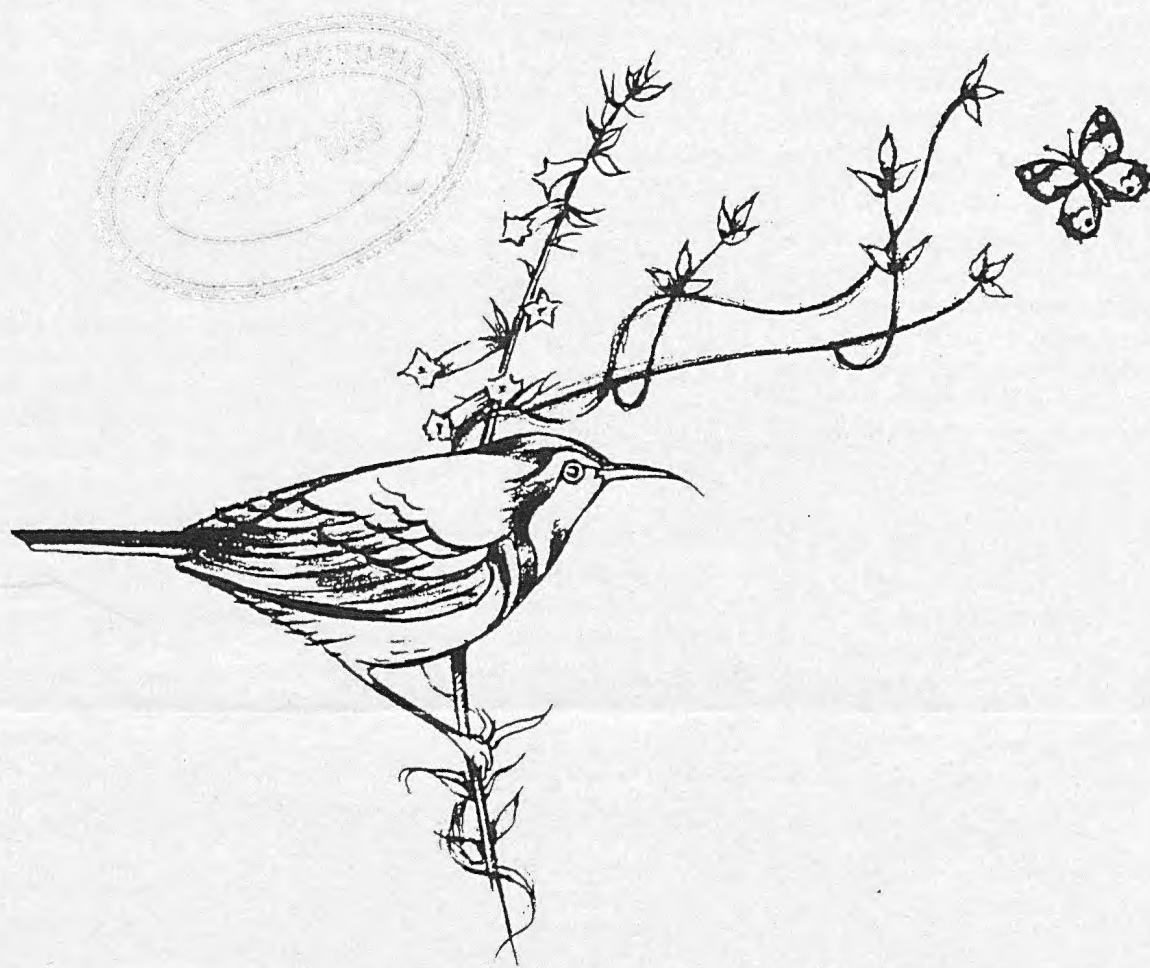


GEELONG NATURALIST

MONTHLY PUBLICATION OF THE GEELONG FIELD NATURALISTS CLUB INC



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OCTOBER 1999

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COMING EVENTS

OCTOBER

5	General Meeting	Patrick O’Callaghan	“The Ecology of Port Phillip Bay”
10	Biodiversity Group Excursion	* Dereel, Linton, Cape Clear	
10	Plant Group Excursion	+ Brisbane Ranges	Leader: Dick Southcombe Plants of the Brisbane Ranges
12	Plant Group		
13	Biodiversity Group	Workshop Meeting	
16-18	WVFNCA Campout		
17	Excursion	Angahook – Quoll Territory	Leaders: Donna Wood Friends of Angahook
19	Bird Group	Ian Morgan	“Birds of the Wimmera”
23-24	Boneseed Pull	* You Yangs	Leader: Rob Beardsley
29,30,31	Campout	* Bambra Bush	Leader: Graeme Tribe

NOVEMBER

3	General Meeting	Noel Schleiger	“Geelong’s Geology & Landforms”
7	Biodiversity Group Excursion		
9	Plant Group		Plant Dissection
10	Biodiversity Group	Workshop Meeting	
16	Bird Group	Gordon McCarthy	“Birds of the Bannockburn Bush”
21	Excursion	Geelong Geology- Bluestone, Sandstone & Limestone	Leader: Noel Schleiger

- * CHANGES TO PROGRAM
- + ADDITIONS TO PROGRAM

CAMPOUT NOTICE
... Graeme Tribe

Spring Campout, Bambra Bush.
 October 28,30,31 Fri, Sat, Sun.

Leader: Graeme Tribe 5255 2302
 NOTE: The dates of this campout have been changed from those shown on the club program.

How to get there:
 The Oberon school camp is on the eastern side of the Deans Marsh Road, 5.6 km south of the Deans Marsh Road – Cape Otway Road intersection. Look for GFNC signs.

The camp is set in an ideal bush setting opposite the Bambra Education Area bushland and adjoins the Scrubby Creek Coalmine Dam wetlands. Our club has enjoyed several great campouts in this easy-to-get-to location.

Facilities:

There are eight bunkrooms (internal W.C. and showers) and a large meeting room with an open fire. The kitchen has everything provided eg. plates, etc, gas stove, power, fridge and cooking utensils.

Outside, there is a gas barbecue and campfire facilities.

What to bring:

Linen and blankets, small pots (it is a school camp), binoculars (there are plenty of birds), pond life equipment and field guides.

Cost:

\$10 per night, payable at the camp.



New members . . .

We are pleased to welcome

Mr Micah Kawalek
 Ms Katrina Turner

who joined the club in August.

REEDY LAKE SURVEY
... Trevor Pescott

The next bird and invertebrate survey at reedy Lake will be held on:

Thursday, October 14.

Meet at the end of Fitzgeralds Road, right off Melaluka Road at 9.00 am.



SNIPEFEST 99
... Valda Dedman

This was a great success. The weather and the snipe co-operated most wonderfully and the kids and helpers had a great time. We sang the snipe song and turned children into 'stripey' snipe with face paint and masks, found lots of snipe food in the water and were rewarded with 17 snipe on view, one of which flew right over the watchers' heads.

My sincere thanks to all of you who came along to help. You made my task of organisation so easy. Thanks to the golf club too for making their clubhouse available for the mask activity.

Next year I would like to apply for a grant to provide buses to help less fortunate schools to attend, as well as extending an invitation to those who have already experienced Snipefest to come back for more.



EXCURSION NOTICE
... Donna Wood

Anglesea Heathlands and Mogg's Creek.

Date: Sunday October 17th.

Leaders: Barry Lingham and Margaret MacDonald.

Margaret will be our guide on this day as we visit the heathlands at Anglesea and other areas to view wildflowers. After lunch we will probably walk along the ridge at Mogg's Creek.

A bus has been booked and names will be taken at the meeting. We will be leaving from Karingal at 9.00a.m. and should return mid afternoon.

As many of you know, Margaret has a great interest and love of this area, and works on a wide variety of environmental issues. Margaret has also co-authored a field guide to orchids of the Anglesea district, which is available from the library. Order forms are also available for anyone who would like to purchase a copy.



OUT AND ABOUT WITH VALDA
... *Valda Dedman*

Biodiversity and Belmont Common (again!), morning magpie, slugs and snails, new babies, the strangest bird I ever did see, orchid hunting with the new book, woodswallows and...

