

GEELONG NATURALIST



Vol. 27 No. 4

Autumn, 1991

Registered by Australia Post: Publication No. VBO 1814

ISSN 0726-7363

Gipsy Point Lodge



Situated at the head of beautiful Mallacoota Inlet and surrounded by Croajingolong National Park, the Lodge provides a relaxing, comfortable base from which to explore a unique, unspoiled area rich in bird life, flora and fauna. Package holidays for bird observers and field naturalists. Other activities include fishing, boating, swimming, surfing and bushwalking.

First class, all-inclusive accommodation in the Lodge or self-contained cottages.

For further details contact

Alan Robertson

Gipsy Point Lodge

Gipsy Point, Victoria 3891 Australia

Telephone: (051) 58 8205

**GEELONG
NATURALIST**

JOURNAL OF THE GEELONG FIELD NATURALISTS CLUB INC.

Vol. 27 No. 4
Autumn, 1991
ISSN 0726-7363

Publishing Committee

Valda Dedman, 69 North Valley Road, Highton, 3216 (Editor)
Gordon McCarthy, 26 Fairbrae Avenue, Belmont, 3216
Dave King, 8 Traum Street, Portarlington, 3223

CONTENTS

Editorial		74
Baverstock, G.A. & Conole, L.E.	Mammals of the Bannockburn Bush, Victoria	75
Scarlett, N.	Teesdale Timber Reserve, a brief report	82
V. Dedman	Club Quiz	87
D. King	Excursion Moggs Creek/Angahook Forest Park 19/8/90	88
V. Dedman	For Juniors	90
R. Baverstock	Lorikeets out on a Limb	91
R. Baverstock	Cicadas as a prey species	91
D. King	Indications of possible commensalism between ant species	92
V. Dedman	Club Quiz answers	94
	References	96

Editorial

At the Annual Meeting in April 1991 the Geelong Field Naturalists Club celebrated its 30th birthday. About a dozen foundation members were present and they answered questions and reminisced about the early days of the Club, when the subscription was one pound (two dollars) and the library was housed in an old wardrobe. Ninety people attended the inaugural meeting and most joined up that same night.

The G.F.N.C. has developed over the years into a highly respected conservation body, but its main aim has not changed and can still be summed up in the words of the original Constitution, "to stimulate interest in natural history and to preserve and protect flora and fauna". Members have had the opportunity to listen to informed speakers on a wide range of natural history topics and to take part in a tremendous variety of activities - excursions and campouts, nature shows and exhibitions, surveys and field work, even a canoe trip down the Barwon. Numerous submissions have been prepared, letters written and questions raised with appropriate bodies about the future of environmentally valuable areas. Some of its members have gained wide recognition and formal honors in the world of natural history. We are proud of them and of the Club's achievements over the past thirty years.

The Club is more highly structured today, its activities are more diverse, the Committee is larger, there are formal sub-groups, yet it remains essentially a group of people with like interests and shared concern - and this is its strength.

To test your knowledge of the G.F.N.C. and its history we have devised a quiz, in which we invite you to participate (see p. 87). There are no prizes for correct answers, some of which may surprise you. Good luck!

Valda Dedman

Mammals of the Bannockburn Bush, Victoria

By G.A. Baverstock * and L.E. Conole #

Introduction

From 1981 to 1989 the authors with help from the Fauna Survey Group of the Field Naturalists Club of Victoria conducted a mammal survey of the Bannockburn Bush. Twenty two species of mammals have been recorded for the area, twenty one were listed during the survey period, one is a past record. Of these twenty two species six are introduced.

The study area is 359 ha. of Unreserved Crown Land located approximately 3 km. south-west of Bannockburn and 25 km north-west of Geelong. Adjacent to the bush block is a further 53 ha. of golf course and approximately 15 - 20 ha. of State School plantations.

The habitat is predominately savannah - woodland with the dominant upper canopy trees being River Red Gum - *Eucalyptus camaldulensis* and Manna Gum - *Eucalyptus viminalis*. There is however a small area of Yellow Gum - *Eucalyptus leucoxylon* on the northern boundary. The understorey comprises dense strands of Hedge Wattle - *Acacia paradoxa* and Golden Wattle - *Acacia pycnantha*. Groundcover plants are made up of various grasses and herbs with small areas of low shrubs.

Methods

The techniques used in this survey were live trapping, direct observation, spotlighting, tracks or other indirect signs and the identification of scats.

Equipment used was as follows:

- (1) 25 wire mesh cage traps of various sizes.
- (2) 20 Elliot folding aluminium traps.
- (3) 2 modified Tidemann and Woodside (1978) collapsible bat traps.
- (4) a modified method of trip - lining dams (Parnaby 1976)
- (5) from two to four 6 volt, 30 watt spotlights.

Traps were baited with a mixture of rolled oats, honey and peanut butter. Traps were set near dusk and cleared soon after dawn.

Spotlighting was carried out for two hour periods over the survey period for a total of approximately ten spotlight hours. This was carried out along the many tracks and roads in the area.

