

GEELONG NATURALIST

MONTHLY MAGAZINE OF THE GEELONG FIELD NATURALISTS CLUB INC



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February 2007

President's corner

...**Deborah Evans**

Happy New Year and welcome back to all Club members, old and new. 2007 got off to a great start with our half-day Saturday excursion along the Barwon River and we look forward to another busy year of talks and walks. This first edition of the *Geelong Naturalist* for the year is packed with goodies and I would like to thank Lorraine and the many members who have contributed items large and small for making the *Naturalist* such a 'good read'.

Committee news

The committee has already been busy working on the Club's 2007–2008 program and budget. Committee members have also been actively involved in two major planning projects currently underway. The first is the Armstrong Creek Urban Growth Plan which was released late last year and is now ready for the submission of formal public comment. The plan provides the development framework for Geelong's primary growth area and aims to develop the growth area into a 'sustainable community that sets new benchmarks in best practice urban development'.

The second project is the proposal by CoGG to prepare a formal management plan for the Jerringot Wetlands. CoGG is currently taking the opportunity provided by the low water levels to do some clearing work at Jerringot, but we look forward to the time when all such work will be able to be based on a comprehensive plan.

A third project at the back of everybody's minds is planning for a new committee for the next Club year. We have had some new members coming onto the committee each year for the last few years, but we also have people retiring from positions each year. All positions will be thrown open for election/re-election. We would be delighted to have new committee members again this year. We would also like to see the general membership taking an active role. If you have any potential committee members in your sights or would like to see members of the current committee re-elected, please take the opportunity to approach the person you have in mind and ask if they would accept nomination/re-nomination. Then fill in the appropriate nomination form (which will be in the March *Geelong Naturalist*) and hand/post it to the Secretary before the third Wednesday in March in time for our committee meeting.

Upcoming activities

This year is GFNC's turn to host the March long weekend SEANA campout. My thanks to Dick and Shirley Southcombe and their team who have been busy behind the scenes checking out accommodation, making all the practical arrangements and lining up speakers and excursion leaders. If you are not signed up for the campout itself, do come down for a day or so to join us on excursions.

Tonight's speaker is ...

...John Sherwood. He will talk about the management of Lake Connewarre.

At the March meeting ...

...Geoff Beilby's topic will be 'Uncommon Plants of the Western Otways'. This will be a great lead in to the SEANA campout in the Otways over the March long weekend.

GFNC website

Any observations (plant, mammal, bird, reptile, invertebrate etc.) can be emailed to the GFNC email address or phoned to Barry Lingham (5255 4291) so that they can be incorporated onto the site frequently.

GFNC Web page:

<http://home.vicnet.net.au/~gfnc/>

e-mail address:

gfnc@vicnet.net.au

We welcome

Stephen Tuohy, the new Parks Victoria Ranger for the Bellarine Peninsula,
and
Jane Danne, who has recently moved to Ocean Grove

**to the Club
and wish them a long and happy association.**

The photograph on the front cover, by Dean Hewish, is of Comet McNaught. More details on p. 10.

The photograph on the back cover, by Lorraine Phelan, is of GFNC members doing the Challenge Bird Count at Hospital Lakes, Connewarre, December 2006.

**Members are encouraged to
arrive early at general meetings.**

The room will be open at 7.15 pm to allow members to chat to other members and visitors.

Mailing roster

February

Jan Venters

Mammal report

...Trevor Pescott, Mammal Survey Group

Mammal Atlas additions

Platypus	22.01.07	1	Barwon River, Barwon (Moorabool Street) Bridge. Found dead in the river against the bridge abutment by a regular rower. It was brought ashore and found to have fishing-line around its neck, but whether it had become entangled or had taken a bait and been cut free we couldn't tell. The body had been in the river for several days and was decomposing rapidly.	TPe per VDe
Short-beaked Echidna	11.12.06	1	In Highton	
Common Ringtail Possum	9.12.06	1	Yaughar. Came to drink at a small waterhole on an extremely hot (40°) day; it was obviously distressed, and a few days later was found dead.	TPe
Red-necked Wallaby	16.12.06	2	Bambra Pine Plantation	MSG
Black Wallaby	3.12.06	3	Stony Creek Picnic area, Brisbane Ranges	CMo
Swamp Rat	17.12.06	1	Yaughar, feeding under the parrot seed-tray at 7.30 am, presumably on spilt seed.	TPe
European Rabbit	28.12.06	1	Yaughar; this was one of several black individuals that have been seen along a 1 km section of Yaughar Road..	TPe

Observers: CMo, Craig Morley; MSG, Mammal Survey Group; TPe, Trevor Pescott; VDe, Valda Dedman.

Mammal Trapping, East Wormbete Road, Bamba

DSE permit no. 10003784

The area selected to do the trapping was along a dry drainage line, or gully, through Messmate woodland adjacent to an extensive pine plantation.

The main tree species were Manna Gum and Messmate, with some Narrow-leaf Peppermint, and Swamp Gum where there may have at one time been a soak—but everything was now extremely dry.

There was a good understorey of Austral Bracken, saw-sedge and matt-rush, and dense ground cover of fallen leaves and sticks. Along the eroded gully were scattered teatrees, dogwood and Blackwood.

We set 20 Elliott traps, 10 on each side of the road along the gully.

Dates: 13–16 December 2006.
20 Elliott Traps on three nights, i.e. 60 trap-nights.
Bait: Peanut butter, honey, oatmeal.

Trap results: Nil! A very disappointing result, perhaps due to the extremely dry weather conditions.

Other fauna: Red Fox, ample footprints in the sand along the road
Eastern Grey Kangaroo, two near trap site
Black Wallaby, one at a waterhole along East Wormbete Road

Birds: Wedge-tailed Eagle, Yellow-tailed Black-Cockatoo, Sulphur-crested Cockatoo, White-throated Treecreeper, Brown Thornbill, Yellow-faced Honeyeater, White-eared Honeyeater, Golden Whistler, Grey Shrike-thrush.

Brush-tailed Phascogale search 5–9 February 2007

Following receipt of a number of sightings of phascogales in the area east of Meredith, it has been agreed to do a search for these fascinating mammals in the Meredith State Forest and the Brisbane Ranges National Park.

We will follow the guidelines established by Andrew Arnold of Ballarat DSE in his survey of parts of the Mt Cole and Daylesford areas.

Contact Melanie Costanzo or Trevor Pescott for more details.

Andrew Arnold will be surveying his sites in March and April, and it is likely a visit to one or both will be organised. Again, contact Trevor for details.

Mammal trapping 14–17 February 2007

Parks Victoria has agreed to us trapping around Reedy Lake, particularly along the Barwon River levee. I hope we will find both Water Rats and Swamp Rats there!

Access is available for a limited number of vehicles through the gate in Calder Street which is left off Coppards Road.

Timetable:

Wednesday	14 February	2.00 pm	meet at Calder Street gate
Thursday	15 February	8.00 am	check traps
Friday	16 February	8.00 am	check traps
Saturday	17 February	8.00 am	collect traps

(We are also required to check traps each afternoon.)

This is an excellent opportunity to do some bird-watching in an area of Reedy Lake not usually so easy to access!

For further details contact Trevor on email
ppescott@optusnet.com.au or phone 5243 4368

Aggressive Emu

...Trevor Pescott

On 28.8.06, while driving from Winchelsea to Deans Marsh, I noticed an Emu in a grassy paddock behind the telephone sub-station at Bambra.

I had seen an Emu, possible the same bird, on 15.10.05 in a paddock beside Coalmine Road about 3.5 km north-east and across the west branch of Wormbete Creek from Bambra, but my attempts to photograph it were largely unsuccessful because the bird continued to move away from me as I walked towards it. So here was an opportunity to try again.

But this time, instead of moving away, the Emu approached me, adopting a threatening posture with head held high but the beak depressed against the throat. The neck and chest feathers were fluffed out and swayed from side to side with each deliberate step. I didn't hear it call but it may have done so. I was grateful for a secure farm fence between us!

Later I checked the Club's copy of HANZAB and found reference to several threat displays including this one called 'grunting'.

Neck stretched to near or at full extent; bill bent down, 50–60° below horizontal, and bird calls (a single grunt, sometimes repeated); if near another, calling bird may

peck down on it, kick or buffet it and chase when it flees; neck-plumage fluffed during display and in breeding males this makes white feathering conspicuous; display usually given by male; mostly during courtship and pre-laying period; probably also functions as advertising display.

My Emu was a solitary bird, but I know of several farms including one near Birregurra and another at Moorbool where there are free-ranging Emus in the house-paddock. It seems only a matter of time before we have Emus again in our local bushland where



Emu displaying. Photo: Trevor Pescott

they were when European settlement began. Judging by Serendip Sanctuary experience, a feral population would thrive.

Reference:
Marchant S. and Higgins P.J. 1990.
HANZAB Vol. 1, Part A.
OUP. Sth Melb.

Mid-week bird group excursion 'Yarto', Batesford, 19 October 2006

...Polly Cutcliffe

The story has it that Rob Ganly was standing at the side of Dog Rocks Road, gazing intently through his binoculars into a paddock at a colony of breeding Banded Lapwings (*Geelong Naturalist*, 40:6 2004, bird observations) when he was accosted by a farmer on a motorbike wanting to know what he was looking at.

The farmer, Bill Honey, became interested in Rob's story about the lapwings, and invited him onto the remainder of his property to see the full range of birds he knew were there. Since then Rob has carried out regular surveys and we joined him on one of them. Bill accompanied us and explained how he was managing the land under his care to preserve its natural features.

Rob's photo on the cover of the November *Geelong Naturalist* depicts (as well as birdwatchers at lunch break) the nature of the land, with its outcropping of granite rocks and well-wooded slopes. This particular spot overlooked a dam with an island which, although well on the way to drying out, still had a small representation of its usual population of water birds—pelicans, three duck and two grebe species, coots, dotterels, lapwings and

ibis—some of which had bred there. A pair of Willie Wagtails were nesting in a tree at the edge of the water and, although not able to get close, we were able to see the Brown Falcons with young nestlings in a cypress tree alongside the farmhouse on a nearby paddock.

