



# Field Nats News No.236

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

## From the President

Salutations to all members and welcome to the November Field Nat News. As I compose this, I am sitting on the bank of the Murray River, literally, (*photo right*). We are camped at 'The Boiler' in Hattah-Kulkyne National Park. Regent Parrots, Tree Martin's and cockies of many descriptions are flying by. The Fauna Survey Group are conducting a survey of the Kramen area of the Park. My trip report will be in the next FNN .



You may have noticed that the office has been unattended recently and will be the case until Monday 21st October. Wendy Gare, our new admin officer is cruising down the rivers of Europe on a long-planned holiday. She probably needs the break after a very hectic month or so of settling into her role at the Club.

Congratulations to Robin Drury on receiving a Melbourne Water grant to assist with the frog survey component of the Eastern Fauna Focus. Robin has done a fantastic job of coordinating this joint project with Parks Victoria. The many volunteers who have assisted in

putting out hair-tubes and cameras, bat trapping and frog surveying have made a very good impression on the Parks staff.

### Upcoming Events

There are a number of events coming up which are very important in the Club's year.

The first is the **Australian Natural History Medallion** presentation, which will take place on Monday 11th November. The awardee is Marilyn Hewish for her contribution to ornithology and entomology. Her

presentation is entitled, "*Hidden Treasures: Moths of Victoria*." An invitation with all details appears on P12.

The other event is the **Biodiversity Symposium**, which will be held on the 23rd and 24th of November. This year's theme is "Water and Biodiversity" with a number of well-known presenters speaking on Saturday. On Sunday we are planning a bus tour to Melbourne's world famous wetland—the Western Treatment Plant . So if you have ever wanted to visit the WTP and have not had the opportunity, now is your chance.

Due date for FNN 237, which will cover December 2013 & January 2014 will be **10 am Tuesday 5th November**. We go to the printers on 12th November.

Collation on the 19th.

Seats in our bus will be limited, therefore first preference will be given to those that attend the symposium on both days. Further details appear on page 3. A booking form was included in the previous newsletter, FNN 235.

**Yours in all things green,  
John Harris,  
President.**

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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.**

### November

**Friday 1<sup>st</sup> to Monday 4<sup>th</sup> Fauna Survey Group. Survey** - Bat trapping and spotlighting at Churchill and Lysterfield Parks. Contact: Ray Gibson 0417 195 148

**Saturday 2<sup>nd</sup> – Monday 4<sup>th</sup> Juniors' Group. Camp** – Cup weekend camp at Carrajung Reserve, Gippsland. Contact: Claire Ferguson 8060 2474; toclairref@gmail.com

**Monday 4<sup>th</sup> Fungi Group.** No monthly meeting.

**Monday 11<sup>th</sup> Australian Natural History Medallion Dinner & Presentation.** The 2013 Medallionist is Marilyn Hewish. Come along and see her accept the award and make a presentation about her work. *Invitation and details FNN p12.*

**Monday 11<sup>th</sup> Marine Research Group.** – No meeting. Replaced by ANHM.

**Tuesday 12<sup>th</sup> Fauna Survey Group. Meeting - Conservation Genetics of Growling Grass Frogs around Melbourne.** Speaker: Claire Keely. PhD student, University of Melbourne. Contact: Robin Drury 0417 195 148; robindrury@hotmail.com

**Wednesday 13<sup>th</sup> Grey-headed Flying Fox Survey.** Meet at Yarra Bend Golf Course carpark, Mel 2D G7 at 7.45 pm. 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)

**Saturday 16<sup>th</sup> Fauna Survey Group. Stagwatch.** Come along to an evening stagwatch to search for Leadbeater's Possum and other nocturnal wildlife in the Yarra Ranges National Park. Contact: Ray Gibson. 0417 861 651

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

**Wednesday 20<sup>th</sup> Terrestrial Invertebrates Group. Meeting – Members' Night.** Please bring along any interesting specimens, photographs or other interesting material for discussion. It will also be an opportunity to plan activities for the coming year. If you require equipment such as microscopes or audio-visual equipment. Contact Maxwell Campbell 0409 143 538; 9544 0181 AH; mcam7307@bigpond.net.au

**Saturday 23<sup>rd</sup>—Sunday 24<sup>th</sup> Biodiversity Symposium “Water & Biodiversity”** – Looking at the important role of wetlands in biodiversity. More details FNN p3. Registration form is an insert in FNN 235. See website or contact the office.

**Monday 25<sup>th</sup> FNCV Council Meeting** - 7.30 pm sharp. Agenda items and apologies to Wendy, 9877 9860 or admin@fncv.org.au

**Tuesday 26<sup>th</sup> Day Group. Meeting – Survival and recolonisation following wildfire at Moyston West.** Speaker: Peter Homan, RMIT University. Meet at 10.30 am for coffee and a chat. Speaker at 11 am. Contact Gary Presland 9890 9288

**Wednesday 27<sup>th</sup> Geology Group. Meeting - 40 Years of Weather Forecasting.** Speaker: Dr. Mark Williams, retired meteorologist (Bureau of Meteorology). Contact: Kaye Oddie 9329 0635; koddie@bigpond.com

**Thursday 28<sup>th</sup> Botany Group. Meeting** - Speaker: Debbie Reynolds "Factors affecting recruitment in populations of Spiny Riceflower, *Pimelea spinescens* subsp." Contact: Sue Bendel 0427 055 071

**Friday 29<sup>th</sup> Juniors' Group. Meeting 7.30 pm – Platypus Research.** Speaker: Mel Klamt, PhD student, Monash University. Contact: Claire Ferguson 8060 2474; toclairref@gmail.com

**Saturday 30<sup>th</sup> Fauna Survey Group. Survey** - Bat trapping and spotlighting in Dandenong Valley. Contact: Ray Gibson 0417 861 651



**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:

*Matthew Ferguson, Melanie Ferguson, Rob Ferguson, Hali Ferguson, Kira McKeown, Tui McKeown, Jan Mattrow.*

## Thanks to Sheila Houghton for this item.

A recent article in the *Sunday Age* p2, 22/9/13, reported that Jenny and John Barnett, former members who tragically died in the 2009 Black Saturday fires, left valuable bequests to Bush Heritage and Trust for Nature. These have been used to purchase property near Wedderburn, adding to the Nardoo Hills Reserves, which are important woodland ecosystems. Both the FSG and Juniors' Groups have visited the area in the past. The article has been placed on the hall notice board.