National Biodiversity Month has just finished. We didn't have time to celebrate it, because all our efforts were directed towards trying to save the biodiversity of Belmont Common. One of the main points of the GFNC submission to Amendment R243 of the Greater Geelong Planning Scheme was that a watersports complex across the Barwon River floodplain in Belmont would result in a loss of ecological values and regional biodiversity. We have been fighting this battle for nearly four years and we do hope that the end is in sight.

There have been some amazing submissions from objectors. Thousands of Geelong people have poured their hearts out on paper. Now we just have to hope that Council will heed their cry, will not be influenced by mere numbers, or think their concerns can be accommodated.

The matter comes up before Council on 13th October, at 7.30 pm at the Council Chambers. Join me there in a show of solidarity. But be early if you want a seat!

So I haven't been out and about as much as I would have liked. There is still lots of interest in the home garden though. For months great flocks of Rainbow Lorikeets have been noisily feeding in the flowering eucalypts across the road. At long last the magpie has given up calling over and over and over for at least half an hour before the dawn chorus. To my pre-dawn brain it seemed to be saying, "That's incredible. No it is not!"

The rain brought out the snails, those voracious European imports. My garden snail population has changed over the years. When we first came to Highton, there were also some 'stripey' dune snails and

tiny conical ones, smaller than my little finger nail. My favourite snails are the Black Otway Snails, shiny black and found in the forest litter.

Strangely, I have never seen a European snail in my vegetable garden at Pollocksford. There are lots of fat juicy slugs (they love my compost bin too) and bright yellow flatworms. In winter when the soil is moist earthworms as thick as a pencil and up to 15 cm long are common. I think they retreat further down in the soil in summer, because I never see them then. We turned over a plank that had been out in the weather for months. Lurking underneath were lots of lovely centipedes.

Lily Sherwood has another lot of babies in her Westringea. The Masked Lapwing that lives opposite the caravan parks in Barrabool Road was out feeding with a chick the other day. Another successful breeding.



The strangest bit of biodiversity for the month was the Black-tailed Yellow Cockatoo (no that is NOT a misprint) I saw in Clarke's Road Anakie. And I was perfectly sober at the time. And I had witnesses - my U3A students. Practically the whole of the upper half of the bird was bright yellow. It was perched in a eucalypt with 22 normal Yellow-tailed Black-Cockatoos. They had been feeding on pine cones.

We had stopped to admire a beautiful creamy froth of flowers on a stand of Hazel Pomaderris. The

Fairy Waxflower was looking beautiful too, just round the corner in De Motts Road. Clarke's Road is a good spot for Waxlip orchids

Orchids are flowering very early this year but don't let that deter you from setting off to Anglesea, new field guide in hand, to see what's still about. The new book is, of course, *Orchids of the Anglesea District*, by Everett Foster and Margaret Macdonald (\$25 and available from Angair). It's fully illustrated, spiral bound for ease of use in the field AND it has all the new botanical names, with reference to the old ones, as well as a name derivation, which I find a great aid to memory and a help in identification. Flowering time, local habitat and local conservation status are added bonuses.

I've just had a few days in the Sunset Country (again). The honey flow was strong in the White Mallees and flocks of White-browed Woodswallows were systematically dipping into each nectar filled flower cup, just like honeyeaters.

And... it's Ibis time again. Look up for those lovely vee-formations. Look up, too, if you hear an enormous twittering. It could be that the woodswallows are in town. Charles Belcher said they arrived "on the wings of the north wind" about the end of October. Most will be White-browed, but the odd one or two with the white underbelly will be Masked Woodswallows, really dark ones will be Dusky. Look around you for butterflies. Cabbage Whites have been out and about for months, and it will soon be time for Common Browns and Wanderers, Imperial Whites, Grass Blues and others. Will anyone see the Club emblem, the Small Ant Blue? It's rare and protected under the Flora & Fauna Guarantee Act. Is it really locally extinct, only occurring now in Victoria at Mt Piper near Broadford? Is there a hilltop near you with wattles and coconut ants, where males might congregate prior to mating in late spring or early summer? What should the Club be doing about its loss from Geelong?

□

PRESIDENT'S REPORT
... *Barry Lingham*

October 1999

The future of the Belmont Common is looking more promising, thanks to the efforts of the thousands of Geelong people who took the time to make a submission opposing changes to the Planning Scheme that would have allowed the construction of a Water Sports Complex.

Valda Dedman and Trevor Pescott submitted a comprehensive report on behalf of the GFNC and Valda has been kept busy checking the submissions as they were received at the Planning Department. The recent election results have also added extra pressure to the issue. Coupled with this is the damning submission from the Corangamite Catchment Authority noting the problems of blue-green algae growth that would occur in a rowing course.

It will be interesting to see how the City of Greater Geelong councillors react to all this; hopefully they will respond to the overwhelming evidence against the proposal and vote against the Water Sports Complex.

Simon Birrell from the Otway Ranges Environment Network warned us of the many problems caused by logging in the Otway State Forests at our September meeting. Graeme Tribe and I will be making a submission on behalf of the GFNC concerning the Regional Forest Agreements related to the Otways. We have purchased several copies of the Research Report published by OREN and it is hoped that members familiarise themselves with these issues.

Many of our members enjoyed a morning with local Primary school children involved in the Snipefest on the 14th of September. From the letters of thanks sent by the children, they all had a great time as well as learning about the importance of wetlands and the

wildlife that inhabits them. A big thank you to Valda and all her helpers for making this occasion a great success.

