amanita armeniaca* was seen, still at the button stage. The cap was apricot with the remains of a white

universal veil, and the thick stem was slightly paler with a membranous ring and a bulbous base. It is interesting that we should see it here. It is such a distinctive species it shouldn't be missed, but prior to this our group has only seen it at Greens Bush.

The wrinkled yellowish-orange crust with some tubercles (lumps) present, could be *Pseudomerulius aureas* or *Phlebia radiata* (which



Amanita armeniaca Photo: Pat Grey

we saw at Melba Gully on our Otways weekend). Both have a similar appearance of orange to red-brown with a paler margin. The only macro difference is in the spore colour which is yellowish for *Pseudomerulius aureas* and white for *Phlebia radiata* and microscopically the spore shapes differ, smooth and cylindrical for the former and sausage-shaped for the latter. This species proved to be *Pseudomerulius aureas* with a yellowish spore print.

A species not seen very often at our forays was a *Trogia* sp. found by Paul George. It had a deep fun-

nel-shaped cap and the creamy (almost pale yellow) gills had extensive cross-connecting veins between them. The cap was pale streaky brown on a lighter ground and radially striate (very finely fibrillose). The margin, however, was not inrolled, but plane to decurved. The stem was thin and somewhat paler than the cap. Several specimens were found in clusters of 2 or 3.

This should be compared with *T. straminea* in Fuhrer (2005) p. 178.

Pat & Ed Grey, & Virgil Hubregtse

Many thanks to those who helped collate and label FNN 209

Graeme Thomson
Neil McLachlan
Sheina Nichols
Noel Schleiger
Margaret Corrick
Ray Power
Keith Marshall
Bill Fenner
Edward & Hazel Brentnall
Andrew Brentnall
Joan Broadberry
Bob Rowlands



Day Group

The Curious Mister Catesby

Most appropriately while he was away, exploring some of the National Parks of the United States, Gary Presland arranged for the May meeting of the FNCV Day Group to see a DVD entitled, *The Curious Mister Catesby*. It was a real gem, a beautifully filmed story of a towering, but largely unknown, pioneering figure in the exploration of the natural history of the New World. Begun more than 50 years before the American Revolution, his *Natural History of Carolina, Florida & The Bahama Islands*, was the first fully illustrated study of North American flora and fauna.

Mark Catesby, (1683-1749), an English gentleman farmer, landed in Virginia in 1712 at the age of 29. Catesby collected seeds and botanical specimens in Virginia, which he sent back to England. This made his name known to other scientists and in 1722 he was recommended by William Sherard to undertake a plant-collecting expedition to Carolina on behalf of the Royal Society. This was the age of science, with London as its centre. Newton was the President of the Royal Society. Catesby was returning to the USA no longer as an amateur, but as a working scientist. He settled in Charlestown, Carolina.

In 1722 Carolina was a wilderness of huge biological diversity, encompassing, both semi-tropical and mountain forests, huge freshwater swamps and seashores. European habitation extended only along the coast and about 60 miles inland. Catesby planned to visit each region in every season. Exploration was extraordinarily difficult. Its dangers included fever, hurricanes, and floods. There were no roads. He relied on Native Americans as guides. All specimens had to be preserved in a difficult climate and transported by land and sea to England. Many were lost.

Catesby himself owned to being “not bred a painter”, but his illustrations were inspired from life. His powers of observation were acute. His drawings

included related plants and insects. The lively aspect of his painting contrasted sharply to the stilted work of other natural history artists of the day who worked with dead specimens or copied earlier drawings. Catesby was a forerunner to Audubon 100 years later.

“The real curiosity in the Curious Mister Catesby is why so few people either in Britain or the US have heard of him at all. Mark Catesby was in many ways the most important artist and scientist of the Americas. Yet John James Audubon whose work was published more than a century later than his forebear’s and whose style it might be charitably said owned not a little to Catesby is a much more famous individual.” *Tim Hames, Times, (London).*

In 1725 Catesby travelled to the Bahamas drawing, writing and collecting. He found it “another world”, and he was keen to understand all of its natural history. His was the first scientific account of bird migration. Many of his specimens were sent to Hans Sloane in London. Catesby returned to England in 1726 when his financial support ran out.