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

## Visitor

Recently whilst camping at The Gums camping ground at Kinglake National Park we had the pleasure of *Rattus fuscipes* (Bush Rat) paying us a prolonged visit.

I was sitting at our camp, writing up my bird list when a Bush Rat slowly ambled along the dirt road towards us. I silently and carefully crept backward toward the campervan, hoping I would not startle the little animal, reached for the camera and crept back to photograph it.

As it turned out this caution was totally unnecessary, as the Bush Rat trotted right onto our campsite and stayed with us for the next two days. In fact we had to be careful not to stand on it, as it was often at the base of the steps to the van or under one of our chairs and on one occasion it sat on my husband's foot! *Rattus fuscipes* made no attempt to avoid us and blended in so well with the leaf litter we were constantly on the alert. It seemed very healthy, in prime condition with shiny fur and always on the move. Most of my mammal books describe the Bush Rat as being mainly nocturnal and sheltering in burrows during the day. Not so our visitor, which appeared at around midday every day.

It was wonderful to be able to observe this friendly creature from close quarters as it snuffled its way around the site. It even followed us to the next camp site where we had a BBQ dinner. It was a cold night and as we sat by the fire it climbed up the slight concrete incline and sat warming itself. At no time did we attempt to feed the animal. It was finding enough insects and seeds in what was obviously its territory.

We counted this experience as the absolute highlight of our trip and only hoped the next lot of campers to arrive would not confuse it with *Rattus rattus* and harm it in any way.

Cecily Falkingham



## DATE FOR YOUR DECEMBER DIARY

The annual FNCV Club Christmas Party was not listed in the latest COE, but be of good cheer, we will be celebrating another wonderful year at 6 pm on **Saturday 14th December 2013** with all the usual festivities.



Full detail next month

**Email:** to FNCV administration  
**Subject:** Re- Bat Conference last weekend.

*Hello Ian, thank you so much for accepting my very late request to attend the Bat Conference.*

*It was really great. Terrific speakers and a really friendly atmosphere. It's so nice to be with like-minded passionate bat lovers!. I'm sorry I couldn't attend all of the events....*

*I hope the rest of the weekend went as well as the first day. And congratulations for organizing such a beautiful event Ian.*

Kind Regards, Anne



## Biodiversity Symposium

Just a reminder, as a registration form and all details were in the October newsletter insert.

**Topic:** Water & Biology, looking at the important role of wetlands in biodiversity.

**Dates:** Saturday 23rd and Sunday 24th November.

**Program:** Saturday: presentation by a number of well known professionals. Sunday: a field trip to Werribee Treatment Plant

**Cost:** Sat. FNCV members \$35, non-members \$45. Sun. Members \$40, non-members \$50.

Both days \$70, mem.or \$80, non-mem.

**Early bird special, book by 18th Oct:**  
**FNCV members/student concession both days, \$55, non-members \$75.**



## Geology Group

### A canary in the coalmine of climate change: Dramatic reductions in Arctic sea ice

Professor Ian Simmonds

School of Earth Sciences, University of Melbourne, 24 July 2013

Professor Simmonds' meteorological interests and expertise in climate science include Antarctica, the Southern Ocean and the Arctic and his recent research has focussed on the dramatic record melting of the permafrost in the Arctic and extreme weather events relating to climate change.

Professor Simmonds began by showing data for the historic changes in global and Arctic surface temperatures. These date from the late 1800s and the 'heroic' age of polar exploration, with early scientific measurements being undertaken by the Norwegian explorer, Nansen, on his 1893-96 trip on the Fram.

Taking the period 1890-1920 as a base period, global surface temperatures have risen an average of around 0.8°C by 2010, but Arctic surface temperatures have risen by around 2.4°C. There are a number of reasons for this Arctic-amplified warming, one of

which is related to the extent of sea ice coverage in the Arctic. The critical measurement period is in September - the time of minimum ice coverage. The median ice cover in September has halved since satellite measurements were begun in 1979, progressively showing less ice coverage, with 2012 being the worst on record. This corresponded to a 3 million sq km loss, equivalent to half the area of Australia. 2013 is tracking to be similarly low.

Less sea ice coverage creates what is called an 'arctic amplification' effect. Ice is shiny and reflects much of the Sun's rays; any warming (for whatever reason) would melt some of the ice; reflectivity then decreases enabling additional solar radiation to be absorbed by the exposed ocean; this results in further warming of the sea and further melting of the sea ice. The process is known as positive feedback of ice reflectivity ('ice-albedo' feedback).

