WHIRRAKEE

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Echidna

MONTHLY NEWSLETTER OF THE BENDIGO FIELD NATURALISTS CLUB

WHIRRAKEE VOL. 3 No. 10 NOVEMBER 1982

Monthly Newsletter of the Bendigo Field Naturalists Club.
Whirrakee takes its name from the Whirrakee Wattle (Acacia williamsonii) which is virtually endemic to the Bendigo region.

CONTENTS

COVER PHOTO

Echidna (Tachyglossus aculeatus), one of the mammals of the Bendigo area which will be discussed by Graham Hill in his talk this month.
Photo: Rob Watkins

Cover design: Graham Hill

Deadline for next issue is Friday 19th November.
(Typed contributions are preferred, but if this is not possible, then please make every effort to use neat, legible hand writing or printing).

All back numbers are available from the Editor at a cost of 50 cents each.
(Complete sets of Volume 1 and 2 are available at the reduced price of $5.00 set. Postage extra)

EDITORS PAGE

It is one of the ironies of life that the series of articles on the Orchids of Bendigo and district is co-inciding with an increasingly severe drought, with hardly an orchid to be seen. In a way, that is not such a bad thing, because by next spring the series should be complete, or nearly so, and beginners will be able to use the accumulated information to identify most of the orchids they find in the bush - assuming the drought is broken by then!

In the meantime, if any reader has any comment to make on the orchid articles, especially on distribution information, Bob Allen and Tom Patullo would like to hear from you. They have been a little disappointed that only one person has made such comment so far, although the letter from Margaret Watts of Inglewood was a valuable contribution, and added several species to their species list for the district.

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Some of the effects of the drought are rather startling. On a journey to Avoca via Maryborough, I saw hundreds of dead and dying Golden Wattles in the bush between Eddington and Havelock. Around Mt. Korong, many of the Golden Wattles have died also, and young Bull Oaks are dead or dying, although so far mature Bull Oaks are apparently coping, and the eucalypts are in good condition in this granite area. This is more than can be said of eucalypts around Bendigo, as at One Tree Hill and Big Hill, and especially in the Heathcote - Tooboorac area, where frost, insect attack and moisture stress seem to be combining to promote die back on an alarming scale. Optimists believe the trees will recover. Perhaps most will, but I think some of them are already beyond recovery, and we are probably witnessing the beginnings of a major change in our landscape, with the drought merely accelerating a process which was already underway.

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1983 Tasmanian Wilderness Calendars will be on sale at $5.50 at the November meeting, on a first come, first served, cash sale basis. If they sell out, and there is sufficient demand for more, there is time to re-order.

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REMINDER: If you haven't yet renewed your subscription, then please do so as soon as you are able.

Eric Wilkinson, Hon.Editor.

LIZARDS OF THE BENDIGO AREA - PART 2

by Berry Vardy

3. Goannas

Sand Goanna, Varanus gouldii

The Sand Goanna is probably more common than most people realise, being found over most of our region. It usually lives in bush areas in a hole or burrow, and does not venture far from cover. I have found it close to Bendigo at Jackass Flat and Salomon Gully. Its food consists of lizards, snakes, mice, rats, rabbits but not carrion. They can grow to quite a large size of over five feet but an average length would be three and a half feet.

Features: A typical goanna, with the tip of the tail coloured yellow.

Tree Goanna or Lace Monitor, Varanus varius

This goanna is usually found in timbered country, with the nearest area to Bendigo being the Kamarooka Forest, where they may be seen sunning themselves on the high limbs of the tall grey box trees. Growing larger than the Sand Goanna, the Tree Goanna is only second in size to the inland Perentie. It can grow to over seven feet in length.

Features: Large claws, colour usually dark, and the tip of the tail is black.

4. Legless lizards

Common Scaly-foot, Pygopus lepidopodus

Like all legless lizards, the Scaly-foot is quite variable in colouration, and readily casts its tail. Over the years, I have caught seven or eight specimens at Maiden Gully, and only two of these had the same markings or were of the same colour. Usually found in the bush, the Scaly-foot eats insects, spiders and small lizards.

Features: A robust lizard of variable colour, with two hind limbs in the shape of flaps, and having keeled or raised scales along its body, growing up to two feet long, but with an average length of one foot.

Legless lizard, Delma inornata

I have only come across three specimens of the Legless lizard in the Bendigo area. The first was caught by Mavis Needs at Inglewood and the other two came from Maiden Gully and Wedderburn. It is very snake-like in appearance, and when disturbed will poke out its broad, blue tongue, but if pursued will suddenly turn, raise back its head and strike, emitting a loud hiss. Its bite, of course, cannot hurt anyone.

Features: Long and thin, smooth scales, even colour tones of grey or brown.

5. Skinks.

Blue-Tongue lizard, Tiliqua scincoides

This is the lizard that gives you such a start on balmy summer evenings. It is common in both the bush and the suburban garden. Easily recognised by its wedge-shaped head, stout body, bold stripes and a broad blue tongue. It has about 10 live young in February. Snails and slugs make up most of its diet, supplemented with some vegetable matter, insects and small mammals. One foot is average size but it has been known to grow two feet in length.

LIZARDS OF THE BENDIGO AREA continued

Stumpy Tail or Shingleback, Trachydosaurus rugosus.

A lizard that is familiar to all, with its wedge-shaped head, short legs, heavy body, broad blue tongue, large pine-cone like scales and of course a short thick tail. The young are produced live and of a very large size; usually there are twins. The Stumpy-tail feeds on snails, slugs, flowers (for which it appears to have a preference for yellow ones), insects, fruit and meat. With the Blue-tongue and Garden Skink, a very good lizard to have in the garden. An average sized adult would be 12 inches long growing to about 18 inches.