Table 1

Mammals of the Bannockburn Common

<i>Tachyglossus aculeatus</i>	Short-beaked Echidna	A
<i>Sminthopsis murina</i>	Common Dunnart	S
<i>Phascolarctos cinereus</i>	Koala	U
<i>Pseudocheirus peregrinus</i>	Common Ringtail Possum	U
<i>Petaurus breviceps</i>	Sugar Glider	A
<i>Trichosurus vulpecula</i>	Common Brushtail Possum	A
<i>Macropus giganteus</i>	Eastern Grey Kangaroo	A
<i>Wallabia bicolor</i>	Swamp Wallaby	A
<i>Tadarida australis</i>	White-striped Mastiff Bat	S
<i>Taphozous flaviventris</i>	Yellow-bellied Sheath-tail Bat	R
<i>Nyctophilus geoffroyi</i>	Lesser Long-eared Bat	A
<i>Chalinolobus gouldii</i>	Gould's Wattle-tail Bat	A
<i>Chalinolobus morio</i>	Chocolate Wattle-tail Bat	S
<i>Eptesicus regulus</i>	King River Eptesicus	U
<i>Eptesicus darlingtonii</i>	Large Forest Eptesicus	A
<i>Eptesicus vulturinus</i>	Little Forest Eptesicus	A
* <i>Rattus rattus</i>	Black Rat	A
* <i>Mus musculus</i>	House Mouse	A
* <i>Lepus capensis</i>	Brown Hare	A
* <i>Oryctolagus cuniculus</i>	European Rabbit	A
* <i>Felis catus</i>	Feral Cat	U
* <i>Vulpes vulpes</i>	Fox	U

* Introduced

A Abundant

U Uncommon

R Rare

S Status Unknown

Results and Discussion

Order Monotremata

Family Tachyglossidae.

Tachyglossus aculeatus Short-beaked Echidna

This species appears to be moderately plentiful and widespread in the Geelong area. Recorded during the survey from its characteristic diggings. Abundant at Bannockburn.

Order Marsupialia

Family Dasyuridae

Sminthopsis murina Common Dunnart

Found infrequently in the Geelong area. It was recorded by Trevor Pescott in a "Field and Lane" article that a small colony existed at the Bannockburn tip site, and is substantiated by a museum specimen, registration number C15791. This specimen was a female and was found in April 1964 at the rubbish tip site.

This species was not recorded during the survey period, but it should be noted that this species is very secretive by nature and is difficult to trap at any time.

The status of this species is unknown, but if still present is endangered due to the high density of feral cats at the tip site.

Family Phascolarctidae

Phascolarctos cinereus Koala

Although frequently seen in the Bannockburn - Lethbridge area, particularly along the Midland Highway and Moorabool River, they are relatively scarce at the bush block.

The exact status is unknown, but is probably declining and threatened by increased pressure from housing development, traffic, domestic pets and indiscriminate shooters.

Family Petaurodidae

Pseudocheirus peregrinus Common Ringtail Possum

Observed infrequently, and was confined to areas of dense thickets of *Acacia paradoxa* suitable for its nest sites. Uncommon and vulnerable if this habitat is removed.

Petaurus breviceps Sugar Glider

This species is quite active by nature, yet is only infrequently observed. However its call is often heard.

It is fairly widespread in the area but does not appear to occur in large numbers.

Family Phalangeridae

Trichosurus vulpecula Common Brushtail Possum

Occurs in large numbers within the reserve, utilising the hollows in *Eucalyptus camaldulensis* and *Euc. viminalis*. Very common.

Family Macropodidae

Macropus giganteus Eastern Grey Kangaroo

A small colony exists on the Common, however numbers are probably declining. Regular observations of this species are made on surrounding farmland and roadsides, sometimes several kilometres away from the bushland.

These are possibly vagrants from the Common. The greatest threat to this species and *Wallabia bicolor* is the indiscriminate shooting that sometimes occurs within the area.

Wallabia bicolor Swamp Wallaby

The dense regrowth of *Acacia pycnantha* and *A. paradoxa* provides an ideal habitat for the wallaby. Still plentiful in the area but numbers appear to be generally decreasing.

Order Chiroptera

Family Molossidae

Tadarida australis White-striped Mastiff Bat

Generally widespread in the Geelong area, and is the only local audible species to human adults. It was heard on every survey night, but abundance is unknown.

Family Emballonuridae

Taphozous flaviventris Yellow-bellied Sheath-tail Bat

In farmland this species flies at times only 1 to 3 metres above the ground, (Conole and Baverstock 1985) and can be identified as it flies along and across roads.

Several unconfirmed probable sightings of this species have been recorded in nearby farmland, and probably flies high and fast over the Common.

Very little is known of this species due to the paucity of observations, but is apparently rare in Victoria and is thought to be a migrant in south-eastern Australia. Status is unknown.

Family Vespertilionidae

Nyctophilus geoffroyi Lesser Long-eared Bat

The only species from the genus *Nyctophilus* recorded, however this species is plentiful on the Common and was recorded on most survey nights.

Chalinolobus gouldii Gould's Wattle-tail Bat

This species is widespread and common throughout the Geelong area. It appears to be plentiful on the Common.