Sea ice changes have other interactions and feedback, for example, on storms. As indicated above, a reduction of sea ice coverage exposes a warmer and 'wetter' ocean surface. This increases the transfer of energy from the ocean to the atmosphere; this additional source of energy can drive

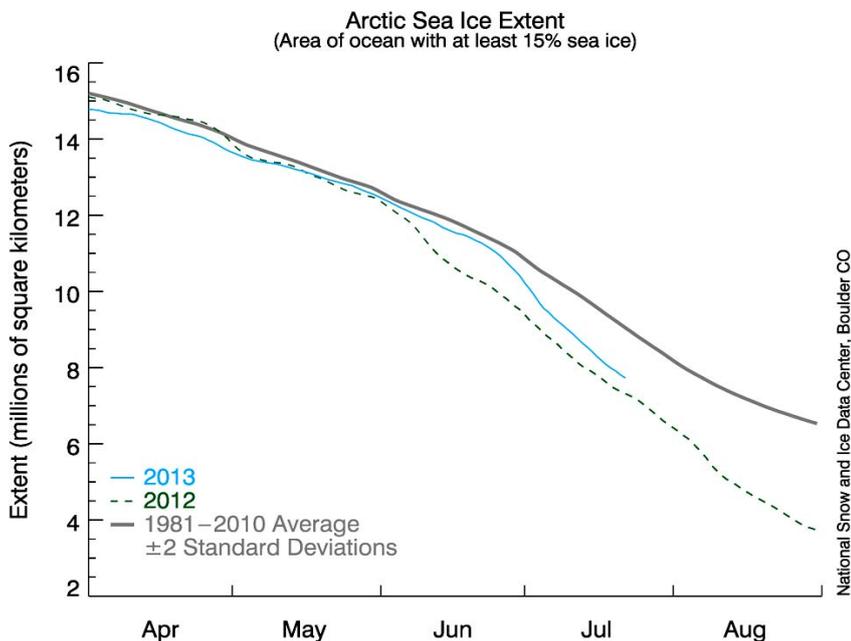
more intense atmospheric storms. This then develops another feedback loop: Atmospheric storms move the sea ice around, causing increased fracturing and breakup and potential movement of ice to warmer regions where melting occurs, decreasing the extent of sea ice coverage ... exposing a warmer ocean ... with increased energy transfer ... and increased storms. Professor Simmonds illustrated this point describing the intense 'Great Arctic Cyclone of August 2012'.

There are other factors that can come into play, however, as rapid changes in a parameter(s) often equate to a 'tipping point'. 'Tipping points' are thresholds which, when crossed, are difficult and/or slow to recover from. The climate system has many such tipping points. Most of these are poorly understood and the relevant thresholds have not been quantified. The current, rapid decline in Arctic sea ice, however, strongly suggests that a regional tipping point has been crossed and some climate models suggest all autumn Arctic sea ice may disappear by about 2040.

Professor Simmonds concluded by saying "Why should we worry about the Arctic?" This is because the global warming signal is amplified in the Arctic. The Arctic's climate system is complex; it is a major energy sink with atmosphere, storms, ocean, sea ice, river inflow all interacting and with many feedback mechanisms enhancing the greenhouse gas signal. Emerging evidence is that the atmospheric and oceanic circulations in the Arctic basin are becoming more vigorous. Thus the changes in the Arctic represent the 'canary' signalling early warning of wider climate changes.

The audience expressed their interest in, and appreciation of, Professor Simmonds' talk with many questions and wider discussion about climate change.

Kaye Oddie



**Thanks to the editorial and  
layout team who put  
together FNN 236**

Joan Broadberry  
Platon Vafiadis  
Wendy Gare  
Sally Bewsher

## Extracts from SIG reports given at the last FNCV Council Meeting

### Botany Group

The September meeting consisted of a two hour workshop on eucalypt identification, presented by Leon Costermans. Leon explained the basics of eucalypt ID referring to his field guide. He distributed leaves for participants to sort into groups according to the diagram in the field guide. Once sorted, the leaves were put into general eucalypt groups. Buds and fruit were then distributed to be sorted into pairs and then matched with their leaves.

On Sunday Leon ran a field trip in the eastern suburbs where participants were able to put their new skills into practice. Bark types were identified, and then leaves, buds and fruit were used to further identify the trees to species. A very successful workshop and field trip. Many thanks to Leon Costermans.

### Fauna Survey Group

**Presentation by Dr Paul Oliver:** At the FSG August meeting Dr Paul Oliver, from the Dept. of Zoology, University of Melbourne spoke on a survey to the Foja Mountains in New Guinea. The location was only accessible by helicopter. In very trying and wet conditions a large team established camps at various sites to establish the presence of different biota and any variation at different altitudes. A number of new species were discovered.

**Bat Workshop:** On 24 and 25 August a bat workshop was held. It was a popular event with over 50 people attending on the Saturday. We had 21 members and 17 wildlife carers among the attendees. A big thank you to Ian Kitchen, ably supported by Hali. The event made about \$1300.

**Presentation by Dr. Patrick Guay:** At the FSG September meeting Dr. Patrick Guay, from Victoria University spoke on "Bird Flight Initiation Distance as a management tool for human disturbance in Australia".

**Eastern Parks Fauna Survey:** The first round of camera deployment has been completed, with 150 camera sites covered. Round 2 has commenced. Images from the different cameras can be seen on <https://www.dropbox.com/sh/suoed2y8plvsxll/xnYFMp8ukd>

The hair tube program has also been completed with nearly 400 deployments. The frogwatch has commenced with rounds in August. Results can be heard at <https://www.dropbox.com/sh/az6zj994zo3p9fv/nCT1ttfkye/Call%20recordings>  
A grant for \$1000 from Melbourne Water has been approved.

The reptile survey has been commenced under the leadership of John Harris and Kathy Himbeck. Sites have been chosen and a training session with Parks Vic staff carried out.

A bat trapping and spotlighting night was recently carried out at Braeside Park. The next date for the bat survey and spotlighting is the Cup Weekend, followed by another survey on 30 November.