Cunninghams Skink, Egernia cunninghami

A fairly large skink growing to about 16 inches long but with an average length of about 10 inches. They inhabit the granite country where there are plenty of flat rock crevices that make a secure home. During the day the Cunninghams Skink will creep out from its home to graze on the nearby plants and to bask in the sun. If disturbed it will quickly run under its rock again. The backward pointing spiny scales make it almost impossible to pull it out backwards by the tail, which is easily cast.
I only know of one colony in the Bendigo area and that one lives about four miles on the Bendigo side of Maldon

Features: dark brown with black spots, spiny scales being larger on the tail; lives in colonies.

Tree Skink, Egernia striolata

Although I have found this lizard in the Maiden Gully area, I have not found it east of Bendigo. It is more common further west in the Melville Caves-Mt. Korong area. It usually lives in family groups under the raised bark of dead trees, but may be found under rocks and logs. Being a good tree climber, it can easily run to the top of living or dead trees.

Features: stout tail, robust body, length of up to 10 inches, but usually about 6 inches. General body colour is buff brown with broken black markings along sides, interspersed with white flecks.

White's Skink, Egernia whitii

White's Skink inhabits the rocky areas south of Bendigo. Being shy and secretive, it is only occasionally found, usually hiding under logs or slabs of rocks. It is somewhat similar in appearance to the Tree Skink, being about 6 inches long, and of robust build, but has a longer more tapering tail. It has a yellow or white ring around its eye.

Larger-striped-skink, Ctenotus robustus

The Larger-striped-skink is found right throughout the Bendigo bush areas. It is reasonably common, and usually found hiding under rocks. Tom Patullo tells me that his pet has grown to about 15 inches long.

Features: Olive-brown above, with conspicuous black stripe from neck to base of tail, edged in white, with a series of white dots along each side.

Sphenomorphus tympannum

This lizard is found south of Mt. Alexander in the "wetter" area. It may be seen either basking in the sun or found hiding under rocks and logs. An average adult would be about 6 inches long.
Features: Dark brown to golden brown above, with a few black spots, and the sides mottled black and white.

LIZARDS OF THE BENDIGO AREA continued

Garden Skink, Lampropholis guichenoti

In my listing this is the first of four "Sun lizards" found in the Bendigo area. To me, the Garden Skink is the typical skink - small, fast moving, grey in colour, with a tail that can be lost and regrown again, shiny scales that overlap, lives in grass and under rocks, has five fingers and five toes and loves basking in the sun. This lizard usually lays two eggs in a communal nest in the ground, and leaves the eggs to hatch by themselves. Dale Gibbons found a nest on Mt. Alexander and counted 106 eggs in it. The eggs take about six weeks to hatch and the small lizards emerge in February. This is the skink that I have in my garden and it is responsible for keeping the ear-wigs and the harlequin-bugs' populations to insignificant numbers.

Features: Usually the head is olive-brown, and the body and tail may be marbled in brown, grey and white.

Snake eyed skink, or Boulenger's Skink, Morthia boulengeri

The Snake eyed Skink gets its name from the fact that the eyes are covered by a single, immoveable transparent scale. It is quite common in the bush and gardens, having somewhat similar habits to those of the Garden Skink.

Features: A "sun lizard" which is grey to brown with a white stripe running from the mouth to the back leg; the tail is usually more brown in colour; length of over four inches.

Grey's Skink, Menetia greyi

Grey's skink is certainly the smallest lizard in our area, attaining a length of just over 3 inches. It is not as common as the previous two "sun lizards". I have found it only to the north-west of Bendigo, near Inglewood.

Features: Small "sun lizard", no movable eyelids, grey-brown in colour with speckled chin, four fingers and five toes.

Spencer's Skink, Pseudemoia spenceri

I have found only one specimen south of Mt. Alexander, but have found Spencer's Skink reasonably common in the Macedon area. It appears to favour the wetter areas, where it may be seen basking in the sun on trees or rocks. It produces "live" young.

Features: A "sun lizard" which is dark brown, with a conspicuous yellow or red stripe from the head to the back legs; and long tail. It grows to about five inches in length.

Bougainville's Skink, Lerista bougainvillii

The small (5 inch) burrowing Bougainville's Skink is reasonably common in the Bendigo area and can be found under rocks or logs, usually near ant nests.

Features: smooth elongated body, small limbs with five fingers and five toes, small eyes, sharp snouted, colour of pale grey or pale brown with black stripes running through the eye, along the body to the hind leg; the tail is either bright yellow or orange in colour.

Three-toed-skink, Hemiergis decresiensis

The Three-toed skink is also a burrowing lizard, found in the deeper soft soils to the west of Bendigo. It may be discovered under leaf-mould, under boards or beneath sheets of iron lying on decaying vegetation matter. Its mode of progression is very similar to the wriggling of a snake.
Features: a small, smoothed-scaled skink of a chocolate colour with small black flecks; very small limbs with three fingers and three toes.

THE ORCHIDS OF BENDIGO AND DISTRICT

- PART 6, THE LEEK ORCHIDS (PRASOPHYLLUM)

by Bob Allen and Tom Patullo
Illustrations by Graham Hill

Dr. Jim Willis estimates that there are about eighty five species of Leek orchids in Australia, and that thirty of them are to be found in Victoria. Apart from a few in New Zealand, the genus belongs mainly to temperate Australia. It is the largest genus of orchids in the Commonwealth.

These orchids vary greatly in size and height. For instance, a six inch specimen of Prasophyllum densum, The Dense Leek Orchid would be regarded as being quite tall. This orchid is to be found in Queensland, New South Wales and Victoria, from which state, only one collection has been made, from the Upper Moroka River on the Mount Wellington Plateau.

On the other hand we have Prasophyllum regium - The King Leek Orchid, from Western Australia, which attains a height of 180 cm, (six feet), with a stem diameter of three quarters of an inch (18 mm).

The Prasophyllums can be divided into two groups as follows:-

Group 1. Those orchids which have a very fine or filiform stem and no leaf at flowering time, and only a small bract, which is close to the base of the flowers. The flowers are tiny, and bloom in Autumn.

Group 2. Those orchids, having a hollow onion or leek-like leaf, from which the flower stem emerges before blooming. They have larger and more beautiful flowers than group one, and are by far the larger group. This hollow leaf gives us the reason for the name "Prasophyllum", which is derived from two Greek words meaning "leek" and "leaf". The five Leek orchids in our district are grouped as follows -

Group 1. Prasophyllum nigricans, and P. archeri.

