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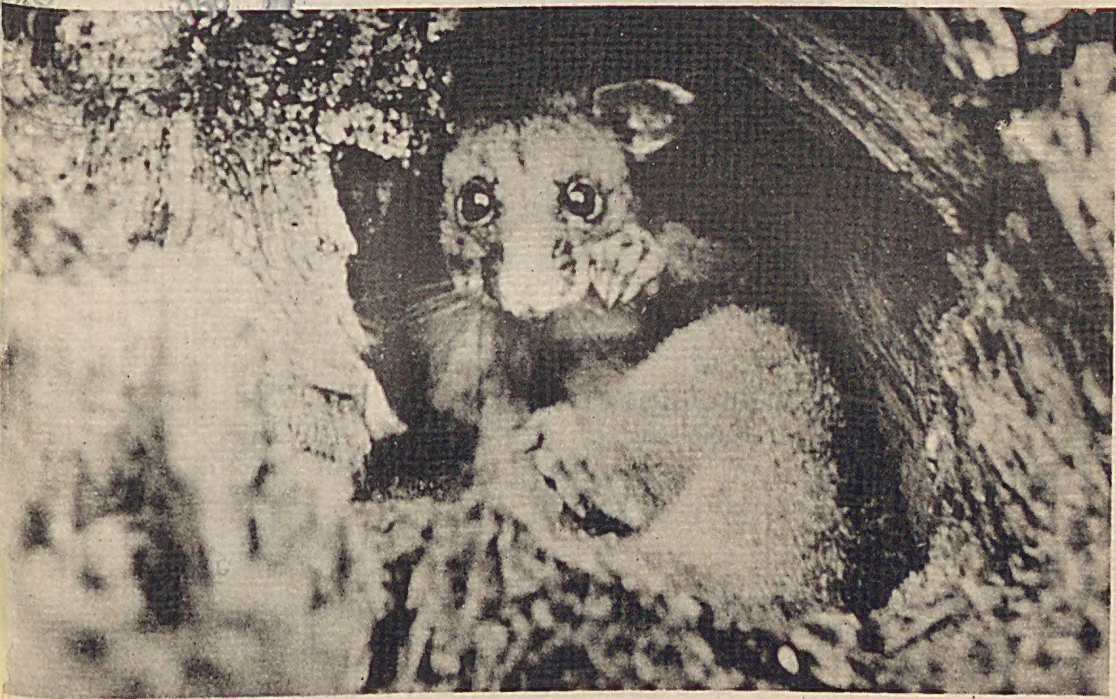
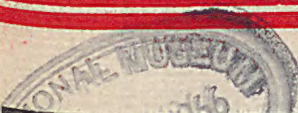




GEELONG NATURALIST



JOURNAL OF THE GEELONG FIELD NATURALISTS CLUB



SILVER-GREY POSSUM

HON. EDITOR: TREVOR PEScott

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The Statements and the opinions contained in the papers published in this Journal are the responsibility of the respective authors.

MEMBERSHIP

Membership of the G.F.N.C. is open to any person interested in Natural History. The "Geelong Naturalist" is distributed free to all members, and the Club's reference and lending library is available.

Subscription Rates are:
(Due on 1st April)

| | Per Annum |
|----------------------------------|-----------|
| Adult Membership | \$2-00 |
| Joint Membership | \$3-00 |
| Junior Membership | 20¢ |
| Subscription to Magazine | \$1-00 |

COVER PHOTOGRAPH

Silver Grey Possum.

Photograph by Eric Bound.



GEELONG NATURALIST

EDITORIAL

Vol.3. No.1.

April 1966.

The speaker at the March meeting of the Geelong Field Naturalists Club, Miss Banks, made mention of quite a remarkable feature in bird conservation in Poland - a cormorant sanctuary. This group of birds, the family Phalacrocoradidae, has a world wide distribution, yet this island sanctuary where the cormorants breed unmolested must surely be unique. One can imagine the long and very loud complaints we would raise in Australia if we suggested even partial protection of any one of our five cormorant species. Yet the habits of the various Phalacrocoradidae species throughout the world must be reasonably parallel, with the smaller members of the genus being useful rather than destructive.

How standards vary throughout the world, even throughout our own continent.

Recently, it was reported that an area of several thousand square miles of land in Australia's much publicised centre and north would become a reserve - yet we cannot preserve more than two hundred acres of the unique Cuthbertsons bush near Ocean Grove. Perhaps there are fairly reasonable comparisons, when we consider areas, land values, settlement and adjacent population, yet what a contrast.

But are we really doing all we can to help conservationists bring about protection to our priceless native environments? Is there any way we can do more to preserve those things we are sure must be protected from despoilation and annihilation?

With the issuing of this Journal, the first of the third volume, we enter a new Club year. Perhaps we could all make a resolution to look deeper into, and to learn the real meaning of conservation, then try to make what ever contributions possible to the cause of nature protection. To achieve a full program of conservation, we must first of all understand what it entails - then work towards fruition of it as strongly as we can.

TREVOR DECOOTE

GEELONG FIELD NATURALISTS CLUBPRESIDENT'S REPORTOUR NEED FOR MORE NATIONAL PARKS:

Recently I addressed one of Geelong's Apex Clubs and this was the text of that address, which I pass on to members of this Club for consideration and thought:

Australia, despite its youth as a settled continent, in almost a century and a half, has greatly felt the impact of development. Each year, countless thousands of acres of our precious bushland has been cleared, and will continue to be cleared for many years to come.

With the clearing of each acre of bush, the loss of habitat for nature's creatures and its plantlife is considerable. Some of our creatures may be lucky enough to find some form of re-adjustment in new areas but what of our plants, such as orchids and other wildflowers; unfortunately they become lost forever. We may well ask, what are we doing to counter this loss?

The term 'National Park', in this state of Victoria, goes back many years, in fact to the last century, when in 1887, our first National Park was reserved and this was at Fern Tree Gully. As the years increased, more and more areas were set aside so that today, in 1966, we have a total of 20 National Parks, varying in size from the small Mt. Eccles National Park of 80 acres to Wyperfeld National Park of 140,000 acres.

Prior to 1957, our National Parks were controlled mostly by committees of management and through lack of funds and general overall management, little development was undertaken. For many years, naturalists and their societies pleaded with parliamentarians for the establishment in this state, of an overall Government Department for control and development of National Parks. Finally in 1956, the necessary legislation was passed for this control and in 1957, the National Parks Authority became the statutory body to carry out this work, with noted naturalist, the late Crosbie Morrison as its first chairman and director.

If you look at any National Parks map of Victoria today, you will see that some areas of this state are well catered for, whilst others are not. Our Capital, Melbourne, is quite well served with Kinglake. Fern Tree Gully and Churchill National Parks, all within an hours run of that city.

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GEELONG FIELD NATURALISTS CLUB

PRESIDENT'S REPORT

In the eastern part of the state, Gippsland, East Gippsland and the North-east have a total of 9 National Parks at their disposal.

The far west and Wimmera-Mallee are served with 6 National Parks.

But what of our mid central and mid western regions. Here we have the three largest cities outside Melbourne with a total population of almost a quarter of a million inhabitants and not one National Park to serve any of them. Bendigo and Ballarat have their State Forests almost to their back doors, but these have been scarred by mining and wood-cutting to such an extent that much of their original beauty has been lost. Ballarat, recently, was presented with two Flora and Fauna Reserves in the Enfield State Forest, a total of almost 900 acres. Unfortunately, in the recent bushfires of that region, both reserves were completely gutted.

Here in the Geelong region, we have the very lovely and attractive Brisbane Ranges, an area unsurpassed for its wildflowers and orchids.

Ten years ago, the machinery was set in motion for part of this area to become a National Park, and as each year rolls by, the interested parties are told that it just has to be gazetted. No doubt, it now appears to have been lost in the traditional 'red-tape' and 'pigeon-holes'.

We have our popular You Yangs to the north of this city, now a Forest Park with an area of 1,200 acres and with some 700 cars visiting that area each weekend it is gratifying to know, at last, with the aid of the Tourist Development Authority, some form of water supply with much needed sewerred toilet blocks, improved roads and walking tracks are to be provided. This area is not a National Park and outside the actual reserve area, means of development can take place as has been done in the past.