**The FSG Christmas party and review is planned for Friday 6 December at Braeside Park.**

### Juniors' Group

A group of 30 Juniors enjoyed visiting the Melbourne Museum on August 10<sup>th</sup> for a tour of the Geology exhibition with Lisa Nink and Behind the Scenes at *Bugs Alive* exhibit with Patrick Honan. We split into two groups and swapped over half way through our time.

Our August meeting celebrated 70 years of our Juniors' Group with a costume party and a look back at our history. *Photo right, Ranita came as a Sea-urchin.*

For our September excursion we visited the Edithvale/Seaford wetlands centre where we met with Penny Baxter from Melbourne Water who talked to us about the significance of wetlands, and the flora and fauna and to be found there. She demonstrated the journey of storm water movement on an interactive display and the incredible loss of wetlands in that region. We walked down to the nearby bird hide and along the walkway opposite before returning to the centre to observe a large Swamp Harrier out of the large viewing windows.

### Fungi Group

On 2 September The Fungi Group held a mini conference about fungi, at which seven members gave talks/presentations.

- ◆ Ed Grey gave an update about progress being made with regard to DNA work on a rare *Auriscalpium* sp. found at Blackwood, Vic. David Catcheside, in South Australia, is working on it. It will be some time before the final results are known.

(Continued on page 6)



(Continued from page 5)

- ◆ Virgil Hubregtse introduced us to four species of fungi that she has examined and that should be readily identifiable in the field.
- ◆ Bill Leithhead spoke about a place in Gippsland where *Hygrocybe* spp. grow prolifically. An area of 15 square metres was covered in the bright red fruit-bodies. Next time they are found, a collection will be made for the herbarium.
- ◆ Pat Grey informed us about the identity of some fungi which have been puzzling us, and also spoke about some which have been misidentified.
- ◆ Richard Hartland showed photos of some fungi that he has found near Powelltown, and recommended an area to be investigated during the 2014 foray season.
- ◆ Jurrie Hubregtse emphasised the importance of confirming the identification fungi before attaching names to them. One fungus in particular has been misidentified as *Sirobasidium brefeldianum* for many years, but there is now some hope of finding out what it is, and we hope to hear soon.
- ◆ Ian Bell gave a demonstration of a powerpoint presentation about fungi, which he has been asked to prepare for Fungimap members to pass on to the public.

The mini conference was very successful because it gave members an opportunity to outline the contributions they have made to the Fungi Group.



**Oh Danny boy, the pipes the pipes are failing!!**

A big repair job to the FNCV building's plumbing was needed in September

**NEW ARRANGEMENTS for FNCV BOOK SALES**

**Kathy Himbeck is taking over all ordering and sales of new books through the FNCV. In many, (but not all) cases, books can be sourced at a discount which is then passed on to members.**

**A new email address has been set up [bookshop@fncv.org.au](mailto:bookshop@fncv.org.au) Enquiries and orders will now go through Kathy NOT the FNCV office.**

*Arrangements are still at an early stage. More information will be available in the next newsletter.*

**Many thanks for those who helped out during the recent sale of historic Victorian Naturalist Printers Blocks.**

Andy Brentnall, Sally Bewsher, Virgil Hubregtse, Ruth Hoskin, Pieter Boschma, Barbara Burns, Joan Broadberry, Daphne Hards, Claire Ferguson, Robin Drury, Philippa Burgess, Susie Scott, Peter Fagg, June Anton, Hazel & Edward Brentnall

**So far the sale proceeds have totalled \$505**

**In Memory of Noel Schleiger**

There has been a generous, (anonymous) donation to the club to be used to commemorate the work and memory of the late Dr. Noel Schleiger. See FNN 231 p4.

After much thought, the FNCV council has decided to donate the money to *Science Talent Search*, (STS). This is an annual science based competition open to all primary and secondary school students in Victoria. The competition is run by Science Victoria, an entity supported by the Science Teachers' Association.

A tribute to Noel, including a photo, will be included, annually, in the STS handbook. The text is reproduced *right*.

**In Memory of Dr. Noel Schleiger (1926—2013)**  
**A Proud Sponsor of the 62nd Science Talent Search**

Dr Noel Schleiger was a teacher of maths at TAFE level, and a highly active member of the Field Naturalists Club of Victoria (FNCV) between 1984 and 2013. His primary interest in natural history was geology; he actively led many excursions, wrote articles and gave talks on his area of expertise.

Noel was also the author of *Roadside Geology (1995)*, which was published jointly by the FNCV and the Geological Society of Australia (Victorian Division).

Noel was a great support for science education over his career, which included his involvement in the Scientists in Schools' Program. He leaves a legacy that we hope will inspire a future generation of scientists.

**Thanks to those who helped collate and label FNN 235**

*A job well done.*

Bill Fenner, Keith Marshall, Ray Power, Margaret Corrick, Andy Brentnall, Edward Brentnall, Hazel Brentnall, Sheina Nicholls, Barbara Burns, Sally Bewsher, Joan Broadberry

This was a hectic morning as there was an insert plus the four monthly COE. The group have also taken on the job of mailing out the COE to various institutions; a great help to the office.

Special thanks goes to Wendy Gare for some amazing footwork when things got tough.

It was great to have Hali and her daughter Mel visit and meet their adorable new cavoodle puppy.



## Day Group

### Meet the Weeds

It was very good of Maria Gibson to step in a late notice for the September Day Group when the advertised speaker was unavailable. Her presentation gave us an overview of the subject of weeds, within an Australian framework.