Group 2. Prasophyllum odoratum, P. fuscum and P. patens.

No matter to which group they belong, they all have one thing in common. They are what we call "upside down" orchids, so called because in these orchids the labellum is above and the lateral sepals turn upwards.

Prasophyllum nigricans Midge Orchid
nigricans - blackish.
This small orchid grows from six to eight inches high, on a thin green stem, which holds a cluster of tiny flowers, that need to be examined through a hand lens to appreciate their fine detail. Usually growing in lightly timbered country, these small orchids are probably more common than they appear to be, as they are extremely hard to find, One must search diligently indeed to discover these tiny orchids.

The labellum is more or less diamond shaped, broadening upwards for two thirds of its length, then contracting into an acute, upturned point. Flower segments are small, up to a quarter of an inch long, dark coloured and generally clustering towards the top of the stem. The flowers are on very short pedicels (each flower almost stemless) and are usually coloured dark purple but occasionaly green. The labellum is movable, with wide, toothed edges.

This orchid is widespread throughout our area and flowers in the autumn. The leaf is not present at flowering.

ORCHIDS OF BENDIGO AND DISTRICT continued

Prasophyllum archeri - Variable Midge Orchid

The second of our Group 1 Prasophyllums also flowers in the autumn, and has no leaf at flowering.

The flowers have a downturned appearance, and segments are pointed, while the articulate labellum, column-segments, and sometimes the petals are fringed with short hairs, (which you need a magnifying glass to see). Petals are greenish yellow, with three purple stripes and purple margins, while the labellum is dark purple. This orchid when found growing in clumps, has been described as resembling "Mulberries on sticks".

As to locality, refer to "The Bendigo Naturalist" Vol.6 No.2, August 1973, Page 39, wherein Bob Allen describes the finding of this orchid at Muckleford by the late Mr Fred Taylor, and his suggestion that many of the orchids we find and think are P. nigricans, could, if closely examined, turn out to be P. archeri.

Prasophyllum fuscum - Tawny Leek Orchid
fuscum - dusky.

The first of our Group 2 Prasophyllums has (as do the rest of our Group 2 orchids) the long onion like leaf at flowering and also they all flower in spring or early summer. The Group 1 species both flower in the autumn.

Favouring the open grasslands, the noticable feature of P. fuscum is the backward curving, upturned lateral sepals, somewhat resembling miniature cows horns.

The flower spike, some six to twelve inches tall, has an open appearance, as the individual flowers are well spaced on a moderately loose raceme, having a green to brownish colouring. The oblong ovary is on a very short stem.

The sepals are free, pointed and toothed at the tips, while the labellum is oval shaped on a short claw, and gently curved. The flowers are sweetly perfumed on warm days. This orchid has been recorded from the railway line near Goornong. A little further afield several specimens were found at Hunter. An interesting snippet of recent vintage is the fact that a small area of Crown Land at Hunter has been fenced off to enclose the endangered species, the red Swainsona plagiotropis, and of interest to the orchid lovers among us - there are a dozen or so P. fuscum plants inside the enclosure.

Prasophyllum odoratum - The Sweet Leek Orchid
odoratum - fragrant

This orchid is the largest of our local Prasophyllums. A noticable feature is the large, crinkly edged, white labellum, which bends back sharply so that the pointed end protrudes between the lateral sepals, (remember that we are dealing with an upside down orchid).
In favourable conditions this orchid reaches to a height of three feet, but a good specimen in our area would be up to eighteen inches high with up to fifteen flowers on a spike. These orchids appear to improve after a bush fire.

The onion like leaf above where the flower stem emerges, appears to die back at flowering. The flower colouring is pink and white, with some green and is strongly perfumed on a warm sunny day. The sepals are free, pointed and sometimes toothed at the tip, and the petals are white with wide crisped edges. Widespread in the state but not common locally, the occurrences of this orchid in our area, that we know of, are, Cockatoo Hill, Diamond Hill and Sedgwick Water Race.

THE ORCHIDS OF BENDIGO AND DISTRICT continued

Prasophyllum patens - Broad Lip Leek Orchid
patens - spreading, referring to the floral parts.

This slender orchid would average twelve inches high and is distributed throughout Victoria, but must be considered rare in our area. It has been noted by Dr. Jim Willis in the Bendigo Whipstick.

The hollow onion like leaf above where the flower stem emerges is quite dead, but still present at flowering. The petals are blunt and recurved, of light green colour, with a reddish brown central stripe. The dorsal sepal is green with brown marking, and the lateral sepals are green.

The labellum is reflexed, but only at the tip, and although the lateral sepals are widespread, it does not protrude beyond, as it does in P. odoratum. It is wavy at the edges, has pink and white markings, and is almost sessile (i.e. without stem).

