



Field Nats News No.205

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

Reg. No. A0033611X

Patron: Governor of Victoria
Prof. David de Kretser AC

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

February 2011

Well, it is 2011 already, so welcome to the February edition of the Field Nat News. I hope that all members and their families had a chance to catch up and enjoy some Christmas cheer.

The saying "time flies", certainly is true, at least for me. I took the opportunity to go to the Werribee Treatment Plant (WTP), on New Year's Day, to do a spot of bird watching with particular attention to finding the Stilt Sandpiper (*Micropalama himantopus*) that had been observed there for a couple of weeks before. This bird, obviously lost, breeds in the Nearctic and migrates south to temperate South America, usually. Well, I got this one, unlike the Arctic Tern!! It was my first new bird (tick) since the Hudsonian Godwit that I saw at the WTP back in January 2009, the last time I was there. Obviously there have been many other things to do in between visits as I normally get there at least twice a year.

Talking of temperate, how has the weather been over the past few weeks, hot, warm and humid or wet and cool. They say that we have four seasons in one day here in Melbourne and apart from snow and hail, we have just about had the rest. One year, it is fires that get all of our attention and the next, it is floods. Just watching the news of the Queensland floods brings to the fore some of the impacts of climate change, the impact on people's lives and the "silver lining" being important environmental flows for many of the rivers such as the Darling, Warrego, Mary and Fitzroy. Living in the southern Queensland town of Gatton, in the Lockyer Valley below Toowoomba, back in 1996 I had first-hand experience of flooding in the Lockyer Valley and all that came with it – isolation due to flooding etc. So I can only imagine the

impact when the flooding is on a "grand scale" across much of the south-east of the state.

As membership of the FNCV extends well beyond state borders and through sister clubs of SEANA, may I extend our thoughts and prayers to members and families who may be impacted by the flooding in Queensland and New South Wales, either now or into the near future.

President's Roof Appeal

The President's Roof Appeal continues to make excellent headway with many donations coming in. So far the amount donated is **\$7,896.76** I would like to personally thank all those who have donated or helped to fund-raise. List see of donors p14 and reports on fund raising p5.



Mark the Date

The FNCV is hosting the Spring 2011 SEANA get together on the Melbourne Cup "long weekend" of Saturday October 29th until Tuesday November 1st, at Wonthaggi. There will be a number of different activities put on by the SIG's across the camp, so attendees should be able to experience events outside of their areas of interest. More details will follow in the New Year.

John Harris

The deadline for FNN 206 is the first Tuesday, **February 1st**. Note this is very early. We will go to the printer on 8th February.

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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.

FEBRUARY 2011

Tuesday 1st - Fauna Survey Group—Meeting. - 'Development of a poison bait for management of feral cats.' Michael Johnston, Department of Sustainability and Environment. Contact Ray White.9308 3770 AH.

Monday 7th – Fungi Group—No monthly meeting.

Wednesday 9th – New Members' Night—Meeting – Come and meet our newest members, or just find out more about the club. Contact Hali at the FNCV Office. 9877 9860 office hours, admin@fncv.org.au

Monday 14th – Marine Research Group—Meeting - Speaker to be announced. Contact Leon Altoff 9530 4180 AH; 0428 669 773, for details.

Tuesday 15th—Collate FNN 146. About 1 pm in the hall. Many members will still be away so we appreciate all the help you can give. Contact Noel Schleiger 9435 8408

Wednesday 16th – Bat Group—Grey-headed flying-fox count. Meet at Yarra Bend Golf Course carpark Mel 2D G7 at 7.45 pm. RSVP as a courtesy to Megan Davidson, m.davidson@latrobe.edu.au; 9380 5062 AH

Wednesday 16th – Microscopy Group—Meeting – “Amazing sights to behold” Microscope Activity Night. All group members and friends invited to learn to use microscopes; beginners catered for. Matt Kitching will be on hand to help us with the enormous microscope in the hall. Everyone welcome. Contact Phillipa Sterpin 9598 3231 AH

Thursday 17th – Botany Group—Meeting – *Timing for effective weed control.* Speaker: Dr Randall Robinson. Contact Sue Bendel 0427 055 071

Saturday 19th - Fauna Survey Group—Field Trip - Stagwatch. Join us as we listen and look for nocturnal wildlife, in particular Leadbeater's Possum, which is Victoria's fauna emblem. Contact: Ray Gibson 0417 861 651. *Prior bookings essential (at least one week before trip).*

Sunday 20th – Junior Group—Excursion - Queenscliff Marine excursion. Contact Claire Ferguson 8060 2474; toclaire@gmail.com

Tuesday 22nd – Day Group—Meeting - A Trip to Iceland. Speaker: Sally Bewsher. 10.30 am for coffee and a chat, speaker 11 am. Contact Gary Presland 9890 9288

Wednesday 23rd – Geology Group—Meeting – Waterfalls in Victoria. Speaker: Ian Wacey - Author of forthcoming book on Victoria's waterfalls. Contact Kaye Oddie 9329 0635:

Hopkins Falls



Wednesday 23rd - Sun 26th - Marine Research Group—Field trip - Warrnambool area. Exact locations will be decided on site. Contact Leon Altoff 9530 4180 AH; 0428 669 773 for details and to advise if you will be attending. (At least one week prior)

Friday 25th - Junior Group— Meeting - Topic – Bugs. Speaker: Jessie Sinclair, from Melbourne Museum. Contact Claire Ferguson 8060 2474; toclaire@gmail.com

Monday 31st—FNCV Council—Meeting, 7.30 pm sharp. Agenda items and apologies to Hali 9877 9860 (office hours) or admin@fncv.org.au



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 January 31st 2011

Last week I was sitting on Lake Eildon when I twice observed a kookaburra fly down to the lake water and pick up a small fish with its feet, like sea eagles do.

I had not seen this before and wondered if it was 'normal' for them.

I also saw a mud larks' nest in a tree about 50 m out in the lake and about 30cm above the water. There was one chick, not yet fledged that the parents were feeding. Obviously the parents had nested, based on the last few years when the water did not come anyway near the tree. Given there was good tree cover I wondered on the probability of the fledged bird flying from tree branch to tree branch. I rather suspect that the probability is that it will become fish food as it will land on the water instead of a branch and then not be able to get to a branch to climb up.

Warm regards, **Dick Thomson**

While walking along a footpath near Lady Bay Beach, Warrnambool we observed an Echidna drinking provided water, as the attached photos show. This is the first time we have seen this activity and it would seem that it did not wish to share the remaining water!

Regards **Ken & Michelle Handcock**



Carol Page sent in this photo, originally for the Christmas Party. It is obviously from a fungi excursion, Thanks Carol—it is a lovely shot. Could we have more details of when where it was taken please?



The popular book *The Mallee in Flower* by Ian McCann has been reprinted. A copy can be ordered from:

Murray Mallee Local Action Planning Association Inc
PO Box 2056
MURRAY BRIDGE SA 5253

Phone 8531 2066; fax 8532 5300
Email; mmlap@internode.on.net

Please enclose a cheque for \$25 per copy (\$22 + \$3 p & h)

Don't forget to include your name, return address, phone number and email.

Hi, my name is Debbie Worland I am a member of the Castlemaine Field Nats. I am just writing to make you aware that a DVD on Swift Parrots has just been finished. The DVD runs for 25 minutes and features Chris Tzaros from Birds Australia and is narrated by Castlemaine's John Flaus. The aim of the DVD is to help people identify swifties by sight and by call. The DVD also has rare footage not seen before. If any members are interested they can email swiftparrotsofmuckleford@hotmail.com

Members' News, Photos and Observations (continued)**Extract from National Parks Act, Annual Report 2010 p8
Marine values protection...**

“ Three marine pests (*Corbula gibba*, *Theora lubrica* and *Musculista sten-housia*) found by the Field Naturalist Club of Victoria in Shallow Inlet Marine and Coastal Park were reported to Parks Victoria in July 2009. A subsequent survey found no specimens. Although the club has since found some other specimens, they appear to be present only in very low densities.”

Thanks to Victoria Aitken for bring this to our attention.

“I spotted 3 plants of the Black-tongue Caladenia (*Caladenia congesta*) in the Macedon Regional Park, near the railway line at Macedon today. This is a new one for me. The plants varied in colour from deepish pink to very pale pink. “ Picture on NatureShare <http://natureshare.org.au/observation/1589/>

This is part of the Nature Notes, observed by David Francis, Riddells Creek Landcare

An article in *The Age* for 7 December 2010 reported the discovery of the striped greenhood orchid (*Pterostylis robusta*), listed as extinct, in the Nar-doo Hills Reserve.

Willis *A handbook to the plants of Victoria* v.1 (2nd ed. 1970) lists a number of locations, including Wedderburn. In my copy, which once belonged to Cecily Allen, there is a note that she saw it in the Brisbane Ranges on 7 June 1977. The black-tonge orchid (*Caladenia congesta*) was found on Mt. Mac-edon recently by David Francis, from Riddell's Creek Landcare. Though widespread, it is not common, and Willis lists it as 'only occasional'.

Thanks to Sheila Houghton for both the above items.

Welcome

Warmest greetings to these new members who were welcomed into our wonderful club at the November FNCV Council meeting.

New Members 25th October to 22nd November 2010

Name	Join Date	Suburb	State
Miss Jan AITKEN	25/10/2010	ELTHAM	VIC
Mr Riley BUCHANAN	25/10/2010	MEREDITH	VIC
Miss Ella VEGH	5/11/2010	THE PATCH	VIC
Mrs Barbara VEGH	5/11/2010	THE PATCH	VIC
Mr Miklos VEGH	5/11/2010	THE PATCH	VIC
Miss Niamh HOROBIN	5/11/2010	BLACKBURN	VIC
Ms Christine GRAY	5/11/2010	BLACKBURN	VIC
Miss Tilda HOROBIN	5/11/2010	BLACKBURN	VIC
Miss Krista RAY	5/11/2010	EMERALD	VIC
Mr Alex MACDONALD	15/11/2010	CROYDON HILLS	VIC
Mrs Caroline MACDONALD	15/11/2010	CROYDON HILLS	VIC
Mr Lachlann MACDONALD	15/11/2010	CROYDON HILLS	VIC
Miss Pheobe MACDONALD	15/11/2010	CROYDON HILLS	VIC

**Welcome to new
Members' night**

You are invited to attend an information evening for new (and old) members on Wednesday 9th February at 7.30pm. All are welcome to meet our newest members, council and SIG reps; ask questions and learn more about the running of the club.