There are an awful lot of weeds. As against 25,000 vascular plants native to Australia, there are 27,000 introduced species of which 2,779 have become naturalised. The first question of course, is 'what is a weed?' There are a variety of definitions and all are subjective. Examples are: 'useless, troublesome or noxious plant' or 'a plant growing out of place'. Other definitions focus on the introduced, alien or exotic nature of weeds. However, weeds do not have to be from overseas and this approach neglects their invasive nature. A workable definition might be, 'a plant requiring action to reduce its harmful effect on the economy, the environment, human health and amenity'.

Research between 1971 and 1995 shows that most weed species have 'jumped the garden fence'. 65% of weeds were first introduced to Australia as ornamental plants. Only 7% were introduced through agriculture. The reasons for introducing 'weeds' include; deliberate e.g. for gardens, food, fodder, fuel, medicine or accidentally e.g. Oxalis hiding in fruit tree pots.

Environmental weeds include many garden escapes. They create problems because of:

- ◆ Competition: space, water, nutrient, light, pollinators etc. altering structure and function of flora & fauna
- ◆ Transformers: alter ecosystem functions & processes
- ◆ Health: e.g. harbouring fungal pests; altered nutrients, irritant etc.

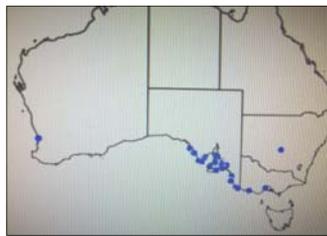
Maria then took us through the individual stories of several weed species including Lantana, Gorse, Boneseed and Patterson's Curse. In this brief report I only have space to deal with two examples.

A weed that Maria particularly loathes is *Limonium hyblaenum*, Sicilian Sea Lavender, which threatens salt marshes. It is a salt tolerant, perennial herb, originating from Sicily, Italy. Its deep root system and broad, fleshy leaves form a thick, cushiony mat which excludes native spe-

cies and prevents them regenerating. Purple and white flowers appear from November onwards. *Limonium hyblaenum* produces a minimum of 150 flowers per inflorescence with each



flower producing a seed. It is an Apomictic plant, that is, every flower produces seed but not necessarily by fertilisation. It releases its seeds explosively. *Limonium hyblaenum* tolerates many habitats including rocky areas and has been found around inland lakes. See map of present occurrences.



It is problematic on Griffith Island on the Warrnambool coast where it forms an almost continuous, 70 metre wide band around the island. This infestation has developed over ten years. In some places it is a 100% cover. Sicilian Sea Lavender has many detrimental long term effects. In essence it alters the structure and function of the salt marsh, reducing fauna and flora species richness. It poses a major threat to the endangered Orange-bellied Parrot that relies on salt marsh vegetation as a food source and chokes Short-tailed shearwater's nesting sites. This nasty weed has the potential to spread rapidly along the Victorian coastline and inland.

*Salvinia molesta* is an aquatic weed. Its effect was starkly illustrated in this picture Maria showed of the surface of Lake Moondarra in Queensland look-



ing like a green lawn.

Some of its characteristics are:

- ◆ Sterile fern
- ◆ Reproduces vegetatively
- ◆ Clonal growth.
- ◆ Pentaploid
- ◆ Spore production is abortive and spore germination absent.
- ◆ South American in origin, although not known in natural conditions.
- ◆ Believed to be a horticultural 'accident'.
- ◆ Species may be a single genetic individual or genet as there is no evidence that somatic mutations have occurred.
- ◆ Biomass extends to millions of tonnes distributed around the world.
- ◆ First recorded from Brisbane in 1953
- ◆ Nutrient status is important to growth rate so run-off from agricultural lands can exacerbate the weed problem.
- ◆ Doubling times of 3.5 to 10 days have been recorded Growth is exponential!

**For thought: From a genetic point of view, *Salvinia molesta* may be the largest individual organism in the world, albeit fragmented.**

Optimum growth conditions for *Salvinia molesta* are:

- ◆ About 30°C
- ◆ An upper threshold of 43°C and a lower threshold of 5°C.
- ◆ Nitrogen often limiting, but blue-green, nitrogen fixing alga in leaves allows population maintenance under these conditions.
- ◆ *Salvinia molesta* competes with other plants for light, nutrients & space.
- ◆ It out-competes submerged plants by cutting off their light supply and altering the chemistry of the water. That is, it lowers CO<sub>2</sub> concentration, lowers pH and increases temperature.

Interestingly, *Salvinia* can out-compete itself! It provides a stable mat for a number of semi-aquatic sedges, rushes and herbs, forming large floating island. Ultimately, complete eutrophication occurs so *Salvinia* cannot grow, but as a consequence, there is no open water left.

Biological control of *Salvinia molesta* has been tried several times. It has no predators of significance in Australia so three were imported; a weevil, *Cytobagous salviniae*, a moth, *Samia multiplicalis* and a grass hopper, *Paulinia acuminata*.

Maria is a lively and thought provoking, presenter and educator. On behalf of the Day Group I would like to thank her for, once again, pausing in her busy life to speak to us.

**Joan Broadberry**

## The 'holy grail' of Victorian insects FOUND AT LAST & IN PRINT!

### CHARLES FRENCH A HANDBOOK OF THE DE- STRUCTIVE

The story of the rediscovery of this book is a 'ripping yarn'  
Below are extracts from an article that appeared in the Age 29/9/13  
p3.

"For more than half a century the final chapter of a six-part series by Victoria's first entomologist was missing. Its absence elevating the last volume to an almost mythical status among naturalists. When the Department of Environment and Primary Industries' Knoxfield offices were relocated to Bundoora, the call went out for staff and volunteers to keep an eye out for the mystery manuscript as they painstakingly made their way through the archives. Against expectations the century-old document was found in a box not touched since being sealed in the 1960s.