Catesby spent the next seventeen years preparing his two volume, *Natural History of Carolina, Florida & the Bahama*. Publication was financed by an interest-free loan from a fellow of the Royal Society and by pre-paid subscription. However, always being short of money, Catesby did much of the work himself. He was the first to use folio-sized coloured plates in natural history books. He learnt how to etch the plates himself. The first eight plates had no backgrounds, but from then on Catesby included plants with his animals. He completed the first volume in 1731, and in February 1733 he was elected a fellow of the Royal Society. The second volume was completed in 1743, and in 1746 he produced a supplement from material sent to him by friends in America. Catesby died just before Christmas 1749. Carolus Linnaeus included much of the information in the *Natural History* in the 10th edition of his *Systema Naturae* (1758).

After a century of fame, Catesby disappeared from view. His original watercolours were rediscovered in 1997 and 50 of them toured museums of the United States. It was the first time these paintings had ever been seen in the land that had inspired them.

Many thanks to Graham Patterson for chairing the meeting.

Joan Broadberry

The Passenger Pigeon





Terrestrial Invertebrate Group

TIG Meeting May 2011

The May meeting for TIG was fascinating and full of interesting information.

Members' Observations:

Wendy Clark noted an increase in numbers of some spiders.

- the net casting spider (above)
Deinopis subrufa seen in and around Blackburn, Nunawading



Net casting spider

and Doncaster over the past few years.

- Nephila, the Golden Orb Weaver Spider also has been seen several times this season in Blackburn, Doncaster and Keilor.

Wendy also saw some Emperor Gum eggs in Blackburn. All had hatched, but



Emperor Gum Eggs

no caterpillars were found. The same tree was also covered in Sawfly larvae – another anomaly. She said that she hadn't seen saw fly larvae in these numbers for more than 20 yrs.

Ed Gray observed:

- an absence of the Leaf Curling Spiders this year.

Andrea Canzano observed:

- Monarch (*Danaus plexippus*) out at Donnybrook in January

- Lesser Wanderer (*Danaus chrysippus*) in Northcote in Jan
- Chequered swallowtail (*Papilio demoleus*) near Melton in Feb.
- Hundreds of Common Browns in roadside vegetation between Ararat and Stawell.
- The first three species are more common in a wet and warm summer.

Query? What has caused these dramatic changes? The hotter, dryer weather? The cool, wetter weather after the drought? More native plants in the gardens? It is time we started recording these observations.

Our talk for the evening was: *Ants on a Sugar High*, by Dr

Heloise Gibbs

Heloise challenged our belief that ants were primarily scavengers and predators and showed us they were more herbivores or omnivores. The clue came from the observation that the biomass of ants was 94% of arthropods during insecticidal fogging in tropical rainforest trees. This amount of ants is very high – something that can't be if they are predators.

There are plenty of plant-based food resources available to ants, including honeydew, the excreta of sap-sucking insects, extra-floral nectar in some plants such as acacia, floral nectar and even plant saps. These food sources provide sugars and limited amounts of nitrogen to ants. It was thus suggested that the superabundance of ants could make biological sense if they were acting to a large extent as herbivores,

mostly indirectly, through their use of honeydew.

Using trophic analysis with heavy nitrogen, studies rated different types of ants and other arthropods as to how herbivorous, omnivorous or predatory/scavenging they were. What it showed is that many ant species are just as herbivorous as the herbivores. However, they do range all the way across the range from herbivores to specialised predators that appear more predatory than all other predators. Of course, access to sugars doesn't just make you fat, it also gives you lots of extra energy for being aggressive and dominant. The availability of sugar might therefore affect the role of ants in the ecosystem.