These 'welcome to new members' nights are especially aimed at making our newest members feel part of the club and to answering any questions that they may have. Supper will be provided.

Please contact Hali Ferguson our office administrator if you plan to attend on
9877 9860– office hours or leave a message
admin@fncv.org.au

**Expressions of Interest in
a first aid course run
through the FNCV**

This year the Club aims to have more people trained in basic first aid available on excursions and camps.

If you are interested in attending a short first aid course arranged and subsidised by the FNCV please leave your contact details with Hali on 9877 9860 or email admin@fncv.org.au

Note participants would be expected to contribute towards costs.

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



Hawthorn Juniors' reunion

Club Christmas party: Library & Archives dedication

About 50 people gathered to enjoy our club Christmas party this year. Alison Houghton put up a display of club memorabilia and had a power point display playing for the early part of the party. Her work with the club history saw a small reunion of the old Hawthorn Juniors', which was the forerunner of our Juniors' Group. Thank you to all the people who donated prizes to our raffle; your donations helped to make our Christmas party a great success: They are Bunnings, Leon Altoff, Barbara Burns, Joan Broadberry, Sally Bewsher, Patricia Cowley, Hali Ferguson, Bronwyn Freeman, Sue Bendel, Bob Rowlands, Heather Eadon, Wendy Clark, Edward and Hazel Brentnall. **The raffle made \$255 and the donation tin contained \$140 towards the roof appeal.**

After lunch the surprises continued as John Harris dedicated the Library and Archives to Sheila Houghton. Sheila was very surprised and pleased. Next time you are in the club take the time to look at the sign above the Library door. Congratulations from all of us at FNN. Below are listed some of her achievements.

- Elected to club 10th July 1972
 - Made an Honorary member 2 December 1996
 - Joined council August 1981 and held several positions:
 - Council Member August 1981 – 1982
 - Acting Honorary Secretary November 1981 – April 1982
 - Honorary Secretary May 1982 – January 1985
 - Acting President January – April 1986
 - Vice President 1988 – 1990
 - Honorary Librarian 1985 – 1990 (Leave of absence 1990-1991) continued 1991 – present day.
 - Books written:
 - *The History of the Australian Natural History Medallion* – 1987
 - *Index to Southern Science Record 1881 – 1883 - 2004*
 - *Leaves from our history: The Field Naturalists Club of Victoria 1880-2005.* (written with Gary Presland in 2005)
 - *Index to Field Nats News 2010*
 - Sheila was also the Recorder for the Ian Potter Foundation's Australia's Fungi Mapping Scheme in May 2001.
 - In 2008 she and Gary Presland started the Day Group for members who chose to no longer attend evening meetings.
- Regular contributor to the *Field Nat News* and *The Victorian Naturalist*



Dedication of The Sheila Houghton Library & Archives
Photos: J. Broadberry

President's Roof Appeal Bunnings Sausage Sizzle

On Friday 19th Nov 2010 the FNCV ran a Bunnings sausage sizzle to raise money for the President's Roof Appeal. The day was sunny and the flow of customers steady. Thanks to a team of willing volunteers, who answered my call for help, we managed to raise a total profit of \$863.00. I would like to thank Barbara Burns, Joan Broadberry, Sally Bewsher, Victoria Aitken, Carol Page, Cecily Falkingham, Philippa Sterpin, Alison Houghton, Heather Eadon, Ruth Hoskin, Gary Presland, John Harris and Rob and Matthew Ferguson for manning the stall and helping to set up and pack up. I would also like to thank the Blackburn IGA for their help in supplying us with the sausages etc and Bunnings for giving us this opportunity. *Photo: from left- Hali, Joan, Sally.*

Hali Ferguson, FNCV Office Administrator



Below are extracts from some of the SIG reports supplied the November FNCV Council Meeting

Bat Study group

There are currently lots of young ones in the colony. DSE are running a briefing on 30th Nov and training for Heat Events on 4th December. Heat events are classed as over 40 days.

Botany Group

Our last meeting for the year was Richard Francis presenting on GIS mapping for plants. He brought his computer with him and walked us through a demonstration of how the GIS mapping program works including the overlays.

Fauna Survey Group

The survey camp schedules for Saturday 30th October to Tuesday 2nd November was cancelled due to a forecast of rain.