We may consider ourselves lucky that we have the Otways within an hour or so run in your car but much of this area could be open to forms of development as it is not a National Park. The same applies to the Grampians and one has only to visit the Halls Gap region to see what has been going on there during recent months.

On the Bellarine Peninsula, we had the opportunity of preserving a precious square mile of virgin bushland but our public support was

GEE LONG FIELD NATURALISTS CLUBPRESIDENT'S REPORT

disappointing and we will have to be satisfied with less than a third of that area for a nature reserve and without the sure control of the National Parks Authority.

One has only to travel the roads of Anglesea to see what has happened in recent months and in the months to come much more is to happen.

This Anglesea bushland may not be as attractive as many of our other areas in this state, but our Gum Flat survey revealed how valuable such areas are in both fauna and flora. This too appears to be lost.

Overseas, there has been a big awakening to the awareness of preservation. If I may quote: The United States of America has reserves totalling 20,000,000 acres with another 6,000,000 acres about to be added with another 60,000,000 acres under consideration as 'Wilderness Reserves'.

In this state of Victoria, our National Parks system comprises less than 400,000 acres, a total of 0.67 per cent of the total area of the state. This is an alarmingly low figure of preservation.

The purpose of National Parks, is to protect and preserve indigenous plants, birds, animals and features of special scenic, scientific, and historical interest. Also to maintain the existing environment of such parks and to provide for the education and enjoyment of its visitors.

As the Late Crosbie Morrison once said 'Give us more National Parks, we can never have too many'.

J. R. WHEELER,
President.

JUNIOR SUBSCRIPTION

Notice was given at the March meeting of a motion to be brought before the Annual meeting in April 1966. The motion is that junior membership rates be raised to 50 cents.

If passed at the meeting, the motion will make the new rate effective immediately, that is that membership will cost juniors 50 cents in the 1966-67 year. This subscription will still include the four copies of "Geelong Naturalist" each year.

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GEELONG FIELD NATURALISTS CLUB

FIFTH ANNUAL REPORT

In presenting the Fifth Annual Report we review another year of success and advancement in the Club. Through the interest and enthusiasm of the members, the name of the Geelong Field Naturalists Club has become even more widely known, and we now have connections over a wide area of the world.

MEMBERSHIP: The total membership continues a steady growth and now stands at over 350. There is a large junior membership who are very active and helpful and who show increased participation in meetings and other club activities.

COMMITTEE: A major change in the Committee occurred this year when Mr. Trevor Pescott resigned his position as President and, at the Fourth Annual Meeting, Mr. Jack Wheeler was elected as the new President of the club. Mr. Pescott is now the Honorary Editor of "Geelong Naturalist". During the year Mr. Tom Fletcher resigned from the Committee prior to his taking up residence in New Guinea. The resignation of Mr. Tingate has also been received.

GENERAL MEETINGS: The General Meetings have been well attended throughout the year and we have welcomed many visitors from interstate and overseas. The interest shown by members in bringing exhibits to the meetings has increased and this aspect is now a major feature of the evenings.

The Fourth Annual Meeting was followed by a Members Night and those contributing this year were Messrs. Andrew, Pickering, Dulfur and Fallow.

Geologist and former member of the G.F.N.C. committee, Mr. Stan Rowe delivered the first lecture of the year. This was entitled "Geelong Geology" and was a basic outline of the Geology of the surrounding districts.

The difficulties encountered in the Plant Quarantine section of the Department of Agriculture was discussed by Mr. John Barnes of that Department who showed many interesting exhibits as illustrations.

A meeting with a difference was held when Mr. Ross Scott spoke on Gemology. The members were fascinated by the many precious and semi-precious stones he had on display.

Mr. Harold Tarr, Chairman of the Committee of Management of the Wyperfeld National Park showed maps and coloured slides to illustrate

GEELONG FIELD NATURALISTS CLUBFIFTH ANNUAL REPORT

the confines and topography of the park and then proceeded to describe the general features in detail.

The Director of the Royal Botanical Gardens in Melbourne and Victorian Government Botanist, Mr. R.T.M. Pescott, spoke to the Club on the functions of a Botanical Garden, growing native Australian plants in the home garden and finally, showed slides of Botanical Gardens in England, Scotland and Europe.

A very popular speaker to the Club, Mr. J. Willis, chose as his subject this year, seven of Victoria's National Parks. He discussed many aspects of these parks and showed film depicting the indigenous fauna and flora.

Dr. John Agar's subject was Aboriginal Cave Paintings and he discussed various caves, most of which occur in the Grampians area.

Members taking part in the Symposium on Anglesea were Messrs. Pescott, Rowe, Carr and Woodland. They particularly dealt with the Gum Flat area.

Another Members night was held .. this time lead by Mrs. Ling, Messrs. Memmott, McCarthy, Gaynor, Pescott and Wheeler. Each member showed slides or movie film.

The final meeting of the year was an account by Miss Joan Banks of her recent trip through China, and Russia to attend a Conference on Limnology in Poland.

EXCURSIONS: The highlight of the year was the first weekend "Camp-out" held by the Club. This was held at Rocklands Dam near Balmoral and proved to be a highly successful and enjoyable weekend.

Monthly excursions have been held to Inverleigh, the Otway Ranges, Modewarre, Mt. Rothwell, Brisbane Ranges, Enfield, Botanical Gardens in Melbourne, Gum Flat, Aireys Inlet and the Bellarine Peninsular.

LIBRARY: This year has seen many new additions to the Library and this includes many donations. The committee wishes to express sincere thanks and gratitude to the donors of books and periodicals. These include Mr. and Mrs. Hunt, Mrs. North, Messrs. Baldwin, Tingate, Warneke, Dulfur, Newberry, Thompson and Mrs. Jones.

CLUB ACTIVITIES: "Photoflora 66" was again screened in Geelong under the auspices of the Club, a major award was presented to

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GEELONG FIELD NATURALISTS CLUB

FIFTH ANNUAL REPORT

Mrs. Ling by the Vice-President of the Native Plants Preservation Society, Lady Fitts. Other Club members having slides accepted in the competition were Miss Poole and Mr. Bound.

The "Geelong Naturalist" is maintaining the standard set in the first year and sincere thanks are due to the Editor, Mr. Trevor Pescott for his untiring work to ensure this. Thanks are also due to those members and friends of the club who have presented articles for publication in the journal.

Congratulations to Mr. Wheeler for the monthly News sheet which is available at each meeting and which contains details of activities and general interest and the plans for the forthcoming excursion.

Thanks are due to boys at the Geelong Grammar School for days spent pulling the African Bone Seed at the You Yangs and at Lilydale, Batesford. The annual Tree-planting was again held at the You Yangs in conjunction with the Bird Observers Club.

Particular thanks are due to all who have made material and monetary donations to the Club throughout the year. Mr. and Mrs. Layland have donated a bell for use at the meetings and a cage for injured birds and Mr. Woodland has donated a notice board.

The deaths of two members was announced during the year. They were Lady Belcher in Africa and Mr. George Hope in Geelong.

Cards signed by club members have been sent to many members who have been ill during the year, Mr. Owen Andrew who broke his leg while on a Club excursion has made satisfactory progress and has now almost completely recovered.

A junior essay competition was held during the year. The winner of the senior section was Geoffery Vincent and Michael Schwartz was winner of the junior section. Congratulations to these two members.

At the December general meeting, members were asked to bring a cup and saucer as a donation to the club. As a result of this, we now possess approximately ninety sets for use at meetings.

In concluding this brief report of some of the clubs activities I wish to acknowledge the tireless work done by our President, Mr. Jack Wheeler, throughout the year, and express our sincere thanks for his devotion to the club and to the cause of preservation of

GEELONG FIELD NATURALIST CLUBFIFTH ANNUAL REPORT

our Natural heritage. As we enter another new year, I call on all members and associates to support Mr. Wheeler and to support the Geelong Field Naturalists Club in their every endeavour to "stimulate interest in Natural History and to preserve and protect Australian Fauna and flora".