Our walk and drive around the property was very productive—five raptor species, three of the cuckoos, choughs, five honeyeaters, whistlers and thornbills; and everyone, with persistence, had good views of an Olive-backed Oriole. In all we recorded an amazing 54 species.

While walking, Rob told us of some of the other birds he sees there at different times of the year, and I'm sure there will be other binocular-gazing bird watchers standing by the side of Dog Rocks Road, in the autumn, at that particular spot where Rob sees Pink Robins.

I must record our thanks to Rob for arranging and leading this excursion, and to Bill Honey for inviting us on to his property.

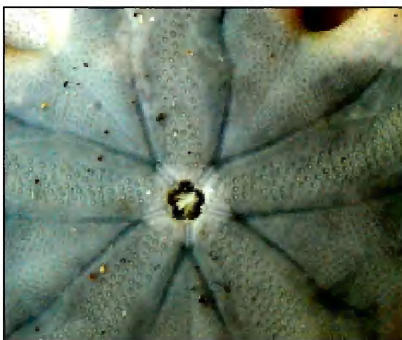
Birds seen at 'Yarto'

Pacific Black Duck	Eurasian Coot	Yellow-rumped Thornbill	Olive-backed Oriole
Grey Teal	Black-fronted Dotterel	Red Wattlebird	Australian Magpie
Hardhead	Masked Lapwing	Spiny-cheeked Honeyeater	Little Raven
Australasian Grebe	Common Bronzewing	Noisy Miner	White-winged Chough
Hoary-headed Grebe	Galah	White-plumed Honeyeater	Skylark
Australian Pelican	Long-billed Corella	New Holland Honeyeater	House Sparrow
Australian White Ibis	Eastern Rosella	Eastern Yellow Robin	Red-browed Finch
Straw-necked Ibis	Fan-tailed Cuckoo	Golden Whistler	European Goldfinch
Whistling Kite	Horsfield's Bronze-cuckoo	Rufous Whistler	Welcome Swallow
Brown Goshawk	Shining Bronze-cuckoo	Grey Shrike-thrush	Fairy Martin
Wedge-tailed Eagle	Laughing Kookaburra	Magpie-lark	Silvereye
Brown Falcon	Superb Fairy-wren	Grey Fantail	Common Blackbird
Peregrine Falcon	Spotted Pardalote	Willie Wagtail	Common Starling
	Brown Thornbill	Black-faced Cuckoo-shrike	(Total: 54 species)

Summer is the time for beachcombing. Have you seen any Argonauts lately? If you have, see www.argosearch.org.au. In Bali last November, you could buy Pearly Nautilus shells on the beach but you couldn't pay for them with the sand dollars we found washed up by the tide when we walked at the water's edge as the sun came up. They were Keyhole Sand Dollars *Echinodiscus tenuissimus*. The two 'keyholes' are called lunules, whose function may be to stop the waves lifting the animal out of the sand where it lives and feeds just under the surface.



Keyhole sand dollar upper surface showing lunules, petaloid and ambulacral plate patterning.
Photo: Valda Dedman



Sand dollar underside showing food grooves and mouth.
Photo: Valda Dedman

Imagine a flat, circular creature whose food reaches its mouth along a conveyor belt in a groove, whose teeth are diamond-shaped in a mouth called a lantern surrounded by a girdle, whose top is decorated with a five-petaled flower outlined with little holes out of which pop specialised leaf-like feet that are used for breathing, whose body is designed with a radial symmetry and reinforced internally with struts and buttresses, whose outer skeleton is made up of closely fitting plates covered with a carpet of soft hollow spines and hundreds of tube feet, and you have some idea of a sand dollar. It's a bit like a flattened sea urchin.

Sand Dollars sift fine particles of sand and detritus that tiny tube feet and cilia (hairs) move to food grooves in the test (shell-like skeleton) where they move along sticky mucous strings or are

swept on to the central mouth by currents set up by beating hairs. Both mouth and anus are on the underside of the dollar. The anus is surrounded by small irregularly-shaped ambulacral plates, and there are ten large interlocking plates radiating from the mouth, five with pores for the release of sperm and eggs. The patterns can be best seen on dead specimens where the spines have worn off. Each spine is moveable and can dig in the sand or help the animal to move around. If you want to know more about sand dollars, check out the Echinoid Directory on the Natural History Museum website.

Is the hot, dry summer good for butterflies? How many have you seen this summer? Butterflies are cold-blooded and like the warm weather. It has been claimed that butterflies are leaving the tropics and moving to cooler regions as the earth heats up. A study of Common Brown Butterflies *Heteronympha merope* along the eastern edge of Australia is to be carried out by researchers from Melbourne universities to see if the species is being affected by climate change. The results could be used as a model for other species. Around Geelong males and females emerge during November and December and mate. The males

continue to fly around, but during the hottest weather the females rest up in cool shady places and do not start egg-laying until autumn.

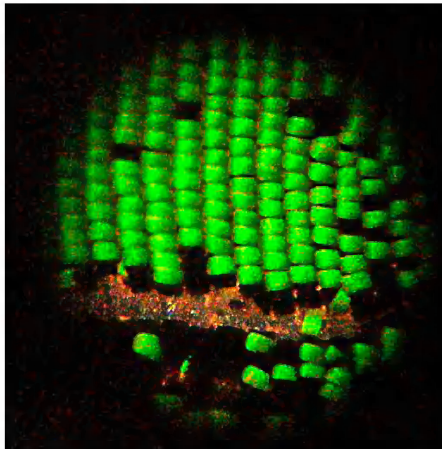


Female *Ornithoptera priamus* in Bali Butterfly Park.

Photo: Valda Dedman

Although the butterflies are 'common', much is still unknown about them. There are three subspecies. The individuals of some butterfly species may vary, not only between or within the sexes but also over the season or geographically over their range, altitudinally or latitudinally. There may be several races or subspecies.

In Bali the butterflies were large. I saw many velvety black ones in the gardens. At the Butterfly Park, where tropical butterflies are bred, one of the most lovely was *Ornithoptera priamus*, the one we call the Northern Birdwing, also known as the Cairns or Cooktown or Priam's Birdwing. It is named for King Priam of Troy, who fathered 50 sons and who was killed in his palace grounds by the invading Greeks. The male of this large and magnificent species is green and black and the female is



Green scales on the wing of a male *Ornithoptera priamus* from Bali (taken through Dave King's microscope).

Photo: Valda Dedman

black and yellow and larger (up to 150 mm wingspan). The male wing scales contain a unique pigment. Under the microscope they look like rows of shiny silk embroidery. Butterfly scales are really flattened hairs, attached by a tiny stalk to a pit (fovea) in the wing covering (integument).

There are four subspecies in Australia, isolated by large areas of unsuitable habitat. Sometimes the Cairns Birdwing is separated out as *O. euphorion* (even as *Triodes euphorion*). Birdwing butterfly larvae feed on several species of native 'Dutchman's Pipe' *Austrolochya* sp. The leaves of the introduced garden plant *Austrolochya elegans* are toxic to them.

The Cairns Birdwing is still relatively common but the smaller, similar Richmond Birdwing *O. richmondia* has been under threat and some 15 years ago a community project was set up to save it. The species has a very limited distribution in NE NSW and SE Queensland. It used to occur from Maryborough, Queensland to the Clarence River near Grafton, but its range has shrunk due to

Continued on next page...

loss of its rainforest habitat where its two larval food plants occur. These are native creepers *Pararistolochis premorsa* and *P laheyana* (above 800 m).

The Richmond Birdwing Conservation Project developed an environmental caretaker network involving community groups, students and individuals. Natural breeding habitats were identified, mapped and protected, corridors were established between and around breeding sites, the Richmond Birdwing Vine was grown in gardens, rainforest regeneration areas and parklands, schoolchildren reared caterpillars under the Adopt-a-Caterpillar Scheme, regular surveys were carried out, butterfly gardens were set up, information boards and posters created, festivals were held and much more.

You can sponsor a Cairns Birdwing Butterfly through the Melbourne Zoo where these butterflies can be seen in the butterfly house.

Now here's a butterfly quiz especially for GFNC members.

1. Turn to the magazine cover. What is the butterfly in the club logo?
2. Why was it chosen for the logo?
3. What is its conservation status?
4. Where and when was the type specimen found?

5. How big is it?
6. Are males and females different?
7. Have you ever seen one?
8. Where would you look for one in Victoria?
9. When were they last recorded locally?
10. What do the caterpillars look like?
11. Where might you look for them?
12. What are coconut ants?
13. What do they do with the caterpillars?
14. Are there any conservation measures to protect the butterfly on the club logo?
15. What could the GFNC do to help?

Answers. 1. Small Ant Blue Butterfly *Acrodipsas myrmecophia*. 2. Because it was rare and found at Ocean Grove. 3. Threatened in VIC. 4. Cuthbertson's (now OGNR), 1913. 5. Female 20 mm, male 18 mm. 6. Females blue-mauve and bronze, males bronze and smaller. Underneath grey-brown with dark stripes. 7. You're lucky if you have. 8. Mt Piper near Broadford. 9. About 1970. 10. Brown with white dorsal band. 11. In a coconut ant nest. 12. *Papyrius nitidus* (see *Glg Nat* Vol 40, p. 10). 13. Tend them and act as a food source. 14. Yes, listed under Flora and Fauna Guarantee Act 1988 with Action Statement. 15. Please send in your ideas—more on this next issue.

Mynas, snakes and ravens

...John James

We have had some unwelcome visitors since Christmas.

Today, a new bird turned up in our garden at Barwon Downs. Usually this is the cause of great celebration, but not this one. It was a Common Myna (Indian Myna). It is a first record for Barwon Downs, although it is very common around Geelong. Common Mynas compete with our native birds for nesting hollows.