November Meeting had Alastair Traill speaking on "Seattle and Beyond, wildlife and more". Lots of diurnal mammals, especially squirrels and other rodents. Also an account of Mount St Helens.

Stagwatch Sat 20th Nov. cancelled due to a lack of sufficient participants.

Juniors Group

October speaker was Lisa Gordino who spoke about Bats.
October Excursion was ponding at Monash with Jerry Raynor.
Christmas camp to Mt Baw Baw is fully booked with a waiting list.
The February boat trip is also fully booked with a waiting list.

Marine Research group

The September meeting had Luke Hynes from Landcare Aust speaking about Japanese Kelp at Apollo Bay as well as Ocean outfalls.

At the October meeting had Alan Monger speaking about state borders, as so many of them are defined by water.

In November a number of MRG members went to Apollo Bay and surveyed the Japanese Kelp cleanup. It was found that this plant is not a good habitat. MRG were interviewed by a local radio station. A report was written and passed on to Landcare and DSE. Several tons of Kelp has been removed in an attempt to start eradicating it completely.

Leon and Audrey have placed brochures in the Discovery Centre at the Museum and are making enquiries to put them other places. The brochures and the stand look fantastic.

Microscopy Group

David Reser from Monash University spoke about Brain Wiring: Finding Connections Between Brain Areas Using Neuroanatomical Tracers. Microscopy techniques used include bright field, dark field and fluorescence. This technique was created by two men in 1906, with an interest in looking at the brain.

Flying Foxes at Kew- from Juniors Newsletter

You might have seen some Grey-headed Flying-foxes near your house or heard the sounds they make— squabbling, gurgling, gargling and shrieking. A great bat experience is to see **thousands** of these megabats leave their camp at Yarra Band Golf Course at dusk to feed on the blossoms and fruits of trees in the nearby suburbs. Access is via Bellbird Picnic Ground (Melway Ref 44 K3).

To help people get a good view of the bats, there are lookout platforms and a riverside trail. Information about the colony is given on interpretation boards in the same area.



Hali liked this site so we have included it for our readers to sample.

Hi. I have added some new posts to my photography blog, at www.robertashdown.com/blog

Posts cover include urban ospreys, funnelweb spiders, native snails, birds and cicadas, and include some great images from guest photographers. Hope you get a moment to visit the site, and please pass the link on to anyone else who might be interested in such topics.

Cheers and all the best.

Robert Ashdown

Bio-diversity Symposium November 21st 2010

About 36 people attended and the day went really well.

Alan Yen commenced the program by speaking about Terrestrial Invertebrates followed by Di Crowther on Freshwater Invertebrates, Michael Lyons on Molluscs followed by Tom May's paper on Fungi. After lunch came Graeme Lorimer's presentation on plants, Andrew Hamer's paper on Amphibians and Reptiles and Richard Loyn speaking on Birds. The symposium was rounded off by Peter Menkhorst presentation on mammals and Steven Meacher's final paper on was on Climate. Catering was ably handled by Antoinette Osman. More photos p14



Above: President John Harris presents club wine and mug to Dr. Tom May



Left: Steven Meacher speaking on Climate.

Photos:
J. Broadberry

Help the Club fundraise for the President's Roof Appeal with Good Will Wine

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. For now funds will be directed to the roof appeal.

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 or call them on 59629155 and order half a dozen or a 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 1/2 dozen).

The wine comes with a 100% money back guarantee if you are not happy with the vintage 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.



Welcome to 2011. The library will reopen on Tuesday 1 February. Library hours are 11am to 2 pm.

Much archival material came from members towards the end of last year, so we were busy with that. The only addition to the library (in Reserve Collection) in December was *Darwin, Charles (1945) The formation of vegetable mould through the action of worms.* (1st published 1881).

Wildlife Australia 47(4) has an article on penguins on Phillip Island, and a 'holiday guide' on to where to see wildlife around Australia.

**Sheila Houghton
Honorary Librarian**

Many thanks to those good folk who helped collate and label FNN 205

- Ray Power
- Dorothy Mahler
- Noel Schleiger
- Keith Marshall
- Joan Broadberry
- Margaret Corrick
- Bob Rowlands
- Graeme Thomson
- Neil McLachlan
- Sally Bewsher
- Margot Bundy



Day Group

The Galapagos are truly amazing. Forget your images of waving palms on white sandy islands, - these islands are of volcanic origin. A hot spot on the border of three tectonic plates has created a series of islands which drift mainly east. The youngest island, geologically speaking is Fernandina, west of Isabela, both having currently active volcanoes.

In November 2006, just before the wet season, we spent a week exploring Santa Cruz, one of the larger inhabited islands, with the largest town on the Galapagos. The second week was spent on board a small boat visiting most of the larger islands. Our tour group numbered 16, plus 8 crew.

The landscape is mainly rugged basalt coasts with lava flows, ash and scoria cones, especially on lower, smaller islands. Beaches are white, red, green (% olivine) and black basalt.