VOI BOARDMAN,
Honorary Secretary.

A BOOK REVIEW

"The Senses of Animals and Men" by Lorus and Margery Milne.

Published by Andre Deutsch, 1963.

Reviewed by (Mrs.) W. E. Gibson, Highton.

This book has a kaleidoscope of interesting facts from how some birds navigate by stars to four eyed fish that swim at the surface, upper pupils exposed to air, lower pupils to view under water enabling it to prey in both worlds.

The authors relate the senses of animals to man and suggest ways to harness the senses of insects. For example the International Locust Control Commission is testing to see whether locusts can be kept flying till exhaustion and death by continuous relay of flight noises to them. It may also be possible to monitor information into commercial bee-hives so that bees are directed to particular blocks of trees in good weather conditions.

Unfortunately the authors do not recount the experiences and experiments in finding some of the information. One wonders whether vipers will in fact never cross a lariat encircling a sleeping man or whether it is just a cowboys hope.

There is probably too little detail for the ardent naturalist. His interest will be whetted as to how salamander find their original pool after being transplanted to another pool 11,000 feet below and 3 miles away when the authors switch to ants.

The illustrations are inadequate. Photographs and diagrams could have been used to advantage.

The final chapter "Survival" gives food for thought, "Before we become used to replacing human senses with machines, we should be sure that the change is in our best interests."

The book opens wide horizons to the naturalist and would be far more meaningful to those who have already taken some interest in nature. Well worth while if you want to learn and understand more of yourself and animals as well as be presented with unsolved riddles.



SHORT-TAILED SHEARWATER



YOUNG SHEARWATER

BEACH WALKS
By C.J. Gibson

Geelong
Naturalist

"What is it?" said Alan as he noticed a rather unusual object on Fishermans Beach. It seemed a little different to the many bunches of seaweed that were strewn all over the beach. Alan's thoughts given vocal expression had drawn his companions attention to it also and so both Alan and Bruce went over for a closer inspection. "Just another bird," said Bruce, "you often see dead birds along the beaches."

Actually Alan hadn't seen any before so he was going to have a closer look at this one. It was quite a large bird - about 18" long from beak to tail and it had a wing span of a little over three feet he reckoned. It was probably slightly larger than the silver gulls commonly seen about the district. But this bird was quite different in colour, being very dark sooty brown - very dark, almost black on top but several shades lighter underneath. He noticed webbed feet extended just beyond the tail and as he inspected them he discovered a metal band on one leg.

Even if Bruce had seen all the dead birds he wanted to he hadn't seen a metal band on any of them - perhaps because he hadn't looked closely enough. He did look at this one though - the first either of them had seen and they were wondering what it all meant.

Alan opened the metal band with his knife and took it off to read on it "write Fauna Board, Hobart, Aust. No. 23566". Naturally enough many questions came to their minds and they discussed these for some time, but there was one obvious thing to do to find out more. On November 21 Alan wrote to the Fauna Board and on December 14 (1964) got a reply from Miss Cox, Secretary of the Animals and Birds Protection Board, Hobart, Tasmania to say that the "mutton bird was banded at Babel Island as a fledgling between March 11 and 14, 1956."

"So it was an 8-1/2 year old mutton bird from an island off the Tasmanian coast," said Alan as he was again walking along the beach with Bruce. "You never know just what you will find if you keep your eyes open. And since finding that band on that mutton bird I've been much more observant too."

Bruce admitted that he too had been more observant and that as a result he could now count quite a high tally of different things that he had found on various beach walks - such things as shells, even including one Nautilus which he was told was rather rare, being a good specimen; and, of course, plenty of seaweed, but now he could list and describe well over a dozen different types; and there were always some birds it seemed that were washed in from their last flight - these included a diving petrel, some storm petrels, a gannet, fairy prions, and many penguins. That is not to mention the variety of flotsam and jetsam apparently from passing ships - some timber useful for the winter fires of those willing to collect it and thus also clean the beaches, but the rest like the bottles and tins and plastic bags, and bottles left by picnic-ers - just rubbish littering the beaches.

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BEACH WALKS

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Well, quite apart from the healthy exercise for the dog and of course oneself, beach walks can be very instructive and interesting - perhaps exciting for those with an inquiring mind ever restless to know more about what they see.

CUCKOO AND SWALLOW'S NEST

By Oonah McHaffie

Park Orchards

Soon after reading Mrs. Joyce Hunt's notes in the Journal of April 1965, in which she comments on the difficulties of a mother cuckoo depositing her egg in a tomtit's nest, I thought of your readers who have not perhaps read Mary Gilmore's "Old Days: Old Ways" might be interested in her account of a cuckoo depositing an egg in a swallow's nest. The book was published in 1934 but the incident she wrote about took place in her childhood in the seventies.

I will quote from the book itself :

"One day, tidied for the afternoon, and sent out to the already cleared door-yard to learn my lessons and mind the baby, I was startled by the sudden dart of a restless bird straight out of the bush to the newly-made swallows' nest. My impression was of a driving intent and a proposed trespass. As this was always associated with hawks; as the bird's manner rather than its form impressed me; and as the swallows were in commotion (in antagonism rather than alarm I do remember), I called out that a hawk was at the swallows. My mother came out with the broom, and the bird made off. She watched it as it flew, and suddenly she said: 'That is not a hawk; it's a cuckoo!' She then informed us that it was the first she had seen since she had lived as a girl with her parents at Mount Gilead on the coast; told us all about cuckoos and their ways; and bid us watch for the bird the next day, as it would come back about the same time, and we would see it lay its egg in the swallow's nest.

The next day three of us were on watch, and from the same strategic point in the timber out shot the bird again. There was a tremendous commotion of swallows' wings and cries, and of fighting, darting, hovering, and poising cuckoo. But the swallows were victorious; the cuckoo dropped her egg short of the nest and it was smashed. Later we found the day before's egg intact in the grass

CUCKOO AND SWALLOW'S NEST

where it, too, had fallen in the previous skirmishing attempt.

The third day came, and there was but one swallow on the nest when the cuckoo made her last desperate attack. Before the cock swallow could be called home the stranger had flown at the nest; measured space, time and height; hovered an instant with beating wings; pivoted; turned and shot the egg backwards into the nest. I saw the whole thing. Then the cuckoo-bird flew off and came no more.

Looking back and considering the occurrence I should say that, in order to eject the egg with some degree of security, the cuckoo must have a conscious or an unconscious sense of trajectory, and stronger ejection muscles than other birds whose eggs need only drop. The space crossed by the egg must have been an inch and a half or more; the bird did not at any time touch the nest. There had been space to wheel; in that movement dodge the resisting sitting swallow; retain balance, power, and steerway both for immediate action and for the off-take for the hurried flight that followed. Except for her beating wings, her motion was the opposite of that of a hawk in the hover before his downward thrust or bolt.

We waited for the hatching. First came the swallows, all beak and no noticeable brains. Then unaccountably to us one morning a dead swallow lay beneath the nest; next day another fell, and another after that. Then I saw a frightful object such as I had never seen before. It rose wobbly and looked over the edge of the nest; an evil thing with a great bald head, speculation, inquiry and menace in its appearance. I screamed at the sight of, to me, the unnatural thing, and cried out: 'There's a horrible kind of snake! Come quick! It is in the swallows' nest!'

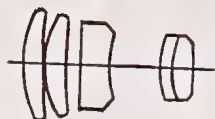
My mother came and looked at it as it rose up again. 'That is the young cuckoo,' she said. Later my father explained how it pushed down in the nest, so that it held the lower place, and then, rising, shouldered out the young swallows."

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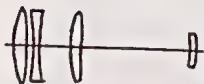
"Looking back I should say that, judging by my mother's certainty as she told us to watch for the cuckoo to lay its egg, there was no doubt in her day as to how it was done. In any case the blacks knew all about it. The doubt of method arose in later years

(Continued on Page 14)

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CUCKOO AND SWALLOW'S NEST

because birds fled from the white man who destroyed them, moving off at sight of him. So, the later sparsity of bird life lessened the once easy conditions of observation.