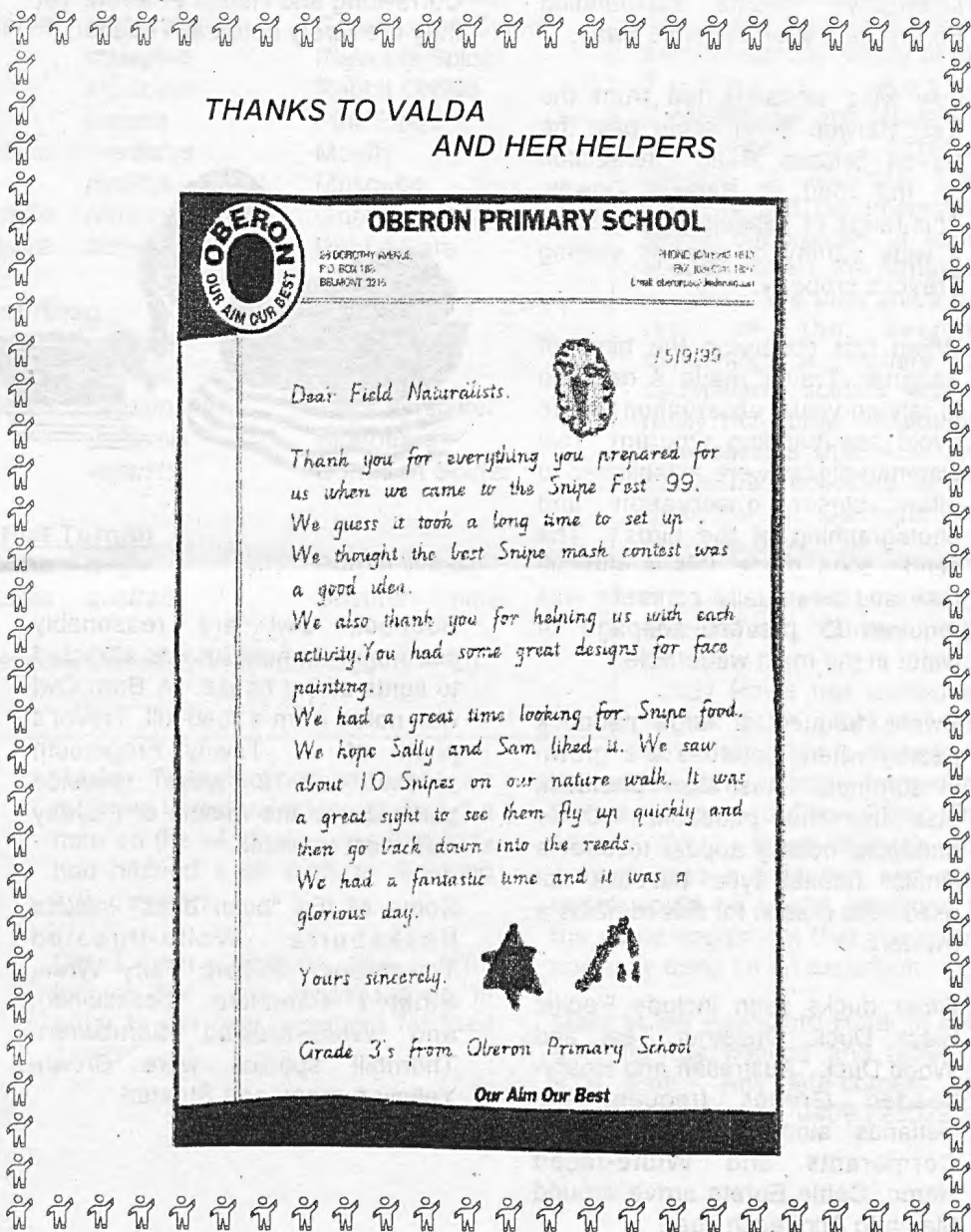
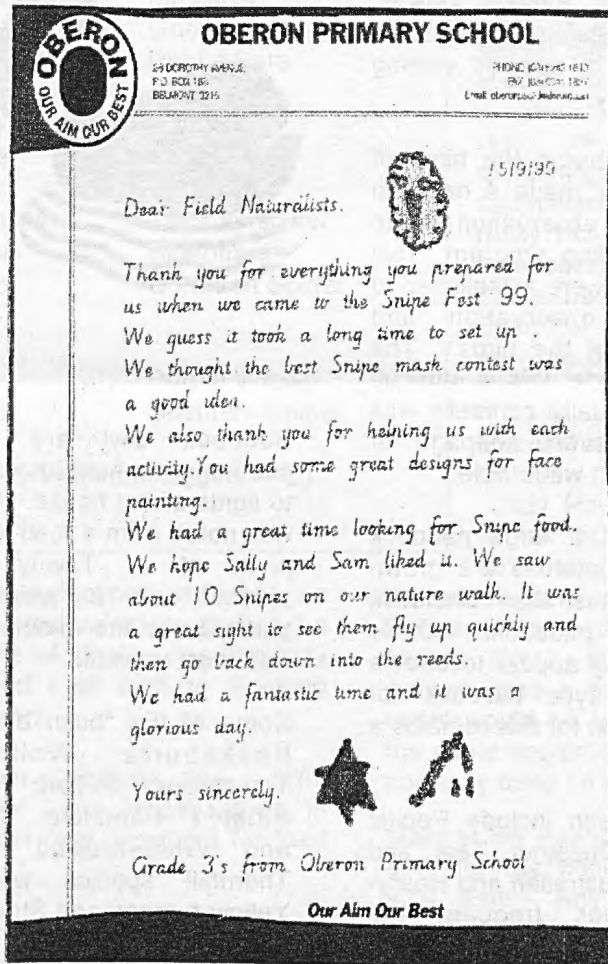
Next March, the Geelong Field Naturalists Club will be hosting the Victorian Field Naturalists Club campout on the Bellarine Peninsular. This will involve a range of excursions, activities and workshops. We will be looking for assistance with a range of tasks that will be necessary if this long weekend is to be a success. Please note the dates of March 11-13 on your diary so you can become involved.

I have been given several suggestions for possible speakers or excursion sites for next year's program. These suggestions are much appreciated - if you have some ideas please let me know or pass on a message to a committee member.

A list of current GFNC Office and Duty Holders has been prepared. I will attempt to confirm all positions with those concerned before it is published - if you perform a duty on behalf of the Club could you please check with me to see that you have been included on the list.

The annual Publications Review Meeting will be held on Thu 28th October. We are very proud of our publication which has been praised by many other Field Naturalists Clubs, and we are keen to maintain a relevant and interesting publication for our members. Please pass on any items that could be discussed to Alban Lloyd-Jones or Barry Lingham. We are also keen to hear from anyone who could assist in the compiling and editing of the Naturalist. □

**THANKS TO VALDA
AND HER HELPERS**



BIRD GROUP REPORT

... *Barry Lingham*

September 21st 1999

Trevor Pescott is well known to members of the GFNC and the Geelong public, being an acknowledged expert on many aspects of local natural history. Trevor is a resident of Belmont, but he also has a second home near Forrest where he can indulge in his love of the Otway Ranges.

Trevor's Otway home lies at Yaughner, a small hamlet that is about 2 kilometres north of Forrest on the road to Barwon Downs. The river flats of the West Barwon River form the main habitat of the site, but heathy woodlands border the one acre property and the wet sclerophyll forests surrounding Forrest lie a short distance away.

Low lying wetlands fed from the East Barwon River occur past the Seven Bridges Road intersection on the road to Barwon Downs. This range of habitats gives rise to a wide variety of species visiting Trevor's property.

When first observing the birds of Yaughner, Trevor made a decision to rely on visual observation and to avoid any banding program. Two watering places were established to allow closer observation and photographing of the birds. The sandy soils made this a difficult task and eventually concrete was required to prevent seepage of water in the main water hole.

Swans frequent a large paddock nearby where potatoes are grown in summer. Australian Shelduck also use this paddock. Other paddocks nearby appear to offer a similar habitat type but are not used - the reason for this remains a mystery.

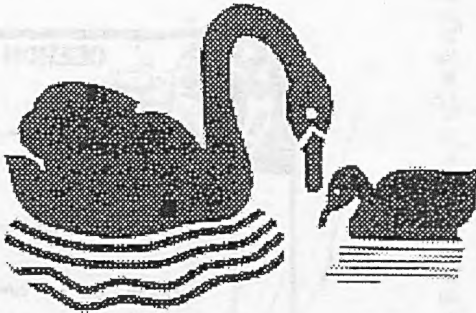
Other ducks seen include Pacific Black Duck, Chestnut Teal and Wood Duck. Australian and Hoary-headed Grebes frequent the wetlands along with Little Pied Cormorants and White-faced Heron. Cattle Egrets arrive around March to April each year.

Raptors included Black-shouldered Kite, Swamp Harrier, Wedge-tailed Eagle and the magnificent white phased Grey Goshawk.

Although rarely seen, Trevor believes the Painted Button-quaif is probably reasonably common in the heathland. Common and Brush Bronzewings are both observed in the area.

Many parrot species can be seen. Yellow-tailed Black-Cockatoo are present in summer. Other parrots include the Gang-gang and Sulphur-crested Cockatoo, Long-billed Corella and Crimson Rosella. Blue-winged Parrots nest in the Peppermint/Stringybark forest. King Parrots are rarely seen although they are common only two kilometres away at Forrest.

Similarly, Forrest residents often note Satin Bowerbirds, Pied Currawong and House Sparrow, yet they are rarely noted at Yaughner.



Boobook Owl are reasonably common and hunt insects attracted to lights at the house. A Barn Owl was noted from a road kill. Trevor's photo of a Tawny Frogmouth perched on a white roadside guidepost in the middle of the day was most unusual.

Some of the "bush birds" include Kookaburra, White-throated Treecreeper, Superb Fairy Wren, Striated Pardalote (occasional), and White-browed Scrubwren. Thornbill species were Brown, Yellow-rumped and Striated.

The Noisy Miner is common at Barwon Downs and is slowly extending its territory northwards. Other honeyeaters are Yellow-faced (resident breeder), White-naped, White-eared, Brown-headed (which makes a fur nest shaped like a tennis ball), Crescent, New Holland and Eastern Spinebill.

Jacky Winters prefer the open farmland, Flame Robins nest in the wet forest and Yellow Robins are very approachable. A juvenile Olive-Whistler ate bird seed from a feeder from December till August. Golden Whistlers and Grey Shrike-thrush are commonly seen.