There are seven vegetation zones” the Coastal, Arid and Transition Zones cover the greatest area, especially the lower, smaller islands. Some of the first colonizers are four species of mangrove and three genera of cacti. The Lava Cactus *Brachycereus nesiotica* is the only species of its genus; Candabra Cactus, growing 7-8m high in the Arid Zone, has three varieties and *Opuntia* (prickly pear) is the most widely distributed and numerous, having six species and fourteen varieties. The tallest grows to 12m. Other tough plants are, *Parkinsonia*; Grey Matplant, *Tiquilia nesiotica*; Saltbush, *Cryptocarpus pyriformis* and *Sesuvium sp.* There are four species of *Acacia*. The widespread deciduous Palo Santo tree, *Bursera graveolens* throws a grey mist over most islands at this time of year. The bigger islands intercept the NW

winds and rain on one side only. The higher altitude attracts the garua (mist) which creates four moist or humid vegetation zones on Santa Cruz and Isabela particularly. Among other plants, *Scalesia* is a genus endemic to Galapagos, containing 15 species and 6 sub-species adapted to different zones. In the Moist Zone in the centre of Santa Cruz, *Scalesia pendunculata* is a tree to 15+m covered in epiphytes; ferns, orchids and mosses. One fern even grows in the throat of a volcano on Isabela! This lush area is good farm-



Vermilion Flycatcher

Photo: Naomi Hall.



Pinnacle Rock with Grey matplant in foreground on the island of Bartolome. Photo: D. Mahler



Scalesia pendunculata with moss draped over the trees, in the moist zone. Photo: D. Mahler

ing country producing cattle and crops.

Highlights of the tour were many. A Galapagos penguin, the only penguin found on the equator, ‘flying’ around out boat, masses of breeding birds on Genovesa, South Plaza, Espanola. Waved Albatross nest only on Espanola. The beautiful Swallow-tailed Gull, the only nocturnal gull in the world with two chicks. Boobies galore. The Magnificent and Great Frigatebirds. The cheeky Hood Mockingbird on Espanola. The brilliant red and black Vermilion Flycatcher. Hundreds of Pelicans and Blue-footed Boobies all diving and fishing in a very confined area just off the coast. One cannot forget the amazing tameness of all the wildlife; Iguanas, giant Tortoises, Fur Seals and Darwin’s finches.

The Charles Darwin Research Station and the Galapagos National Parks Service are trying to combat many pests on the islands, having some success with goats and donkeys amongst others. The greatest threat to the Galapagos National Park now is population growth, immigration from mainland Ecuador for work and fast growing tourism.

Dorothy Mahler & Noel Schleiger



Day Group

On 23rd November, the Day Group went on an excursion to the linear park, Damper Creek Reserve in Mount Waverley. This creek is part of the Yarra catchment. We were led by Cecily Falkingham.

Below are a few extracts from a publication of the Friends' Group.

"Do you realise that the Damper Creek Bushland Reserve through which you are walking, was an overgrown, weed infested strip, little more than an open drain, a mere 15 years ago? Now, it is a highly regarded, restored area of bushland teeming with wildlife, an oasis in the centre of a busy city.

In fact the original plans called for this entire 1.5k of the creek between Stephenson's Rd and High Street Rd to be barrel-drained and subdivided for housing. That this did not occur was due to strong community action. In 1968 when the then Council's plans became known, the first Friends' Group was established and several members successfully stood for election.... Having been saved from subdivision, the Reserve and the Creek suffered neglect until 1993.

Restoring the Reserve

... The original creek bed suffered serious disturbance and displacement when the sewer was built along the Creek bank. A company with expertise in creek restoration was retained, initially by Waverley and then Monash Council, and over four years the creek bed was reconstructed and stabilised with large boulders transported from Central Victoria. Restoration started with the bed and extended up the banks. The very substantial funding required was provided by Waverley Council and Melbourne Water.

The re-planting and weeding of the newly constructed creek bed and banks and the remainder of the Reserve was undertaken by the Monash Council Bush Crew and the Friends of Damper Creek. This work continues and we invite your assistance and participation. The Friends Group has successfully applied for grants of over \$98 000 (up to 2010) that have been used to buy indigenous plants raised by specialist nurseries using seed gathered in the Reserve wherever possible. This helps preserve the genetic material of the area. Although the Reserve has been extensively replanted there are several areas of original remnant bush within the boundaries.

The effect of the restoration has been a return of wildlife, especially birds and possums, including the beautiful little Sugar Gliders, Rainbow and Musk Lorikeets, Crested Pigeons, Pardalotes, Scrub-wrens, Eastern Spinebills and Tawny Frogmouths.

... **The new Friends' Group** was established in 1993... and

holds monthly meetings and monthly working bees. (10 am to 12.30 am—details on noticeboard at the Reserve or newsletter.) To join the Friends Group go to the website (google) or write to the secretary, PO Box 2063, Mt Waverley 3149. Membership is \$2 for individuals and \$5 for families".

On behalf of the Day Group I would like to thank Cecily for showing us a particularly inspirational and special place—an all too rare open space in Melbourne's south-east.

The location is at Mel 61 D10, enter from Park St off High street Road.