Chalinolobus morio Chocolate Wattle-tail Bat

Status of this species is unknown on the Common, but a small colony appears to be surviving relatively well. All *C. morio* encountered were relatively small and lightly coloured compared to those found in the higher rainfall and timbered areas. Forearm measurements were also smaller than the montane form.

Eptesicus regulus King River Eptesicus

Only infrequently caught during the survey period. Although widespread around the Geelong-Otway area, it is uncommon at Bannockburn.

Eptesicus darlingonii Southern Large Forest Eptesicus

Abundant and widespread in the Geelong-Otway area. It appears to be relatively common.



Nictopluius geoffroyi. Lesser Long-eared Bat. Plentiful on the Common.
Photo: Trevor Pescott

Eptesicus vulturnus Little Forest Eptesicus

This is the most abundant species caught during the survey. Results were similar to Inverleigh Common, in which this species is also the most abundant recorded. *E. vulturnus* appears to prefer the dry, open habitats that Bannockburn and Inverleigh provide.

Order Rodentia

Family Muridae

Rattus rattus Black Rat

Quite plentiful around the tip area, but this introduced species has colonised the native vegetation throughout the common.

Mus musculus House Mouse

Common throughout the area. Introduced.

Order Lagomoppha

Family Leporidae

Lepus capensis Brown Hare

Observed on most survey trips, it is a very plentiful introduced species.

Oryctolagus cuniculus European Rabbit

A very abundant introduced species.

Order Carnivora

Family Felidae

Felis catus Feral Cat

As with most areas this species poses a serious threat to native fauna. Widespread and plentiful at the common particularly in the area of the tip. Almost certainly responsible for the demise of *Sminthopsis murina* at the common.

Family Canidae

Vulpes vulpes Fox

Although not common at Bannockburn it is regularly observed particularly during the day in the *Acacia pycnantha* regrowth area. Also poses a threat to native fauna.

Discussion

Out of the 22 species recorded, six are introduced indicating that the area is quite disturbed. Of the remaining sixteen species, eleven are arboreal which further points to the ground habitat being unsuitable for small native ground mammals to survive in reasonable numbers.

At present the arboreal mammal fauna is quite abundant, however it should also be noted that seven out of the eleven arboreal mammals are Chiropteran which are quite adaptive in their roosting habits, particularly if their neutral roost sites are disturbed by clearing. In actual fact many of the bats may be coming into the bush from outside sources such as buildings or farmland trees.

If the continued removal of suitable habitat trees and roost sites occurs within the area for firewood, then so will the species dependent on those trees decline.

Acknowledgements

The authors would like to thank the Fauna Survey Group for their help with survey work.

Joan Dixon for supplying the information on *Sminthopsis murina*.

To Peter Moulton for the information he provided about the area.

We would like to acknowledge the generosity of the trustees of M.A. Ingram Trust, who provided funds for the purchase of electronic bat detectors and a bat trap used in this survey and others.

Protected species of mammals were handled under the provisions of scientific permits issued by the National Parks & Wildlife Division of the Department of Conservation and Environment, Victoria.

References

Baverstock, G.A. (1985) Two probable sightings of the Yellow-bellied Sheathtail Bat *Saccolaimus flaviventris* (Peters 1867) for Bannockburn, Victoria. Geelong Naturalist 22: 40-43.

Conole, L.E. (1981) A probable record of the Yellow-bellied Sheathtail Bat. Geelong Naturalist 18: 31-32.

Conole, L.E. & Baverstock G.A. (1983) Bats in the Geelong-Otway district: a brief discussion of present knowledge and future work. Geelong Naturalist 20: 43-47.

Conole, L.E. & Baverstock, G.A. (1985) Mammals of the Inverleigh Common Flora Reserve, Part III. Geelong Naturalist 22: 44-46

Parnaby, H. (1976) Bat survey of the Daylesford area, Victoria. Victorian Naturalist 94: 191-7.

Richards, G.C. (1983) Yellow-bellied Sheathtail Bat. In Complete Book of Australian Mammals, Ed. R. Strahan. Angus and Robertson.

Tidemann, C.R. & Woodside, D.P. (1978) A collapsible bat - trap and a comparison of results obtained with the trap and mist nets. Aust. Wild. Res. 5(3): 355-62

* 1350 Noyes Road Lethbridge 3332

165 Separation Street Northcote 3070

Teesdale Timber Reserve: a brief report from a visit on 12 Jan. 1991

by Neville Scarlett

1. General

Mainly *Eucalyptus viminalis* open woodland with some limited areas of *Eucalyptus camaldulensis* on the western side. On the western and southern edge of the reserve, tree clearance has resulted in areas of closed tussock grassland dominated by *Themeda triandra*. The understorey of the woodland is mainly open tussock grassland dominated by native species, but on the western and southern side of the area there are large areas of introduced annual grasses: *Bromus spp.*, *Vulpia bromoides* and *Lolium rigidum*.

In the east central area *Eucalyptus cladocalyx* and *Eucalyptus sideroxylon* have been planted and are naturalized to a certain extent. One *Eucalyptus saligna* was also noted.

Acacia paradoxa and *Acacia mearnsii* also form dense stands in limited areas of the reserve.