Our second visitor went unnoticed for a few days until we smelt him—he had died a lingering death, trapped in a small landing net stored high on the wall of our shed (three metres above the floor). Apparently, he was trying to reach the eggs or babies in the sparrows' nest in the ceiling. Snakes are good climbers.

About one thousand Little Ravens arrived on 8 January. They were welcome, as they had come to feast on the grubs in the paddock. My notes for past years show that they usually arrive here around the first week in January each year, and stay for about a week—sort of like their annual holiday. Two other species of Raven are sometimes recorded in the Otways. They are the Australian Raven and the Forest Raven. Our visitors were Little Ravens. They are not noticeably smaller, but they can be identified by their call, which lacks the drawn out last note of the others.

Snake sightings

If you see a snake in the Geelong district I'd be very interested to hear from you. Please provide date and place as well as interesting habitat and behaviour details.

According to my reference book, *A Complete Guide to Reptiles of Australia* by Steve Wilson and Gerry Swan, we might see the Yellow-bellied Sea Snake (at sea), the Common Brown Snake, Red-bellied Black Snake, Little Whip Snake, Tiger Snake, White-lipped Snake and Lowlands Copperhead.

I will also collect details of other reptiles (turtles, geckos, dragons, skinks and lizards).

Lorraine Phelan. (Contact details inside back cover.)



No, it's not a setup. Val Hubbard found the cidada on the letterbox. Joe says it has since moved on, after reading, to advertise somewhere else!

Photo: Joe Hubbard

In our back garden

...Claire Greenwell

January 18. Floating on my back in our pool, I heard a birdcall I would normally associate with the bush and couldn't place it. Something very small flicked over my head from the wattle to the creeper on the veranda. I said to Den as he emerged from underwater, 'Look, it's a jenny wren—wow!' A Superb Fairy-wren. The first time in the 17 years we have been here (as far as we know). We are off Reynolds Road in Belmont—quite a distance from the river.

January 28. Den said to grab my binoculars, there was a Yellow-tailed Black-Cockatoo in the melaleuca down by the back fence. It gave us marvellous views of its yellow tail feathers while stretching and spreading its wings, and we took particular note of the yellow patch on its cheek. Such a big bird compared to the usual visitors we have: Gang-gangs, Galahs, Rainbow Lorikeets, Currawongs, Little Ravens, Wattlebirds, New Holland Honeyeaters and the usual five ferals. A mate joined it in the neighbour's giant paperbark, playing around hanging upside-down. It was their quiet mewing sound that had alerted Den.

And wasn't the comet spectacular!

Which is the nasty end? And is it a cryptic Cryptops?

...Jo Heatlie

I was excited to find this large centipede on the dry ground under a small garden ornament in Leopold in early December. It stayed quite still while Brendan took a photograph but its 41? legs were off and away when I accidentally disturbed the soil with the ruler. We went inside and on the web we read that centipedes are generally only active at night. We enjoyed trying to key out the species, but we needed a better look at our giant centipede, and I would not have wished to risk hurting it in order to discover its exact genus and species. Genus names like *Cryptops* made the creature even more mysterious.

The following fascinating information was gleaned from C.S.I.R.O webpages:
<http://www.ento.csiro.au/ecowatch/Primary/inverts/pages/centipede.htm>
<http://www.ento.csiro.au/ecowatch/Insects/Invertebrates/chilopoda.htm>
<http://www.csiro.au/csiro/content/standard/ps29b.html#1>

Although the name centipede means '100 legs', the real number of legs ranges from 15 to 191 pairs (always an odd number). Centipedes are often found under rocks and logs, in leaf litter and under the bark of trees.

The adult usually spends the winter months in a sheltered spot, and comes out in spring. Male centipedes usually spin a small web onto which they deposit a sperm packet for the female to pick up. In some species there may be a short courtship dance or tapping of antennae before the female is encouraged to take the sperm packet into her genital opening. Eggs are laid either in groups or singularly, generally in soil, or in the same sorts of places where centipedes like to hide. The females of some species guard their eggs.

Some species, however, give birth to live young! I am now thinking about human mothers who experience the kicking of their unborn baby. With this many legs and who knows how many babies, the mind boggles! The young will moult several times before reaching maturity, with some species not gaining their full complement of legs and body segments until moulting. (Oh, maybe that is OK then!)

Centipedes are predators, with a rich and varied diet which can include many types of insects, snails and other molluscs, worms, smaller centipedes, spiders, slaters and even small vertebrates such as frogs, mice and small geckoes.

Centipedes use their powerful jaws to catch their prey. Once caught, the prey is usually immobilised by venom injected through the fangs. These are actually modified legs, located at the front of the head, underneath (unseen from above). Due to the poison, a bite to a human may be painful, but it is not deadly and usually only results in localised swelling and irritation. But a bite to the centipede's natural prey results in its inability to escape. Once the prey has been immobilised in this way, the centipede then tears its victim into pieces with its strong mandibles, and eats the soft parts.

Many centipedes also have what looks like a dangerous 'bite' at their back end, but this is simply their last pair of legs, which are used to grasp prey or wave in a defensive display.

Centipedes can be very long lived, some living for many years. We think upon our giant centipede—'Live long and prosper'.

I am just trying to imagine this unlikely creature doing a courtship dance!



Photo: Brendan Heatlie

The National Ecological Meta Database (NEMD) is a webpage set up by the Bureau of Meteorology to encourage the sharing of information about the natural environment affected by climate change. Details can be found on www.bom.gov.au/nemd

Congratulations to GFNC member, Marilyn Hewish. Her article called 'Historical notes on Charles and Thomas Brittlebank, pioneer naturalists in the Werribee Gorge district, west of Melbourne' was published in *The Victorian Naturalist* (Vol.123 (5) 2006).

Mangroves

The DSE newsletter *Coastline* (Summer 2006) has an article called 'Mangroves—a growth industry' by Stephen Tuohy, about the mangroves in the lower Barwon River estuary.

Approximately 1000 juvenile mangroves were removed from Ocean Grove Golf Course and relocated to the estuary in early 2003. To date the survival rate has been about 90% and sediment build-up has supported natural regeneration. The newsletter can be found in the GFHG library.

Vale Ian Borrie

Plant Group report

...Dick Southcombe

Ian Borrie died in December 2006 in Tasmania. He and Wendy had moved there about five years ago from Point Lonsdale.

Once again our December excursion/picnic tea was a most enjoyable outing with a pleasant stroll through the scrub and along the beach at Edwards Point before sharing fine food with congenial company at the Wildlife Reserve.

He made a significant contribution to the environment, mainly as a councillor. His profession was as a top barrister and he wholeheartedly became a catalyst for a complete turnaround in the environmental movement in Queenscliffe and surrounds after he and Wendy retired to Point Lonsdale. (Keen observers would have noted the complete absence of indigenous vegetation in urban Queenscliffe just a few years ago.)

On this occasion we had the added pleasure, and exercise, of playing cricket with young Dylan Lindsay—we didn't see his bowling but his batting style would be useful to one of the teams visiting Australia at present.

Ian and Wendy became the avifauna experts, particularly in Bellarine Peninsula's south-eastern wetlands, and made significant contributions to local values and the wildlife database.

Plants noticed were *Acacia retinodes* var. *uncifolia* Coast Wattle, *Amyema pressii* Wire-leaf Mistletoe, *Samolus repens* Creeping Brookweed, *Frankenia pauciflora*, Southern Sea-heath, and *Zygophyllum billardierei*, Coast Twinleaf.

They were members of GFNC for many years and the Club extends its condolences to Wendy.

See p. 16 for meeting details for February and March.

Graeme Tribe

Barwon River excursion led by Bryant Attwood 13 January 2007

...Barry Lingham

The ten members who explored the area around Queens Park were treated to a delightful morning with a pleasant sunny, but cool, day. Our leader, Bryant Attwood, shared his extensive knowledge of this area by pointing out all the places to find the fauna and flora along the river. We began from the Queens Park Bridge and walked along the path on the southern bank. Many of the exotic trees are being removed along this area, and although the GFNC supports this process, it was felt that some of the trees that shaded and protected dead stags with hollows could have been left until suitable plantings of new trees had been established. Many of the trees that have been lopped have now re-sprouted and this will be a future problem.

on two sides by the junction of Barwon and Moorabool Rivers and on the other by an anabranch of the Moorabool that flows into the Barwon near the Lower Buckley Falls during flood peaks.

Both Red Gum Island and Buckley Falls Park have been improved greatly by the extensive volunteer work completed by the Friends of Buckley Falls. This dedicated group, lead by Tony Woolford, has managed to rid the area of most of the exotic weeds that once infested this zone and they have planted thousands of indigenous plants that now provide excellent habitat for native birds and the animals that live along the river valley. Fyansford Common lies between



A case of mistaken identity? The weed (Deadly Nightshade) is protected and the wanted plant (Kangaroo Apple) exposed to the elements.

Photo: Pat Streefkerk

Underneath one old Red Gum stag, we were able to see some very large honeycomb with plenty of bees active around the hive. The honeycomb was completely exposed and over a metre long. Evidently the original hive had been inside a hollow, but part of the tree broke off many years ago and the bees remained and built the hive in the exposed position.



Exposed bee hive

Photo: Pat Streefkerk

We were able to see lots of birds with Bryant showing us several nests. He also showed us the best places to watch for platypus—they have not been seen for a few months but they should be seen again in the autumn mornings. Other mammals that Bryant has seen in the area include a Black Wallaby and several Water Rats.

We crossed the bridge to Red Gum Island. This area is a natural island formed



Nankeen Night Heron at Buckley Falls

Photo: Pat Streefkerk

Red Gum Island and Fyansford and this area is managed by the council.

After retracing our path back over the bridge, we continued on to the Buckleys Falls lower carpark. Several interesting birds were noted here, including nesting Dusky Woodswallows and good views of a Crested Shrike-tit. We then dodged a few golf balls

and visited the Stone Pines in Queens Park Golf Course that are the roosting site and nest area for several Nankeen Night Herons. Some egg shells were found under the nest tree. The tree where Australian Hobbies bred earlier in the season was pointed out by Bryant. We then returned to the Queens Park Bridge via the golf course. All agreed that this area is one of Geelong's true gems.