Joan Broadberry

Thanks to the editorial and layout team who put together FNN 205

Joan Broadberry
Noel Schleiger
Platon Vafiadis
Hali Ferguson
Sally Bewsher





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Coates Wildlife Tours

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Dirk Hartog Island & The Coral Coast

11 Day Accommodated Tour - Departs 30th March 2011

This fascinating tour takes in all the highlights of the unspoiled coast between Perth and Exmouth including the Stromatolites, Charles Knife Canyon, Shothole Canyon and Yardie Creek Gorge. Enjoy a flight to the Abrolhos Islands, cruise the clear waters of Shark Bay and spend three nights on WA's largest island - Dirk Hartog Island.

Pilbara Reef & Ranges

13 Day Camping Tour - Departs 16th April 2011

This 13 day tour has it all - the magnificent coastal area of Coral Bay and the Ningaloo Reef plus the natural wonders of the Karijini National Park. The homeward journey takes you through the historic goldfield areas around Meekatharra, Cue, Mt Magnet, the wheatbelt town of Wubin and New Norcia Australia's only monastic town.

Lake Eyre Basin & Flinders Ranges Wildlife Expedition

14 Day Camping Tour - Departs 21st April 2011

Uncover the entrancing outback with this trip to the Lake Eyre Basin - the heart of Australia. Experience the spectacular scenery and geological wonders of the southern and northern Flinders Range, the massive expanse of Lake Eyre and the diverse wildlife of the Lake Eyre Basin. During our trip we will travel on three of Australia's best known outback tracks: the Strzelecki Track, the Birdsville Track and the Oodnadatta Track.

Tanami Road Expedition

14 Day Camping Tour - Departs 8th June 2011

Explore some of the most remote areas in the Northern Territory and north west Australia at a relaxed pace with a small group. Spend three days at Newhaven Station wildlife sanctuary, before visiting Handover, Lake Stretch, Wolf Creek crater and Windjana Gorge. We expect the wildlife to be plentiful, and the scenery and sunsets to be spectacular.

For our 2011 tour program or further information contact:

COATES WILDLIFE TOURS

Free call: 1800 676 016

www.coateswildlifetours.com.au

Email: coates@iinet.net.au

GSA Coates Tours Licence no 9ta1135/36

Kimberley Discovery Tour

16 Day Camping Tour - Departs 29th May 2011 & 20th June 2011

The Kimberley region in the north-west of Western Australia is one of the most remote and unspoiled wilderness areas in the world. It's unique geology, ancient limestone reef and rich Aboriginal culture has fascinated visitors for years. It is home to some of Australia's most beautiful and rare birdlife, diverse and interesting flora, and exciting and unique fauna.

Western Explorer Tour

14 Day Camping Tour - Departs 12th August 2011

This walking tour is a magnificent outback experience! Explore the Kennedy Ranges, Mt Augustus & Karijini National Park on foot. This 14 day camping, walking and wildlife tour coincides with the northern and mid west wildflower season and with a reasonable winter rain there should be some colourful displays. The gorges that work their way into the Kennedy Ranges, the aboriginal art, Cattle Pool, the view from the lookout on Mt Augustus and the spectacular gorges and mountains of Karijini provide an unforgettable experience.

Lorna Glen to Canning Stock Route

11 Day Camping Tour - Departs 14th August 2011

Join us as we explore the remote Lorna Glen Station North East of Wiluna, Western Australia. The Department of Conservation and Environment have centred their Range Land Restoration program on the area, aiming to reintroduce 11 native mammal species to the area. To date, Bilbies and Brush-tailed Possums have been successfully reintroduced. The area also supports more than 480 species of vascular plant, 220 vertebrate species, 14 small mammal species and 70 species of reptile.



"Specialists in Nature Tours"



Marine Research Group News

Report on MRG meeting Monday 13th September, 2010 (continued): this page summarises the talk by Jason Strugarek of the National Centre for Marine Conservation and Resource Sustainability (NCMCRS), Australian Maritime College in association with the University of Tasmania. His topic was **“Trait differences in an invasive marine predator (*Carcinus maenas*) in temperate Australia.”**

Before going on to talk about the introduced crab *Carcinus maenus*, Jason spoke broadly about invasive species, defining them as species which have spread beyond their native range, this spread occurring via human assisted vectors and also through natural spread. Biological invasions can cause major environmental impacts within their invasive range and are a leading threat to global diversity in the marine environment.

Encountering new environmental pressures can cause morphological and behavioural changes in invasive species that can provide them growth or predation or defense advantages. Known examples include an earlier sexual maturity in the zebra mussel, increased temperature and salinity tolerance in the alga *Caulerpa taxifolia* and in the Pacific oyster *Crassostrea gigas*. In northern Australia, recently established cane toad populations at the edge of their known spread have developed larger hind legs than populations at the centre of the incursion.