Cuckoos feared neither children nor houses in my mother's day, and certainly not in ours.

That the bird laid three eggs, so to speak, and only one in a nest, makes one regard the question of what the effect on feathered life would be if every cuckoo egg were safely deposited and hatched! But apart from this, it is certain that only a limited number of cuckoo eggs can be safely placed, or the birds would be more numerous than they are and observation easier. For I do not doubt that if a hen-cuckoo were dissected, at laying-time, she would be found to contain as many embryo eggs as any other bird of her type and manner of feeding. Then the old European belief, that a cuckoo laid only one egg a year because she could not lay more would go by the board. She drops her full complement as is shown in the case I record, even though two were lost. But one young devil is all that any nest would hold, as the stronger of two, if two were hatched, would pitch the other out.

This raises the question of whether or not a cuckoo knows how many eggs she has laid and lost, or if she intentionally drops but one in any nest. Furthermore there is the almost certain fact of intentional memory which regards the days of failure, so that the bird continues to visit the nest chosen till an egg is at last safe, and her sense of duty satisfied.

One other thing; it would be interesting to know if the ejective mustles of a cuckoo were stronger or different from those of other birds, or if the egg is safely deposited purely by balance and a measuring of distance. However, these are questions for the nationalist, and the subject may be left at that".

So ends the chapter in Mary Gilmore's book from which I have quoted. It may be very elementary to a naturalist but I found it very interesting reading, and others, not conversant with the book or cuckoos, may do so also.

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1966

15.

A BOGGED KANGAROO

By H.E. Daniels

Albany, W.A.

Two friends and I were upon a seed collecting safari by Landrover along the southern coast of Western Australia.

Whilst crossing the mouth of a tidal estuary we became hopelessly bogged and spent many hours jacking up the vehicle, packing timber beneath, cutting sticks to "corduroy" the track and despondently enduring all the frustration, sweat and tears of such a situation.

Surprised we looked up to see an old man kangaroo approaching us at a very leisurely pace. He came slowly hopping till he was only a couple of chains away from our vehicle. There he stopped balanced upon his tail and swaying slightly at the hips. With head cocked airily on one side he looked at us, as if to say "How in the Hec did you get yourselves into that terrible mess?"

After surveying us for a while in calculating silence, he hopped off again without fear or hurry, but mistakenly chose to go out along a peninsula of land, which jutted out into the waters of the estuary.

Realising that water was cutting off his escape from every side, he once more stopped and surveyed the situation, again looking back towards our vehicle.

The Old Boomer then made another bad decision, he decided to cross the channel of shallow water to the next parallel peninsula.

For sure the water was shallow, but the mud was deep, in fact goodness knows if it really has any bottom at all, and before the Old Boomer had gone very far, he was in real trouble.

After a half dozen hops, his hind legs were driving straight down into the deep black slimy ooze and most of his body was disappearing from view.

Threshing the water with his fore paws the Old Boomer threw himself forward and proceeded to emulate Johnnie Weismuller by doing a "crawl". By clawing at the water and mud in front of him and flexing his hips he managed once more to get the bulk of his big body out on to the surface again.

For a few yards he contented himself by crawling flatly forward over the slimy mud surface, but gaining confidence he decided to try some hopping again, and once more he was down again to his arm-pits.

(Continued on Page 18)

STATEMENT OF RECEIPTS
ENDED 14th

Receipts.

| | |
|-----------------------------------|----------|
| Members Subscriptions & Donations | \$510-43 |
| Geelong Naturalist Sales | 56-90 |
| Sale Club Badges | 15-00 |
| Sales of Various Magazines | 19-40 |
| Advertising - Geelong Naturalist | 36-00 |
| Bank Interest | 6-83 |
| Proceeds - Photoflora '65 | 57-00 |
| Photoflora '66 | 55-20 |
| Rockland Excursion Surplus | 16-05 |
| Wilson Prom. Excursion - Deposits | 13-00 |

\$785-81

\$785-81

| | | |
|-------------------------------------|-----------|-----------------|
| Balance of funds at Bank at 15/3/65 | £74/1/1 = | \$148-11 |
| Surplus for year | | <u>147-59</u> |
| | | <u>\$295-70</u> |

| | |
|---|----------|
| Balance of Funds at 14/3/66 at State | |
| Savings Bank (as per Bank Reconciliation) | \$295-70 |

I hereby certify that I have examined the Cash Book and Vouchers of
of Receipts and Expenditure gives a true and fair view of the Club's

NATURALISTS CLUB& EXPENDITURE FOR YEAR
MARCH, 1966.Expenditure.

| | |
|--|--------------------------|
| Magazine & Newsheet Costs | \$332-58 |
| Rentals (Net) | 108-55 |
| Printing & Stationery | 17-94 |
| Advertising | 3-07 |
| Cost of Sundry Magazines | 24-91 |
| Photoflora '65 - Refund N.P.P.S. | 42-00 |
| Donation - V.N.P.A. | 10-50 |
| Subscription - F.N.C.V. | 4-00 |
| Library Books | 8-95 |
| Presentation | 7-00 |
| Cupboards & Furniture | 42-17 |
| Petty Cash Expenditure (including Postage) | 36-55 |
| | <u>\$638-22</u> |
| Surplus for year c/d. | <u>147-59</u> |
| | <u>\$785-81</u> |
| | <u><u> </u></u> |
| Balance of Funds at Bank 14/3/66 c/f. | \$295-70 |
| | <u> </u> |
| | <u>\$295-70</u> |
| | <u><u> </u></u> |

(Sgd.) I. WOODLAND.

Hon. Treasurer.

the Geelong Field Naturalists Club, and that the attached statement financial position for year ended 14th March, 1966.

(Sgd.) G. M. GILBERT A.C.I.S. A.A.S.A.
Auditor.

A BOGGED KANGAROO

Again and again he went through the procedure of sinking himself in the mud up to his neck and several times we felt sure he would remain there, but persistently he would again adopt the "crawl" technique and get himself once more out and on to the top.

Finally he got to the other bank and for a while just lay there panting and distressed and looking like some old man, who had just suffered a "coronary". Shakily and slowly he once more got himself up on to his hind legs and sat there shining in the sun with his whole body completely covered with the black oily slime.

After he had rested a while he began once more slowly to hop away, and appreciating his fine exhibition of persistency and fortitude we expressed our appreciation by shouting at him and clapping our hands. He stopped again and gave one final disdainful look in our direction and there would be no doubt that he was thinking "What is all the clapping about fellows? I am out and on my way, but you silly blighters are still stuck there, right up to your blinkin' axles."

AT RANDOM
"ON AN EXCURSION"
By George Layland

As the cars moved into Gum Flat on such a sunny day for lunch, it was a thrill to hear and see the birds in the trees overhead as they seemed to welcome us.

Unfortunately, all this was to change soon afterwards to the monotonous and depressing sound of the saw and axe on those very trees near by. Yes! All in beautiful Gum Flat on our last excursion for 1965.

WORKING NIGHT SHIFT
By Joyce Hunt, Paraparap.

In Southern Cross - an old mining town in Western Australia, some swallows were noticed working night shift!

We were walking down the main (?) street about 9 p.m. one September evening when we noticed a nest under the verandah of a shop. Outside the shop was a Neon light, around which were myriads of insects. The swallow parents were busy catching these and carrying them to the nest. We watched them for quite a long time; evidently the chicks were very hungry, but surely 9 p.m. is rather late for baby swallows to have their supper! Have any other members noticed cases of night-feeding like this?

OCEAN GROVE NATURE RESERVE: Approximately 200 acres of virgin bushland, known generally as Cuthbertsons, has been purchased by the Bellarine National Park Committee. The area selected is that portion of the north-west sector approximately half a mile west of Grubb Road. A chain wide access road will be provided from Grubb Road to the reserve. The area has now been surveyed and will then revert to Crown Lands under the control of the Lands Department. A committee of management will then be appointed. When this is finalised, it is planned to completely fence same with a vermon proof fence.

It is hoped then that a complete inspection of the area will be made for the purpose of classifying its plant, animal and bird life and to publish the lists in this publication.