Flower Stem

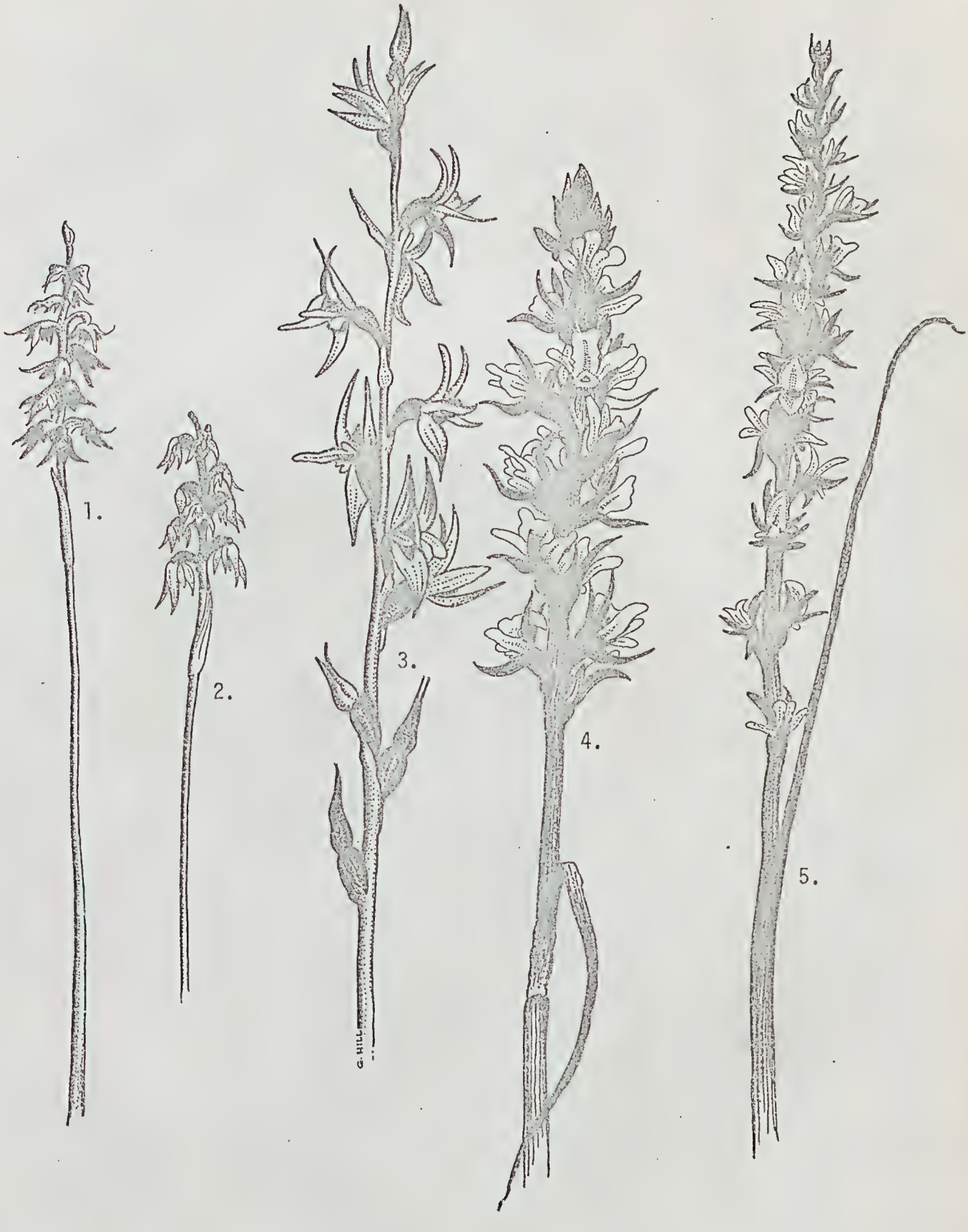
The flowers are quite sessile and have an open appearance, with blunt petals about three eighths of an inch long, while the sepals being of approximately the same length are decidedly pointed. In general appearance the colouring of the flower is brownish green.

Included with Graham Hill's illustrations of our Prasophyllum Orchids this month is a notated sketch of an Upside-down Orchid.
By comparing this sketch with the illustration, "Parts of an Orchid Flower" in "Whirrakee" Vol. 3, No. 6, P. 7 one can realise the reversed position on the flower segments.

Orchids to look for in November

Caladenia clavigera
" dilatata
" patersonii
Caleana major
Calochilus campestris
" imberbis
" richae
" robertsonii
Diuris punctata
" punctata var.brevissima
" sulphurea
Lyperanthus nigricans
Microtis parviflora
" unifolia
Orthoceras strictum
Paracaleana minor
Prasophyllum fuscum *
" odoratum *
" patens *
Pterostylis biseta
" boormani
" gibbosa
" hamata
" plumosa
Thelymitra antennifora
" aristata
" chasmogama
" flexuosa
" ixioides
" longifolia
" macmillanii
" media
" pauciflora
" rubra
" venosa

* Described this month.



1. Prasophyllum nigricans Midge Orchid
2. Prasophyllum archeri Variable Midge Orchid
3. Prasophyllum fuscum Tawny Leek Orchid
4. Prasophyllum odoratum Sweet Leek Orchid
5. Prasophyllum patens Broad Lip Leek Orchid

THE ORCHIDS OF BENDIGO AND DISTRICT continued

With the continuance of the dry conditions in our area, the prospects of finding our late spring orchids are slim indeed. However a written record of what orchids to look for month by month could be useful in a more bountiful year. In compiling a list of this nature, one must try to allow for early or late seasons. Also, orchids that were listed last month may only extend flowering into the early part of this month. One specific instance of the dry conditions is on our own bush block. Last year there were hundreds of specimens of orchids of various kinds there. This year I had not seen one orchid in flower since Pterostylis revulota finished way back in the autumn, until near the end of October I found two poorly specimens of Pterostylis biseta just coming into flower. It is a good thing our orchids grow from bulbs, and so can sit out the drought underground.

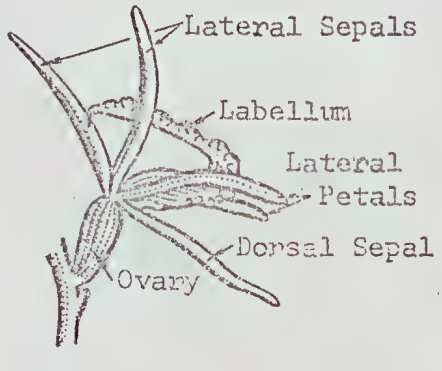
"ORCHID FACTS" No. 6 THE UPSIDE DOWN ORCHIDS

The term "upside down orchid" is explained in the book "Australian Ground Orchids" by Densey Clyne. She writes - "The labellum of an orchid provides a landing platform for the insect which fertilises the flower, and in many species the labellum and column are elaborated into weird and wonderful shapes. This is to ensure that the right insect performs its functions efficiently. To make things complicated for the beginner however some genera of orchids have reversed flowers. These "reversed flower" species have the labellum at the top and the dorsal sepal below, still referred to as the dorsal sepal. The lateral sepals, now above and behind the labellum, may be joined wholly or partly to form a hood. To make things more complicated, we are told that originally all orchids were arranged "upside-down" in this fashion, that they reversed themselves by a twisting of the pedicel (the stalk of a single flower), or the ovary, and that the so called "reversed" flowers have really twisted themselves through 360° back into the original position."