The crab *Carcinus maenus* is native to Atlantic European waters but has become one of the top one hundred invasive marine pests in the world. It was introduced into Port Phillip Bay during the late 1800's and more recently (around 1990) was noted in Tasmania as a result of spread via shipping. It also occurs in New South Wales, eastern South Australia and in the Swan River estuary, Western Australia.

Morphological & behavioural changes noted in invasive populations of *C. maenas* include: increased temperature tolerance (0- 33°C); increased salinity tolerance; development of larger crushing fingers in male *C. maenas* (North America); different feeding behaviour (clipping and probing of shells); and male-dominated populations (west and east coasts of U.S.A.). Hitherto in Aus-

trait differences and sex ratios in *C. maenus* across different localities were unknown.

Jason's research focussed on examining morphological traits of *C. maenas* between: a/ sites with different invasion histories (Victoria and Tasmania), b/ males and females, and c/. specimens at the centre and the edges of the range distribution in Victoria and Tasmania. He also examined the sex ratio of *C. maenas*, comparing Victorian and Tasmanian localities. Morphological measures used included carapace length, maximum carapace width, posterior carapace width, rostrum width, palm height, palm length, moveable finger length, and merus length of 1st and 4th ambulatory legs.

Results indicated all but two morphological traits showed significant variation between sites, with Tasmanian populations being larger (the non-significant traits were carapace length and rostrum width). There were significant differences between males and females for all leg and palm/finger traits (larger in males), but not for carapace traits. Males tended to slightly outnumber females at six of the seven study sites.

We thank Jason for his interesting presentation and wish him well in his future studies.

Report on the MRG meeting Monday 11th October, 2010: Alan Monger spoke on the very interesting topic of the Victorian borders, entitled: **“The borders of the state and the state of the borders”**. (Compiler's note: I am indebted to Alan for providing detailed notes upon which this summary has relied heavily—PV).

General remarks:

In **1839** there was a proclamation that Victoria would be “all land south of 35 degrees and between longitudes 141 and 146 degrees.”

In **1840** Lord Russell of the Colonial Office said that the Port Phillip District would be all the land south of the Murrumbidgee and Murray Rivers—ie. much of the riverina and the east coast to Batemans Bay; Sir Thomas Mitchell agreed.

By **1842**, the north boundary was defined by the Murray River and the straight line to Cape Howe.

In August **1850** the Colony of Victoria was separated from New South Wales (NSW)—its boundaries were “on the north and north-east by a straight line drawn from Cape Howe to the nearest source of the Murray River, and thence by the course of that river to the eastern boundary of the colony of South Australia.” (Note that this does not mention the southern coastal border).

In **1855**, following various disputes, it was declared that “the whole watercourse of the Murray as far as the eastern boundary of South Australia is and shall be within NSW.

Northern boundary:

The **1872** dispute over the ownership of Pental Island, near Swan Hill determined that the northern branch of the Murray River was the main watercourse, and that the Murray River watercourse to the south of the island was just an anabranch. Because criminal penalties differed between the two states, the precise definition of a border was important. NSW claimed that the border was at the top of the southern-most banks. However, under this definition, if the river dried up, there would be no boundary, and in flood the boundary would be pushed southwards and could surround places such as Echuca. A High Court decision in both cases determined that the boundary would be for ever the “top of the south bank of the watercourse as it was in either 1850 or 1855 taking into account accretion and erosion”. This is not necessarily the high bank nor the edge of the plateau south of the river. It also means that over much of the river there is a section of land between the edge of the stream and the top of the bank that is NSW even though it is on the south side. It also means that at places like Lake Mulwala, there is a section of water that is within Victoria because the river's 1850 course is within the lake itself.

The Black-Allan Line:

In **1866** gold was found in the tributaries of the Snowy River and police did not know whose job it was to oversee the miners, being unsure which side of the border the goldfields were on. Howitt (the Goldfields Warden) and Wilmot (the District Surveyor at Bairnsdale) requested that the border be surveyed. Robert Ellery, the Government Astronomer, was placed in charge of this task.

Meeting at Cape Howe around **1868** with his counterpart Adams, the Surveyor-General of NSW, they placed a rock pile at Cape Howe to mark the eastern point of the border, stating that if surveyors of the border could get to within 5 chains (about 100 metres) of it, that would do!

In **1869**, Alexander Black determined the position of the Murray River source, and triangulation work commenced to determine the exact position of the two end points so that a boundary could be calculated. Black then spent 11 months in **1870** traversing from the spring to a point called "Allan's Peg" on the west side of the Delegate River, a distance of 61.5km. In doing so he had to cross the Snowy River and Mt. Tingaringi (6020 feet).

Alexander Allan then took over and spent the next 12 months working from the peg to Conference Point (a distance of 115km). With quite brilliant work in appalling conditions, their line passed 5.6 metres south of the cairn placed by Ellery and Adams at Cape Howe.

Total expenditure for the project from Nov. 1869 to Jan. 1871 was £4822-7-11. Allan received £485 per year and Black £350 per year. Despite complaints about the cost of the work, Ellery argued that the primary triangulation was equal to any in the world and set an important standard for continued surveying and mapping of the state thereafter.