BIG INFLUX OF NANKEEN NIGHT HERONS: Over the last thirty years, a small roost of Nankeen Night Herons has been regularly maintained on the property of Mr. D. O'Halloran of Leopold, in a homestead patch of pines, a quarter of a mile from Reedy Lake. During early November last, Mr. C. Ling noticed many of these birds roosting near bee-hives near the O'Halloran homestead and an investigation revealed no less than 150 birds roosting there. Mr. O'Halloran himself didn't realise the birds were in such numbers until he was shown the birds at roost in the trees near the homestead. Most were in adult plumage whilst several appeared to be last seasons birds in immature plumage. The nearest known rookery of Nankeen Night Herons is at Queens Park near the Fyansford Cement Works. Some 20 birds have been roosting and breeding there for at least three years now. Their roost is in a cluster of several 'nut' pines, situated on the golf course in Queens Park.

BANDED STILTS RETURN: It was on 27th October last that a large flock of Banded Stilts were observed on the salt pans at Moolap. Flocks were difficult to count as several groups were intermingled with flocks of Red-necked Avocets but it was estimated that they numbered between two and three thousand. The last influx of this species to Moolap, was in October of 1958, and remained in the area for almost twelve months. This latest group has many immature birds and several have been noticed to be changing to adult plumage with the broad chestnut chest band just showing up. Few breeding areas of the Banded Stilt in Australia are known. Lake Grace and Lake King of Western Australia and Lake Callabonna in South Australia have been nesting places but spasmodic reports of breeding in other areas is known. Some confusion can occur in identifying immature birds which lack the broad chest band. Immature birds differ from the White-headed Stilt by the absence of black on the back and upper parts. The legs are shorter also whilst the call is not as strong as the White-headed Stilt. The call is somewhat similar but not as strong as the other species.

JACK WHEELER.

TREASURER'S REPORT

At the end of the financial year there were 294 members on the mailing list, 63 junior members at Roslyn State School and 50 subscribers to "Geelong Naturalist", giving a total of 407 receiving the journal. Of these, 23 were unfinancial at the year's end. Many of last year's subscribers have become full members.

A library cupboard and display boards have been purchased for the club's use.

Owing to the cost of printing the magazine it may be advisable to increase junior subscriptions. Our excursion to Rocklands was a success last year and we hope that Wilson's Promintory will be even a greater success.

Costs of printing the last issue of the magazine was not included in the financial statement as accounts have come to hand since the books were closed. Amounts outstanding are \$105-53 (magazine plus 2,000 envelopes) plus \$3-75 (excursion sheets). Total amount owing \$109-28.

I. F. WOODLAND,
Hon. Treasurer.

(See Pages 16 and 17 for Balance Sheet.)

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AROUND THE FARM .. SPRING AND SUMMER 1965

By Joyce Hunt, Paraparap.

WRENS. On July 27th the young male started showing signs of new plumage. Nine days later he had his full adult plumage, and four days later Mrs. Wren was observed taking dry grass into a daisy bush. This nest was not used, nor was another built a fortnight later. At the time of writing Mrs. Wren is sitting on the FIFTH nest that she has built to our knowledge this season. This is probably her third brood, but there were at least two nests built but not used.

WAGTAILS. As one wagtail lost his mate last season when the nest was not finished, it was a great joy to find a pair nesting above the dogs' yard low enough to be easily observed. On November 10th two chicks were blown out of the nest in a gale. They were picked up and placed in a sheltered position where the parent birds soon found them. One of these was later taken by a hawk, but by this time, Mrs. Wagtail was using the same nest for another family. (November 24th.) She hatched three more chicks who left the nest on the afternoon of December 24th and spent Christmas Day nestled together on a low branch of the Boobyallas.

GOLDFINCHES. These are evidently very temperamental birds. Quite by accident we came across two nests, each with four eggs. Although we did not handle either of them in any way, both nests were immediately deserted. In one case the eggs were still there weeks afterwards; in the other, the eggs simply disappeared the next day.

On November 28th, a goldfinch was observed taking nesting material into a rose bush only 15 feet from the kitchen window. She was still building four days later and seemed to have been working at the nest constantly. On December 9th she was sitting and on December 23rd we had our first glimpse of chicks as they raised their heads to receive food.

DOTTEREL. Once again the stupid dotterel has laid her eggs in the middle of a gravel road. This is the fifth year that we know of that she has done this. Of course she has never succeeded in raising any family as the eggs are broken by traffic. This year the first egg was observed on December 14th.

SNAKE. On December 15th the shed skin of a 4-5 foot snake was seen in the garden, uncomfortably close to the house, in a clump of gazanias. A week later, while watering the garden and being

careful not to direct the hose on to the nesting goldfinch, the writer almost trod on the owner of the shed skin, a particularly nasty looking creature who slithered out of a clump of daisies, across a narrow gravel path and disappeared into a very large clump of agapanthus. Despite the fact that these lovely blue flowers are at their best just now, they are being rooted out because they are just the place for a snake to sun himself in comfort. Comfortable for HIM perhaps, but certainly not for yours truly.

The foregoing notes were written on 29/12/1965.

January 15th, 1966.

ADDITIONAL REPORTS

WAGTAILS. Just two weeks after the young wagtails had left the nest, the parent bird was observed pulling at the lining of a discarded goldfinch nest. Search disclosed a new nest, several yards from the old one. She is now sitting on her third clutch for the season. It is interesting to note that she lined her lovely new nest with "second-hand carpet".

WRENS. We found the wrens' 5th nest for the season on Christmas Eve. On January 8th we noticed two eggs lying on the ground below the nest, and wondered why they had been discarded. The idea of a cuckoo was not considered as there has been neither sight nor sound of one all the summer. However, the mother wren continued to sit, and on January 11th was observed taking food to the nest. Today, January 15th, we looked in the nest during her absence, and discovered what is obviously a baby cuckoo. This accounts for the eggs on the ground.

Much as we deplore the presence of the young cuckoo when we expected baby wrens, we cannot help admiring the mother cuckoo who effected this change within six yards of the house, and in spite of daily inspection of the area, without betraying her presence by either sight or sound.

MONGOOSESES. An amusing error on a radio news session stated that a local blackout was thought to be caused by "a mongoose flying into power lines". Mongooses came into an article read recently where it is stated that in the 1880's mongooses from India were brought to Victoria to clean up rabbits near Echuca. However, they escaped from their cages in Melbourne, leaving a trail of dead and injured cats. It is not clear what happened to the mongooses after that. One thing is certain; they did NOT get electrocuted by flying into power lines!

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MAMMALS OF THE YOU YANGS
By Trevor Pescott, Belmont.

Introduction.

The isolated granite outcrop north of Geelong called the You Yangs is well noted for its variety and profusion of bird life. Much of the value of the area ornithologically is this isolation, for the area serves as a stopping-off place for passage migrants as well as a wintering place for others, and of course a summer breeding site for many species.

Birds are the most mobile of all animal forms, however, and the barriers of fences, grazing land and settlement which stop most mammals are no obstacle to them. So the number of mammal species at the You Yangs is not likely to alter, for the surrounding properties prevent free travel of different species of mammals either into or out of the timbered area.

In the following list, it is possible some species have been missed, particularly in the case of smaller members of the Phalangeridae (possum) family, but it is not likely because general habitat does not appear to be suitable for these small marsupials.

Bats, being the most mobile mammal form, may come and go, and the list of species here may be increased.

At the conclusion of this report, a list of possible additions and unconfirmed observations is appended.

The nomenclature of the list is taken from Ellis Troughtons "Furred Animals of Australia".

Fat-tailed Pouched-mouse.