Birds seen between Queens Park bridge and Buckley Falls

Pacific Black Duck: Common along the river.
Grey Teal: Mainly roosting on branches near the waterline.
Chestnut Teal: A few noted.
Little Pied Cormorant: One
White-faced Heron: One at the Lower Buckley Falls. Standing motionless in wait.
Nankeen Night Heron: One seen fishing at Lower Buckley Falls. Others near the water race. At least five seen in Stone Pines on the Golf Course. One seen on a nest—possibly several nests at the site.
Whistling Kite: Seen briefly over the hill above Deviation Road.
Australian Hobby: Three noted in the Golf Course.
Purple Swamphen: A few.
Dusky Moorhen: Many along the river.
Eurasian Coot: Many along the river.
Spotted Turtle-Dove: Several near Red Gum Island.
Galah: several noted.
Sulphur-crested Cockatoo: Many seen.
Rainbow Lorikeet: Many noted. Three pairs seen entering hollows in trees near bridge to Red Gum Island.
Eastern Rosella: One
Red-rumped Parrot: Very common. Many nesting in hollows in dead Red Gums near Red Gum Island.
Superb Fairy-wren: Common in areas with denser undergrowth.
White-browed Scrubwren: Many seen in denser undergrowth.
Brown Thornbill: A few noted.
Red Wattlebird: Common.
White-plumed Honeyeater: Many seen. One nesting in lower

branches of a Red Gum that overhung the river opposite the old paper mill.
New Holland Honeyeater: Many seen along the path.
Crested Shrike-tit: One noted in trees opposite the old paper mill. Another heard near red Gum Island bridge.
Grey Shrike-thrush: One very vocal bird at Lower Buckleys Falls.
Magpie-lark: Several seen. An unused nest noted opposite the old paper mill.
Grey Fantail: Many seen along the path.
Willie Wagtail: Many seen. One on a nest over hanging the river edge with at least three hatchlings. Parent birds noted swapping over 'nest sitting duties'.
Dusky Woodswallow: Several noted at Lower Falls carpark. One bird sitting on a nest in a tree fork.
Australian Magpie: Several seen.
Pied Currawong: Several seen or heard. Two noted in large Moreton Bay Fig near the football oval.
Little Raven: Several noted
House Sparrow: Common near Buckleys Park.
Red-browed Finch: Several small flocks on Red Gum Island.
European Greenfinch: Several on Red Gum Island.
European Goldfinch: Common on Red Gum Island.
Tree Martin: Several soaring above the pool below Lower Buckleys Falls.
Clamorous Reed-Warbler: Heard in reed bed.
Silvereye: Many seen along the paths.
Common Myna: Some near the old paper mill.

Total: 40

Other birds seen by Barry Lingham on continuing along the river

Australasian Grebe: One at Barwon Valley Fun Park
Darter: Four females and two males perched in vegetation on south bank of Barwon about 80 metres downstream of the Shannon Avenue Bridge. One female sitting on nest in branches about a metre above the river.
Little Black Cormorant: Two seen.
Australasian Pelican: One at Barwon Valley Fun Park
Australian White Ibis: Two at Barwon Valley Fun Park
Royal Spoonbill: One at Barwon Valley Fun Park
Buff-banded Rail: One at Barwon Valley Fun Park

Black-winged Stilt: Two at Barwon Valley Fun Park
Masked Lapwing: Twenty-three at Barwon Valley Fun Park
Silver Gull: Many on the river.
Whiskered Tern: One following river near Moorabool Street Bridge.
Yellow-tailed Black-Cockatoo: Four flying upsteam
Common Blackbird: Several.

Total species seen along river: 53

Your River: Barwon

'Your River: Barwon' is the title of an article in *EV News*, the newsletter of Environment Victoria.

A website was launched in October 2006 and can be found at www.environmentvictoria.org.au

On the website you can view profiles of people who care about the river, including farmers, fishermen, canoeists and naturalists. Included is our GFNC Secretary, Neil McInnes, who is the Upper Barwon Landcare Network Coordinator.

Note: Anna Boustead, author of the article mentioned above, is leaving Environment Victoria to work on a Masters Degree in Tropical Environmental Management at Charles Darwin University. Anna has been a guest speaker at GFNC.

The State of Australia's Birds 2006: Invasive Species

The latest in the series produced by Birds Australia (as a supplement to *Wingspan* December 2006) this booklet is very informative. It presents *an overview of the status of Australia's birds, the major threats they face and the conservation actions needed*. The news is not all bad—Government action, quarantine measures and management processes have been effective in some cases—but there is also unfavourable news and the true environmental and economic impacts of invasive plants and animals are poorly known.

The authors state that *greater cooperation and uniformity in legislation and policy will be necessary before real progress in addressing pest problems can be made, for the social, economic and environmental benefit of the nation*.

Favourite bird-watching places

Bird group meeting, 18 January 2007

...Dean Hewish

This month's Bird Group meeting was a members' night and three of the group, John Newman, Lorraine Phelan and Barry Lingham, each gave a short presentation about one of their favourite bird-watching places.

Wensleydale

John chose to speak about the area around Wensleydale, north of Anglesea on the northern slopes of the Otway Ranges. He and his family formerly lived in Wensleydale and kept their ten-acre property after they moved to Geelong. The area he described extended from Lake Gherang in the north to Bald Hills nearer the coast. Lake Gherang has been dry for some time but when it holds water it is an excellent locality for Brolga, Black-tailed Native-hen and Latham's Snipe. Nearby Wurdiboluc Reservoir is at a low level because of the drought, but still has a good concentration of waterbirds. On the morning of the meeting day, John saw large flocks of Blue-winged Parrots feeding in the grass that has grown up on the reservoir's shores.

The land between the reservoir and the hills further south has been largely cleared for agriculture, but has the expected plains birds such as Richard's Pipits and Wedge-tailed Eagles. White-winged Trillers and Pallid Cuckoos are often found there in season. White-throated Needletails can often be observed in late summer. The farm dams in the district have good numbers of Australian Shelducks, which breed in the nearby forest. The Anglesea River valley begins in cleared land on the northern fringe of the forest and the variety of birds increases further south and closer to hilly country, where cultivated land is mixed with uncleared bushland. Here, Restless Flycatchers and Common Bronzings can be found, with low numbers of Satin Flycatchers and Olive-backed Orioles during summer. Brush Bronzings are present but infrequently seen. Scarlet Robins are abundant.

Further south, the Angahook-Lorne State Forest includes the hills nearer the coast. This district is well known as a good birding area. The vegetation is mainly Messmate Stringybark, with some Manna Gums and Narrow-leaf Peppermints. Prickly Moses and tea-tree are common in the understorey. Naturally, honeyeaters are abundant and John and his family recorded eleven species on their property over the last Easter weekend. White-eared Honeyeaters are the most conspicuous species and Crescent Honeyeaters are abundant. The usual bush birds like Black-faced Cuckoo-shrikes and Buff-rumped Thornbills can be easily found. Southern Emu-wrens are fairly common, but seldom seen. Red-browed Firetails are common, but Beautiful Firetails, although always present, are much rarer and hard to find. A few Sacred Kingfishers are usually present during summer. Rose Robins are regular visitors and brown Pink Robins stay for the winter. Summer visitors include Fan-tailed, Horsefield's Bronze and Shining Bronze-Cuckoos. Parrots in the area include good numbers of Gang-



Photo: John Newman

gang Cockatoos and Australian King-Parrots, with occasional Yellow-tailed Black-Cockatoos. The King-Parrots can be quite tame. John and his family have a party of Satin Bowerbirds on their property and the adult male maintains a bower.

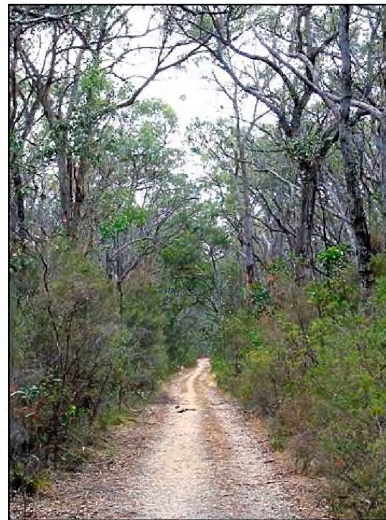


Photo: John Newman

Wensleydale and adjacent areas are obviously excellent places for bird watching. John acknowledged the use of bird photographs from the Australian Bird Image Database.

Deakin University, Waurn Ponds

Lorraine works part-time at the university. She follows on a tradition of bird-watching on campus, as Margaret Cameron and Valda Dedman submitted many bird records from the grounds when they worked there. Deakin University management has put considerable effort into creating a wooded environment through extensive plantings. A small creek running through the campus has been dammed at several levels to make a series of small lakes that have naturally become focal points for birds. The lake closest to the main entrance (Boyd Waters) is the lowest of the chain and has an island that is occasionally used by waterbirds, but overall it is the least productive lake. Some bush birds occur in the planted areas to the south of the lake, especially when the trees and shrubs are in flower. The next lake to the north-west is known as the Science Lake. This lake often has cormorants and other waterbirds. A noteworthy bird observation from the area north of the lake was an occurrence of Swift Parrots. The Library Lake area to the west has been planted with low shrubs, and Purple



Science Lake, Deakin University

Photo: Lorraine Phelan



West Lake, Deakin University

Photo: Lorraine Phelan

Swamphens, Pacific Black Ducks and Buff-banded Rails breed in the vicinity of the lake and are quite tame. Great, Little Pied and Little Black Cormorants frequent the lake and Darters and Nankeen Night-heron have been seen. Swift Parrots have been recorded from the ironbark trees behind the library. Further west there is a series of three shallow lakes that vary considerably in level with the seasons. These areas are less frequented by people and offer good bird-watching opportunities. Common Bronzewing, Red-rumped Parrot and Galahs frequent the surrounding grassland and Clamorous Reed-Warblers are often heard calling from the reedbeds. Raptors seen overhead have included Whistling Kites, Goshawks (or Sparrowhawks) and Wedge-tailed Eagles. The third lake has resident Black-fronted Dotterels and Lorraine has found them nesting (unsuccessfully) on the dry bed of the uppermost lake. Australasian Grebes have nested in these upper lakes. Lorraine has not recorded many species of ducks on the campus lakes; Pacific Black Duck is the only common species but occasionally there are surprises such as a small group of Freckled Duck that visited once. Some pine plantations in the Deakin University grounds attract Yellow-tailed Black-Cockatoos and Gang-gang Cockatoos. The Gang-gangs can nearly always be found on campus.