Now after reading this, I got to thinking about the statements that "all Orchids were originally arranged upside down" and that "the so called reversed flowers of today have really twisted themselves through 360° back into the original position." Why isn't the answer simply that the present day upside down orchids remained where they were, and did not move at all, instead of having to twist two complete turns? Or why not only one turn? And why didn't the present normal orchids simply twist 90° only which would put the labellum down in its present position? Suggestions would be welcome.

The "reversed flower" orchids are:-
1. Caleana major, Large Duck Orchid
2. Paracaleana minor, Small Duck Orchid
3. All the Prasophyllum orchids
4. Cryptostylis orchids, the Tongue Orchids

Side view of typical Upside Down Orchid showing reversed position of flower segments.



Sketch is enlarged diagram of Prasophyllum odoratum showing unusual shaped labellum - as described in article.

ORCHID FACTS No. 6 continued

Now looking back to the list of the reversed flower orchids, the first three genera occur in our district, but you will notice that I have added an orchid that is not found within many miles from here. This was done for two reasons. Firstly, because it is the only other genus of "upside down" orchid, so now we know them all. And secondly, although Cryptostylis erecta - the Bonnet Orchid, was found in parts around Sydney and in the Blue Mountains, it was not known in Victoria. At least, that was the story until a young school teacher living in Orbost in 1935 changed all that.

I now quote from the Victorian Naturalist Vol. 52, No. 12, 1936. "Whilst hunting for Cryptostylis orchids around Marlow late in 1935, I happened to come across a patch of leaves with only one flower stalk in evidence. I placed the plant in my fernery, but unfortunately slugs got the flowers while I was away at Christmas. I thought that it was Cryptostylis subulata, but to make sure I revisited the spot on February 8th 1936, and was surprised to find large numbers of C. subulata, and also another Cryptostylis quite new to me. With the aid of Mr E.E.Pescott, it proved to be Cryptostylis erecta - the Bonnet Orchid, not previously recorded in Victoria". Not bad you say? Well, just to show that one new orchid wasn't enough, not long before that the same gentleman, when searching for orchids at Wilbenduck Creek near Orbost, discovered, Cleisostoma tridentatum, the Tangle Orchid, another first for Victoria.
The name of this young man? Oh yes, I forgot - Mr. Frank Robbins!

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REPORT OF OCTOBER MAMMAL SURVEY GROUP MEETING

The meeting started off quietly with the business finishing in about half an hour, to be followed by John Lindner's slides and ending in lively discussion.

John showed interesting recent slides of young tuans and sugar gliders found in his nesting hollows placed in the Whipstick. The tuans had made a nest out of wool, but to find out where and how the tuans did this you will have to read his article in a future Whirrakee. Another slide was of a beautiful female Antechinus.

Also mentioned by John was that the local Forests Commission seven weeks ago placed 15 nesting hollows in the Whipstick and already they have animals with young in them.

Graham Hill brought out a large platypus in beautiful condition, recently found dead by a fisherman. A second specimen on show was that of an immature brushtail possum.

OBSERVATIONS

Water rats were reported from near the Kennington Reservoir and in Simpsons Road, Eaglehawk. It was noted that many kangaroos are being seen near the roads, however, Cynthia Watkins mentioned that she has seen the remains of quite a few Kangaroos shot recently at Sedgwick. A rather lengthy discussion ensued on the distribution of the Mallee and Eastern Grey Kangaroos in the Wedderburn - Inglewood area. It appears that these two species overlap in this area. In our own Whipstick, the Mallee Kangaroo has not been noted. The discussion concluded on the topic of sparrow traps.

MISTLETOE BIRD, Dicaeum hirundiraceum

Bendigo Bird Observers Group Bird of the Night Discussion, July 1982.

Appearance Small birds 9.5 cms to 11.0 cms in length. The male bird has a glossy blue-black colour on the back and head, red throat, upper breast, and under the base of the tail. Silky white elsewhere underneath, except for a black stripe down the centre of the abdomen. The bill is dark grey, short and sharp. The female is grey above, tail dark, red under the base of the tail, the remainder underneath silky white, streaked grey. The bird has a very short tail, similar to that of the Pardalotes.

Call Various sharp, high pitched notes, uttered briskly. It is also said to have a subdued song, which includes mimicry of other birds.

Breeding Nesting is usually between October and December. The nest is a beautifully constructed purse-shaped structure suspended from a leafy twig. The entrance is a side opening near the top, just below the suspending twig. It is built of plant down, wool, etc. bound together with cobwebs, hair and other fibres and decorated with brown insect larvae borings, (especially those found at the base of wattles), dry wattle blossom or lichen. The nest may be built from within 3-4 feet of the ground or up to 40 feet or more high. Eggs are white, usually three in the clutch. Both birds build the nest and feed the young, but the female, alone, incubates the eggs. The incubation period is not known but the young leave the nest about 15 days after hatching. The newly hatched young are fed with insects for the first few days, after which mistletoe berries become the main food.

Habitat The species is widespread throughout mainland Australia, subject to the occurrence of the Mistletoe plant, which is parasitic on other vegetation. In the Bendigo area, it appears to be common south of Bendigo, but restricted to southern areas of the Whipstick. In the Bendigo area, the common mistletoe is the Box mistletoe - Amyema miquellii.

Habits Outside the breeding season, that is Autumn and Winter, the Mistletoe bird, in common with the majority of birds, becomes silent and it is then difficult to detect its presence. However, close to the breeding season, and as courtship begins, the male bird becomes quite vocal. During nest building, the male appears to vocally exhort the female to press on with nest building operations. He often calls to her from the nest site, and, if she appears slow to respond, flies to her and chases her back to the nest site. The performance resembles that of the warblers. Their flight is rapid and direct, and they have a restless appearance.