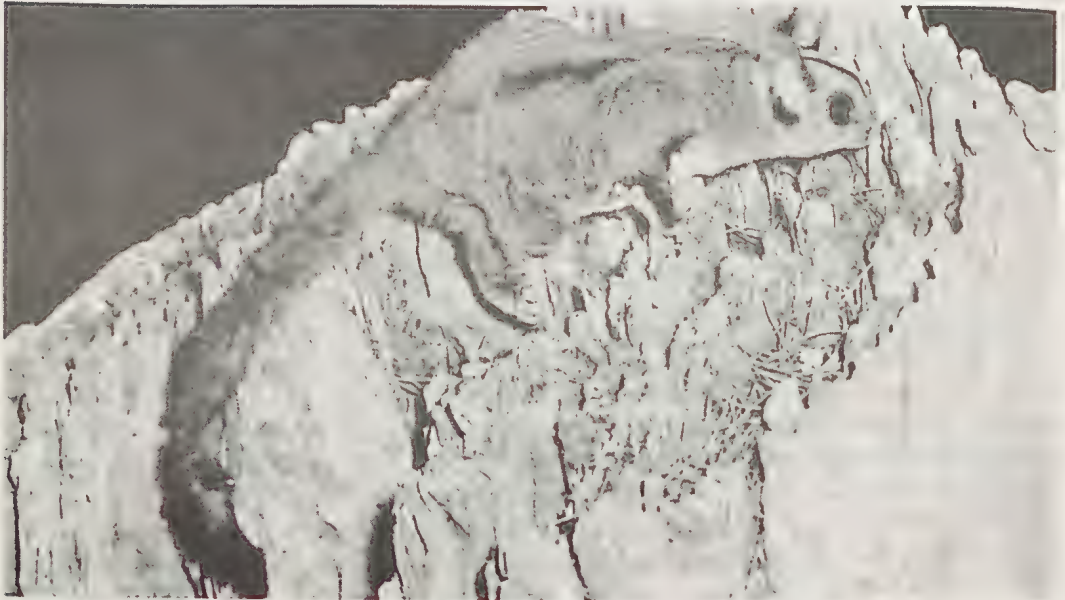
Family - Dasyuridae. Genus - Sminthopsis.

Species - S.crassicaudata.

This marsupial mouse has been found on each side of the You Yangs, in the grazing lands adjacent to forest areas. The animal selects hollow fallen logs and stumps in which to live, and no doubt forms colonies in areas wherever favourable conditions occur. One such area exists on the property of Col. & Mrs. Hoare, on the east side of the You Yangs. Here quite regularly, the animals were, and probably still are, to be found. Another report of a specimen found by Mr. M. Gottsch of Melbourne on the west side of the area confirms the extensive distribution of the species at the You Yangs.



FAT-TAILED POUCHED-MOUSE



LESSER GLIDER

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MAMMALS OF THE YOU YANGS

Sugar Glider.

Family - Phalangeridae. Genus - Petaurus. Species - P.breviceps.

Well distributed throughout the You Yangs, the Sugar Glider is frequently to be found in hollows and in leaf nests. During a camp-out in December several years ago, Mr. D. MacKenzie operated mist nets for some time at night in an attempt to catch bats. Sugar Gliders drifted into the nets on occasions and Mr. MacKenzie was amused to see how the animals could run along the net pockets without becoming tangled.

In one hollow stump, I have known of a few Gliders which lived there for over ten years, and were evicted only when the stump was partly cut open. During September, on one occasion at least, Tree creepers nested in the stump, but before the eggs hatched, the Gliders reclaimed their nest. This stump, which is only about five feet at its highest, is hollow to within about eighteen inches of the ground; it was shown to me by members of the Geelong Grammar School's natural history Club who knew the You Yangs very well.

On one occasion we noted four Gliders leave the hollow log which at first glance would appear to house no more than one animal.

Common Ring-tail Possum.

Family - Phalangeridae. Genus - Pseudocheirus. Species - P.laniginosus.

Another common species which is found throughout the area; the bulky stick nests are to be found in some bushes, particularly near Big Rock and at the south west corner of the Plantations. Here, Sandy Creek divides into two gullies, and an area of Blue gums called Lascelles Wood is sited in the creek fork. Along this creek nests of the Possum are plentiful.

Brush-tail Possum.

Family - Phalangeridae. Genus - Trichosurus. Species - T.vulpecula.

The Brush-tail is found in all red gum belts through the forest areas and in the red gums on the outer areas. These great trees become hollowed, at broken limbs in particular, and many of these hollows are tenanted by the big possums. During one campout, a Brush-tail came regularly to clean out dripping left in the frying pan. On another occasion, an old Brush-tail raided the boot of the car which we inadvertantly left open, and stole some apples we had there; he was blind in one eye, and yet seemed quite capable and agile in tree climbing.

Koala.

Family - Phascolarctidae. Genus - Phascolarctos. Species - *P. cinereus*.

A report of a lone Koala at the You Yangs has previously been published in the "Geelong Naturalist" by Mr. Jack Wheeler. It seems improbable that the Koala will ever become established naturally in such isolated an area as the You Yangs.

Grey Kangaroo.

Family - Macropodidae. Genus - *Macropus*. Species - *M. major*.

A small group of perhaps ten individuals still persists in the south-west corner of the You Yangs despite occasional illegal shooting attempts.

Originally, the Grey Kangaroo was plentiful in the Lara and Little River areas - this was recorded by Matthew Flinders during his 1802 overland expedition to the You Yangs. But settlement and grazing wiped the animal out of this area.

This leaves us with a puzzle - are the ten-odd remnants of this original stock or have they arrived there later either by accidental or deliberate introduction. I rather favour the latter theory, which of course may later be proven, because it would be too hard to imagine such a small flock surviving for so long without either enlarging or being wiped out.

That some kangaroos do survive there was brought home all too vividly recently, when two ran through mist nets set to trap robins. Two nets, ruined by holes about six feet square, would have been evidence enough, but later a doe and a half grown young were seen nearby.

Lesser Long-eared Bat.

Family - Vespertilioidae. Genus - *Nyctophilus*. Species - *N. geoffroyi*.

These delightful little animals are common, and may be the most plentiful mammal in the You Yangs. In the Sandy Creek area called Lascelles Wood, we found a hollow stump housing about thirty individuals. In other places we have found other colonies, but by far the most interesting was the finding of several in disused Fairy Martin (Bottle Swallows) nests at Hovells Creek.

Little Brown Bat.

Family - Vespertilioidae. Genus - *Vespadelus*. Species - *V. pumilus*.

Little is known of this animal's distribution at the You Yangs but we have caught it in mist nets on occasions in the south-west corner.

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MAMMALS OF THE YOU YANGS

Goulds Wattleed Bat.

Family - Vespertiliouidae. Genus - Chalinolobus. Species - C.gouldii.

The same remarks apply to this species as the foregoing, and as yet we have found only isolated specimens. All of the smaller bats can be quite easily caught in mist nets - apparently their squeak "echo sounder" does not work against the fine-threaded nets.

Introduced Species.

Six species now exist as introduced species - these are the Rabbit, Hare, House Mouse, Black Rat, Fox and probably the greatest menace of all, the domestic Cat. I have included the latter, for we are now faced with the fact that Feral cats are becoming ubiquitous and they are a tremendous threat to wildlife. No small animal or bird life is safe from them and every opportunity to eradicate the animal from our bushland should be taken.

Conclusion.

The Bandicoot and the Echidna are two notable absentees and one can assume that soil conditions do not favour the feeding of either species.

There are several unconfirmed reports of other species, these being the Rat Kangaroo and Native Cat. The report of the Rat Kangaroo came from a friend whose father told him the animals were found at the north end (Mt. Rothwell area) some fifty years ago. During a Bird Observer Club excursion at Mt. Rothwell about ten years ago the late Mr. P.J. Wood showed me a hollow tree stump into which had been dragged a number of rabbit carcasses. It was then thought to be a native cat lair, or more likely the den of a tiger cat.

Possible future additions include the Grey-headed Fruit-bat (Flying fox) which often visits the Geelong area, and other bats which may inhabit the dead trees of some adjacent properties.

References.

- | | |
|-------------|--|
| Elms, L. | "Geelong Naturalist" Volume 1, Part 4. |
| Wheeler, J. | "Geelong Naturalist" Volume 1, Part 2. |

Footnote.

Since these original notes were made, the following additions have been made.-

Echidna. - Evidence of the presence of this animal was found by Mr. G. Carr; disturbances of the earth characteristic of the Echidna were found in a gully to the north of the main Peak.