Lorraine is fortunate to work at a site that allows her to bird-watch during her lunch hours. It is fortunate that she is still recording the birds of Deakin Campus now that Margaret Cameron and Valda have retired and are no longer promoting bird-watching there.



West Lake, Deakin University, Waurn Ponds
Photo: Lorraine Phelan

Black Rocks

One of Barry's favourite birding places is the Black Rocks area on the coast west of Barwon Heads. He showed a series of photographs of the different coastal environments found in the district and traced out his favourite walking route. The carpark and formal entrance to the beach is east of the sewage works on the Barwon Heads-Torquay Road. Barry prefers to do a figure-of-eight walk from the parking area, westwards along the beach, through the dunes on the headland after the treatment plant to the eastern end of Bancoora Beach, and returning around the headland via the beach, and walking back inland in the coastal heath behind the treatment plant.

The beach has been designated as a Hooded Plover breeding site, but Barry has seen large numbers of dogs running loose on the beach. However, he has observed one chick raised there this year. The beach is less frequented by people in the cooler months and can be a good spot for quiet bird-watching. The headland has a rocky reef, the easternmost extension of a lava

flow that originated near Breamlea. The rocks serve to trap banks of seaweed and provide good shelter for seabirds and waders, which feed on flies in the rotting weed. Ruddy Turnstones are often seen among the rocks on the point in summer and good numbers of small waders often roost there, including occasional Sanderlings. Red-capped Plovers are usually found on the beach above the rocks.



Black Rocks
Photo: Barry Lingham



Black Rocks
Photo: Barry Lingham

A sandy beach extends toward more lava rocks near the old sewage outfall. The actual outfall has been moved offshore to accommodate the surfers, but bird-watchers miss the Giant-Petrels and other seabirds that used to be attracted inshore by the sewage. The low dunes at the back of the beach near the outfall site contain old Aboriginal middens and walkers should be careful not to damage them. There is a carpark just past the treatment plant that is an access point popular with fishermen. To the west, another headland was formed by a branch of the lava flow. Large sand dunes have built up behind the headland. Again, middens are present in the sand and should be respected. However, the dunes are used by trail-bike riders and Barry has even come across a group of people re-enacting medieval battles in the dune field. The blow-outs toward the beach were once used by football clubs for training but have been zoned as revegetation areas and recovery efforts have stabilised the sand to a large extent. Hooded Plovers breed in some of the blow-out hollows in the dune. Barry feels that the heath behind the treatment plant is worthy of more detailed study and suspects that it may contain unusual birds like Chestnut-rumped Hylacolas. Mammal trapping in the area might also give interesting results.

Black Rocks is an interesting area of coastline and offers a relatively secluded place for bird-watching, particularly outside the summer holiday period.

Letters to the Editor

Some members will remember Colin Goldberg as an active member of the bird group until recent years. Recently I received this letter from his wife Elizabeth and with her permission publish it in its entirety.

Dear Lorraine,

I hope that I am directing this small article to the correct destination! If it is usable, then Colin would be very pleased, as will I, to see it in print.

Colin struggles with his physical ill health, the greatest struggle tho' is the dementia. We walk/ride most evenings within St Laurence Park, Lara, to the sites that offer the greatest opportunity to view whatever is on the move thereabouts. Colin walks the distance he can manage and I go along with his motorized chair ready for him to drop in to, then I finish our walk on foot.

Tuesday 28 November 2006

Early evening found us on our way to the nesting site of a pair of Whistling Kites, here in St Laurence Park, Lara. With the gold sun lowering and rabbits everywhere we watched movements of Galahs, mudlarks (dozens), ravens, swallows, wattlebirds and magpies all heading for their roosts. While all this was going on the male and female kites were beautifully visible on their various flights and perches.

Suddenly all rabbits exited right to further reaches, the Whistling Kites took flight and to my left, through the binoculars I observed an adult fox and three half-grown young moving through the sparse coarse undergrowth beneath the Yellow Gums where the kites have had their nest for 5 years. The foxes were in good condition, due, I imagine, to the plentiful supply of rabbits!



As it became dark we left this rural realm that is part of our dwelling place, and returned home to marvel at its beauty.

Colin Goldberg

Indeed on returning home I sat Colin down to dictate to me what should be said. Colin's hands shake so now that it is almost impossible for him to write and it is a struggle for him to recall our immediate past activity, but I feel I must ask it of him at times or the facility to do so will leave him even more quickly than it now is.

Would you pass on to your executive and committee our thanks and congratulations—your monthly magazine is a gem, your contributions first class and the work the entire club undertake and fulfil is outstanding.

Sincerely
Elizabeth Goldberg, for Colin.

Hovells Creek, Lara

Photos: Lorraine Phelan

Comet McNaught

...Marilyn Hewish

Comet McNaught was discovered by British-Australian astronomer Robert McNaught on photographs taken using a telescope at Siding Spring Observatory, Coonabarabran, NSW, on 7/8/06. At the time, it was too faint to be seen by the naked eye. It became lost in the twilight in mid-November, but was recovered by northern hemisphere observers in early December. It was brightening rapidly. On 12/1/07, it reached its closest approach to the sun in its orbit. As it slowly moved away from the sun and higher in the sky, it became visible to the naked eye for southern hemisphere observers in the hours after twilight. It should start to fade in February as it moves further from the sun.

The head of Comet McNaught is thought to be only 10–20 km across but its tail is tens of millions of kilometres long. The heads of comets are made of a mixture of ice, dust and rubble. Most comets have elongated orbits and when they get close to the sun the ice starts to boil off and carries some of the dust and rubble with it. This debris forms the tail and the sunlight reflecting off it lights it up. The tail is curved because it traces the comet's curved orbit. The tail gets wider further from the head because radiation from the sun exerts a push (radiation pressure) on the dust grains in the tail and gradually moves them away from the orbit. The smaller grains move further.



This photo of Comet McNaught was taken from Bacchus Marsh at 21:45 on 23/1/07.

Photo: Dean Hewish

[The photograph on the front cover, by Dean Hewish, was taken from Bacchus Marsh on 25/1/07 at about 22:00. It was taken on Kodak print film 400 ASA, 50 mm lens, aperture f2.8, exposure 40 seconds.]

Vale Betty Quirk

We say farewell to another Life Member of our Club—Betty was to have her 90th birthday in May this year.

Betty was a very staunch member and supporter of the Geelong Field Naturalists Club for over 40 years. From Club records, Betty joined the Club in 1966, serving on the Committee from 1968–1984 (16 years). From 1970 until her resignation from the Committee in 1984 she held the post of Assistant Treasurer. For her great service to the Club she was awarded an Honorary Life Membership.

Betty lived much of her life in Geelong, where the Girl Guides Association and the Geelong Field Naturalists Club were her big interests—she was heavily involved in both these organisations, and contributed so much. Later on she moved to Drysdale where she happily continued with these main interests as much as she was able, and developed her garden—her great love. Eventually time caught up with her and she moved to Ferntree Gully to live with her daughter and family. All the while Betty was receiving the Club magazine, the *Geelong Naturalist*, which she enjoyed enormously. Her daughter Margaret told me how much she enjoyed these—up to the last she just loved to read them—sometimes several times over!

When I first joined the Geelong Field Naturalists Club in 1968 I was impressed by a great band of amateur botanists—

Francie and Elsie Poole, Leila Ramsay, Ted Errey, a number of others, and of course, Betty Quirk. What a great learning experience it was to go out with these people—and such fun! There were wonderful outings and camps in the bush. Learning was easy and knowledge shared freely.

Betty's Hi-Ace van was well known, as was the Poole's! They travelled all over the country discovering, studying, photographing, and recording plant species. Wonderful photos, great adventures, and so much to share on their return! One particular trip I remember, which they presented at a meeting, was one that took them over the Nullarbor and up the West coast to Kalbarri National Park. I am sure it was a very sad day when Betty had to give up her beloved old van! At Betty's funeral recently, her granddaughter remarked that just about anything that anyone could possibly want could be found in Betty's van! If anyone had forgotten anything on a camp, or something broke, Betty was sure to find a replacement in the van!

She was a great camp leader, with her Girl Guide involvement, and led many an excursion for the Field Nats—often bringing some of her Guide group with her. There would be camp-fires and all sorts of experiences and camp crafts to learn, and lots of enjoyment!

In the early 80s when I was having my first 'bout' as Treasurer, Betty, being Assistant Treasurer, would fill in for me while I was away. When I returned to take over the books once more, there was never any money missing, however there was generally \$20 or so too much! Whenever she did the books for me she told me she kept them at home under the spare bed—we used to laugh that the money must incubate under there!

Betty's love of native plants extended to her love of her home garden. In later years when I sometimes picked her up from her Drysdale home to go to meetings, she would walk me around her garden showing me her particular plant 'friends'. She would remark how much she would miss her garden if she eventually had to leave—which we know of course had to happen. It was nice to hear at her funeral that she also had a lovely garden at home in Ferntree Gully

I remember Betty as having a very kind, happy personality, with lots of laughs and lots of friends. A very 'giving' person, always willing to share. There were many heart-warming tributes to her, at her funeral/celebration of her life—from family, friends, Guides, and the Geelong Field Naturalists Club—it was obvious that we all remember Betty well, and are all the richer for having known her.