Grey Fantails in summer have slightly different markings to the winter birds. Other species seen were Dusky Woodswallow, Grey Butcherbird (in open forest), Australian Magpie, Grey Currawong, Forest Raven (with a massive beak) and Little Raven (from Jan. to March)

Red-browed Firetail are fairly common, but the Beautiful Firetail is rarely seen. Welcome Swallow, and Tree Martin are seen chasing insects. Silvereyes are present for most of the year.

Bassian Thrush nest in the wetter months whilst a single pair of Blackbirds is established at the site. Starlings favour one particular spot on the property. Emu Wrens and Bristlebirds are restricted to the wet heathlands.

The observations showed a contrast between the species found at Yaughner and those found a short distance away at Forrest, due to changes in habitat type.

Trevor has had his photographs included in many publications and he showed us some superb examples of his skill during his interesting talk. Thank you Trevor.

Next Month's Speaker

Ian Morgan is a farmer from Rupanyup in the Wimmera. He has been observing and photographing birds for more than forty years and he will speak to us on the "Birds of the Wimmera"

□

BIODIVERSITY NOTES
... Dennis Greenwell

Our excursion on 12th September had an unusual start to say the least. As it turned out in the end, we all had the benefit of a good laugh, whereas, we may just as easily have ended up being detained by the local constabulary on an extremely serious charge. But let me explain.

The handful of 'regulars' turned up as arranged, outside the Green Grub at Waurm Ponds Shopping Centre, prior to our departure to the Iron Bark Gorge and Anglesea Heathlands. We were just about to depart, when two ladies that we hadn't met before, arrived dressed in similar fashion to ourselves. We asked if they were coming on the Club excursion and they said that they were. We suggested that as Ade had plenty of room in his van that they might like to join us. This they readily agreed to and with their packs stowed away in the back with ours, we set off.

We were soon engaged in lively conversation about how it was so nice to see new faces at one of our excursions and Mary said that she was a new member and hadn't been to many meetings and that's why none of us recognised one another and how her daughter, the other young woman, had just returned from a working holiday in the Canadian Rockies and so on.

It was just as we were approaching Freshwater Creek, that Mary mentioned that she had arranged with Helen about this particular excursion. Helen who? The only Helen in the Club that any of us knew was Helen Whiteside and she would most definitely not have arranged a Biodiversity excursion and then the penny dropped. We had inadvertently kidnapped these two ladies!!

We hurriedly established that Helen, from the Geelong Bushwalkers' Club had arranged to meet them at either the Green Grub or later at either Point Addis or Iron Bark Basin, so rather than turn back, we drove on to the Point. When we arrived, there was nobody there, so Mary tried to ring Helen on the mobile, but there was no reply so we invited them to join us exploring Ironbark

Apart from that interesting incident, we had a very rewarding day, first at Ironbark Gorge as previously mentioned and then at the Anglesea Heathland bordering Forest Road.

The most outstanding feature was the 21 species of orchid in flower at the two places, which surely must be some kind of record. We were also rewarded with the appearance of an Echidna which was spotted by our youngest group member Gabriel Scheeling and the first Australian Admiral Butterfly this Spring.

A list of orchids is included.. The identification should be accurate thanks to the help we received from a chance encounter with Margaret MacDonald, President of Angair, in Forest Road.

Biodiversity Meeting Report 15th September

At our monthly meeting, Ade Foster gave us a talk on the unusual life history of the Tussock Moths (*Lymantridae*) and brought in a number of different species to illustrate their diversity and the interesting sexual dimorphism of some species, where the female is wingless. We then spent the rest of the evening examining a variety of caterpillars, spiders and a really rich 'brew' of aquatic invertebrates that Ade and Claire had collected at the Snipefest at Jerringot the previous day.

Next Biodiversity Excursion Sunday 10th October.

Judy Rowe has invited us to her bush block for our next trip. This is situated in the middle of a triangle formed by Dereel, Linton and Cape Clear. The Misery Creek flows through the property and a gold pan and gum boots would be useful additions to the usual equipment that you would normally bring on an excursion.

Meet at the Fyansford Hotel at 8.45 a.m. for car pooling and leave at 9.00 a.m. Any late-comers can reach us on Mobile 0409 723022.

Orchids from the Anglesea area.
Found by Biodiversity Group of GFNC - 12/9/99 .
... Compiled by Dennis Greenwell

All were in flower at the time. Listed only for the first place we saw them.

Ironbark Basin

<i>Pterostylis nutans</i>	Nodding Greenhood
<i> melagramma</i>	Tall Greenhood
<i> sanguinia</i>	Banded Greenhood
<i> oncinna</i>	Trim Greenhood
<i> pedunculata</i>	Maroon Hood
<i> plumosa</i>	Plumed / Bearded
<i>Caladenia tentaculata</i>	Green-comb Spider
<i> clavigera</i>	Plain Lip Spider
<i> menziesii</i>	Rabbit Orchid
<i> carnea</i>	Pink Fingers
<i>Acianthus caudatus</i>	Mayfly
<i> pusillus</i>	Mosquito
<i>Cyrtostylis reniformis</i>	Gnat
<i>Thelmytra antennifera</i>	Rabbit Ears

Forrest Road

<i>Diuris pardina</i>	Leopard
<i> orientis</i>	Wallflower
<i>Caladenia cardiochila</i>	Thick lip spider
<i> deformis</i>	Bluebeard
<i> venusta</i>	Common Spider

Gum Flat Turnoff

<i>Glossodia major</i>	Purple Waxlip
<i>Caladenia australis</i>	Southern Spider

With special thanks to Winston Huggins —Ed.

Basin. They declined and when we returned to the vehicles, we found a note on the window saying that they had hitched a lift back to Geelong with campers.

Did I hear someone say... "The lengths that some people will go, in order to get new members for their group!"

A BRIEF LOOK AT PLANT VASCULAR SYSTEMS

by Dave King

Unit 216/86 Church Street, Grovedale, 3216.

Introduction

As a result of conducting an illustrated talk at the August meeting of the Plant Group the writer was requested to produce an article on the subject. Of necessity it is to be brief, - the subject being a wide one, would involve something approaching a book. To fully appreciate the extent of a plant's vascular system it is vital to view the tissues under a microscope, which was the basis of the talk by the writer. It is a very revealing activity, even when using the simplest equipment.

General Description

The plant vascular system is the means by which water, that contains nutrients from the soil, is conducted from the roots to all parts of the plant. By the same means food, produced by photosynthesis in the leaves, is distributed throughout the plant. Two principle tissues are involved. Xylem is the principal water conducting tissue, phloem the principal food conducting tissue. Spatial relationship between these tissues varies according to whether a dicot or monocot, and in this context only angiosperms are considered. Gymnosperms are not here considered.

In all cases, between the xylem and phloem tissues, a meristematic tissue is present. This tissue is referred to as the vascular cambium. Its function is the production of new cells by repeated division. They are small closely packed cells with large nuclei and thin walls.

Differentiation of the cambium cells produces the xylem cells toward the stem centre, and phloem cells toward the stem periphery, Fig. 1. The difference is shown between the dicot and monocot vascular systems. In the monocot, the system consists of discrete vascular bundles. With the dicot they form bundles closely connected in the form of a cylinder, the continued growth forming the familiar growth-rings of arboreous or woody plants. In many arboreous plants an additional tissue is initiated in the cambium, this tissue is observed as rays radiating from the centre of the stem. Ray tissue is instrumental in the lateral distribution of water and food products.

The xylem and phloem as they mature become elongated vertically to become vessel cells. Xylem cell walls progressively become lignified with spiral and annular thickening as they extend in length. Eventually with dissolution of the end walls they become continuous vertical tubes. At maturity these cells are dead, thus forming the woody interior of the stem, Fig. 2. By contrast phloem cells, as they mature, form sieve tubes. The end walls become perforated, known as sieve plates, thus forming a continuous vertical tube interspersed with sieve plates. Phloem at maturity forms the circular bark tissue, remaining basically a living tissue, Fig. 2.