Koala. - A report in the Geelong Advertiser on 8th November, 1965, refers to the release of 11 Koalas at the You Yangs.

"MAN COPIES NATURE"By L. Elms, Belmont.

In these modern times of rapid scientific development we are inclined to become impressed with the thought of how clever "MAN" is, which of course is true enough. But in lots of our recent developments we have only produced some phenomena which have been known and used by Nature's creatures for timeless ages. Let us consider just a few of these things.

In the first World War for instance, the idea of camouflage was developed for concealing ships, guns, aircraft and men etc., whereas previous armies had fought in their very conspicuous "red-coat" uniforms. It is well known that the giraffe has a natural camouflage colouring which he takes advantage of for concealment, as he has no other means of defence. Also our Australian swamp birds, such as the bittern, are as good as invisible when they stand still, as also are many insects like the stick-insect, and creatures such as iguanas. Some types of octopus and squid are like the chameleon, and possess the power of changing their colour according to the background they are on.

In addition to camouflage, it was customary for the Navy, when attacked, to put up a smoke-screen, and go into obscurity behind it. This is also the means of defence of the squids (or cuttlefish), who squirt a fluid like Indian-ink into the water, and then escape behind the murky zone.

The idea of the caterpillar tracks on the wartime tanks and the periscope on the submarine might well have been copied from the humble snail in the garden. He lays down a track in front of him composed of slime, along which he can proceed whilst in his protective armoured house, much the same as the modern tank. Photographs have shown that he is even able to crawl up and over the sharp edge of a razor blade without injuring himself. He also has the ability to extend upwards his eye stalk, like a periscope, look around through a full 360 degree circle with his compound eye, and then withdraw the whole apparatus again so as not to be noticeable or vulnerable.

The Army and Navy idea of posting a sentry or lookout is commonly practised by our birds, and most of us know how hard it is to approach a flock of white cockatoos whilst they are feeding because of the one squawky lookout who sits on a nearby tree and warns the whole flock of our approach.

"MAN COPIES NATURE"

All our modern ships and aircraft are fitted with radar devices which throw a radio wave forward, and if there is an unseen obstacle in front, are able to pick up the echo from it and thus determine the shape of the obstacle and its distance away. Our many varieties of bats do a lot of high-speed night flying using exactly the same principle. They utter a very high-pitched squeak, which is inaudible to human ears, and the echoes of these sound waves are reflected back to their sensitive ears, with the result that they can dodge almost every obstacle in their path of flight.

Our navigation of shipping all over the world in its present form was pioneered in the days of Captain Cook, but with the recent development of high-speed aircraft between countries scattered all around the globe, navigation has now become a very precise science. However, some hundreds of thousands of migratory birds take off from Australia each year, fly northerly in night flights for something like 10,000 miles to Siberia, and then return in the Spring to the same Australian swamps and rookeries that they started from. A matter of flying some 20,000 miles by night stages each year does not seem to trouble their powers of navigation at all, and it is all done without the assistance of any navigational equipment.

Other lesser creatures who have an unerring sense of where the North-South meridian lies, are the honey-bee, who always builds the honeycomb north and south in the hive, and the ants of Central Australia who build their huge anthills pointing north and south. The bee also has the ability to unerringly come back to his hive after flying all day through the forest searching for nectar.

At aerial Pageants we are always thrilled at the "close-formation" flying demonstrated by our clever aviators. But how much more involved is the flight of a flock of starlings or similar birds, turning in flight without any noticeable command having been given, yet keeping in perfect unison. Or alternatively we can watch the flight of a swarm of bees or sand-flies, moving so swiftly and so close to one another, and yet never colliding.

Jet propulsion is a process now being developed intensively for aircraft, and for some lesser boats, but the common squid or cuttlefish has always moved about by jet propulsion, forcing water out through a type of funnel in strong jets, which has the effect of driving the creature backwards through the water at a rapid rate.

"MAN COPIES NATURE"

In recent years our poultry farmers have developed incubators, for the hatching of hen eggs by maintaining a suitable and uniform temperature and humidity for a long time. The Lowan (or Mallee Fowl), and the Brush Turkey have done exactly the same thing for ages, burying their eggs in mounds of sand and forest debris, and leaving them to be incubated by the heat generated by the decaying vegetation, and the heat from the sun. The male bird checks the heat of the mound at least twice daily by poking his head into it, and he adjusts the material which comprises the mound so that the temperature never varies more than a few degrees, day or night.

When it comes to our modern "air-conditioning", the honey bees have been practising this for centuries. It is, of course, imperative that the honey and the honeycomb should not get too hot, as it would then melt, with dire results. When a heat wave brings temperatures within the hive up to a critical level, the bees, by common consent, muster at the entrance to the hive and flap their wings in a frantic manner, thereby causing a controlled draught of fresh air through the hive to maintain acceptable conditions.

Man has made huge factories for the production of food stuffs of hundreds of varieties, including jams and other sweet materials, but man has never been able to take over the work of the bee and produce honey. He merely encourages the bee to make a large supply of it, and then robs him. The bee alone has the secret of sucking nectar from the flowers, and mixing saliva with it in its crop to cause the nectar to ferment into honey, which is a practically pure substance, and one of the best sources of energy of all human foods.

A sport which is increasing in popularity is "gliding", or flying in sail-planes. It took man many centuries to ascertain just how Nature's gliding birds got their means of propulsion, and even gain height without movement of the wings. A close study of their carefully curved wings, and a study of thermal updraughts has at last revealed the secrets, and Man, in his clumsy fashion, is able to do gliding in a rough mockery of the graceful style adopted by birds over the countless ages.

Another sport gaining in popularity is parachute jumping. Most spiders, with the exception of those which live in burrows, use a similar means of aerial transport. A newly hatched spider will climb up to some high point, and there spin a long thread of liquid silk which is drawn out by the breeze. At the appropriate

"MAN COPIES NATURE"

time it will release its hold and be carried away by the wind, supported by this thread, and may go several miles before landing.

In the realm of medicine, Man has gone a long way, and there is hardly an ailment that cannot now be dealt with by an appropriate injection administered by the Doctor, but insects such as wasps and ants have for ages been able to give other insects an injection of just sufficient poison to "lay-them-out" as may be desired. Leeches are able to suck warm animal blood for their food, and at the same time give a mild injection of hirudin to stop the blood from clotting. One common complaint that medical science has been unable to positively cure by injections is rheumatism, but there are many people who have been cured by bee-stings, the bees having been induced to inject their poison (composition unknown) into the area surrounding the affected part.

Yes - "MAN" is undoubtedly very clever, but when one looks into it, we are probably only carrying out the suggestion given by King Solomon about 1000 years B.C. - "Go to the Ant, thou sluggard; consider her ways, and be wise!"

On our future Field Naturalists excursions, it may prove of great interest to look more closely into the intricate and less conspicuous aspects of Natural History, instead of noting only the very obvious flowers, trees, rocks and birds, etc. which are normally seen and appreciated on these very enjoyable trips.

LONG-TOED STINT

By Joyce Hunt, Paraparap.

Two members of this Club (and the B.O.C.) had the quite unmerited honour of being probably the first people in this area to see the Long-toed Stint.

On January 23rd, Mr. Fred Smith, expert on Waders, made another sighting of this bird which he discovered first in 1962. The sighting was verified on January 9th, 1966, when he sighted 1 bird, and again on January 23rd when 3 birds were seen at Lake Borrie.

These have never been seen in Victoria before. They breed in north-eastern Asia and migrate southward. They are found in northern Australia, but never before in Victoria. In appearance they are like the Little Stint, but the head and chest are buff coloured, the bill is smaller, and the legs are yellow.

JUNIOR PAGETHE FATE OF A DRAGON FLY

While holidaying in Queensland in January we decided to have a short rest at a very attractive picnic spot called Yabba Creek in the Nambour district:

After taking several pictures of the scenery I unscrewed the camera from the tripod and put it on the car seat. Next job was to fold up the tripod, but just at that moment a very handsome Satin blue dragon fly landed lightly on the tripod handle. Was it worth photographing? Yes it certainly was! Very quickly I reached for the camera and then screwed on the close-up tense. Would the dragon fly still be there? Yes!, there it was posing like a professional. After checking the focusing and the exposure the camera was put into action. Whir Whir went the motor. Suddenly a large insect rather like a brown wasp landed on top of the dragon fly. The camera still kept whirring. There was a flurry of wings and the wasp like creature was gone. There on the grass at the foot of the tripod could be seen the mangled corpse of the dragon fly.