Western boundary with South Australia: This border was defined in **May 1851** as the "South Australian frontier". The NSW border with South Australia (SA) was defined at the 141st meridian of longitude and this was also intended as the SA-Victoria border line.

In **1839** the Hentys of Portland were extending their land over the Glenelg River to Mount Gambier and the SA Government needed to know where its jurisdiction extended to. Earlier records of Matthew Flinders, Major Mitchell and John Arrowsmith (a map-maker for SA) were confusing about the position of the 141st degree and its relationship to the Glenelg River.

To determine the border, Governor Gipps had Charles Tyers transferred from the Royal Navy as the "best available man" to establish the position of the 141st meridian. Tyers was directed to determine the longitude of the mouth of the Glenelg River and then measure directly by

distance to the 141° meridian. Using three different methods (chronometric, lunar observations and triangulation) Tyers arrived at three slightly different answers - 141°01'43", 141°01'59", 141°01'28 (where a second of arc represents about 25 metres).

Following this, Captain Owen Stanley made two more chronometric observations and arrived at two further (and differing) answers. Captain Stokes on the survey ship "Beagle" arrived at yet another different answer.

By **1846** the SA Government continued to press for a definition of the boundary. In **March 1847** Henry Wade arrived at the Glenelg River and was joined by Edward White, an "observer" for the SA Government. They agreed to adopt a mean of Tyer's longitude determinations and so began their survey 188 chains (3.78km) west of the river mouth (this itself was a blunder—188 chains would be correct at the equator but at the Glenelg River it should have been 150 chains—an error of about half a mile).

With a daily ration per man of 1 lb meat, 1 lb flour, ½ an ounce of tea, 1 ounce of salt and 4 ounces of sugar, Wade's party headed north, marking the boundary with large piles of stones and earth with a strong post in their centre, verifying his work as often as possible with astronomical observations; in all he marked 205 km (123 miles) of border to the edge of the Big Desert. Many of the marks, however, suffered erosion and termites attacked the posts.

In **1849**, the Secretary of State for the Colonies declared Wade's line acceptable and ordered White to continue to the Murray River. Well-trained by Wade as a surveyor during the first part of the work, he set out from Portland in late autumn of that year, but after extending the border-line for about 100 km (60 miles), White's party suffered from a water shortage and further work was abandoned.

In **1850**, however, White completed the survey of the line to the Murray River, but again endured water shortage hardships; several of his men mutinied and were tried in Balranald in due course.

Despite their achievements, both Wade and White died young—Wade at age 44, and White at age 36.

In **1864-5**, more accurate surveys of the Portland District were made by Alexander

Allan. He decided that the position of the 141 degree meridian was 1.7 miles (2.8km) east of Wade's position. The SA Government was of course not happy.

In **1868**, an excellent survey at the Murray by Smalley and Todd determined that the north end of White's line was 3.6 km west of 141 degrees. The SA government thus wanted their land back (estimated at around 500 square miles).

This dispute went to the Privy Council in **1914** and they determined that it was all Victoria's.

Because of the difficulty in locating Wade and White's original marks, there is an ongoing battle to locate accurately the exact boundary between the states. Some parts have been determined, but it needs a lot of detective work to get the best possible answer. The actual line is not straight—because of relatively primitive instruments it was extremely difficult to maintain a dead straight line through the bush. Comparisons with known points and careful examination of the field records indicates a somewhat zig-zag line was set out.

The far north-west corner:

One result of the above is that Victoria and SA have a common boundary along 13km of the Murray River. It appears that the exact boundary has never been defined along this stretch of the river.

This lack of definition could become a problem. There is a need to attribute jurisdiction with regard to the allocation of water, licensing and administration of tourist and recreational facilities, provision of search and rescue facilities, health and safety issues and law enforcement. Under Common law it would normally be accepted that the centre of the river ought to be adopted as the boundary—only 9 countries have edge-of-river boundaries as is the case with Victoria and NSW.

There are numerous possibilities for this boundary but it seems that the most logical would be the extension of the Victorian border along the bank of the Murray with SA (as with NSW) taking over the watercourse (see *Journal of Spatial Science*, 52(1), June, 2007, p. 29 for more detail of possibilities).

(to be continued in the following FNN, with discussion of southern and maritime boundaries)

Many thanks to these folk who have recently donated to the President's Roof Appeal:

Sally Bewsher, Ern and Lesley Perkins, Pamela Faragher, Angus Martin, Leon Costermans, Bruce and Irene Fuhrer, Lois Martin, Alena Glaister, Patricia Davies, Edna Shaw, Mrs J N Daniell, Carol Page, Ruth Hobdell, CJ & DJ Radings, Diana Droog, Ernest Hobdell, Thomas K Slatter, Ray Gibson, Russell Green, Ross Burgess, Susan Dempsey, Elizabeth Haylock, Helen Aston, Murray Littlejohn.



Left- Michael Lyons and below- Dr. Peter Menkhorst who both presented at the Biodiversity Symposium

Photos:
J. Broadberry



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