Interpretation

To interpret the vascular system it is necessary to produce transverse and longitudinally cut sections, i.e. sections cut at right angles and cut parallel to the long axis of the stem respectively. These sections need to be as thin as possible in order to observe the cellular tissues clearly. In order to master the process it is advisable to choose a specimen that is relatively soft and not too woody. A number of sections should be cut, then choose those that appear most satisfactory, before proceeding further. Cutting should be done with a razor blade having a single edge (Gem or similar), a "cut-throat" razor or a scalpel.

The cutting instrument and plant sample must be kept moist with water in order to make a clean cut. Transfer the cut sections to a water bath with a fine paint brush. Sort sections for the most suitable, and using the brush, transfer the section to a microscope slide. Remove excess water from the section with a tissue. To enhance the difference between types of tissue it is necessary to stain the section. In this particular exercise the stain used was toluidine blue. The stain is applied to the section on the slide using a brush and allowed to remain for one to two minutes. Apply a drop of water to dilute the stain and soak up with a tissue. Apply a drop of clean water and carefully cover the section with a glass cover slip, avoiding air bubbles being trapped.

The section is now viewed under a compound microscope, using medium power, say 80x to 100x. If the section has been carefully prepared the various tissues will be easily distinguished. Toluidine blue reacts with the various chemical compositions of tissue to produce a variety of colour. Pectic substances, found in the ground tissue stain pinkish blue. Lignin and tannin stain greenish blue to bright blue. Cellulose and starch are not stained, the latter often found in tissue of the bark region. What this means is the vascular bundles will stand-out from the ground tissue, xylem with thick cell walls stains blue, cambium cells a band of greeny-blue, and phloem cells with a mixture of pink and blue.

Many other stains, such as eosine (red ink) can be used to obtain specific differentiation affects. For further information on their use the literature should be consulted.

(Continued on page 7)

(Continued from page 6)

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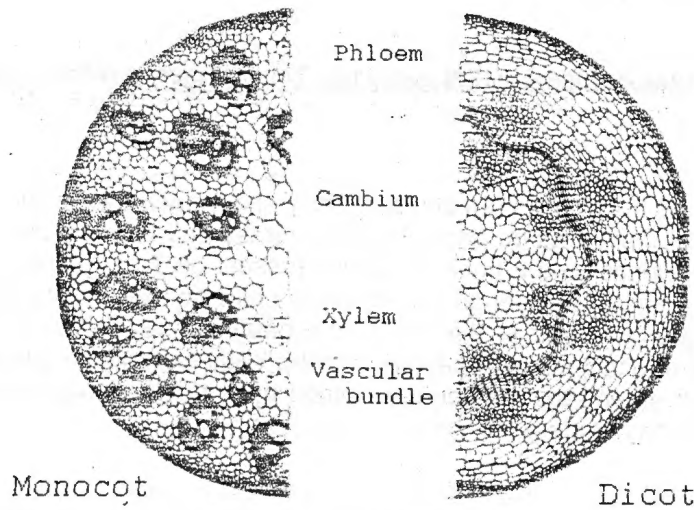


Fig. 1
Part transverse sections of a monocot & dicot.

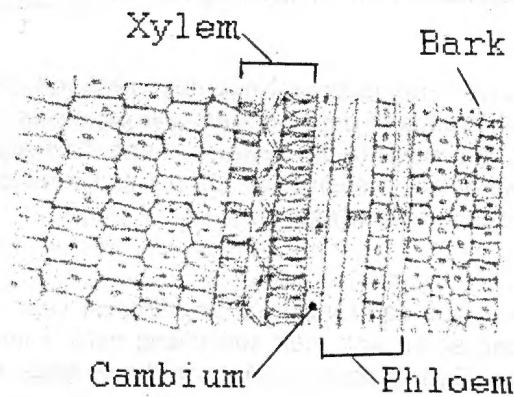


Fig. 2. Longitudinal section of a dicot.

BACKYARD BIRDS IN BACCHUS MARSH, AUGUST 1999

by Marilyn Hewish

97 Grey St., Bacchus Marsh, 3340

I have been too busy lately to spend much time in the bush, but have still had some rewarding bird-watching experiences. The records in the *Geelong Bird Report* attest to the many native bird species which are just as at home in towns as in the bush. Some of our most valuable collections of records come from the conscientious people who keep detailed records of birds in their back gardens and suburbs in Geelong. We all know who they are!

Following their example, I present here a list of some interesting birds which I have noticed in or over our garden on the outskirts of Bacchus Marsh in August.

White-necked Heron

A single bird was seen flying over the garden on 12/8 and 21/8. This species is rather uncommon here as in most parts of the Geelong region, and I haven't seen any locally in the past few years.

Galah

In 1998 we played host to 2 Galahs from July to December. They spent each day in the garden digging out bulbs of Thread Iris with their bills, leaving large bare pits in the grass and chewed bulbs over the surface. Occasionally they were joined by friends, and a flock of 13 was present on 7/11. It was fascinating to watch them digging vigorously and with great determination, covering their bills and faces with dirt. Over the months their excavations destroyed the ground cover at the end of the garden. They left early this year, probably because the ground was bone-dry and as impenetrable as concrete. We were delighted to see that 7 birds had re-appeared on 15/8, working over ground that had been softened by rain. We don't object to their activities; it's a small price to pay to have such endearing visitors.

Purple-crowned Lorikeet

Small flocks are feeding in flowering eucalypts in the carpark of one of our local supermarkets at present. On the morning of 7/8 I could hear flocks flying past our house just after sunrise, probably moving out from their night-time roosts. They are usually more common here in spring and summer; for instance, up to 25 birds were feeding in flowering eucalypts nearby in November-December 1998.

Eastern Rosella

A record of a bird during a dawn watch on 7/8 was the first for several months. A pair has been seen regularly in the garden for two weeks since then, feeding in our grass.

Striated Pardalote

These birds occur occasionally here, usually as single birds passing through or staying for a few days in our trees. One bird was heard calling persistently on the morning of 7/8.

Superb Fairy-wren

A small family group has lived here year-round since November 1993, dividing their time between 3 adjacent gardens. The gardens are large with stands of dense shrubs and expanses of short grass, and are separated by wire fences so that the Wrens can move freely between them. This area was developed for housing in 1988, previously consisting of open fields. It seems the shrubs and trees planted by the new home-owners took 5 years to develop enough to support the wrens.

Yellow-rumped Thornbill

These occur in small numbers here, and can turn up at any time of year. They feed on our 'lawn' in small flocks, busily fossicking and hopping about with their soft trilling calls. I love to see the flash of their bright yellow rumps in the brown grass. During most of August there have been 2-3 birds hanging around; occasionally we get flocks of up to 15.

Grey Shrike-thrush

Shrike-thrushes occur regularly in our garden during autumn-winter, generally April-August. They are often heard calling (in 1999 on 3/4-5/4, 20/4, 5/6, 3/7, 1/8, 7/8, 15/8) and single birds or pairs occasionally feed in the grass under our trees. Most of my records are on weekends because on weekdays in winter I leave the house in the dark and arrive home in the dark.

(Continued on page 9)

(Continued from page 8)

Zebra Finch

Our house is on the edge of town close to extensive dry grasslands. Small flocks of Zebra Finches can be recorded here at any time of year. They are probably resident in the general area, moving around to feed on seeding grasses. The grassland began on the other side of our street when we moved here in 1992, and flocks of 10-20 Finches fed on our 'lawn' (which is not real lawn but mown dry grassland). This area has since been covered with high-density housing with smooth green lawns, and the Finches now occur in smaller numbers (e.g. 1-2 birds on 15/8), usually flying over.

Common Myna

It seems a pity to lower the tone, but Mynas are impossible to ignore in our garden at the moment. They have a roost nearby so we hear their raucous calling every morning and evening. I first noticed them on 1/3/99, when about 100 birds went into a roost in a eucalypt next door. They made a huge racket and the gathering and calling took an hour before the birds disappeared into the roost tree. It must have been a new roost - I would have noticed them before. At first they gathered in a line of tall poplar trees, but they were continually disturbed by 4 Australian Magpies. The Magpies were not directly harassing the Mynas, but simply flying over. The Mynas seemed nervous, perhaps because they were trying out a new roost in unfamiliar territory. They soon gained access to the poplars however. By 7/3, the flock was divided between the eucalypt and the poplars and by 20/3 most were using the poplars. But then the poplars began to lose their leaves for winter. The flock decreased to 55-60 birds by 3/4, with the roost moving away from the poplars and circulating between various eucalypts. At present, I can still hear the birds each morning and evening but the roost is out of sight from our garden.