2. Significant Species

Calotis anthemoides was noted close to the dam near the northern boundary. This species is unreserved in the Corangamite-Otway, Melbourne and Ballarat Study Areas (Beaglehole 1980, 1983 (1), 1983 (2)).

Two forms of *Hymenanthera dentata* occur in the reserve; one is a low divaricate spiny shrub similar to the "alpine and subalpine form" (Costin et al. 1979) and the other an upright, sparingly spiny form. The former entity is probably unreserved at present, though still abundant in a few localities, e.g. Mount Moolort near Maryborough and Manninbadar near Skipton.

The now extinct *Caladenia pumila* was formerly collected in the Bannockburn area and may survive in this reserve. Thorough searching in the spring of 1991 is necessary to check this possibility.

3. General Assessment

The reserve is valuable as a representative area of the open woodland of the Tertiary sediments of this area. Despite disturbances it still has structural and floristic integrity. In particular many mature trees occur, and *Allocasuarina verticillata* is regenerating vigorously in many places.

There is a number of outstanding problems:

- i. Firebreaks have been shifted a number of times, thus destroying the native ground cover over excessively large areas. Firebreaks should be kept to a defined strip.



Flowers of Tree Violet Hymenanthera dentata. Two forms occur in the Reserve.
Photo: Trevor Pescott.

- ii. *Phalaris aquatica* is invading the reserve, particularly in the north-eastern corner, and should be eliminated. I suggest a dense she oak (*Allocasuarina verticillata*) plantation should be planted as a barrier to *Phalaris* invasion in this area. Mr. W. Weatherly ("Blythvale", Streatham) has had good results from this method of invasion control.

The fuel reduction burns carried out in the open *Themeda* areas on the south and west should be maintained, but frequent burning of the whole reserve should be avoided.

4. Species List (Species noted on 12/1/91)

Trees and shrubs

- Acacia meamsii*
- Acacia paradoxa*
- Allocasuarina verticillata*
- Daviesia ulicifolia*
- Dillwynia sericea*
- Eucalyptus viminalis*
- Eucalyptus camaldulensis*
- * *Eucalyptus cladocayx*
- Eucalyptus melliodora* (?planted)
- * *Eucalyptus sideroxylon*
- * *Eucalyptus saligna*
- Hymenanthera dentata*
- * *Lycium ferocissimum*
- Acrotriche serrulata*
- Pimelea curviflora*
- Pimelea humilis*

Herbaceous species

Monocotyledons

- Lomandra filiformis*
- Lepidosperma laterale*
- Stipa* spp. (including *S. mollis*, *S. bigeniculata*)
- Danthonia duttoniana*
- Danthonia geniculata*
- Danthonia setacea*
- Danthonia eriantha*
- Elymus scabrus*
- Microlaena stipoides*
- Poa* spp. (including *P. sieberiana*)
- * *Holcus lanatus*
- * *Phalaris aquatica*
- * *Cynosurus echinatus*
- * *Lolium rigidum*
- * *Vulpia bromoides*
- * *Aira caryophyllea*
- * *Briza maxima*
- * *Briza minor*



Kangaroo Grass. Dominant species on the western and southern edge of Teesdale Reserve.

Photo: Trevor Pescott.

Juncus spp. (including *J. procerus*, *J. flavidus*).

Amphibromus? *neesii* (Dam)

Eleocharis acuta (Dam)

Dichopogon strictus

Dichopogon sp. aff. *strictus*

* *Romulea rosea*

Amphipogon strictus

Tricoryne elatior

* *Dactylis glomerata*

Avena spp.

Eleocharis sphacelata (Dam)

Potamogeton sp. (Dam)

Thelymitra sp.

Themeda triandra

Microtis sp.

Dicotyledons

Dichondra repens

Gonocarpus tetragynus

* *Hypochoeris radicata*

* *Rumex acetosella*

Helichrysum apiculatum

Kennedia prostrata

* *Trifolium repens*

* *Sonchus asper*

* *Sonchus oleraceus*

Epilobium billardierianum ssp. *cinereum*

Pseudognaphalium luteoalbum

Oxalis sp. (native species in *O. corniculata* complex)

Hydrocotyle laxiflora

Acaena echinata

Acaena agnipila

Hypericum gramineum

Centaurium sp.

Convolvulus erubescens (*sensu lato*)

Senecio quadridentatus

Clematis microphylla

Wahlenbergia communis

Goodenia geniculata

* *Cirsium vulgare*

* *Carduus tenuiflorus*

Mosses

Polytrichum juniperinum

Hypnum cupressiforme

References

Costin, A.B., Gray, M. Totterdell, C.J. and Wimbush R.J. (1979) Kosciusko Alpine Flora. CSIRO, Melbourne.

Beaglehole, A.C. (1980) The distribution and conservation of vascular plants in the Corangamite-Otway area, Victoria, WVFNCA, Portland.

Beaglehole, A.C. (1983 (1)) The distribution and conservation of vascular plants in the Melbourne area, Victoria. WVFNCA, Portland.