Dating back to 1911, the 167 page work has historic as well as scientific value. At the time the first volume was published in 1861, there was no such thing as a guide for pest insects in Australia, let alone Victoria.... reference books from Europe .. were often irrelevant to Australian conditions.

French's guide proved a hit, with 9000 copies of the first selling out, prompting a reprint in 1904. But the sixth volume never made it to the publishers, with French taking the manuscript home to finish after his retirement in 1911. A letter found with the manuscript revealed that Charles French jnr, who followed his father to serve as Victoria's chief entomologist, had passed it on to colleague Richard Pescott, who deposited the document at Victoria's Plant Research Library in 1961."

The hand-written manuscript and the original plates were edited by Alan Yen, Gordon Berg, Tim New and Peter Menkhorst. Alan tells us that French's handwriting was at times a challenge to read. The task took over a year. Part VI has been printed in a limited run of 150 copies by the Department of Primary Industries. It is hard bound and published in the same size and format as Parts I-V, with full colour plates.

Charles French was a founding member of the Field Naturalists Club of Victoria and it is appropriate that the FNCV is the sole outlet for this volume, finally being published more than a century after it was written.



The sole outlet for this book is  
the Field Naturalists Club of  
Victoria For further  
information, email  
[bookshop@fncv.org.au](mailto:bookshop@fncv.org.au) Cost \$90

A HANDBOOK  
OF THE  
DESTRUCTIVE INSECTS  
OF  
VICTORIA,  
WITH NOTES ON THE METHODS OF PREVENTION  
AND EXTIRPATION.

Prepared by the Order of the Victorian Department of Agriculture

BY

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### Good Will Wine— Great gift

The FNCV in partnership with Goodwill wine has started to raise money for the club. This fundraising endeavour will be ongoing and will hopefully benefit the club for many years to come.

Goodwill wine is a fundraising website, which offers Charities and Not for Profit Organisations the opportunity to raise money through wine sales. Simply go to the website [www.goodwillwine.com.au](http://www.goodwillwine.com.au) or call them on 59629155 and order half a dozen or dozen bottles of wine. Most of the wine is sourced within Victoria, Yarra Valley, Mornington Peninsula etc, with the rest coming from elsewhere in Australia.

For every dozen bottle sold the club will receive \$20.00 (\$10.00 per ½ dozen). The wine comes with a 100% money back guarantee and will be delivered to your door. These bottles of wine, with our FNCV label, would make a great gift and a wonderful way to advertise the club. So drink up, enjoy a good wine and raise money for the club.



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## Fauna Survey Group

### Rushworth Forest Survey Camps

18—19 May & 8—10, June 2013

The FSG has been checking and maintaining nest boxes for many years. The May camp was for our normal checking, while the June camp was for nest box maintenance and renovation. The nest boxes have been up for 15 years, some for over 20 and many are now in need of various repairs. Members recorded the condition of the nest boxes as we checked them during May.

In May, 133 nest boxes were checked and 22 Sugar Gliders and three Brush-tailed Phascogales were present. These numbers were similar to December 2012, but much lower than in May 2012 when 93 Sugar Gliders and 18 Phascogales were present. Some interesting chance sightings were also made. A group of ten goats, seven adults and three kids, was seen at a nest box line. Sugar Gliders and Bibron's Toadlets were seen at the campsite. An unusual sighting was made by Maryrose when sitting down for tea at dusk; two Yellow-footed Antechinus were seen emerging from a small hollow, about 1.5m from the ground, in the trunk of a nearby Grey Box.

Our regular campsite at 3 Jims Dam has proved to be quite a wildlife haven, with a number of interesting sightings over the years, though most animals are not abundant, with one record only for some. There

**Below:** Rare Large fallen log. **Above:** Old Ironbark at 3 Jims. *Photos: Peter Homan*



are some hollow trees there which are home to some of these animals: Sugar gliders, Yellow-footed Antechinus, Brush-tailed Phascogale and Feather-tail Glider. Peter Homan measured the diameter of the largest Red Ironbark at 1.33m dbh.

Maintenance work was done on the long weekend. New roofs were put on 14 boxes. This is the most vulnerable part of the nest box and needs to be durable for long life. Water proof plywood and durable hardwood are working well. Hardwood can be sourced



from scrap or demolitions and fixed into wider boards if necessary. The aspect of the box on the tree to protect from sun and rain is something we have been considering, especially with the sparse canopy in much of the forest. The natural lean of the trunk can be used to keep the box drier in some cases. Other repairs to boxes and painting were also done. Six new boxes were erected.

Small mammals and reptiles have not been our primary focus at Rushworth recently, but the sighting of a Common Dunnart and a Dwyer's Snake last year has aroused more interest. There is also an increased amount of control burning taking place and ground cover and logs which are shelter for small mammals, reptiles and other fauna are being burnt. To increase our survey effort for fauna which needs ground cover, we placed out arrays of roofing tiles as shelters at seven localities. Hopefully dunnarts and reptiles will utilise these shelters and we will see them.

### FSG Meeting 4-6-2013

#### *The Box Ironbark Experimental Mosaic Burning Project, presented by Dr. Greg Holland, Deakin University.*

After the 2009 wildfires, government policy has decreed that 5% of Victoria's forests must be subjected to planned burns annually. The role of fire in the ecology of box ironbark forests is poorly known and wildfire in Rushworth Forest hasn't occurred in the last 40 years. The forest has also been modified by logging, firewood collection and mining in the past and these practices continue today. Deakin's Landscape Ecology Research Group worked in association with DPI, PV and research students from Latrobe University.

