



# WARRINGAL CONSERVATION SOCIETY

## *Deep Winter newsletter*

Volume 38/Four

July/August 2008

*Warringal Conservation Society is a local, not-for-profit, community organisation caring for the environment in Banyule.*

*Formed in 1970, the Society is an active and productive steward of Banyule's environmental heritage.*

### IN THE MIDDLE YARRA:

**Deep Winter:** This scouring of the food rich riffle areas of invertebrates depletes the favoured feeding grounds of Platypus and perhaps threatening the survival of dispersing juveniles. >Downstream Bolin Bolin Billabong brims to the bank with flooding water and large ephemeral wetlands in the Yarra Flats Park are created much to vocalized praise by the Common Froglet, Southern Brown Tree and Whistling Tree Frog. The Victorian Smooth Froglet is found at its most vocal during this season, mostly during the day. All of the invertebrate fauna and organic matter swept downstream spills onto the floodplains to enrich the wetland ecosystem. A large mob of Cattle feed on the sodden grassy areas of Banksia Park and Yarra Flats Park. River Red Gum begins to shed its copious production of seed as its leaves are attacked by Lace Lerps. Grapevine Moths are flying during the day and their caterpillars are still using their host plant Smooth Willow Herb growing on the increasingly damp littoral fringe of the Annulus Billabong. >The showers that have begun to fall more frequently during Early Winter inject a new lease of life into the flora and fauna. After particularly heavy rain the Bushlands in the morning Sun look like they did on the very first day, dripping fresh and clean.

\*The words above come from the Middle Yarra Time lines Calendar.

## JULY MEETING

### Flora & Fauna of the Sub-Antarctic Islands of New Zealand & Australia's Macquarie Island.

Xenia Dennett will lead a discussion on a recent visit to the Sub-Antarctic islands of New Zealand & Australia's Macquarie island. Every island is subject to external threats which have profound effects on the unique flora & fauna. We will see and explore the flora and fauna, & issues for conservation.

\*\*\*\*\* **From 7.00pm** \*\*\*\*\*

All welcome to join members for hot, home-made soups with crusty bread to warm us up (*gold coin donation*) before the meeting.

## AUGUST MEETING

### Urban Wetlands - an Invaluable Resource.

Jeff Hughes, Senior Lecturer in Applied Chemistry and Environmental Science at RMIT will speak on wetlands within urban regions. Tanunda Wetlands at Blossom Park and the Banyule Wetlands fulfil many invaluable functions (including managing stormwater runoff). The extent to which they satisfy these criteria has been examined and this talk will look at the way the wetlands function and some of the results of these studies.

**From 7.30 pm at the Old Shire Offices, 60 Beverley Road. Enter from Buckingham Drive, near the Banyule Theatre and Greening Australia. Melways map 32:D3 All welcome.**

## AT A GLANCE

### July

- Thursday 3:** WCS General Meeting. Guest speaker: Xenia Dennett.  
**Sunday 27:** **National Tree Day: Infill planting at Beverley Road Wetland.** (Mel 32:C4) Contact: Don Stokes on 9455 2771.  
**Thursday 17:** WCS Committee meeting from 7.30pm. Please let a committee member know if you can't attend.

### August

- Thursday 7:** WCS General Meeting. Jeff Hughes  
**Sunday 10:** **Working Bee - Western habitat Link** (previously BOCA site) (Mel 32:E3) Contact: Don Stokes on 9455 2771.  
**Thursday 14:** WCS Committee meeting from 7.30pm. Please let a committee member know if you can't attend.  
**Thursday 14:** **Newsletter deadline.**

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## News and Events

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### Want to help change the world? Become a WCS committee member.

The September meeting is also the AGM - At that time ALL positions on the committee become vacant and are available for you to be part of the decision making.

If you want to be involved in your local environment - contact any of the present committee members for further information.

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### Congratulations! 1

WCS member Anthea Fleming recently received a Life Membership Award from the Friends of Darebin Park. Anthea is a stalwart of a few local groups - sharing her time generously. Congratulations Anthea!

#### **WANT TO BE UP-TO-DATE?**

**Membership renewal was due at the end of June 2007. A renewal form was enclosed in the last newsletter or contact Geoff Baker to update.**

#### **Join us!!**

Warringal Conservation Society is a local environment group, which is stimulating, fun and companionable and takes an active role in the wider community.