Common Starling

There is also unfortunately a roost of Starlings near our house. I counted 210 birds gathered on the telegraph wires by our house on the evening of 5/4, and they eventually roosted in the Myna eucalypt and a nearby Hakea bush. They shared both roosts with Mynas, apparently peacefully. By 18/4 they had taken over the Myna tree. Whether the Mynas were forced out or moved voluntarily I don't know. At present about 100 Starlings fly through our garden each morning before sunrise as they leave the roost, but the roost location is not known.

This is an interesting tally of native birds for a suburban garden. There are other species which I haven't mentioned, such as the ubiquitous Red Wattlebirds, White-plumed and New Holland Honeyeaters, Australian Magpies, Magpie-larks and Willie Wagtails, and other rarer visitors.

We have a good and varied garden bird list. We have the advantage that all the houses on our side of the road are on large blocks. The owners have planted many native trees and shrubs but not replaced the grassland with lawns. Now that the taller vegetation has developed we attract birds which are foliage-feeders (honeyeaters, pardalotes, lorikeets), but retain enough open unrestricted space for ground-feeders (Eastern Rosellas, Grey Shrike-thrushes, Yellow-rumped Thornbills), seed-eaters (Zebra Finches) and birds which prefer a mosaic of shrubs and open areas (Superb Fairy-wrens). Across the road, the houses on smaller blocks with tall fences, exotic plants, and fertilised, watered and mown lawns attract fewer native birds. Unfortunately the growing trees also attract Starlings and Mynas.

There are some distinct differences in the bird populations seen by Geelong bird-watchers and Bacchus Marsh observers. Zebra Finches are regularly recorded in Bacchus Marsh. They are largely confined to the Werribee Plains and surrounding towns, not reaching as far south as Geelong. It would also be unusual in Geelong to have Superb Fairy-wrens resident in a suburban garden, and Yellow-rumped Thornbills and Grey Shrike-thrushes which are regular and probably always in the general area (Shrike-thrushes in autumn-winter only). We also often get bush birds visiting the garden, probably from nearby forests and woodlands (e.g. Brown Thornbills, Scarlet Robins, Restless Flycatchers, Brown-headed Honeyeaters, Rufous Whistlers) and birds from grasslands which surround the town (raptors including Black Falcons, Black Kites and Spotted Harriers, Barn Owls, Richard's Pipits, Golden-headed Cisticolas, Flame Robins). Spiny-cheeked Honeyeaters spend the winter here.

Geelong bird-watchers can see several species which we don't have, such as Rainbow Lorikeets, Grey Butcherbirds, Crested Shrike-tits, Pink Robins and Pied Currawongs, and others which are rare or in low numbers here, such as Grey Fantails, Gang-gang Cockatoos and Yellow-tailed Black-Cockatoos. I wonder why the Pied Currawongs which live in the Wombat Forest north of Bacchus Marsh have not yet discovered the town. In their daily dispersal in winter they come within 1-2 km of the town fringes. City living agrees with them, as they have invaded Geelong and now breed there. I enjoy them in the forests but would rather they didn't come into the town to drive away our other native birds.

In both Bacchus Marsh and Geelong, the bird-watchers and the native birds unfortunately have to endure the ever-present Starlings and Mynas.

EXCURSION REPORT

... Roy Whiteside

Report of excursion to Brisbane Ranges on 15 Aug 1999

This excursion was attended by about 20 persons and was led by Dick Southcombe and Roy Whiteside.

The object of the excursion was to explore the circuit to be known as the Ted Errey Circuit in order to identify the main features (particularly plants) at various points so that appropriate details can be included on signs to be displayed at strategic points along the track.

This circuit combines existing walking tracks and includes parts of Aqueduct Track, Nelson's Track, Anakie Gorge Walk, Outlook Walk and Redbeak Track.

Due to the length of the circuit the members divided, with each group covering parts of the whole circuit.

The weather was fine and views of Mt. Anakie, Corio Bay and the You Yangs were quite clear. Lunch was taken at the Stony Creek Picnic Area with the accompaniment of a colony of nine White-winged Choughs, some Brown Treecreepers and Crimson Rosellas. The excursion concluded at 4.15pm.

PLANT LIST (compiled by Christopher Lindorf)

DICOTYLEDONEAE (In flower)

DILLENIACEAE

Hibbertia riparia Upright Guinea-flower

EPACRIDACEAE

Leucopogon virgatus Common Beard-heath

FABACEAE

Dillwynia ramosissima Bushy Parrot-pea

Hovea heterophylla Common Hovea

Pultenaea scabra Rough Bush-pea

MYRTACEAE

Eucalyptus leucoxylo-
subsp. *pruinosa* Yellow Gum

Eucalyptus tricarpa Red Ironbark

PITTOSPORACEAE

Rytidosporum procumbens White Marianth

PROTEACEAE

Grevillea chrysophaea Golden Grevillea

Grevillea Rosmarinifolia Smooth Grevillea

Grevillea Sp. Small-leaf Grevillea

Hakea decurrens
subspec. *decurrens*

Bushy Hakea

RUTACEAE

Correa reflexa Common Correa

MONOCOTYLEDEAE (In flower)

CYPERACEAE

Carex appressa Tall Sedge

ORCHIDACEAE

Caladenia caerulea Blue Caladenia

Corybas diemenicus Veined Helmet Orchid

Cyrtostylis reniformis Mosquito Orchid

Pterostylis concinna Trim Greenhood

Pterostylis melagramma Tall Greenhood

Pterostylis nana Dwarf Greenhood

Pterostylis nutans Nodding Greenhood

Pterostylis pedunculata Maroon-hood (bud only)

XANTHORRHOEACEAE

Xanthorrhoea Austral Grass-tree

PTERIDOPHYTA

ADIANTACEAE

Adiantum aethiopicum Common Maidenhair

ASPLENIACEAE

Asplenium flabellifolium Necklace Fern

BLECHNACEAE

Blechnum nudum Fishbone Water-fern

Blechnum wattsi Hard Water-fern

DENNSTAEDTIACEAE

Pteridium esculentum Austral Bracken

DICKSONIACEAE

Dicksonia antarctica Soft Tree-fern

DRYOPTERIDACEAE

Polystichum proliferum Mother Shield-fern

GLEICHENIACEAE

Gleichenia microphylla Scrambling Coral-fern

BIRD LIST (compiled by Barry Lingham)

Wedge-tailed Eagle

Brown Treecreeper

Musk Lorikeet

White-throated Treecreeper

Sulphur-crested Cockatoo

Spotted Pardalote

Galah

Striated Pardalote

Crimson Rosella

Silvereye

Fan-tailed Cuckoo

White-naped Honeyeater

Welcome Swallow

Brown-headed Honeyeater

Scarlet Robin

Eastern Spinebill

Eastern Yellow Robin

Yellow-faced Honeyeater

Golden Whistler

White-eared Honeyeater

Grey Shrike-thrush

Yellow-tufted Honeyeater

Crested Shrike-tit

White-plumed Honeyeater

Striated Thornbill

New Holland Honeyeater

Yellow Thornbill

Red Wattlebird

Brown Thornbill

Australian Raven

Buff-rumped Thornbill

White-winged Chough 5+9

White-browed Scrubwren

Grey Currawong

Superb Fairy-Wren

Australian Magpie

Varied Sitella

Special thanks are given to Christopher Lindorf for his botanical expertise and for providing a recent update of the plant list for the Brisbane Ranges National Park.—RW.