Beaglehole, A.C. (1983 (2)). The distribution and conservation of vascular plants in the Ballarat area,

N.H. Scarlett
Latrobe University
Bundoora

Club Quiz

1. What was the exact date of the present G.F.N.C.'s inaugural meeting?
2. Who was the first president?
3. Who is the present president?
4. Who has held the office of president for more than one term?
5. What was the destination of the first excursion?
6. Where and when was the first weekend "campout"?
7. Where and when was the first bus trip?
8. Who was Boneseed Jack? How did he get that name?
9. Where is the Club bird hide situated?
10. Who won the Junior Project prize in 1963?
11. How many garden fetes have been held?
12. How many nature shows have been held?
13. What was the Otway Survey Group?
14. What is the location of the Otway Regeneration Survey?
15. What is the Club logo? Why was it chosen?
16. When was the Club incorporated?
17. Name three Club publications in print.
18. Which Club members have been awarded the Australian Natural History Medallion?
19. Which members have had honorary Life Membership bestowed on them?
20. Who first discovered the Orange-bellied Parrot on the islands of the Barwon delta?
21. Which notable mammals were found at Baw Baw by Club members?
22. There have only been four editors of the *Geelong Naturalist*. Can you name them?
23. Who was the first guest speaker?
24. When were the Bird and Plant Groups formed?
25. When did the Club first take part in the Bird Challenge Count?

Excursion Moggs Creek/Angahook Forest Park, 19/8/90

by Dave King

The following data was recorded as the result of the excursion to the Moggs Creek vicinity of the Angahook Forest Park. Specifically it covers the areas adjacent to the Moggs Creek Circuit, Moggs Creek Picnic Area and the initial one kilometre of the Gentle Annie Track.

Live mammal trapping was carried out on the two previous nights, 17th and 18th August, in accordance with Trapping Permit No. RP-89-125, issued by the Department of Conservation and Environment.

Results of this trapping were the capture of four Bush Rats (*Rattus fuscipes*), all catches occurring in the immediate area of the creek. This result from a total of 20 trap nights, using the standard bait of peanut butter, rolled oats and honey.

Plant List

<i>Acacia genistifolia</i>	<i>Goodenia geniculata</i>
<i>Acacia melanoxylo</i>	<i>Goodenia hederacea</i>
<i>Acacia mucronata</i>	<i>Goodia lotifolia</i>
<i>Acacia myrtifolia</i>	<i>Helichrysum scorpiodes</i>
<i>Acacia suaveolens</i>	<i>Hibbertia prostrata</i>
<i>Acacia ulicifolia</i>	<i>Hibbertia stricta</i>
<i>Acacia verniciflua</i>	<i>Hovea heterophylla</i>
<i>Adiantum aethiopicum</i>	<i>Indigofera australis</i>
<i>Astroloma humifusum</i>	<i>Isopogon ceratophyllus</i>
<i>Banksia marginata</i>	<i>Kennedia prostrata</i>
<i>Blechnum cartilagineum</i>	<i>Leptospermum myrsinoides</i>
<i>Blechnum nudum</i>	<i>Leucopogon virgatus</i>
<i>Burchardia umbellata</i>	<i>Lomatia ilicifolia</i>
<i>Bursaria spinosa</i>	<i>Platylobium obtusangulum</i>
<i>Cassythia glabellae</i>	<i>Pomaderris chazel</i>
<i>Clematis aristata</i>	<i>Prasophyllum sp.</i>
<i>Clematis microphylla</i>	<i>Pterostylis longifolia</i>
<i>Culcita dubia</i>	<i>Psidium esculentum</i>
<i>Dillwynia glaberrima</i>	<i>Spyridium parvifolia</i>
<i>Drosera auriculata</i>	<i>Stackhausia monogyna</i>
<i>Drosera whittakeri</i>	<i>Tetradlea ciliata</i>
<i>Epacris impressa</i>	<i>Viola sieberana</i>
<i>Eucalyptus cypellocarpa</i>	<i>Xanthorrhoea australis</i>
<i>Eucalyptus globulus</i>	
<i>Eucalyptus obliqua</i>	
<i>Eucalyptus viminalis</i>	

Bird List

Australian Magpie
Australian Raven
Brown Thornbill
Crescent Honeyeater
Crimson Rosella
Eastern Spinebill
Fantailed Cuckoo
Galah
Gang Gang
Golden Whistler
Grey Currawong
Grey Fantail
Grey Thrush
King Parrot
Kookaburra
Little Eagle
Little Pied Cormorant
Mistletoe Bird
Olive Whistler
Pied Currawong
Red Wattlebird
White-browed Scrubwren
Silvereye
Spotted Pardalote
Striated Pardalote
Striated Thornbill
Sulphur-crested Cockatoo
Superb Fairy-Wren
White-eared Honeyeater
White-naped Honeyeater
White-throated Honeyeater
Yellow Robin
Yellow-faced Honeyeater
Yellow-winged Honeyeater

Miscellaneous Fauna

Frog: *Geocrinia signifera*
Spiny Anteater
Bull Ant: *Myrmecia* sp.
Funnel Web Spider: *Diplurid* sp.
Cockroach: *Cosmoszosteria* sp.
Butterfly: Imperial White

Acknowledgements

The Plant List and Bird List were compiled by Pat Quinlivan and Barry Lingham respectively.