General Their food consists of insects, nectar from flowers, berries - mainly from mistletoe, but box-thorn, salt-bush, privet, hawthorn berries, native cherry, blackberry, nightshade and peppercorns have also been observed. The bird appears to be the main agent in the spread of mistletoe. The digestive system of the bird provides for some of the glutinous matter surrounding the mistletoe seeds to be removed and the seed to be voided within 30 minutes of being eaten. There is sufficient sticky substance usually remaining for the seed to adhere to the perch being used by the bird. Unlike the Painted honeyeater, which also feeds on mistletoe berries, the restless Mistletoe bird twists from side to side while perched and is often cross-ways on the branch when the seed is deposited. If the perch is a suitable host plant for the seed after germination takes place, the mistletoe plant grows parasitically on the host.

MITLETOE BIRD, continued.

The sticky seed is removed by the bird from the berry by squeezing it crosswise in its bill. The capsule splits in half, one side falls to the ground the the other half remains attached to the plant. Again pressing the remaining piece of capsule forces the seed out sufficiently to be removed in the bill of the bird. Only ripened berries are taken.
The young birds are not fed on berries until they are sufficiently developed, the youngest being still fed on insects for two or three days after the oldest has been changed over to berries. The young are usually fed by the parent birds clinging upright to the nest from the bottom of the opening, but sometimes they hang downwards from the suspending twig.
There is some doubt as to whether the birds remain in the breeding locality throughout the year, or whether they are nomadic in autumn and winter, to find mistletoe in fruit.

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BIRD NOTES AND OBSERVATIONS FOR OCTOBER

Our guest speaker for October was Mr Eric Du Bourg, from Maryborough, who showed slides of central Victorian birds. These slides were of excellent quality and were well received, especially by Club members who are still familiarizing themselves with our local birds.

Eric, through his photography, has made some interesting observations of bird behaviour over the years. Two of the results of his observations are that the incubation period for the Black-fronted Dotterel is thirty days (a long period considering it is such a small bird, probably due to the advanced stage of the chick at hatching), and that the Spotted Quail-thrush young, upon reaching the fully fledged stage, leave their terrestrial nest presumably to search for food, but return after their first day out to spend the night at their nest. The following night they were also back in their nest with their parents. The third night the nest was empty. Another of Eric's observations was substantiated by a slide showing a Crested Bellbird regurgitating food for its young.

The Bird Observers Group had a campout on the 24th and 25th September at the Dalyenong Flora Reserve. Reports indicated that there were good numbers of birds despite the dry conditions. Although not many nests were found, there was evidence of nesting taking place. Altogether 61 species were recorded, the most notable recording being that of the Black Honeyeater.

These Black Honeyeaters, two males and two females, were observed in stunted and sparse woodland of Red and Long-leaved Box, with a dense understorey of various shrubs with emergent Slaty She-oaks. This is the second recording of Black Honeyeaters in our district for 1982, as several pairs were seen at Inglewood in January.

Luteous, according to the dictionary, is a colour of deep orange yellow or greenish yellow. This word has been used to describe a very different Red-rumped Parrot that was seen flying with a flock of normal coloured Red-rumps. The location of the sighting was Kamarooka Road, Huntly, on the 4th September. Another Club member has regularly seen this unusual parrot around the district over the last four years.

Two White-winged Trillers were recorded at Bamawm on the 19th of September. The male and female Trillers were seen in a line of willow trees, between paddocks, obviously heading south on their migration. The observer thought this observation early, especially for the female who is supposed to arrive one or more weeks later than the male. A male Triller was also seen at the Dalyenong campout on the 25th of September.

BIRD NOTES AND OBSERVATIONS continued

In some years the Curlew Sandpiper is the most common wader reaching Australia, although generally the Sharp-tailed Sandpiper and Red-necked Stint surpass it in numbers. Three Curlew Sandpipers were recorded beside the Murray Valley Highway, between Kerang and Swan Hill, on the 7th of September. They were feeding in a freshly irrigated paddock with large numbers of Sharp-tailed Sandpipers. The small size of the birds and their down curved bills, help to identify these grey-brown waders.

Hardly a meeting of the B.O.G. goes by without an observation record of Gilbert's Whistler being handed in. Our October meeting resulted in four recordings in the district. In the Maryborough forest, particularly the northern side, Gilbert's Whistlers are common. This was not always the case as they were once quite rare. At the base of Sugarloaf Range two male Gilbert's were heard (4.9.82) several kilometres apart. The habitat was Grey Box, Yellow Gum woodland, and one was seen in a dense thicket of mallee wattle (A.montana). Other habitats frequented by Gilbert's Whistlers include Chinese scrub thickets and Hedge wattle (A.paradoxa). There was also a report of a Gilbert's Whistler from the Melville Caves area and one of our members had the pleasure of seeing one visit his back yard.

Other sightings for the October meeting were six Pallid Cuckoos resting on T.V. antennas in the Golden Square area (21/9); six Long-billed Corellas feeding on onion grass at Axedale (4/9); a lone Little Button-quail at Bamawn (19/9) and several reports of the Collared Sparrowhawk around the district.

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SOME NATIVE GARDEN!

by Tom Patullo.

According to a report in the "Irrigation Farmer", the largest Wildflower Garden in the world is being developed to the north of Perth, Western Australia. When fully developed, this garden for growing cultivated Australian native wildflowers will occupy six hundred acres.

Research has shown that controlled watering and fertilisation will extend the flowering season of most species to ten months of the year. The first area of one hundred and twenty six acres has already been developed, and planted with ten different species. The above area has soil of a sandy nature, with poor moisture retention, and has been planted at the following density per acre:-
Kangaroo Paws, 2750 per acre; Geraldton Wax, 1000 per acre;
Verticorda, 2750 per acre; Banksia, 520 per acre;
Dryandra, 900 per acre, and so on.

The whole six hundred acres will eventually be under computer controlled drip irrigation and fertilisation.