Diana Primrose

Mid-week bird group excursion Norton's Road, Paraparap, 25 January 2007

...Pat Streefkerk

The weather was very pleasant and 17 people attended this outing to Paraparap, led by Kay Campbell.

We turned from Hendy Main Road into Brushfields Road and had our first stroll around the area. We then turned into Nortons Rd and proceeded to stop at intervals along this lovely tree-lined back road.

An avenue of native bush through cleared farmland, this is an excellent area for all sorts of birds. The highlight was the constant sightings of Brown Falcons, seen on the ground, on perches such as wires and trees, and on the wing. It seems there is a whole family group of them in the area.

We were fortunate to see over 50 species altogether and it was a most enjoyable morning.



Bird List:

Australian Wood Duck
Pacific Black Duck
Australasian Grebe
White-faced Heron
Wedge-tailed Eagle
Brown Falcon
Common Bronzewing
Yellow-tailed Black-Cockatoo
Galah, Long-billed Corella
Little Corella
Sulphur-crested Cockatoo
Crimson Rosella
Eastern Rosella
Red-rumped Parrot
Blue-winged Parrot
Laughing Kookaburra
White-throated Treecreeper
Superb Fairy Wren
Spotted Pardalote
Striated Pardalote
White-browed Scrubwren
Brown Thornbill
Yellow-rumped Thornbill
Striated Thornbill
Red Wattlebird

Little Wattlebird
Noisy Miner
Yellow-faced Honeyeater
White-eared Honeyeater
White-plumed Honeyeater
Brown-headed Honeyeater
White-naped Honeyeater
New Holland Honeyeater
Grey Shrike-thrush
Restless Flycatcher
Magpie-lark
Grey Fantail
Willie Wagtail
Black-faced Cuckoo-shrike
Grey Butcherbird
Australian Magpie
Pied Currawong
Little Raven
Red-browed Finch
Mistletoe Bird
Welcome Swallow
Tree Martin
Silvereye
Common Starling
Common Myna

Total: 51 species

There is something special about a new book—moreover if it comes as a gift-wrapped surprise. And here it was—a field guide with the front cover graced by a gorgeous Moonlight Jewel.

Then came the pleasure of the first riffle through the pages and a pause to savour its newness. More riffling onwards to the Blues where exotic names demanded attention—Blue Moonbeam, Satin Azure, Amethyst Jewel, Stencilled Hairstreak.

Now that last one looked interesting. It had short tails on the hind wings. And further on several had more flamboyant appendages. Interest aroused, so back to the introductory pages to scan over Lifestyle and Behaviour. Would you believe! The tails are false antennae, enhanced by eye spots which are meant to distract an attacker from the more vulnerable parts of their bodies. Now that's pretty smart!

But consider this... Many of their caterpillars have organs near their end which they use to reward or appease ants—which means that they must spend a lot of time living with ants.

But getting this far I had to refer to the Glossary to become familiar with nectary organs and dorsolateral eversible organs—lots of jargon to catch up with!

Then the thought struck me. Here are pages and pages of 'pinned' down specimens of butterflies, not at all lifelike. Rather like animal skins nailed to a wall! Trust me to look on the bright side. But never mind, this Guide is going to be jolly useful and is full of information.

And the real things are out there, maybe in limited numbers but well worth your acquaintance.

Mangroves and Seaberries

Limeburners Bay 8-2-06

Mangroves with small yellow flowers and Seaberry Saltbush, remnant plants. Its glistening bunches of red fruit attracting me and the birds.

Two Brown Falcons flew out of a clump of trees. Large stick nest may have been theirs. (They recycle other birds' nests.) Later saw three over a field in the distance.

Through a veil of insects

Lake Victoria 10-2-06

Strong wind; swarms of tiny insects flying up from the tussocks into faces; lake at a low level; clumps of attractive Wireleaf Mistletoe on the Wirilda wattles; Moonah, clumpy, white with flowers.

Paucity of birds, then out of nowhere, a large, mixed flock of waders landed close by. Then several more large flocks, wheeling around as one to turn into the wind to alight by the water.

Small numbers of Red-capped Plovers were present. One, as we walked towards it, faced us, wings outstretched, head down, a posture that seemed to exaggerate its size.

Snapshots from...

Western Treatment Plant 15-2-06

Ponds full of Swans, stiff-tailed Musk Ducks with their grotesque beaks, Grebes, and Shelducks sporting their prominent orange-yellow breasts.

Marsh Sandpipers, delicate and long-legged, feeding in the shallows; while further out, tightly bunched Avocets swam collectively, then upended as one, feeding duck-like.

Flocks of Pink-eared Ducks, beautiful, zebra-striped markings, rising in hundreds from the lagoon with their unducklike whistles—soon to settle again.

Godwits, Black-tailed here on the lagoon and Bar-tailed resting on exposed rocks offshore.

Kirk Point and low golden sunlight—Golden Plovers scattered over black rocks. Later, disturbed, flying off with unusual musical calls, to a nearby saltmarsh. Noonflower—striking autumnal colours—everywhere.

Coast Saltbush with its attendant tiny blue butterflies and coupling dragonflies.

Reminder: Always check current conditions before using information contained in this article.

To get you going...

'A couple of degrees can make the difference between life and death.' 'Butterflies are dying out in warmer places.' 'One quarter of Australian butterflies would be threatened.'

Research has begun to gauge the effect of climate change on Common Brown Butterflies. *The Age* 20-12-06

Enough said! Now the Common Brown is the one you're most likely to see with the smaller males active early in the season, and the larger more boldly coloured females more obvious in the autumn when they emerge from their cool hideaways.

You know, you don't need to put names to butterflies to enjoy them. Just keep an eye out for

- Butterflies sunning, wings spread, in open spaces on ground. (Anywhere really!)
- Congregations around hilltops and trees. This is a mate location exercise. I've seen this on a Cypress Pine in the Queens Park Golf Course.
- Flowering plants. On a 'garden' of Sea Rocket at Breamlea, a host of butterflies—several species including a small Blue, and other insects. A splendid sight.
- Mistletoe. Creeping and Wireleaf now flowering along the Barwon River walks. Creeping Mistletoe is one of the food plants for the caterpillars of the Imperial Jezebel (Imperial/White). Adult is so colourful you can't miss it. Find the Mistletoebirds as well!

And thanks to that guide, *Butterflies of Australia* by Michael Braby, I was able to name the Chequered Copper butterflies (another Blue), that I observed on the You Yang tops.

And now for something completely different. At the Bird Group meeting three of our people introduced us to their patches—from campus to coast. And what a good night it was! One thing for certain—everyone's patch is unique. Think about that!

Now I think I'll just spread my wings, take flight, and aestivate in a cool place. And a last word or two—someone said brevity is the soul of wit. So would that make me...witless?

Cheers!

Leaf Case Moth *Hyalarcta huebneri*, Psychidae, Lepidoptera

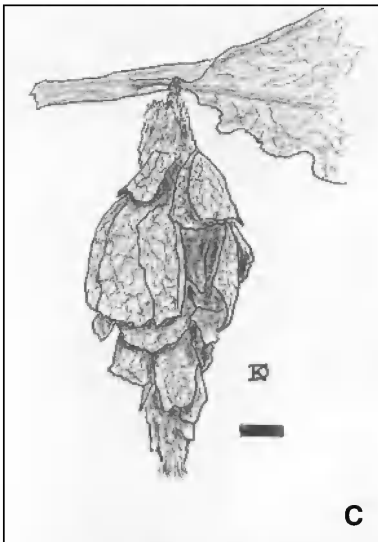
....Dave King

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Introduction

At the October 2006, General Meeting of the GFNC a number of pupal case specimens were tabled and later identified as that of the Case Moth *Hyalarcta huebneri*.¹ They had been collected in Whittington, 38°14'S 144°30'E. The writer took possession of the specimens in order to rear them to the adult stage.

Several types of foliage were tried upon which the larvae could feed, the most successful being foliage of an immature Blue Gum. When feeding the larva protrudes from the case up to as much as half its length, this being the only part chitinised. Feeding would occur over a period of about two hours, after which the larva would secure the silken case to a stem and retreat to within the case, closing the aperture behind it. Moving to a new leaf or situation the larva grips the stem, severs the attaching silk, and crawls along carrying its case and continually attaching a lifeline of silk thread. Should the larva detect the vibration of a likely predator it will instantly attach the case to the stem with silk and retreat into the case closing the aperture behind it.



As the larvae proceed to grow, they enlarge the silken case and cover it with small pieces of Gum Leaf. To attach foliage to the case, the process is to secure the case with a strong band of silk to a stem or that part of the leaf not intended to be used (C), then attaching the edge of the leaf to the case with silk and chew around this point of attachment in a circular path to sever the piece from the leaf.

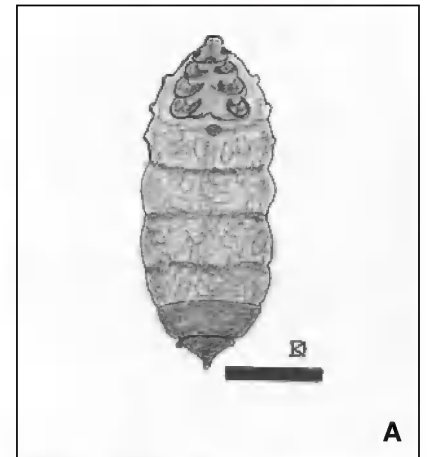
Around the end of November 2006 the larvae, after securing the case to a stem, began to pupate within their case. Completion of the pupation period occurred over a few days at the end of December and the beginning of January 2007.