The ant-hemiptera mutualism may in fact be so important it should be considered a 'keystone interaction'. The mutualism allows ants access to much larger sugar resources than they could access without it. This is likely to enhance populations of some ant species and allow them to affect ecosystems significantly. Ants on a sugar high have access to resources through indirect herbivory. They are likely to have inflated aggression, leading to greater predation rates (in an attempt to balance C:N) and more effective competition.



Conflict fuelled by excess energy – Valentine Ants attacking a muscle-man tree ant

Their greater activity rates may also lead to increased soil turnover through nest building and increased dispersal or predation of seeds, whilst seeking nitrogen resources. The potential of the mu-

(Continued on page 10)



Ants on a sugar high

(Continued from page 9)

tualism to have significant effects on ecosystems is huge.

Aspects of Heloise's Study:

Though there were many different types of ants involved they can be seen as belonging to two major groups.

1. *The 'dominant' ants.* This includes species like the meat ant and the tyrant ants. These are very aggressive species, quite active and able to recruit many workers if they find a good resource.
2. *The more passive ants.* Amongst others, this includes species known as sugar ants. These species have obviously been recognised for their love of sugar, but they aren't much good at 'owning' that resource and are often beaten off by the more aggressive, dominant ants.

We tested ant activity in 4 regions. A bare paddock; a revegetated area with young tube stock, one with old tube stock and remnant vegetation.

One of the things we found from this study was that dominant ants tend to be the ones that monopolise hemiptera. This means that at sites with lots of hemiptera, but few flowers (e.g. young tube stock), we get very little use of sugars by 'other' ants. They thus have very little energy available to them and therefore we don't find many species.

When we looked at which kinds of ants were using plant sugars, we found that it was correlated with the availability of mutualist hemiptera. In young tube stock sites with lots of hemiptera and very few flowers, we found domination of the ant assemblage by "dominant" ants – which were aggressive toward other ants. In contrast, remnant sites, which had few mutualist hemiptera, were dominated by "other" less aggressive

species. Thus, the ant assemblage, and potentially its capacity to play other ecological roles, changes predictably from being dominated by aggressive ants to being dominated by more passive species.

When we look at how much sugar is harvested, we find that loads are much higher in revegetated sites than in remnants or paddocks. This means that there is a lot of energy going into ant-performed ecosystem functions.

Loads of plant sugars collected by ants were much higher in revegetated sites than remnant and paddock sites. There was no suggestion that loads in revegetation approached those in remnants over time. This suggests that ant-fuelled activity in revegetated sites is very high, which will potentially increase rates of some ant-driven ecosystem functions. It may take much longer than 20 years for this function of ants to approach that found in remnants.

The other major thing that we found was that ants in revegetation, feed lower in the food chain. This suggests that they are more reliant on plant sugars and herbivorous prey, than ants associated with either paddock trees or revegetation. This is partly due to the revegetation supporting a simplified ecosystem, where most species rely on trees. It might also be related to the higher proportion of aggressive dominant ants.

So the significance of this work is that we can start using relatively new technology to answer a relatively old question: How can there possibly be so many ants?

It led to a significant change in our understanding of what a major group of insects do. Ants are not just scavengers and predators and plant sugars make up a considerable proportion of the diets of some of the most abundant species.

These studies have a range of implications for drivers of ant evolution, functioning of ant digestive systems and the role of ants in ecosystems,

including how much energy they have to spend on various activities. A great example of hidden importance of mutualisms which can be easy to miss and yet have broad and important consequences.

Wendy Clarke

(Continued from page 1)

seanacamp@fncv.org.au or contact Hali in the office to be put on the list for further information as it arises.

From the Council Meeting

Our first meeting of the new Council took place at the end of May. Andrew Brentnall was welcomed to the Council as the only new member and Noel Schleiger and Ian Kitchen both took on the vacant roles of Vice Presidents, as a full executive committee is required under corporations law.

First Aid Course

After much research into first aid providers, it was decided that the Club



would subsidise places for representatives from each SIG to undertake certified first aid training with St Johns Ambulance. The first aid course will be structured to what we feel are the necessary aspects in line with our activities. If you would like to be included on the list of participants, please let Hali know. The training date is yet to be decided. In addition, Dr Edward Brentnall has offered to run a basic first aid session.