The study is in Heathcote-Rushworth Forest where 22 sites, each of 100 ha, were treated with planned burns in autumn or spring, aiming for either a 30-50% burn cover or a 70-90% burn cover, resulting in four sites with each treatment, totalling 16 burnt sites. Another six reference sites were left unburnt. 12 monitoring plots of 20x20m in each 100 ha were used for data collection. These 264 data collection sites were further subdivided into a total of 600 1m sq plots for detailed botanical analysis.

Data was collected on tree species and size, living or dead, the number of stumps, logs

*(Continued on page 10)*



## Fungi Group

### FUNGI GROUP FORAY, BLACKWOOD JACK CANN RESERVE, 7 JULY 2013

We were fortunate in that the isolated showers forecast held off for most of our foray at Blackwood. The weather was cold and overcast with a light breeze. Under the pine trees near the car park were the usual exotic species, *Amanita muscaria*, *Russula integra* and *Tricholoma aff. terreum* and *Suillus granulatus*. South of the upper car park we found two *Enteloma* species. The



One of the first Cortinarius seen was the green-capped *Cortinarius austrovenetus* with its yellow gills and stem. Another one was the white *Cortinarius austroalbidus* with rusty brown gills and a slight smell of curry. We did not find the bright yellow *Cortinarius canarius* (*Dermocybe canaria*), that was sighted in previous years.

A large clump of the fruit-bodies of *Cortinarius austro-Entoloma sp.* Photo: Ed Grey

first species had a brown cap, pinkish gills and dark stem. The second had a larger dark grey/black cap about 60 mm wide, a dark grey stem, and the pale gills going pink with maturing spores. We have found green *Entelomas* near here in previous years.

Under a Blackwood tree, *Acacia melanoxylon*, was a *Cordyceps gunnii*. The *Cordyceps* genus is unusual in that it does not use plant matter as a substrate to grow on. It parasitises insects in the larval stage. The specimen that we saw was about 100 mm high and 15 mm thick. One of the moth larvae that are parasitised is the goat moth. I have seen the large 75 mm wattle goat moth *Endoxyla lituratus* near a Blackwood tree.

Coral fungi are not plentiful this year. One species we did see was the off-white coloured *Ramaria gracilis* that has upright branches ending in points. We saw two *Clavaria* genera near some pine trees. *Clavaria corallinosacea* has a pale rose

fertile upper section above the red base of the tongue. Smaller bright yellow *Clavaria amoena* were nearby. Yellow jelly spikes *Calocera sinensis* were seen in all areas.

On a small branch was the funnel-shaped Black-foot Polypore *Polyporus melanopus* that had a very dark brown stem. Also on wood was *Lentinellus pulvinulus*. This species has no stem and the uneven saw-tooth gill edges seen on this genus.



*Cortinarius austrocinnabarinus* Photo: Richard Hart-

*cinnabarinus* (*Dermocybe cramesina*). was seen near the Great Dividing Trail north of the Lerderderg River Road. A small group of three light blue-capped *Cortinarius rotundisporus* specimens was noticed next to the track.

The mauve-coloured *Mycena vinacea* under pine trees was the first *Mycena* seen. The Bleeding *Mycena kuurkacea* red-brown stem bled a dark liquid when broken. This species has a pale brown cap and pale gills with red edges. Also seen on an old decayed pine branch were some blue *Mycena interrupta*. Nearby on the similar sub-

strate was the blue-green *Chlorociboria aeruginascens* that stains wood green. The short stems on the yellow-stemmed *Mycena epipterygia* group seen on a large log were very sticky. One specimen could be suspended from a finger by the sticky stem.

Only one specimen of the Earpick fungus *Auriscalpium sp.* was located on the same Peppermint tree where the species had been seen on earlier forays. The group were hoping to collect enough specimens for a DNA analysis in preparation for inclusion in the red list of endangered species. Over eighty species were listed and described by Pat for the foray.

Les Hanrahan

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and leaf litter cover. Red Ironbark comprised 36%, Grey Box 24%, Red Box 12%, Red Stringybark 20% and dead trees the rest. Large trees were found to be rare, with the average stem size of the Ironbark found to be 19 cm dbh. Logs were mostly small, 85% were 3-10 cm in diameter with less than 1% having a diameter greater than 40 cm.

Sarah Kelly from Latrobe University investigated species composition of bird populations before and after fire. A detailed study of the Scarlet Robin has also been undertaken. Small mammals were studied by Anna Flanagan from Deakin using Elliott traps and radio tracking to investigate population size and home range of Yellow-footed Antechinus. She also made a lucky find whilst spotlighting, an Eastern Pygmy Possum which was photographed on a mobile phone, the first record for many years from the area. Remote sensing cameras worked well for recording hard-to-observe species including Brush-tailed Phascogales, Echidnas, Lace Monitors and also foxes.

Planned burns were found to reduce some key forest structural elements. Loss of logs and stumps was found to be proportional to the burn extent. Also some standing trees, in particular coppice stems, fell over when the stump burnt. In a habitat where logs and hollows are already scarce and replacement slow this research provides valuable information for management of the forest.

Further reading:

[http://  
landscapeecologyresearch.wordpress.com/  
fire-ecology/box-ironbark-experimental-  
mosaic-burning-project/](http://landscapeecologyresearch.wordpress.com/fire-ecology/box-ironbark-experimental-mosaic-burning-project/)

Ray Gibson



## Marine Research Group News

**Report on the MRG meeting Monday 9 September, 2013: Wendy Roberts, of Reefwatch Victoria, spoke on the topic: “Reefwatch Victoria: communities caring for the environment, 2002-2013”.**

It was a pleasure to have Wendy back to talk to the MRG almost exactly 10 years since her first presentation to us on 8 September, 2003 (see MRG page of FNN 136, Nov. 2003).