MAMMAL LIST :

Eastern Grey Kangaroo

Black Wallaby

Koala

Echidnas (evidence only)

UNUSUAL CUTTLEBONE BEACH-CASTE AT OCEAN GROVE

by Chris Gray and Lachlan Sinnott

Chris Gray, Unit 2 87 Ocean Throughway Ocean Grove, Vic. 3226
Lachlan Sinnott, 7 Constellation Court, Taylors Lakes, Vic. 3038

Two specimens of the cuttlefish *Sepia whitley* and (Iredale 1926) Sepions found beach-caste on 2/1/99 at Ocean Grove Victoria probably drifted from their known habit range waters in Eastern Australia – from the Gulf of Carpentaria to northern New South Wales. It is usually caught as a 'bycatch' in the prawn and mixed species trawl fisheries at water depths of 23 – 160 metres. (Carpenter and Niem 1998)

Both specimens had a cartilaginous shield posteriorly on the dorsal side. The reduced spine on the larger specimen suggested that the spine grows with the outer cone as it becomes prolonged similar to that reported for *Sepia Apama*. Bell 1979.

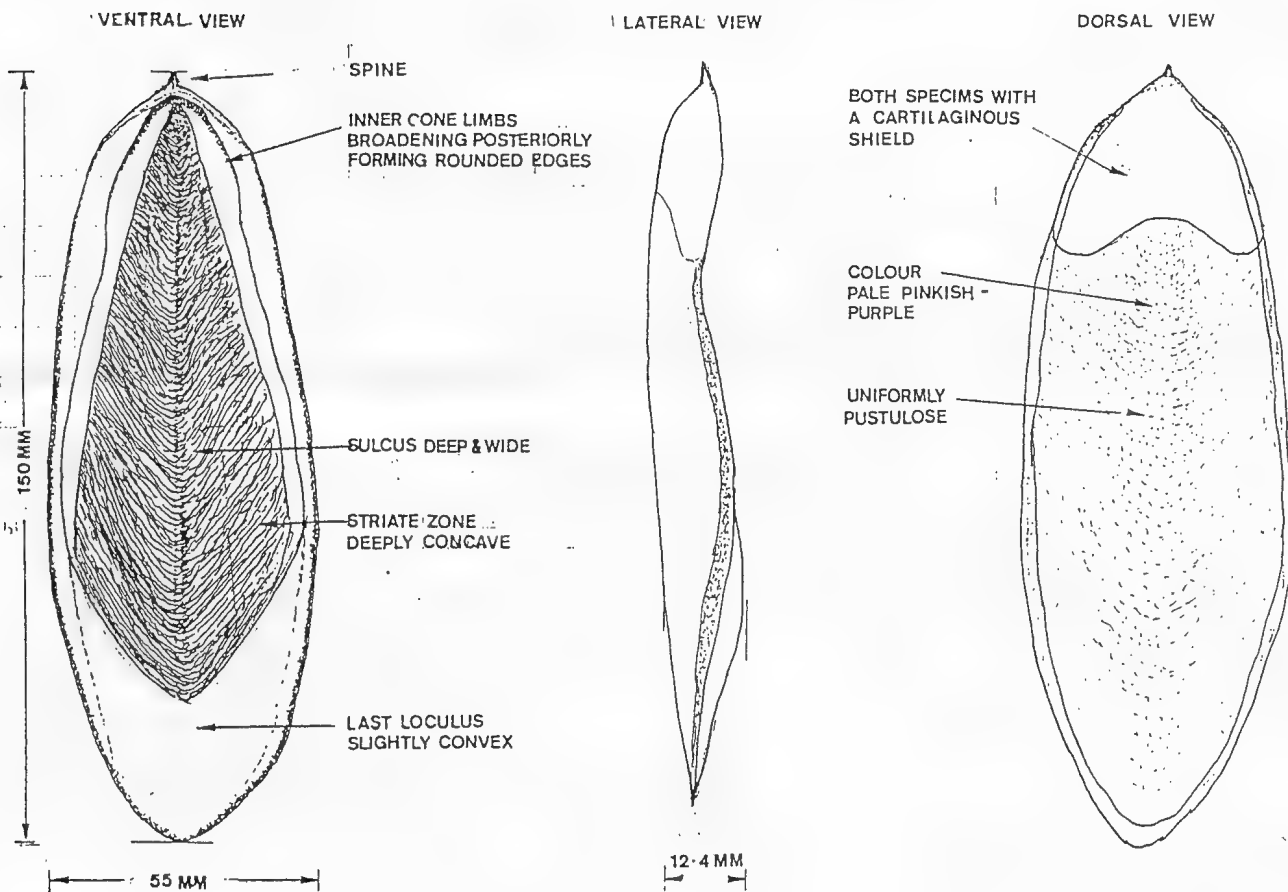
The unusual number of easterly wind systems that occurred over the summer period was probably the reason for the drift of the two specimens so far south into Bass Strait waters.

Special thanks to Dr. Amanda Reid Melbourne Museum for identification of the cuttlebone.

References.

Bell, K. N. 1979. *Variation in the sepions of Victorian Cuttles*. (Mollusca : Cephalopoda). *J. Malac. Soc.Aust.*4(3), 30th June.
Carpenter, K. E. And Niem, V. H. 1998. *The living Marine resources of the western central Pacific*. Vol. 2. Food and Agriculture, Org. Of the United Nations, Rome.

□



LIBRARY NOTES

... *Betty Moore*

Clearfell logging in the Otway State Forest and its effect on water resources in the region – a Research Report by the Otway Ranges Environment Network (OREN).

The report contains four sections:

- 1 Overview of Hardwood Logging and Sawmilling in the Otways.
- 2 The Effect of Clearfell Logging on Water Yields in Otway Water Catchments.
- 3 Impact of Clearfell Logging on Soil Erosion and Water Quality in the Otways.
- 4 Overall Conclusions and Recommendations.

Think of this – Only four of the proposed 38 coupes for the 1999/2000 logging season are not in a water catchment area or not in a highly graded threatened land degradation area!

The Bird Observer No 800, Sep '99

"Wildlife Art, A personal view". Krystii Melaine tells how, at the age of four, she announced that she was going to be an artist and has been painting and drawing ever since. She explains her interests and emotions about wildlife and its conservation. "Wildlife art is a contemporary fine art movement based on subject rather than a particular medium, style or school of thought". The article is illustrated with reproductions of her painting.

Krystii is the Exhibition Secretary of the Wildlife Art Society of Australasia Inc. The Society's annual exhibition opens on Saturday 16th October and runs until Wednesday 29th October, at the Victorian Artist's Society Galleries, 230 Albert St, East Melbourne.

Bird Week 1999 "Threats to Birds" (October 23-31) - BOCA branches will be actively promoting the conservation and enjoyment of birds. This edition of Bird Observer has articles on – "Decline of birds in the northern savanna" - "The granivorous bird assemblages of

Northern Australian savannas have changed substantially since European settlement of the area" more than 30% of the indigenous species have changed in abundance or range.

Coxen's Fig-Parrot – a bird listed as endangered in the two states (Queensland and NSW) in which it occurs. The bird is so poorly known that it has never been photographed and its nest has not been described.

"Birding in Sunset Country" by Piet van Haeff describes birds seen on a trip along the Murray – places mentioned – many wetlands, Barmah Forest, Kerang, Hattah-Kulkyne, Murray-Sunset national Park and Lake Bonney. The article is illustrated with beautiful colour photographs.

Habitat Vol 27 August 1999 "Getting on the Track – the biodiversity challenge" presented by Andreas Glanznig and Margi Prideaux, is about Australia's biggest environmental problem – the continuing loss of biodiversity. Many aspects of the situation are covered and suggestions as to how we can all help to at least slow down the decline.

"Oil and Whales Don't Mix" by Margi Prideaux – The Great Australian Bight Marine Protected Area is one of the largest parks in Australian waters and is a regular visiting spot for the Southern Right Whale at calving time. In April this year Resources Minister Senator Minchin released the new petroleum acreage for 1999 (the area in which exploration permits can be granted). It eclipses at least two thirds of the Commonwealth Benthic Protection Area.