ENTOMOLOGICAL SOCIETY OF VICTORIA

The following letter from the Hon. Editor of the Entomological Society of Victoria was tabled at the October General Meeting, and is reproduced here for the information of members.

Dear President,

I recently gave a talk on Insects to a Melbourne based Field Naturalist Club and afterwards was asked if there was an Insect Club or Entomological Society in Victoria. As I am the editor of the journal produced by such a Society (The Entomological Society of Victoria) I was able to give relevant details about our society and it occurred to me that other Naturalists Clubs in Victoria may not know of our existance.

The Entomological Society of Victoria was first formed in the 1920's but interests waned until it was given a new lease of life in 1961. Since then it has grown into an enthusiastic Society of some 80 members from all walks of life brought together by a common interest in insects. Its ranks are made up of professional and amateur entomologists with both groups benefiting from each others knowledge and experience. The Journal of the Society is an excellent medium in which the amateur entomologists can publish observations and records without the imposition of strict constraints often applied by other scientific Journals.

The Society meets on a bi-monthly basis at Clunies Ross House, Parkville and holds periodic field excursions during the more favourable insect-active months. The Society is open to anybody with an interest in Entomology and welcomes articles for its journal that have a direct or indirect entomological basis.

We would appreciate if you would make our Society known to your members through this letter and the current issue of our Journal which has been included.

If your Club would like to continue to receive our Journal or if individuals are interested in finding out more about us please contact by mail or phone:

Dr. Tim New,
Hon. Secretary,
Zoology Department,
LaTrobe University,
BUNDOORA VIC 3083 Ph.(03) 479 2247 OR

Ken Walker,
Hon. Editor,
National Museum of Victoria,
71 Victoria Crescent,
ABBOTSFORD VIC 3067 Ph. (03) 419 5200

I feel confident there are many overlapping areas between our Societies upon which we could communicate.

Yours sincerely,

Ken Walker, Hon. Editor.

GENERAL ACCOUNT

Statement of Receipts and Expenditure for the Year Ended 31st August 1982

Receipts		Expenditure	
Balance in General A/c 1/9/1981	229.13	Whirrakee Production	722.26
Membership	1109.00	Whirrakee Postage	215.13
Whirrakee Subscriptions	48.00	Subscriptions	71.50
M. A. Ingram Grant	700.00	Petty Cash: Whirrakee Editor	17.49
Suppers	25.01	Secretary	13.78
Donations	71.50	Bird Group	5.00
Camping Fees	142.00	Mammal Survey Group	5.00
Publication Sales	54.00	Transfer to (Fixed) Deposit Stock	500.00
Deposit Stock Redempt.	1300.00	Mammal Projects	664.16
Interests: General A/c	10.67	Travel Expenses	15.00
Deposit Stock (Fixed)	349.79	Hire of Venues	45.00
Miscellaneons	62.00	Publications & Library Acquisit.	71.40
		A.C.F. Franklin River Fund	60.00
		Camp Toilet Tent	45.00
		Blank Cassette for Mirridong	8.00
		Insurance on Assets	52.43
		Items for Club Break-up	18.92
		Advertisement	3.25
		Repair of Typewriter	46.00
		Honorariums	35.00
		Post Box Rental	18.00
		Foolscap Paper for Bird Group	6.40
		Camp Fees for Axedale Rotary Camp	105.00
		Gestetner Duplicator	325.00
		Information Shelter, Salomon Gully	1000.00
		Bal. in Gen. A/c. 26/8/82	32.38
	$4101.10 CR		$4101.10 CR

Reconciliation with Bank Statement

A/c 6439-4439
Bank Statement
Credit Balance 26/8/82 32.38
Unpresented cheques: Nil
Cash on Hand:
Whirrakee Postage 11.11

$43.49 CR

Statement of Assets and Club Funds as at 26th August 1982

Assets:	General Account	32.38
	Fixed Deposit Stock	2000.00
	Petty Cash Whirrakee Postage	11.11
At Cost:	Library Books	262.48
	Typewriter	493.00
	Projector	70.00
	Specimen Cases (4)	8.00
	Case (1)	1.85
	Filing Cabinets	158.15
	Recorder	169.00
	Static Display Photographs	26.00
	Mammal Survey Group Equip.	1652.84
	Audiovisual (75 slides & 3 tapes)	106.00
	20 Reams Duplicating Paper	74.52
At Sale Value:		
	Whirrakee for Resale:	
	866 @ 50c	433.00
	41 sets Vol.1 @ $5.00	205.00
	32 sets Vol.2 @ $5.00	160.00
	Publications for Resale	193.00
	Sub-Total	$6056.33 CR
Less Liabilities - Nil		
	Total Club Funds	$6056.33 CR

PUBLICATION FUND

Statement of Receipts and Expenditure for the year 1981-1982

Receipts		Expenditure	
Balance in Bank 31/8/81	778.47	Total Balance in A/cs at 31/8/81	862.65
Interest	84.18		
	$862.65		$862.65

Balance Sheet as at 31/8/82

Liabilities		Assets	
Excess of Assets over Liabilities	1446.65	Balance at Bank at 31/8/82	862.65
		Stock: 584 magazines @ $1.00 (selling price)	584.00
	$1446.65		$1446.65

COMMITTEE REPORT FOR OCTOBER

The October Committee Meeting was held at the home of Helen Boon on 18th October.

1. "Eucalypts of Bendigo" to be ready for printing by the end of the year.
2. It was decided to send a set of mailing stickers to the Tasmanian Wilderness Society as requested.
3. The Mid-Murray notice of motion for the Clunes W.V.F.N.C.A. meeting regarding culling of wildlife was discussed. It was decided that our delegates should argue for a recommendation for increased funding for wildlife management research before any culling program is implemented.
4. Whirrakee mailing wrappers are being investigated as a result of stricter requirements by Australia Post.
5. C. Bunn is to act as liason person with the National Trust Landscape Committee.
6. A syllabus committee meeting is to be held at John Lindner's on Monday 8th November at 8.00 p.m.
7. A January General Meeting is to be held again provided suitable films can be arranged.
8. A suggestion was made that mid week excursions be considered during Spring for those able to participate.
9. Possum Books are to be invited to display a range of natural history books at the February meeting.
10. It was decided that we should participate in the 1983 Flower Festival subject to suitable conditions prevailing.
11. The Club is trying to obtain a copy of the Forest Commision publication "List of Rare, Very Localised and Endangered Indigenous Plants of Victoria" by J. Willis.
12. The Club is to write to the Minister for Conservation expressing concern regarding the management of the Sandhurst-Coliban Aqueduct Water Reserve.