Reefwatch was formed in Dec. 2002 by the Australian Marine Conservation Society, The Marine & Coastal Community Network and also Museum Victoria. Reefwatch Victoria has its headquarters based at Museum Victoria and is closely allied to the Victorian National Parks Association (VNPA). Its aims are to train divers and snorkellers to record and monitor the marine life in their areas over time. In this way it gathers information about the distribution of key species and assesses their abundance, it monitors and reports on seasonal changes in animals and plants, it documents specific natural history events, and it develops local and general knowledge within diving communities.

The work of Reefwatch Victoria has received significant recognition and it won the 2012 Victorian Coastal Council Award for excellence in education. Among many projects is the Great Victorian Fish Count, where data supplied by 350 divers covering 25 sites over the period 2005-2012 is to be collated into a report (due for release in Nov. 2013). One of the species recorded during the fish count was the western blue groper *Achoerodus gouldii* (Richardson, 1843) in central Victorian waters. This represented an important range extension for this species which was generally known to occur from southern Western Australia to eastern South Australia. It is long-lived (70+ years), grows up to 1.75 m in length, changes sex during its lifecycle (from female to male) and is non-migratory. Seven fish were recorded at Beware Reef Marine Sanctuary and one at Barwon Bluff Marine Sanctuary. It is distinguished from its close relative, the Eastern Blue Groper *Achoerodus viridis* (Steindachner, 1866) by the number of scales above the lateral line. The latter species ranges from southern Queens-

-land to Wilsons Promontory, Victoria. The recent Victorian blue groper sightings were initially thought to represent this eastern species, but have been definitively confirmed to be the western species. The media took great interest and Wendy found herself doing talk-back radio and newspaper interviews. Within a month of confirmation, the Western Blue Groper became a protected species in Victoria.

Recent tasks of Reefwatch:

- Assistance in the identification of new species in Victorian waters
- Monitoring of fish species moving south as a result of ocean warming
- Monitoring for introduced species outside of Port Phillip Bay
- Conducting sea science seminars and workshops (metropolitan and regional)
- Production of a handbook to protect marine habitats.
- Great Victorian Fish Count 2005-2012—report due in Nov. 2013

New tasks include:

- Monitoring of blue devil fish—these fish are territorial and can live for 60+ years; their markings are a unique identifier, just as fingerprints are for people (but the fish must be >15cm for markings to stay constant). Individuals can thus be photographically identified and monitored long term. Wendy showed some spectacular photographs including of fish fanning their egg masses, the latter attached to cave walls
- The Two Bays Marine Calendar to record natural events within Port Phillip and Westernport Bays (eg. giant spider crab mass aggregations)
- Linking projects to the Atlas of Living Australia; and
- Monitoring marine protected areas & areas of conservation significance in Port Phillip Bay and Westernport Bay.

Wendy then talked about notable specific fish records, including: the spotted grubfish *Paraperca ramsayi* (Steindachner, 1883) photographed under the Rye pier—there was only one Victorian record of this species prior to this sighting; the southern sand flathead, whose population has declined by 97% in the past 10 years, for reasons not

entirely clear.

Next discussed was the Bowerbird Project—this is a recently developed online site where naturalists can enter a sighting of an animal, organism or plant with added capacity to upload accompanying photographic, video or audio data as well as where and when the sighting was made. Although still in its infancy, this site is rapidly expanding with a diversity of inputs.

Marine and community engagement was also discussed for Port Phillip and Westernport catchments, with aims to monitor key assets, raise awareness and increase community capacity to become stewards of catchment areas.

An understudied region of Port Phillip Bay is the western shoreline from Pt. Lillias to Pt. Wilson and this forms the focus of an important ‘fill-the-gap’ project. An ongoing area of interest in Westernport Bay is the extraordinarily species-rich San Remo marine community—this area has a unique combination of habitats (including a northerly aspect which is unusual for the Victorian coastline, diverse patches of sand, mud, boulders, algae and seagrass, and a fast-flowing channel current). It is small in size (600m by 300m) and boasts 630 recorded species with 282 invertebrates in the littoral and subtidal areas, 125 of these being opisthobranchs (13 of which have only ever been recorded at this site) representing about 25% of the southern Australian opisthobranch species and 6% of the world species. It also has 40 crab species and 68 bryozoan species. The VNPA nature conservation review recommended that this area be a Marine Sanctuary or Conservation Zone IUCN category IV. (Disturbingly, the North Pacific Seastar was also recorded in the San Remo channel in 2011).

Wendy concluded the talk by discussing how purposeful monitoring of sites can be used to document species and diversity over time, build up a species image library and also link this to projects such as Bowerbird and Atlas of Living Australia. We thank her greatly for her talk and wish Reefwatch Victoria every continuing success.

**P. Vafiadis**



The President and Council of the Field Naturalists Club of Victoria  
have pleasure in inviting you to the presentation of the  
Australian Natural History Medallion  
to

**Ms Marilyn Hewish**  
for her contribution to ornithology and entomology

The Medallion will be presented by Dr WD Birch AM  
President, Royal Society of Victoria

Monday 11th November 2013  
1 Gardenia Street Blackburn 3103

Reception, with two-course buffet, 6.30 pm. Cost \$18 Please book—see below

**Presentation of the Medallion— 8 pm.**

Free & no need to book if attending presentation only

**Speaker: Marilyn Hewish**  
*‘Hidden Treasures: moths of Victoria’*

RSVP for buffet by 1st November to  
Wendy (03) 9877 9860; email [admin@fncv.org.au](mailto:admin@fncv.org.au)



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