**Membership:** Single \$15, Family \$20  
Pension/student/unemployed \$10  
Corporate \$25, Life \$150

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All articles for the newsletter are welcome. Letters to the Editor are to be no longer than 300 words. We may edit for legal, space or other reasons. Opinions expressed in articles are not necessarily those of the Warringal Conservation Society.

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Newsletter printed courtesy of Craig Langdon, State MP.

Printed on paper made from 100% plantation eucalyptus and pine

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### Congratulations! 2

#### **Sustainable Cities Awards: Keep Australia Beautiful Vic**

For the past four years KABV has conducted an award competition among Melbourne's city councils for 9 categories of Sustainable City issues and 8 categories of their Clean Beach challenge. Julia Vanderoord nominated Friends of Wilson Reserve for the Biodiversity and Conservation category. One of the judging panel accompanied David, Chris Callahan, Julia and Trish Hosking around the reserve and Reedy billabong in April. FoWR then heard they had made it to the shortlist of four finalists and were invited to the presentation dinner.

About 200 people were present. In FoWR's category, the other finalists were **Frankston's** weed-mapping and rehabilitation program, **Hume's** Western Plains Flora (which supplies Banyule Council among many others) and **Melton's** Mt Cottrell restoration. The category was a very close call, but Friends of Wilson Reserve were announced as winners and presented with a fine recycled timber plaque.

*Congratulations to all FoWR people who have been involved in such an inspiring project.*

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### **\*\*July Working Bee\*\***

Please note that our usual second Sunday working bee will be replaced with the group event for **National Tree Day on Sunday 27 July. From 10am** we will have a morning of planting at the Beverley Road wetland.

It is two years since many local people, groups and WCS put in the first few thousand plants. It has really improved in appearance over the last six months, with recent rain, fog and dew keeping a bit of water in the bottom. **See you there: (Melway 32:C4)**

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### May working bee at Plenty River

This working bee was a joint effort. WCS assisted Friends of Plenty River in removing much dreaded Tradiscantia from the banks of the Plenty River in Lower Plenty.

Twenty five people attended this very productive session, filling all of the bags provided by Dave and Lisa from the BCC Bush Crew. The joint session demonstrated the benefits of alliances. It is more efficient for the Bush Crew to attend larger groups, with much more being achieved in the time. It is also great to meet and work with other groups and see their challenges and achievements, as well as experiencing different and interesting sites.

WCS people who attended: Dorothy Davies; Daphne Hards; James Dean and Gianna Romano with their sons Will and Robert; John and Alex D'Aloia; Don Stokes and Heather Smith.

Thanks to Alice and Kevin Ley for shifting their usual day for us.

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### Book Sale on again!

The Diamond Valley Community Aid Abroad group's Bonanza Book Fair will be held again in Eltham in October, but you don't have to wait until then! Books can be picked up from your house any time. **Contact Don on 9455 2771.**

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## President's Reports ~ May /June 2008

### MAY

#### *Possibility of Independent Projects on Banyule Flats and Salt Creek*

As a result of WCs report concerning Banyule Swamp, and the report on our Waterwatch guest speaker, WCS received an email offering the possibility of projects to have an update of a 2002 RMIT honours project on the algae lagoon off Banyule Road in Viewbank, and a project to study Salt Creek

I contacted Ellen Mitchell (environment officer) of Banyule Council regarding this. Ellen was interested and advised that she would also refer it to Julia Vanderoord. I am hoping that it can be placed on the agenda for the May BEAC meeting. I believe that the projects would greatly assist Council's Waterwatch and Banyule Flats projects.

#### **Copy from email received from Jeff Hughes, Senior Lecturer in Applied Chemistry and Environmental Science at RMIT:**

"I manage projects for our third year Environmental Science students for semester 2. There were 2 issues in the newsletter that could be investigated by our students as projects. The first one was the quality of the Banyule Swamp. If you are referring to the algae lagoon off Banyule Road in Viewbank I had an honours student do a project on this body of water in 2002 and we could get students to update this. Also reference was made to monitoring Salt Creek. We could do a study on Salt Creek - water quality, macro-invertebrates, weeds etc.

Although the projects only go for about 12 weeks I could arrange to test the water at other times.

Also if you were looking for a speaker for a meeting I could talk about the Tanunda Wetlands (Blossom Park).

We have had a number of projects on this system and I find it a very interesting example of the way urban wetlands can work. [*Jeff is our guest speaker in August*]

#### **Sports lighting at Viewbank**

After receiving emails from Dr. Barry Clark, expressing concern over the

sports lighting in Banyule Flats Reserve as listed in the Melways - I believe it refers to ovals near OSO in Warringal parklands

The issue of sports lighting overflow into wetlands and other sensitive environmental areas has been a problem for many years in Banyule. Sports clubs in the area appear to be able to operate such lighting without any formal limitations. It is time that such activities are properly monitored and appropriate measures put in place.