Dave King
9 Traum Ave.
Portarlington

For Juniors

Last night it rained after a long dry spell. I thought immediately of all the seedlings I had recently planted, so I went outside with a torch and had a snail hunt. There were dozens of snails making their slow but sure way from their dark hiding places, where they had stayed during the dry weather, their shells sealed by a mucus sheet, called an epiphragm, which had let air through but was not soluble or softened by water. Some snails were tiny, only a few centimetres long. They were recent hatchlings, and would take one or two years to reach maturity. The eggs had been laid in a shelly membranous envelope in a shallow hole in the ground, and had hatched after only a few weeks.

The ancestors of these snails came from overseas. The common garden snail, *Helix aspera*, its found throughout Geelong, but interestingly, I have never found them in my vegetable garden at Pollocksford, just 20 kilometres from the city, although there are plenty of large juicy slugs. Am I lucky? Have European garden snails not reached my land, which is steep and stony and was never previously used for agriculture. The Pollocksford area was settled early; the first wine in the Geelong district was made there in 1845, and there were orchards and nurseries in fertile spots along the river. I expect there are snails at other settlements around Geelong. I'd like to know if you have seen sails in Ceres, or Inverleigh, or Winchelsea.

You can easily study snails by marking their shells with nail polish. If the gardeners in your family do not object, consider doing a snail survey. We will publish the results in the *Geelong Naturalist*.

Valda Dedman



Snail.

Photo: Trevor Pescott.

Lorikeets Out On A Limb

By Ray Baverstock

Recently I was walking our dog along Bellevue Avenue, Highton, when I noticed a flock of Rainbow Lorikeets flying through the trees in the plantation on the eastern side of the street.

My view was then blocked by a melaleuca on the western side, but when I walked past I saw a flock of eight lorikeets perched in the limbs of a dead tree and looking down apprehensively at an Australian hobby just a metre or so below them. I am sure that the Rainbow Lorikeets must have landed before they realized that the Hobby was there, and were then too petrified to move off.

When I reached the corner of our street (Helena Street) I looked back and the birds were still in the same position.

Cicadas as a Prey Species

by Ray Baverstock

Cicadas, with their strident ear-splitting noise, are usually only heard on hot days in early summer.

When I have heard them on cooler days and investigated, I have found them to have either been captured by birds or trying to escape from them. The main predators have been Red Wattlebirds, but I have also seen them captured and being eaten by Common Starlings, and on at least two occasions by House Sparrows. Undoubtedly other species also prey on cicadas.

Once I was in the back yard when a sparrow came over the side fence with a cicada in its beak and landed almost at my feet. Somehow the cicada escaped, calling loudly as it flew back over the fence with the sparrow in hot pursuit. I don't know if it finally escaped or not.

Another time I walked out the back door in time to see a sparrow attempting to pick up a cicada which was at least half its size and trying to bash it on the concrete. I rescued the cicada and placed it in the pittosporum tree but it had difficulty staying as the sparrow had plucked some of its legs off.

Ray Baverstock
13 Helena Street,
Highton, 3216

Indications of Possible Commensalism Between Ant Species

By Dave King

An observation ant nest has been constructed in the Museum at the Ocean Grove Nature Reserve with the purpose of presenting a working model of a typical ant nest. This, of course, requires the introduction of ants, of which the Meat or Mound Ant (*Iridomyrmex purpureous*) was chosen for this particular exercise. Reasons for this choice were they are a species common to the O.G.N.R. and their overall size is in the order of 8mm, making them readily visible in a museum exhibit. They belong to the sub-family *Dolichoderinae*.

As in all experimental endeavours problems occur, and this project is no exception, from several aspects. The major one in this case is maintaining a viable population. Two basic necessities are suitable food and a Queen Ant to produce a continual supply of off-spring. The average life of the worker ant is around three weeks. Endless forms of food have been tried without success and no Queen with the necessary fecundity has been obtained. Thus to maintain a population in the artificial nest requires the excavation of a natural nest and capture ants, an operation that has to be done with some speed if one is to avoid being overwhelmed with irate ants and a fair degree of discomfort.

Whilst carrying out the operation of nest raiding, a number of observations have been made that may lead to a better understanding of the natural history of these ants. On two occasions the next excavation has produced not only the *I. purpureous* but, a number of a larger ant, together with their respective pupa. These larger ants it appears, belong to the Sub-family *Formicinae*, a nocturnal ant of a *Camponotus* species, possibly of the *claripes* group. The *I. purpureous* is a diurnal species readily observed running around the nest area.

When the nest is opened-up it appears that the tunnels are communal thoroughfares, certainly those within the top 40 centimetres of soil. No antagonism between the species was observed, even with traumatic circumstances of a nest raid. Encounters between the species always appeared to consist of an exchange of identity by means of antennule contact, a normal behavior in most hymenoptera. Another aspect noted was that the *Camponotus* tend to be associated with the perimeter area of the *I. purpureous* nest site or mound.