The male reverses its position within the silken case, protruding the anterior of the pupa capsule from the bottom aperture of the case. Splitting of the capsule releases the adult male. On the other hand, the wingless female remains in her case ejecting the remains of the capsule. She is virtually a receptacle full of eggs awaiting fertilisation by a visiting male. During the mating she will protrude just her anterior end through the bottom aperture, subsequently laying the eggs within the case. On hatching, larvae will exit the case and disperse, most likely in the early stages as leaf miners before constructing a case.²

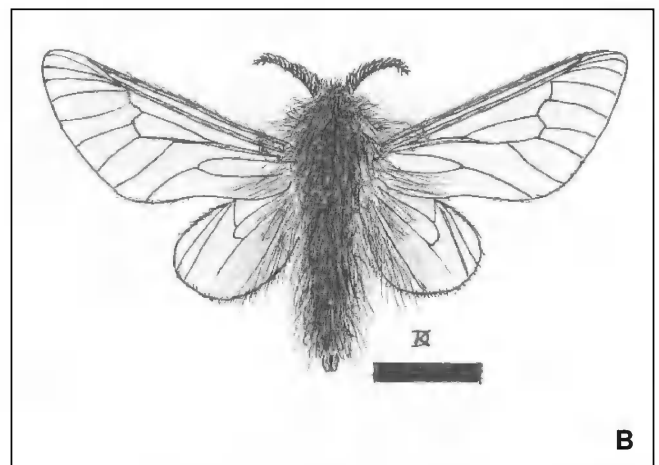
The adult male moth appears not to have any viable mouthparts or means of feeding, and therefore, must have a very limited adult life, as does the female.

Description

The adult female is described as essentially a rotund container of eggs (A), it is estimated that some 400 eggs would be present. Each egg is an ellipsoid one millimetre in length. The female has small dark brown areas of chitin around the small head and the body posterior region. The head contains two very small eyes and no viable mouthparts. Three pairs of legs are reminiscent of those possessed by the larva.



The adult male (B) is somewhat uncharacteristic of the Lepidoptera. The wings are clear with very few scales, these being widely dispersed mostly along the veins. Long black hairs cover the body and extend partially over the wings. The head carries orange coloured bipectinate antennae and two relatively large bulbous eyes and no ocelli. As previously stated the mouthparts are degenerative. Each of the six legs, with the exception of the tarsal section, is also covered with long black hairs and terminates in a pair of simple claws.



Acknowledgement

The writer is indebted to GFNC member Diana Primrose for kindly providing me with the active larvae.

References

1. http://www.geocities.com/brisbane_moths/LeafCaseMoth.htm
2. <http://www.-staff.it.uts.edu.au/~don/larvae/psyc/huebner.htm>

Leaf Case Moth, *Hyalarcta huebneri*, Psychidae.
A, female (ventral); B, male; C, Case.
Scale bars 5 mm.

Illustrations: Dave King

Gender identification of immature Magpie-larks

...Laurie Drinnan

In the bird books I've seen, the illustration and description for immature Magpie-larks (*Grallina cyanoleuca*) do not differentiate between either gender and therefore infer that immature males and females are both the same in appearance.

For the last twelve years I have had a female Magpie-lark tame enough to land on (and eat from) my hand. In that time she has had one or two clutches (three in 2005) each year, consisting of one or two young, which over the time have totalled more than forty. When the young birds have fledged and left the nest, the parents (there have been three males in that period) would bring them to my yard where they left them as a 'kindergarten'. Usually within a few days the young ones would perch on my hands and eat from my fingers.

Whilst all the young birds had the usual plumage of white throat and white eyebrows, only some had a faint white line under the eye, the same marking as in adult males.

Although the parents (mainly the male) harried most of the young away after about a fortnight, some remained long enough for their adult plumage to appear and, in those with male plumage, the faint white line under the eye remained.



Willie Wagtail chicks in the Geelong College Prep School grounds, January 2007. This was the second successful nesting in the same nest.

Photo: Rob Ganly

Corollary: Gender identification of immature Magpie Lark *Grallina cyanoleuca*

Male: White throat, white eyebrows, faint white line under the eye.
Female: White throat, white eyebrows.

March Club Excursion

Members are reminded that the usual 3rd-Sunday excursion will not be held on 18 March. Instead, excursionists are invited to attend SEANA Campout excursions which depart Forrest at 9.00 am on Thursday 8 March through to Monday 12 March.

Interested members are requested to contact Dick on Sunday 18 February for further information. Details will be advised at the March General Meeting.

Dick Southcombe Ph. 5243 3916

From mid-February the national office of

Birds Australia

will be at Level 2, 60 Leicester St, Carlton

This 'green' building, known as 'L60', is also the home of Environment Victoria.

Bird observations December 2006/January 2007

... Barry Lingham

Our members have been busy noting bird observations over the Christmas period and Lorraine has entered all the records on to a computer file—there were over 100 different species seen. At the end of each year, all the monthly observations are amalgamated into a complete year list. This list can then be searched by species, date, observer or location. All of the observations are passed on to Marilyn Hewish who analyses them for inclusion in the *Geelong Bird Report*. A commonly asked question is 'How do I know what observations to submit?'

Obviously we are keen for records of unusual birds in the area, such as the Crimson Chat recorded at Reedy Lake, which was a new bird for the region. Breeding records are always helpful in studying birds. Notes on interesting behaviour, such as the Collared Sparrowhawks at Steiglitz, are valuable. We build a picture of bird movements by recording the arrival and departure times of migrant species, such as the Sacred Kingfisher, or the influx of birds such as with White-browed Woodswallow. Perhaps the most important records are of those species that are resident within the region, but are in decline. Examples include the

Speckled Warbler, Jacky Winter and Brown Treecreeper. The best way to learn about the status of a particular species is by referring to the *Geelong Bird Report*—the latest edition (birds recorded in 2005) is out now.

Marilyn Hewish adds: 'Rob Mackenzie is moving to Tweed Heads. For many years, he's been the rock on which the Geelong Bird Report has been built, and the articles on birds of various places have also relied heavily on his records freely given and his comments and editing. In the Geelong Bird Report 2005 he is first author on the 'Birds of Reedy Lake'. His contribution to our bird knowledge has been enormous.'

Observers: ASt, Allison Street; AW, Alison Watson; BA, Bryant Attwood; CBC, Challenge Bird Count; DHe, Dean Hewish; FSm, Fred Smith; GFNC, Geelong Field Naturalists Club; JN, John Newman; LCI, Lynne Clarke; MHe, Marilyn Hewish; PW, Philip Watson; RGa, Rob Ganly; RHL, Richard Loyn; RMc, Rob Mackenzie; TSc, Ton Schat

Species	Number	Date	Comments	Observers
Darter	3+	29/11	<u>Barwon River</u> , nesting near Balyang Sanctuary. On 16/1 there were four fledglings in nest nearest the bridge, 3 nestlings in middle nest and 3 or 4 nestlings in the third nest.	BAt
Little Egret	8	29/11	<u>Geelong Grammar, Corio</u> , in trees. None present on 20/1 but some discarded egg shells (6+) on ground.	BAt
Collared Sparrowhawk	2	3/12	<u>Steiglitz Courthouse</u> . Observers heard a single note contact call of male bringing food. Female responded and flew to male and accepted prey. Male flew in direction of nest, which would indicate that eggs had not yet hatched.	CBC
Little Eagle	1	Dec	<u>Stonehaven</u> , a road kill.	RGa
	1	13/12	<u>Queens Park</u> , soaring high at 1100.	RGa
	1	16/12	<u>Moriac</u> , a light morph bird soaring.	JN
	1	18/12	<u>Merrawarp Rd, Ceres</u> , very pale.	LCI
	1	25/1	<u>Leopold</u> , flying high with 6 Straw-necked Ibis.	RMc
Australian Hobby	2+	20/12	<u>Queens Park</u> , two nestlings being fed in nest.	BAt
	2	9/1	<u>Near Rowsley, N ridge of Rowsley Valley</u> , adult female perching with screeching juvenile.	MHe, DHe
Brolga	2	21/12	<u>Reedy Lake</u> , a pair SW of Moolap Station Rd. The female crept away with head held low, squatting occasionally.	RMc
Australian Spotted Crake	1	16/12	<u>Reedy Lake</u> , Moolap Station Road.	TSc
	2	1/1	<u>Hospital Swamps</u> , in reeds. Swamp very dry.	JN
Spotless Crake	3	1/1	<u>Queens Park</u> , an adult with two very small chicks.	BAt
Painted Button-quail	5	16/12	<u>Duridwarrah Rd, Brisbane Ranges</u> , a pair with 2 half-grown young and a single male later on.	MHe, DHe
Pectoral Sandpiper	1+	1/1	<u>Hospital Swamps</u> , amid 1400 Sharp-tailed Sandpipers.	JN
Pacific Golden Plover	16	16/12	<u>Avalon Saltworks</u>	RGa, RHL
Red-capped Plover	3	12/1	<u>Point Henry</u> , a female with 2 young.	RGa
Banded Lapwing	2	9/12	<u>Ceres</u> , on edge of farm dam.	JN
Brush Bronzewing	3	4/1	<u>Long Forest, Gravelly Track</u> ,	MHe, DHe
Blue-winged Parrot	2	10/12	<u>Lake Elizabeth, Otways</u> , in forest along river.	MHe, DHe, TSc
	2	3/1	<u>Stony Creek Picnic Ground, Brisbane Ranges</u> , in burnt woodland.	MHe, DHe, TSc
	50+	18/1	<u>Lake Wurdiboluc</u> , flocks of 10–20 birds feeding on weeds and grasses on lakeshore, low-water-level.	JN
Shining Bronze-Cuckoo	1	27/11	<u>Grahams Creek picnic area, Brisbane Ranges</u>	RMc
Sacred Kingfisher	1	24/11	<u>Anglesea</u>	AW
	1	25/11	<u>Bambra Rd, Bellbrae</u>	AW, PW
	Present	3/12	<u>Duridwarrah</u> , courtship feeding of the female by the male.	CBC
Rainbow Bee-eater	1	27/11	<u>Brisbane Ranges</u> , near Grahams Creek picnic area. Possibly observer's first record for Brisbane Ranges.	RMc
Brown Treecreeper	3+	3/12	<u>Wooloomanata</u>	CBC
Speckled Warbler	1	27/11	<u>Brisbane Ranges</u> , at Grahams Creek picnic area.	RMc
	2+1	18/1	<u>White Elephant Reserve N of Glenmore</u> , in 2 areas.	MHe
Little Wattlebird	1	29/11	<u>Balyang Sanctuary</u>	BAt
Black-chinned Honeyeater	2	17/1	<u>Bacchus Marsh town</u> , fed in flowering eucalypt in garden. First record here.	MHe
Eastern Spinebill	Present	9/1	<u>Bellbrae</u> , at birdbath. A juvenile present on 15/1.	AW, PW
Crimson Chat	1	16/12	<u>Reedy Lake</u> , a female or immature bird at Moolap Station Rd, first seen in planted melaleucas and later flew into centre of reedbed on the lakeshore. It showed red colouring on head, flanks and rump. First known record in Geelong region.	F5m, ASt
Jacky Winter	1	27/11	<u>Brisbane Ranges</u> , near Grahams Creek picnic area.	RMc
	1	3/12	<u>Wooloomanata</u> , nest at end of a twig in live eucalypt.	CBC
	2	11/12	<u>You Yangs, E. Paddock</u> , adult with a young bird.	MHe, DHe, TSc
Red-capped Robin	1	27/11	<u>Brisbane Ranges</u> , a male near Grahams Creek picnic area. Observer's first record for Brisbane Ranges.	RMc
Rose Robin	2	10/12	<u>Lake Elizabeth, Otways</u> , a brown bird seen, one bird heard.	MHe, DHe, TSc
	1	10/12	<u>Beauchamp Falls</u> , one heard on forested slope.	MHe
Pink Robin	2	10/12	<u>Beauchamp Falls</u>	MHe, DHe, TSc
Crested Shrike-tit	1	6/11	<u>Portreath Rd, Bellbrae</u> , a male.	AW
	Present	23/11	<u>Queens Park</u> . Several seen throughout the summer.	BAt
	1	15/12	<u>Geelong</u> , female at corner Latrobe Tce and Ryrie St.	TSc
	1+1	13/1	<u>Lower Buckley Falls and Red Gum Island</u>	GFNC
White-winged Triller	2	5/12	<u>E Paddock, You Yangs</u> , male and female.	TSc
White-browed Woodswallow	30±	3/12	<u>Anakie</u> , in woodland on N side of town.	CBC
	4	5/12	<u>E Paddock, You Yangs</u> , flying over open area.	TSc
	4	11/12	<u>You Yangs, E. Paddock</u>	MHe, DHe, TSc
	4	16/12	<u>Duridwarrah Rd, Brisbane Ranges</u>	MHe, DHe
Grey Currawong	1	30/12	<u>King Lloyd Reserve, Newtown</u>	BAt