Warringal Conservation Society acknowledged receipt of the emails relating to the new sports lighting concerns, and contacted Mr. Julian Edwards, the Development Planning Coordinator at Banyule Council and confirmed that the lighting issue is not only a matter for investigation by Council's Leisure and Recreation Department, but should also be referred to Council's Environment Co-ordinator. The issue was also referred to the Banyule Environmental Advisory Committee, with a request that all relevant information be provided for discussion, as well as a progress report on investigations by the Leisure & Recreation Department.

Interestingly enough, I received a call from Heidelberg Weekly Times regarding the water quality at Banyule Flats, and that Banyule Council officers have advised that the issue is

being addressed in the Banyule Flats Management Plan. The issue of Sports lighting was also raised with the reporter

Hopefully, these two issues may be reported in the local paper in May. If members are interested, there are documents and photos provided by Dr. Barry Clark available for perusal.

### JUNE

Nothing to report for June other than an update on the two items listed in May. The matters were raised as an agenda item for the Banyule Environmental Advisory Committee (BEAC).

The possibility of RMIT research projects in Banyule was received very favourably by Banyule officers, and is being followed up.

The issue of Sports lighting was also raised, and further investigations are being undertaken. Sports lighting near wetlands and environmentally sensitive areas in Banyule has been an issue for some time. BEAC have suggested Council develop a public open space lighting policy if one does not already exist. The policy should incorporate the position of lights, curfews and baffling to help address these issues.

*John D'Aloia*

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### Working Bees for 2008

<b>27 July</b>	NOTE: We will join with local friends groups for <b>National Tree Day:</b> From <b>10am</b> at the <b>Beverley Road Wetland</b> - Melways 32:C4. We will do infill planting with 432 shrubs, sedges and grasses.
<b>10 August</b>	Planting the <b>Western Habitat link</b> . 310 Indigenous Trees, Shrubs, Grasses with 150 tree guarded. End of Plymouth Street, walk out past the old stock yards. Melways: 34:E3
<b>14 September</b>	Possibly a joint planting with <b>Friends of Wilson Reserve</b> . If so the date will move to the following weekend of the 21st. Keep your eye open for more details in the September newsletter.
<b>12 October:</b>	Instead of working bee this month a <b>bus tour</b> is planned to Mt Rothwell Earth Sanctuary for a nocturnal guided tour. Please register your interest early by calling Don Stokes on 9455 2771.
<b>9 November:</b>	Cut and paint White Poplar suckers adjacent to Yarra River in preparation for 2009 planting season.
<b>14 December</b>	Continue to cut and paint White Poplar suckers adjacent to Yarra River in preparation for 2009 planting season.

### How the Yarra River and its valley changed over its long history.

#### Dr Lex Ferguson

May's guest speaker, Dr Lex Ferguson has a special knowledge of the near surface geology of the Melbourne area gained when he supervised many brick pits and looked further afield for new clay deposits. Though parts of the Yarra date back into the Mesozoic, the stretch he focused on had all formed about 21 million years ago.

Investigating the geological history of the Yarra reveals many changes, some catastrophic, over a period of 100 million years. In theory a river develops an "ideal" longitudinal profile with a rapidly-flowing youthful upper course in a V-shaped valley, a broad sideways meandering mature middle course, and "old age" as it approaches the sea, when it has lost all erosive power and is depositing sediment on a broad flood plain. In reality, because of relative changes in sea level, faulting and uplift and volcanic activity, many rivers including the Yarra can exhibit these features "out of sequence" in their course and over time go through these stages repeatedly. Lex showed us how the Yarra had developed in this way over the last 21 million years and why the river changed its route to the sea from a more northerly course at that point in time.

Around the Boulevard area in Eaglemont, the Yarra is in a broad mature stage flood plain, only eroding laterally, if at all. Downward erosion is prevented by the knick point downstream at Dights Falls. The river sediment is not very deep (about 10 m) so this part of the valley was probably not ponded as a lake when lava blocked the river lower down. Lex has worked out the time sequence for the abandoned meanders in the immediate area; the Bolin Bolin Billabong was cut off about 1100AD. The river still floods and deposits the mud it is carrying which consists largely of silt-sized quartz and clay. Coarser sand is carried along the riverbed by saltation\* but there is insufficient energy for this to be lifted

over the banks at times of flood. The presence of coarser sand in bores etc is a good indicator of river channels. \*Saltation comes from the Latin for jump; the sand grains are bounced along the riverbed.