Food sources of the *I. purpureous* O.G.N.R. population is being investigated. Large numbers of the ant are invariably coursing over the nest mound and for considerable distances in all directions away from the nest but, never with any evidence of food collection. They have been observed attacking caterpillars and

various arthropods on the nest mound; but it only appears for the reason that they have wandered onto the nest site and pose a threat that must be eliminated. *I. purpureous* has been sent to attend scale insects on *Acacia pycnantha*, and although in no great number considering the population of the nearby nest. On *Casuarina littoralis* they have been observed attending the axil area of the branchlet nodes, which would appear to have a gland that exudes some form of attractant, perhaps tylose from the abscission zone of the branchlet.

On one occasion during the operation of opening a nest of *I. purpureous* a beetle was dislodged from a chamber in the nest, only briefly observed before disappearing amongst the loose soil. Unfortunately the beetle eluded capture, preventing positive identification, however, it appeared to be one of the Scarabidae family. The fact that it was colourless suggested it had recently emerged from the pupal stage of its life. This may be an example of mutualism and a source of food for the ants. At this stage it is a very tentative suggestion but, worth pursuing, considering that another member of the *Iridomyrmex* genus, namely *I. nitidus*, is the host of the larvae of the Small Ant Blue Butterfly (*Pseudodipsus myrmecophila*), it is readily conceivable that *I. purpureous* would also adopt a similar life style.

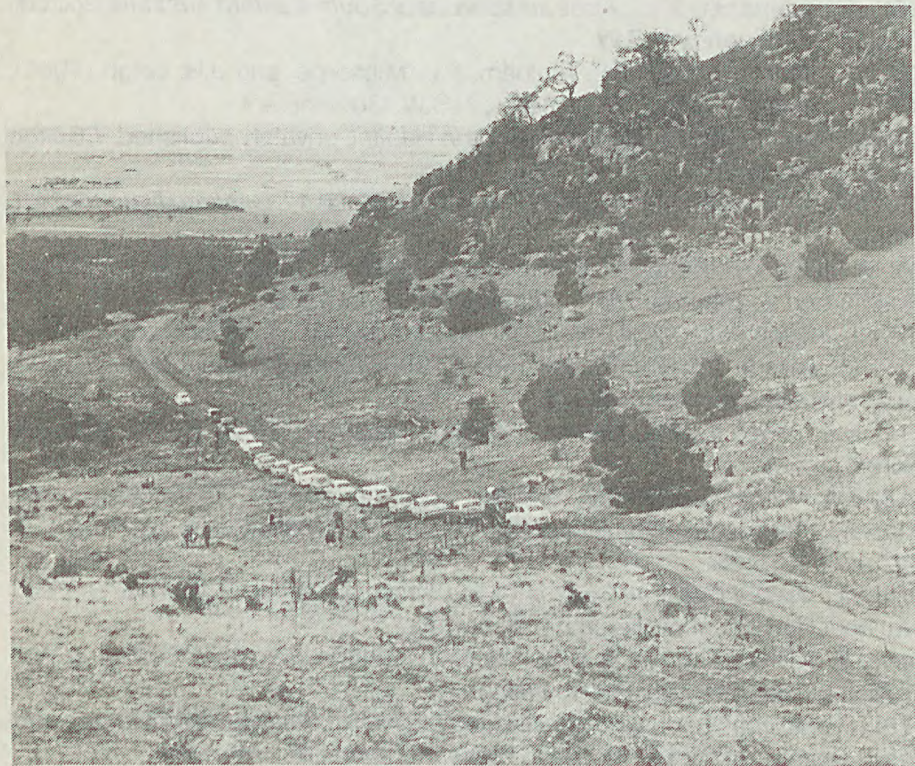
References:

- C.S.I.R.O. The Insects of Australia (Ed. D.F. Waterhouse), Melbourne University Press, 1970, Supplement 1974.
- Goode, J. Insects of Australia, Angus & Robertson, 1980.
- Greenslade, P.J.M. A Guide to Ants of South Australia, South Australian Museum, 1979

Club Quiz Answers

1. Tuesday, 11th April, 1961.
2. Trevor Pescott.
3. Graeme Tribe.
4. Trevor Pescott and Valda Dedman. Before the Constitution was changed so that the President could only serve a two year term at any one time, Jack Wheeler was President for eight consecutive years. Trevor has been President three times, and Valda twice.
5. Hutchinson's bush block, which later, largely because of the efforts by this Club, led by Jack Wheeler, became the Ocean Grove Nature Reserve. It was held in May 1961.
6. In October 1965, to Rocklands, Balmoral, in the western Grampians.
7. In March 1967 to Healesville Sanctuary. There were two full buses.
8. Jack Wheeler, who earned that name through his untiring and successful efforts to have *Boneseed* declared a noxious weed, he involved the Club in tree planting and boneseed eradication at the You Yangs, a project which continues today.
9. At the Belmont Common wetland, beside the road that leads into the golf course. The Club rents and manages the wetland, and the hide was built with funds from South Barwon Council and volunteer labour from the G.F.N.C.
10. Geoff Carr, who is now an established botanist. Much of his early knowledge was gained as a junior member in the early days of the Club.
11. Three. The proceeds of the first, in 1973, were \$209, which went to the Ocean Grove Nature Reserve.
12. Three, in 1967, 1971 and 1977. There have been various other smaller displays and last year a large display, lasting several weeks, of Club activities, with talks on natural history, at the Geelong Regional Library and its branches.
13. An informal group within the Club, formed in 1969, which held campouts at various sites in the Otways, and collected much important data.
14. At Moggs Creek. After the Ash Wednesday fires in 1983, the Club undertook bird and plant and mammal surveys to monitor the return of flora and fauna to the area.
15. The Small Ant Blue Butterfly. It was chosen because the only Victorian location of this uncommon species is the Ocean Grove Nature Reserve, where it lives in association with *Nitidus* ants.
16. 1987.
17. The brochure about the Belmont Common wetland, *From Buckleys to the Break and The care of sick injured and orphaned native birds and animals.*
18. Jack Wheeler and Trevor Pescott.