PUBLICATIONS RECEIVED

1. N.P.P.S. Newsletter No.49 Oct. 82.
2. The Bird Observer No.609 Oct. 82.
3. Habitat Vol.10 No.5, Oct. 82.
4. A.C.F. Newsletter Vol.14 No.9 Oct. 82.
5. Parkwatch No.130 Spring 82.
6. Ballarat F.N.C. Excursion - News Sheet Oct. 82.
7. The Australian Bird Watcher Vol.9 No.7 Sept.82.
8. Environment Victoria No.43 Sept.82.

BENDIGO FIELD NATURALISTS CLUB

Address for correspondence, P.O. Box 396, Bendigo 3550.

Office bearers for 1982-1983

PRESIDENT	Eric Wilkinson	7 Weatherall St.Cal.Gully	46 8736
SENIOR VICE PRESIDENT	Rob Moors	Sedgwick	39 6254
JUNIOR VICE PRESIDENT	John Lindner	62 Simpsons Rd.E'hawk	46 7132
SECRETARY	Laurie Leeson	76 Lawson St.,Spring Gully	43 0521
ASSISTANT SECRETARY	Rod Fyffe	546 Hargraeves St.Bendigo	43 7673
TREASURER	Glenise Moors	Sedgwick	39 6254
MEMBERSHIP OFFICER	Win Demeo	Kamarooka	36 9226
EXCURSION ORGANISER	John Lindner	62 Simpsons Rd.,E'hawk	46 7132
LIBRARIAN	Helen Boon	Kamarooka	36 9252
EDITOR	Eric Wilkinson	7 Weatherall St.Cal.Gully	46 8736

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Membership of The Bendigo Field Naturalists Club is open to all those interested in natural history. The membership subscription rates are Single $9.00 , Family $13.00, Pensioner and children, $6.00 Whirrakee subscription only, $8.00.

General Meetings are held on the second Wednesday of each month at the Conference Rooms, Department of Agriculture, Midland Highway, Epsom. Meetings start at 7.30 p.m., and conclude with supper. The Annual Meeting is held in September.

Excursions The assembly point for excursions is outside the Special Services Complex in Havlin St. East, Bendigo, unless otherwise specified. Full day excursions normally commence at 10.0 a.m.,(usually on a Sunday). Half day excursions normally commence at 2.0 p.m., and may be either a Saturday or Sunday. Day or half day excursions are usually held on the weekend following the General Meeting. Campouts held several times in a year, usually co-inciding with long weekends or holiday periods.

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The B.F.N.C. has two active sub-groups.

The BIRD OBSERVERS GROUP meets on the first Friday of the month at the Agriculture Department, Epsom, at 7.30 p.m.
President: John Berry 22 Barrell St., Eaglehawk 46 9921
Secretary: Harvey Rich, 58 Dundas Rd., Maryborough 61 1698

The MAMMAL SURVEY GROUP meets on the third Thursday of each month, (or fourth Thursday when third Thursday is day after general meeting) at 8.0 p.m. in member's home as announced in the monthly diary.
President: Berry Vardy, Rocky Rises Rd., Maiden Gully, 49 6214
Secretary: John Lindner, 62 Simpson's Rd., Eaglehawk 46 7132

MR &MRS R B ALLEN
20 HOUSTON ST.
BENDIGO
3550

- DIARY -

MEETINGS

November 10th — Speaker: Graham Hill
Subject: "Mammals of the Bendigo area, and activities of the Mammal Survey Group."

December 8th — Christmas Social at Burnett Lounge, B.C.A.E., Osborne St., commencing with B.Y.O. casserole tea at 6.30 pm. Our Christmas socials are always pleasant, friendly occasions, and an opportunity for newer members to get to know older members, and gain a greater feeling of "belonging". So please come along and enjoy yourself.

EXCURSIONS

Saturday No.13th
Late afternoon & evening — Mt. Alexander, for habitat examination, barbeque tea, and spotlighting for mammals.
Leader: Graham Hill.
PLEASE NOTE CHANGE OF DATE. This excursion has been moved from Sunday to Saturday in consideration of families with school age children.
Meet at Havlin St. at 5.0 p.m. If you are unable to come in time for the barbeque tea, but would like to join the spotlighting, be at the Koala Sanctuary car park by 8.30 p.m. Be prepared for very cool conditions, even if the day has been warm, and bring torches, and binoculars if you have them. Mammal Survey Group members will have spotlights.

Sunday Dec.12th — English's Bridge, Campaspe River
Leaders: Graham Hill, John Lindner
(Picnic tea, swimming and canoeing - river conditions permitting)

BIRD OBSERVERS GROUP

Fri. Dec. 3rd — Speaker: Mr Keith Richards, from the Bird Observers Club.
Subject: "Birds of the drier inland"
Mr Richards is one of Australia's top bird photographers and features in Peter Slater's book "Masterpieces of Australian bird Photography"
Bird of the Night: Crested Shrike-tit.
7.30 p.m., Dept. of Agriculture, Epsom.

MAMMAL SURVEY GROUP

Thurs.18th Nov. — This meeting will be held at the Holsworth's place, 13 Nabilla Crescent.

Final meeting for the year, and break-up, will be on Friday 17th December at the Hill's place, 31 Curnow St., Golden Square, starting 6.30 p.m. B.Y.O. tea.

COMMITTEE MEETING

Mon.Nov.22nd at Ian Brown's home, Curnow St., Golden Square.