Lex gave us a profile across the river valley at Heidelberg. At the highest level, (around 80m above sea level here), is the Nillumbik Peneplain (also called the Nillumbik Terrain). This represents a base level to which erosion had worn down the landscape by the end of the Cretaceous; the Silurian bedrock beneath this plain was deeply weathered during Palaeocene times - about 65 million years ago.

At Finns Reserve, Templestowe it is possible to see some terrace gravels dating from the Pliocene about 3 million years old. The gravel is granitic and poorly rounded so has come directly from a source such as Mount Donna Buang. Rainfall was higher during the Pliocene and the river consequently had more energy and carrying capacity.

At Westerfolds Park, Templestowe, it is possible to stand at the top of a long gently falling slip-off slope, with the river and undercut slope of the meander in the distance. This feature happens when uplift causes the river to down-cut in its meanders but the river continues to erode both sideways and downwards giving rise to an asymmetrical valley cross-section.

The Memorial Tower site at Kangaroo Ground stands on the site of a volcano dated at 21 million years old. It is lava from this volcano that flowed down part of the postulated former course of the Yarra stretching east-west from south of Yarra Glen to Campbellfield. The lava has preserved the river gravels beneath it in patches as far as Bundoora. At Campbellfield Lex had measured a gravel-filled riverbed 150 m wide by 20 m deep that only a river the size of the Yarra could have

produced. The proto-Yarra would have turned south towards the sea along the low-lying Melbourne Warp after Campbellfield. The lava followed the prior course of the Yarra after it had been abandoned.

At Kangaroo Ground Cemetery, a road cutting reveals river gravels preserved beneath the basalt from the volcano above.

Along the Skyline Road at Christmas Hills, an imposing fault scarp of the Yarra Fault can be observed if you look out over the mature-stage flood plains of Yarra Glen. It was the movement of this fault lifting the Nillumbik Terrain that blocked the Yarra's prior course and forced the river to find another route. It seems that the southern termination of the Yarra Fault in the vicinity of the northern end of the Brushy Creek Fault may have presented a weak point or point of reduced movement where the river could carve a new course through the uplifted block at Yering Gorge. Lex suggested that the fault displacement of at least 150 m would have happened in stages and the river was able to cut down at the same rate.

**On behalf of members, Dianne thanked Lex for describing the story of the Yarra River for us in such a clear and interesting way.**

#### Winter Warmer July Meeting

Join us before the July meeting to warm up with delicious home made soup and crusty bread before settling in to hear about Xenia Dennett's trip to Macquarie Island.

**Supper starts from 7.00pm  
and then the meeting will  
begin from around 7.30pm**

BYO drinks. Gold coin donation.

# The Lord Howe Island Stick Insect and it's amazing recovery from extinction: Patrick Honan

'Stick Insects' sounded interesting enough to get me out to the meeting on a cold, dark June night. And with about 12 others, I was very glad I made the effort. Melbourne zoo's invertebrates specialist, Patrick Honan was fascinating; he clearly and calmly outlined what must be one of the most exciting 'conservation' wins of the last 80 years. The rediscovery of the Lord Howe Island Stick Insect – thought to be extinct – on the worlds tallest rock sea stack, Balls Pyramid.

Until it was rediscovered by a ranger who was rock climbing on the Pyramid in February 2001, the Lord Howe Island Stick Insect (*Dryococelus australis*) was listed as presumed extinct in the IUCN Red List. They were once very common on Lord Howe Island and would shelter in Banyan trees during the day, emerging at night to feed.

Tragically, a supply ship, the Mokambo, ran aground there in 1918, releasing rats onto the island. Along with five species of birds, the Lord Howe Island Stick Insect had disappeared by 1930.

The only known habitat of the Lord Howe Island Stick Insect is Ball's Pyramid, 700kms north-east of Sydney and 23kms south-east of Lord Howe Island. At 548m tall, Ball's Pyramid is the world's tallest and most isolated rocky sea-stack, with sheer cliffs rising straight out of the sea.

It is thought that either seabirds carried several stick insects over to Ball's Pyramid or that floating vegetation from the main island carried them. There the stick insects shelter in rocky crevices through the day and feed on a species of melaleuca (*Melaleuca howeana*), at night.