Thanks to both Edward and Ian Kitchen for their research into first aid providers.

John Harris
President



Marine Research Group News

Report on the MRG extended excursion to the Mallacoota region (continued): Pebble Beach, Friday 21 January, 2011. This is an exposed high energy beach south west of Mallacoota township, with rocky reef and some looser rocks that could be turned. The day began bright and sunny but clouds soon over-shadowed us and the heavens opened, catching most of us unprepared without a raincoat.

Once again, as at Bastion Point, the chitons *Sypharochiton pelliserpentis* and *Ischnochiton lentiginosus* were present in some numbers; although common, we admired them, as they do not come into central Victoria and so we often do not see them. To the naked eye on a casual glance, the latter looks to be a uniform green colour but the hand-held lens readily revealed its beautiful blue spotting.



Ischnochiton lentiginosus—Pebble beach, 21/2/2011. Photo: P. Vafiadis



Sypharochiton pelliserpentis—Bastion Point, 19/1/2011. Photo: P. Vafiadis

The *Nerita* species were all *melanotragus* and a very large *Austrolittorina unifasciata* was recorded. *Austrolittorina acutispira* was also present, as were *Agnewia tritoniformis* in some numbers, the trochid *Cantharidella picturata* and three specimens of *Morula marginalba*, again giving the reef quite a New South Wales-like feel to it.

Interesting crustaceans included the

barnacles *Tesseropora rosea* (again a species not really seen in central Victoria) and the crab *Ozium truncatus*. Barbara Hall also extended her crustacean-finding skills in uncovering a small brown scorpion under supralittoral rocks.

Goat Island, Saturday 22 January, 2011: This is one of several islands within the Mallacoota Inlet that we were fortunate enough to visit thanks to the efforts of a local who kindly ferried us across the inlet in his boat. As the survey party exceeded the boat's capacity, two trips were needed to get all of us across from (and subsequently back to) the main jetty at Mallacoota (many thanks Wayne!). The habitat at Goat Island was soft sediment and silt, and although we searched for seagrass to sample, we could not really find any. Records were largely molluscan. The large mudwhelk *Pyrazus ebeninus* was abundant on the sub-littoral sediment, as were the tiny bubble shells *Cylichnatys campanula* and *Limulatys reliquus* (a species new to most of us). The smaller mud whelk *Batillaria australis* was also present. *Nassarius jonasi* was abundant, and *Hydrococcus brazieri* was noted closer into shore in the shallow sub-littoral. The snails *Austrocochlea porcata*, *Turbo undulatus* and *Lepsiella paivae* made the most of occasional hard substrates such as sunken dead tree trunks and branches. The bivalve *Spisula trigonella* (sub-adult) was abundant and the heavy ark *Anadaria trapezia* was also pleasingly recorded. Unfortunately were two specimens of the introduced mussel *Musculista senhousia* were also found.

Perhaps the most spectacular find of the day was the beautiful ranellid *Cymatium parthenopeum* on the soft sediment, the animal itself decorated by a beautiful assortment of coloured spots. This was a most enjoyable day.

This completes the reporting on the excursion to the Mallacoota region, and we thank Leon Altoff, Audrey Falconer and also Barbara Hall for their work in organising it and making it a great success.

Report on the MRG extended excursion to the Warrnambool region, Victoria, 23-26 February, 2011 (reported from review of completed field records): Pickering Point, Maria Island, Middle Island, 23 February, 2011: Records in-

-cluded the anemones *Aulactinia verastra*, *Epiactis australiensis*; the hydroid *Verella velella*; the snails *Stomatella impertusa*, *Microdiscula charopa*, *Pseudoskenella depressa*, *Zalapais inscripta*, *Incisura remota*, *Eatoniella atrella*, *Fossarina legrandi*, *Pisinna dubitabilis* and *Pisinna approximata*; the opisthobranchs *Midorigai australis*, *Polybranchia pallens* and *Placida* sp. 2; the pulmonate *Siphonaria tasmanica*; the bivalves *Arthritica semen* (brooding young in their mantle cavity), *Vimentum jaffaensis*, *Lissarca rhomboidalis*; and the holothuroids *Squamocnus aureoruber* and *Plesiocolochirus ignavus*.