Plant Group

13 February meeting

Chris Pitfield will speak about three Corangamite Catchment Management Authority projects of vital concern to naturalists—*Ecological Vegetation Class Guide*, *Bird Watch* and *Living Landscapes*.

13 March meeting

Neville Walsh, National Herbarium of Victoria, will present the Autumn 2007 Wider Geelong Flora Lecture. His subject will be 'Wet Forests of the Otways'.

Both meetings are open. Please attend and bring a friend.

CCMA projects 13 February 2007

Chris Pitfield, CCMA's Biodiversity Coordinator, is keen to raise awareness across wider Geelong of three related CCMA projects—*Corangamite EVC Guide*, *Corangamite Bird Watch* and *Corangamite Living Landscapes*.

The committee has arranged for Chris (who was a junior member of our club) to discuss these projects at a special open meeting at the Geelong Botanic Gardens meeting room on Tuesday 13 February 2007 at 7.30 pm.

We look forward to your company. Please bring a friend.

Mid-week Bird Group excursion

Thursday 22 February 2007 Lake Lorne and McLeods Waterholes Leader: Gordon McCarthy

This is an area that supports well over 100 bird species (see *Geelong Bird Report*, 1996 and 2001, for background information and bird lists).

Meet: 9.00 am at the Drysdale Railway Station carpark (*Melway* 456 F12)
Bring: Morning tea and telescope if you have one.
Finish: About 12 midday.
Enquiries: Polly 5244 0182

Advance Notice

Mid-week Bird Group excursion Thursday 22 March 2007 Manna Gum Park, Modewarre (private property)

Leaders: Hans and Pat Streefkerk
Details in March *Geelong Naturalist*.

Clean Up Australia Day Sunday 4 March 2007

Members and friends are invited to join Claire and Dennis Greenwell at the Bird Hide at Jerringot (Barwon Valley Golf Course road off Barwon Heads Road) Belmont Common for our annual clean-up of the wetlands and surrounds.

This will be a great opportunity to clear rubbish from the dried out beds of the swamps (unless the drought breaks first). We usually get a skip-full from the surrounding areas with help from a dozen or so members of the public swelling our number of collectors to about 20. Our Club has been actively involved in preserving this area—Latham's Snipe fly over from Japan for our summer, also Ballions Crakes, Buff-banded Rails and Growling Grass Frogs have made this their home in good seasons.

We need your help!

9.00 am to 12 noon or any part thereof would be appreciated.

Bring gloves, hat, solid footwear, sunscreen, insect repellent, and enthusiasm.

Excursion information

Exploring the Barwon by canoe 18 February 2007

We will be paddling the Barwon River from Wilsons Road through Lake Connewarre to Ocean Grove. We will be only paddling at a moderate pace, but a reasonable level of fitness is required especially if it is a windy day or if you have no previous experience. Start your fitness program now! A limited number of canoes and floatation vests are available, but contact Barry early to book them. We will need to organise a car shuffle to get people from the Ocean Grove end back to the starting point.

Departure: 9:00 am from the corner of Holt Road and Eastern Park Circuit or meet at the end of Wilsons Road at the Ski Club.

What to bring: Sunblock, hat, garbage bag or plastic box to store things; old shoes (not thongs) and clothes (you will get wet); food and plenty of water; change of clothes; binoculars and waterproof container; food and drink for BBQ afterwards

Itinerary: Paddle down river with a stop at Reedy Lake, then across to Tait's Point for lunch at about 12:30 pm. Other non-paddlers could meet us at this point. Paddle through Lake Connewarre to the delta then down river along the estuary to Ocean Grove. Finish up at Graeme & Wilma Tribe's house by the river (Dare Street) for a barbeque.

Contact: Barry 5255 4291 lingham@tpg.com.au

GFNC COMMITTEE 2006–2007

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SPECIAL INTEREST GROUP CONVENERS and OTHER CLUB POSITIONS

Belmont Escarpment Group	Dick Southcombe	5243 3916
Biodiversity Group (in recess)	Claire Greenwell	5243 7047
Bird Group	Barry Lingham	5255 4291
Conservation Group	Dick Southcombe	5243 3916
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Geelong Bird Report	Marilyn Hewish	5367 3196
Jerringot Group	Valda Dedman	5243 2374
Acting Librarian	Heather Cameron	
Mammal Study Group	Trevor Pescott	5243 4368
Membership Officer	Peter Williams	5221 3503
Plant Group	Dick Southcombe	5243 3916
Web-master	Barry Lingham	5255 4291

Coming events

FEBRUARY 2007

5-9	Mammal Group Survey—Phascogales
6	General Meeting: Lake Connewarre Management—John Sherwood
13	Plant Group: CCMA projects—Chris Pitfield
14–17	Mammal survey—Reedy Lake
15	Bird Group: Birds 50 Years Ago—Trevor Pescott
18	Excursion: Canoe trip – Barwon to Lake Connewarre shores. Leaders: Barry Lingham & Bruce Lindsay
22	Mid-week Bird Group Excursion: Lake Lorne and McLeods Waterholes

MARCH 2007

4	'Clean up Australia Day' at Jerringot. Leaders: Clair & Dennis Greenwell
6	General Meeting: Uncommon Plants of the Western Otways—Geoff Beilby
7–13	SEANA campout : Forrest (arranged by GFNC)
8–12	Excursion: Central Otways—join SEANA excursions
13	Plant Group: Wider Geelong Flora Lecture: Wet Forests—Neville Walsh
15	Bird Group: Birds of Eucalypt Plantations – Richard Loyn
22	Mid-week Bird Group Excursion: Manna Gum Park, Modewarre (private property)

***The closing date for the next magazine will be Monday evening, 26 February, 2007.
Early lodgement of articles (small & large) would be a great help—late copy may not be accepted.
Hard copy or diskette (saved as a Word document or .rtf please)
Photographs—digital as .jpg (100 to 250 KB approx. if sending by e-mail), slides or prints for scanning to
5 James Cook Dve Wandana Heights, 3216 —OR—e-mail: lphelan@bigpond.com.au
For further details phone Lorraine Phelan: 5243 0636***

The latest editions of the following references are recommended:

Birds:	Christidis, L. & Boles, W. (1994) <i>The Taxonomy and Species of Birds of Australia and its Territories</i> , Royal Ornithologist Union Monograph 2, RAOU, Melbourne.
Invertebrates:	CSIRO (1991) <i>The Insects of Australia: A Textbook for Students & Research Workers</i> , Vol 1 & 2, MUP, Melbourne.
Mammals:	Menkhorst, P.W. (ed.) (1995) <i>A Field Guide to the Mammals of Australia</i> , Oxford University Press, South Melbourne.
Plants:	Ross, J.H. & Walsh, N.G. (eds) (2003) <i>A Census of the Vascular Plants of Victoria</i> , Royal Botanic Gardens of Victoria, Melbourne.
Reptiles and Amphibians:	Cogger, H. (1992) <i>Reptiles and Amphibians of Australia</i> , Reed Books, Chatswood, NSW.

DISCLAIMER

The responsibility for the accuracy of information and opinions expressed in this magazine rests with the author of the article.

The *Geelong Naturalist* may be quoted without permission provided that acknowledgement of the Club and the author is made.

Meetings start at 8.00 pm at:

Geelong Botanic Gardens Friends Room.
Entrance is at the intersection of Holt Rd and Eastern Park Circuit in Eastern Park.
[Melway Map 452 G4]

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