Staff from Melbourne Zoo's Invertebrate Department travelled to Lord Howe Island with rangers from the NSW National Parks and Wildlife and collected four stick insects from the known population of seventeen. One pair came to Melbourne Zoo and one pair went to Sydney.

It took two years to bring these four insects into captivity; there are many

stakeholders and interest groups that must have their say in the process, the politics is complex.

There were no existing 'how to' manuals – Patrick and his team took it one day at a time; he lived in the butterfly house every night for a month to observe them. The insects are held in a temperature and humidity controlled glasshouse, as close as possible to those on Lord Howe. They hate light and touch. Feeding them was difficult: plants grown from the same seed stock as that on the pyramid, are used to feed the insects. Banyan trees (*Ficus macrophylla columnaris*) also grow on Lord Howe, so ten species have been trialled successfully with the insects as an alternative food source.

Although the male continued to eat, the female became ill and nearly died. The decisions about her care were made more complex because of the conflicting management strategies of the project partners – NSW Parks and Wildlife have a philosophy of no intervention and the Zoo vets must intervene in everything.

At Melbourne Zoo, the first egg hatched on Threatened Species Day – 7 September 2003. Since then there has been a complicated breeding regime, making sure any affect of inbreeding is kept to a minimum. Each egg laid is weighed, measured and housed individually to ensure as much information is collected as possible. All stats are collated to see if any patterns or changes occur within the known cycles.

The adults measure up to 15cm long, weigh up to 25gms and are a glossy black colour. Neither sex can fly. Unlike other stick insects that hang upside down and move slowly, the Lord Howe Island Stick Insects can walk and even run along the ground. The females have strong hooks on their legs and have a thicker, heavier body than the males.

Their large size has given the Lord Howe Island Stick Insect the nickname of 'land lobsters'

On average, a male will mate with a female once or twice through the night and a female will lay up to 300 eggs in her lifetime. Some pairs consistently sleep together with the male's legs around the female, while other pairs do not.

Most stick insects remain in their tree and let their eggs fall to the ground. However the female Lord Howe Island Stick Insect climbs down to the ground and pushes her abdomen into the soil to lay her eggs. The oval shaped eggs are about 4mm long. She lays in batches of nine, resting for about ten days between batches. The eggs incubate under the soil for about six and a half months before hatching.

Newly hatched young are a bright green colour and active during the day. When disturbed, they display the camouflaging behaviour of swaying like a small leaf in the wind. As the young mature, they progress from green, through brown to black through successive moults, as they become increasingly active at night.

After five years hard work, the insect is now listed as endangered under Schedule 1 of the NSW Threatened Species Conservation Act 1995. In order to return the species to Lord Howe Island, a systematic rat eradication program would have to be implemented and successful. The NSW National Parks and Wildlife Service have completed Interim Recovery Actions to protect the species.

After many questions from members, I asked if Patrick had always intended to work with the stick insects. He replied that spiders were his first preference, but above all conservation was his goal. And in a country where insects are often overlooked, even disregarded, he was delighted that the larger issues of conservation for Lord Howe Island had been led by the Lord Howe Island Stick Insect.

*With information from the Zoos Victoria 2006 Fact Sheet.*

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**“One should take delight in even the common sightings”**

*R. Johnson*

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**Nature Notes:** Not recorded at June meeting.

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July Meeting**

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BYO drinks. Gold coin donation.

**Invading Vines**

According to a new study, **Australia now has 179 species of exotic vines running wild.** The number of invasive vines in each state was found to reflect the human population size, with the most species (141) in NSW and the least in the NT (21).

Invasive species are a growing problem all over the world, and Australia, an isolated island state with a unique fauna and flora, is especially vulnerable. Over the years incredible harm has been done by such pests as foxes, rabbits, toads, carp, prickly pear, blackberries, rubber vine and the tree-killing disease phytophthora. **At last count, Australia had 2,700 weed species and more than 200 marine invaders.** Even though the impacts are immense and ongoing, invasive species aren't being tackled seriously. An alarming number of invasive species are still coming in, staying, and spreading in Australia.

*Source: Feral Herald: Invasive Species Council. [www.invasives.org.au](http://www.invasives.org.au)*

**Make Alan smile!**

**Receive this newsletter by email and reduce the work  
of our newsletter mailing team!**

Alan is our very dedicated newsletter mailing volunteer. He organises the newsletter to be printed at Craig's, then spends a few hours folding and sticking on address labels. He then delivers it to Geoff who gets it into the post in good time for the next meeting. Make Alan smile when he finishes the job a bit sooner because you received your copy by email.

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