Rogers Rocks towards Sisters Point, 24 February, 2011: Records included the anemone *Phlyctenanthus australis*; the chiton *Ischnochiton subviridis*; the snails *Haliotis laevigata* and *rubra*, *Phasianella australis* and *Mitra carbonaria*; the opisthobranchs *Edentellina typica* and *Tamnovalva babai*; and the holothuroids *Neoamphicyclus materiae*, *Taeniogyrus roebucki* and *Trochodota epiphyka*

Pickering Point towards Thunder Point, 25 February, 2011: Flat rock platform with algal pools. Records included the anemone *Epiactis australiensis*; the snails *Notoacmea mayi*, *Pyrgiscus fuscus* and *Mesoginella pygmaeoides*; the opisthobranchs *Edentellina typica*, *Midorigai australis*, *Polybranchia pallens*, *Polycera janjukia*, *Elysia furvacauda*, *Flabellina poenicea* and *Ercolania margaritae*; the pulmonate *Marinula xanthostoma*; the holothuroid *Taeniogyrus roebucki*; the crab *Naxia tumida*; and the bivalve *Epicodakia tatei*.

Sisters Point, 26 February, 2011.: Records included the snails *Amblichilepas oblonga*, *Stomatella impertusa*; *Serpulorbis siphon*, *Epitonium jukesianum*, *Odostomia victoriae* and *Mitrella lincolnensis*; the opisthobranchs *Edentellina typica*, *Midorigai australis*, *Diaphana tasmanica*, *Colpodaspis* sp 2 and *Polycera janjukia*; and a purple *Leptosynapta dolabrifera*.

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



Library News

Recent periodicals:

Australian Journal of Botany 59(3) has an article which investigates key environmental variables favoured by *Leionema bilobum serrulatum* (was *Phebalium*) in the Strzelecki Ranges. The idea is to predict other places where this uncommon plant may be found.

We recently received past issues of Proceedings of the Royal Society of Vic. 121(1) devoted to William Blandowski, the nineteenth century artist and naturalist. In 121(2) Alan Yen co-authors a study of seasonal changes in the beetle fauna of the Victorian basalt plain. 122(1) has an updated checklist of Victoria's 76 dragonfly species by FNCV member Ian Endersby. There are also articles honouring the eminent microbiologist Prof. Nancy Millis.

The latest periodicals are displayed in a rack in the library. Periodicals in the rack are available for borrowing, as are previous issues.

Don't forget to fill in the borrowing book please.

Graham Patterson

Thanks to the editorial and layout team who put together FNN 210

Joan Broadberry
Noel Schleiger
Platon Vafiadis
Hali Ferguson
Sally Bewsher

"From Our Bookshop

"250 Victorian Waterfalls" (RRP \$49.95 – members \$39.95)

New stocks of this book have just arrived, so if you want to purchase this book, you now can.

"The Prom" (RRP \$24.95 – members \$19.95)

This is a beautiful photographic journey through Wilson's Promontory National Park. Stunning photographs combined with a history, timeline, snippets of information and past accounts of excursions make this book a must have for anyone who loves the Prom.

"Birds of the Yarra Catchment" (RRP \$22.00 – members \$17.60)

This book is packed full of information, maps and photographs for all bird enthusiasts. Produced by BOCA the information is relevant to everyone interested in bird watching in the Yarra Catchment.

"Moths Of Victoria" Part 3 RRP \$12, members \$10. Also new stocks of parts 1 & 2. Why not buy the whole set?

Twitcher's Cottage

Field Nats members Merrin and Paul will welcome you for tranquil and guilt free relaxation less than two hours from the bustle of Melbourne. Set in a native garden with spectacular views and near Mount Worth State Park Twitcher's Cottage puts you back in touch with nature for a relaxing short or long break.

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