PLANT GROUP REPORT

... *Dick Southcombe*

Everett Foster, who has been very involved in the search for and understanding of orchids for some years, gave an enlightening, illustrated talk on the anatomy, life cycle and other intriguing aspects of this highly evolved and favourite plant family.

Orchidaceae is the largest plant family on earth with about 32,000 species in about 800 genera making up 10% of the world's flowering plants.

In Australia, the proportion is only about 4% BUT 70% of our orchids are not found anywhere else in the worlds.

Everett and fellow ANGAIR member Margaret MacDonald have produced a field guide "Orchids of the Anglesea District" which is a 'must' for orchid enthusiasts. It is for sale at \$25, plus \$2.25 postage from Everett at 1 Elizabeth St. Belmont, 3216.

Next Meeting – Special excursion. A special excursion, to which all members are welcome, to Wildflower Track, Butcher's Road and Aeroplane Road in the Brisbane Ranges on Sunday 10th October (depart Karingal 10.00 am) will prepare us for our meeting on Tuesday 12th at Karingal. □

SEAVIEW PARK BELMONT.

... *Dick Southcombe*

The newly formed Friends Group invites GFNC members to a WORKING BEE from 9am to 12 noon on Saturday 9th October. Please come to see what has been done, what is yet to be done, the wildflowers and generally help with the clean-up and preparation for planting. □

LYMANTRIIDAE THE TUSSOCK MOTHS

by Ade Foster

8 Hazel Street, Belmont, 3216

The specimen table at the last meeting held an interesting wingless female moth, a Tussock moth, *Lymantriidae*. The family *Lymantriidae* contains 2500 species worldwide in about 200 genera. Although they are found on all continents except Antarctica, their strongest representation is in the tropical regions of Africa and Asia. Australia has 70 species in 16 genera, mostly across the north and down the east coast.

They are robustly built moths with broad wings and wingspans from 16 - 100 mm, although the wings are sometimes reduced or entirely absent in females. Many have prominent labial palpi giving a characteristic 'beaked' appearance. Adults are usually densely hairy.

Eggs are usually laid in batches and often covered by a tuft of a furry substance, in fact special deciduous scales from the base of the female's abdomen. These are a camouflage mechanism and protect the eggs from discovery by predators.

The young larvae spin long strands of silk, which are picked up by air currents, and carry the little caterpillars sometimes surprising distances. This method of dispersal is extremely important for those species with wingless females.

The caterpillars have dense and long secondary setae, or hairs, often arranged in four tufts on the back, like toothbrushes. Hence the common name - tussock moths. These hairs are often urticareous and can cause severe reactions in humans. In some cases larval hairs are incorporated in the cocoons and even carried on the bodies of adults causing severe rashes and eye and throat irritations. In some susceptible people, even wind-blown hairs can cause severe reactions.

The larvae feed on a variety of native and introduced plants including *Acacia*, *Eucalyptus*, and *Exocarpus* as well as introduced fruit trees such as apple, pear, cherry, apricot, and other agricultural crops - passionfruit, broad bean, lupins and dahlias. They are also known to feed on *Pinus radiata* and various *Cupressus* and many others. Pupation takes place in a loosely spun silken cocoon, usually placed in the foliage of the food plant, or under loose bark.

Wingless females do not leave the cocoon but attract males with pheromones. The males of these species are active day flyers. Wingless females have no gut and barely functional legs, they are basically big sacs of genitalia and eggs. Males of the winged female species come readily to lights at night.

The specimen on our table was the female of a common local species, *Teia anartoides*, the males of which are quite small, orange and brown day fliers. The larvae of *T. anartoides* feed primarily on *Acacia*.

BONESEED ERADICATION

You Yangs, 23rd & 24th October.

... Rob Beardsley

OK, if you could not make it to our August event the good news is that you still have a chance to 'serve penance' on the above date. The work area will be above the Great West Walk. Light pulling assured. Hope you can make it.

Contact: Rob Beardsley 5241 1951.

Time: Sat 23rd 9.30 am
Sun 24th 10.00 am.

Where: The Saddle. Follow the Great Circle Drive clockwise and watch for signs (GFNC). The gate to the work area will be closed but unlocked, please close after entry. Work area will be signed.

Bring: Hat, warm/wet gear, eye protection (glasses), gloves and a 'cuppa'.

If you can make it on either day, can you please contact me beforehand. Thank you.

**Report of talk given by Dave King at members night on 3 August 1999
on the subject of the Rail Trail on the Bellarine Peninsula.**

... Roy Whiteside

The overall trail is a State initiated project to put a trail completely around Port Philip Bay, starting at Queenscliff and ending at Portsea. The only gap in the trail would be across the sea between Queenscliff and Portsea which is serviced by ferries.

The Council of the City of Greater Geelong and National Parks, Victoria have put some money into the project which will cover from the border of the Queenscliff Shire through the Bellarine Peninsula and Geelong to Little River. The route through the Bellarine Peninsula is via the old railway track between Queenscliff and South Geelong. After 1972 the Steam Preservation Society took over the section of the railway between Queenscliff and Drysdale. The rails have been removed from the remaining sections of the old railway track between Curlewis and South Geelong.

STAGE 1. Drysdale to Moolap Station Road.

It is intended that the present railway route be extended from Drysdale to Curlewis when funding becomes available. This would require flashing lights and boom gates at crossings near Drysdale (ie. at Portarlington and Jetty Roads). The proceeds from the sale of removed rails has been ploughed back into the rail trail. There are sections of the trail from Drysdale to South Geelong that need to be developed. The section between Drysdale and Moolap Station Road is fully developed for the use of walkers, cyclists and horse-riders. There is a proviso that horse-riders keep off the walking track. Road crossings have been completed with the highest safety incorporated and notices have been placed to suit the habitat. At Moolap Station Road there will be a node point where a simulated railway platform will be built with interpretation boards, car parking, picnicking area, tree planting (which has already started) and toilets. It will be a place where all cycling and walking events are planned to take place. Further tree planting will occur between there and Drysdale. It is proposed that "friends of the trail" groups be responsible for various sections of the trail. Schools' groups from Drysdale are already involved. The old Bellarine Shire Nursery in Drysdale is a good base for developing seedlings for tree planting.

STAGE 2 Moolap Station Road to South Geelong.

Part of this section has been surfaced and tree planting has taken place. Hepner's Funeral Services have become a sponsor and they are doing planting along the Bellarine Highway where the trail crosses. These trees are a memorial to deceased persons whose funerals have been conducted by Hepners and other funeral services. Beyond Coppards Road and as far as Breakwater Road the old rail is suitable for walking but requires grading for cycling.

STAGE 3. Drysdale to Queenscliff.

Tenders have been let for the walking track development and the result will be known shortly. At "the narrows" near the former Queenscliff High School they will pick up the existing track. In the region between Portarlington Road and Queenscliff Roads there is a fair amount of work to be done. This is probably the best area for natural history as there is more natural vegetation of the Bellarine Peninsula (eg. the native raspberry). It is also a very scenic area with a spectacular view across the bay to the You Yangs. Interpretation boards will be erected where major drainage channels enter the creek and also at Suma Park.

In the Geelong urban area, existing roads will have to be used and designated to pick up Eastern Park and then follow the bay via Steampacket Gardens, Rippleside, St Helens, Cowies Creek, Hovell's Creek to Lara (details of this latter area still have to be worked out).

Much further work needs to be done on the overall project and it is hoped that further sponsors can be found from major firms. If this is achieved then the trail should be of "world class" standard.

Barry Lingham gave a vote of thanks to Dave for all the work he has put into the scheme.

□

Observations

The editor regrets to advise that no observations were received this month.

GFNC OFFICE BEARERS (1999-2000)

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Vice-President	Vacant		
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Meetings start at 8.00 pm at:

Karingal Community Centre, Corner McKillop and Humble Streets, East Geelong.
Use the Humble Street entrance.

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GEELONG FIELD NATURALISTS CLUB Inc.
A0013708R
PO Box 1047
Geelong Vic 3220

GFNC web page: <http://member.austasia.net/~gfnc>
Email address: gfnc@mail.austasia.net

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