19. Jack Wheeler, Trevor Pescott, Ted Errey, Betty Quirk, Gordon McCarthy, Leila Ramsay, Rolf Baldwin and Valda Dedman.
20. Graeme Tribe and Marilyn Hewish.
21. Leadbeaters Possum and Broad-toothed Rat.
22. Duncan Mackenzie, Trevor Pescott, Margaret Cameron and Valda Dedman.
23. John Landy.
24. The Plant Group in 1973, which has studied specialist genera such as ferns, and made herbarium collections, and the Bird Group in 1979, which has taken part in Wader and Orange-bellied Parrot surveys.
25. In 1969 the Club first fielded two teams to cover the Geelong area. This has since become an annual event.



1963 excursion to the You Yangs when the Club first checked on the spread of boneseed.

Editors Note

In the last issue because of space constraints we were unable to include the bibliography accompanying "Vascular Plants of the Long Forest" by Dr. M.J.C. Baker. It is printed below.

References

- (1) *Flora of Australia* (1981-), Australian Government Publishing Service.
- (2) M.I.H. Brooker and D.A. Kleinig (1983), *Field Guide to Eucalypts, Vol 1*, Inkata Press, Melbourne
- (3) N.T. Burbridge and M. Gray (1970), *Flora of the A.C.T.*, A.N.U. Press, Canberra.
- (4) G.R. Cochrane, B.A. Fuhrer, E.R. Rotherham, and J.H. Willis (1968), *Flowers and Plants of Victoria*, A.H. & A.W. Reed, Sydney.
- (5) L. Costermans (1983), *Trees and Shrubs of South-Eastern Australia, 2nd ed.*, Weldon, Willoughby N.S.W.
- (6) G.M. Cunningham, W.E. Mulham, P.L. Milthorpe, and J.H. Leigh (1981), *Plants of Western New South Wales*, N.S.W. Government
- (7) M.E. Dacy (1988), *Victorian Orchids in Habitat*, privately published, 7 Bolton St, Box Hill, Victoria.
- (8) M. Hewish (1986), "Birds of the Long Forest: part 1", *Geelong Naturalist* 23, 32-46.
- (9) M. Hewish, R. Baker, M. Baker and D. Munday (1986), "Birds of the Long Forest: part 2: annotated list", *Geelong Naturalist* 23, 50-78.
- (10) J. Jessop (ed.) (1981), *Flora of Central Australia*, Reed Books, Sydney.
- (11) J.P. Jessop and H.R. Toelken (eds.) (1986), *Flora of South Australia*, South Australian Government, Adelaide.
- (12) D.L. Jones (1988), *Native Orchids of Australia*, Reed Books, Frenchs Forest, N.S.W.
- (13) B.A. Myers, D.H. Ashton, and J.A. Osborne (1986), "The Ecology of the Mallee Outlier of *Eucalyptus behraria* F. Muell near Melton Victoria", *Austral. J. Botany* 34, 15-39.
- (14) J.H. Ross (1990), *A Census of the Vascular Plants of Victoria, 3rd ed.*, National Herbarium of Victoria, Melbourne.
- (15) J.H. Willis (1970, 1973), *A Handbook to Plants in Victoria, Vol 1, 2nd ed.*, Vol 2, Melbourne University Press. Melbourne.
- (16) D. Woolcock (n.d.), *A Field Guide to the Native Peaflowers of Victoria and Southeastern Australia*, Kangaroo Press, Kenthurst, N.S.W.

Dr. M.J.C. Baker
P.O. Box 42
Melton, Vic 3337



CONTENTS

Editorial		74
Baverstock, G.A. & Conole, L.E.	Mammals of the Bannockburn Bush, Victoria	75
Scarlett, N.	Teesdale Timber Reserve, a brief report	82
V. Dedman	Club Quiz	87
D. King	Excursion Moggs Creek/Angahook Forest Park 19/8/90	88
V. Dedman	For Juniors	90
R. Baverstock	Lorikeets out on a Limb	91
R. Baverstock	Cicadas as a prey species	91
D. King	Indications of possible commensalism between ant species	92
V. Dedman	Club Quiz answers	94
	References	96

P570.5
G297