When the film was processed the incident was found to be completely recorded. It is most probable that many junior members may have observed some unusual incident in natural history. If some of you have this stroke of fortune don't be afraid to send in a few lines for the junior page.

IN THE TWILIGHT
By Gregory Slater

We have one such very interesting article titled "In the Twilight" by Gregory Slater.

It was when we were walking home the other evening after 8 o'clock from visiting some patients in the big new hospital nearby that we came upon this unusual sight on the street in the faint light. What was it you may ask? It was actually a magpie out so late on the busy street, shaded by very big trees, running after crickets no less. Cannot tell you how many of these creatures he must have caught and eaten while we were watching but we were most concerned for his safety not his appetite, as the traffic was still so heavy. We could not wait until he had finished his late meal as he seemed to be taking such a long time so we reluctantly continued on our way. I think he was really a lucky magpie to miss being ran over with all those cars on the move and his crop full with eating so many crickets.

Juniors, remember the project which closes on May 31st. The last project winners were Geoffrey Vincent (Senior section) and Michael Schwarz (Junior section) - Congratulations again to both for their excellent projects.

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WHITE EARED HONEYEATER AND BANKSIA

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HON. EDITOR: TREVOR PESCOTT

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The Statements and the opinions contained in the papers published in this Journal are the responsibility of the respective authors.

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COVER PHOTOGRAPH

White-eared honeyeater, photographed beside Banksia marginata at Ocean Grove. Photo by Trevor Pescott.

GEELONG NATURALIST



EDITORIAL

Vol.3. No.3.

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Several of the articles in this issue deal with the growth of native flora for house gardens; many of the Australian plants are admirably suited for such plantings and there is probably no garden in this district which cannot carry some natives.

It is unfortunate, however, that a few plants are used very extensively, at the expense of better, more interesting plants. It is time to move a little from the very familiar pink teatree and tuart gums and try the lesser known species.

The two plants named are both very attractive, but their use is somewhat overdone and indeed there are very few gardens which do not have one or both in them.

It is a great pity that the lesser known native plants are too often highly priced, for this and the lack of ready availability, must prohibit the choice of these over the well known species.

To a large extent these two problems can only be solved by direct suppliers, but requests by home gardeners for the plants must improve supply and reduce costs ultimately.

The article in this issue on bringing birds into our gardens is to be commended, for too few of us realise just how important to birds are the honey bearing plants, and unless you have had the pleasure of honeyeaters, silvereyes and the like inhabiting the garden, it is hard to realise just how much animation they give to the colorful garden plants.

With spring just a few short weeks away, it is the ideal time to give some thought to adding a few more plants to the garden. It is well worthwhile to find out which natives are most suitable, then be different from the average suburban gardener, and select the lesser known species. A change can give a new lease of life to any garden.

TREVOR PESCOTT, Hon. Editor.

BRINGING BIRDS TO OUR GARDENSBy E. G. Errey

A garden without birds would surely be a dull place, for these creatures do much to enliven our surroundings in a variety of ways. Their songs, even when not particularly tuneful, provide evidence of company present, while the more musical songsters are a delight to hear. The simple movement of birds among the bushes adds something to the character of a garden. The acrobatics of honey-eaters in search of nectar and the aerobatics of swallows and fantails collecting insects on the wing provide entertainment in themselves.

The king of the songsters must undoubtedly be the introduced blackbird. Though many of us begrudge him the berries of which he deprives us, no one can remain unmoved by the pure melody of his song. Long before sunrise on spring mornings his rich notes are poured out from a repertoire too varied ever to become monotonous. No doubt a pailing fence or a television antenna would provide an adequate rostrum for these concerts, but level lawns and concrete paths offer no nesting places and little enough of feeding territory. Trees and shrubs are essential if birds of any kind are to enrich the daily round.

If we are fortunate enough to be living where blue wrens can find our garden, their busy little songs, added to the beauty of the birds themselves, are a delight indeed. Unfortunately small birds of this kind, spending so much of their time on or close to the ground as they do, readily fall victim to that enemy of all bird life, the domestic cat. Nor can we ensure their safety by depriving ourselves of the doubtful pleasure of that animal's company, for these predators are no respecters of property boundaries. Dense thickets in at least a section of the garden are essential to provide reasonably safe cover for these small ground-feeding birds.

The provision of open feed tables and water dishes, even if set up out of reach of ground attack, seems to savour of artificiality, and would probably lead to a very large sparrow population at the expense of native birds.

Any observer knows that sparrows do fine work in insect destruction, and they eat quantities of weed seeds. All told, the balance in their favour must be heavily weighted on the credit side, and a few strands of black cotton are sufficient

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protection for the lettuce bed. But neither their appearance nor their call is very attractive, and their nesting habits do nothing to increase their popularity.

Our welcome to birds around the house is considerably influenced by the help they give in pest eradication, and this must surely diminish if trays of bread crumbs are provided. A bottle-brush by the window is an ornament at all seasons. During the flowering period no simpler bird observatory can be imagined.

Water receptacles for drinking and bathing are best fixed to horizontal limbs, or to stakes driven in among the bushes. If, during very hot weather, the lawn sprinkler is so placed that the spray reaches the shrubs, even the most timid of our feathered visitors will refresh themselves in perfect safety.

The easiest native birds to coax into the garden are those in search of nectar. First will most likely be the yellow-winged or the white-plumed honey-eaters, usually known as "greenies". The red wattle-bird, the largest of our honey-eaters, will soon noisily announce his presence, and try to drive the smaller varieties away. They, however, are usually too active, and will refuse to leave, especially if there is an abundant food supply, and a number of trees and shrubs to dodge amongst.

The yellow-winged honey-eaters seem to be a rather pugnacious type, and have several times driven the greenies from our garden. In common with some other birds, the parents harry their own offspring too, when they are able to fend for themselves, and attempt to drive them out to find a feeding territory for themselves.

Other species that tolerate the presence of humans are the white-eared, the white-naped and the spine-billed honey-eaters. Localities close to forest country will naturally provide a greater variety of these lovely birds than less favoured areas.

Naturally enough, both the frequency and the duration of visits made by such birds depends on the garden itself. These creatures feed on the insect population as well as nectar. Particularly is this so during the breeding season, when the nests are full of hungry mouths constantly demanding to be filled. All trees attract insects, especially during the period of flowering. It follows, therefore, that the more flowering shrubs and trees there are around a house, the more will various insectivorous birds be attracted.

BRINGING BIRDS TO OUR GARDENS

Ideally then; there must be some blossom all through the year. This is not as difficult as it might at first appear. Shrubs with bottle-brush type flowers, especially the callistemons and certain of the melaleucas, (*Mel. hypericifolia* and *elliptica* for example), are in bloom during spring and summer and frequently into autumn. Banksias such as *B. ericifolia*, provide a remarkable honey flow in autumn and early winter.

Grevilleas of all species are popular with honey-eaters, and a selection of these can provide a continuous food supply. *Grevillea banksi*, *G. sericea* and *G. bipinnatifida* are three species always in flower.

The eucalypt family under natural conditions furnishes a successful flowering, to make nomads out of lorikeets and honey-eaters. The summer blossoms of yellow box are followed by messmate, then grey box continues through the autumn, red iron-bark during the winter and red box in the spring, with the manna gum contributing irregularly, and other species supplying their quota according to the locality and time of year.

Gardens can provide the same succession, cut down to scale of course, in the form of the smaller and more colourful mallee types, chiefly Western Australian. Most of these have an extended season, *Euc. caesia* and *Euc. priessiana* blooming in the winter and early spring, and *Euc. torquata* having at least a few flowers all the time.

The larger scarlet flowering gum, (*Euc. ficifolia*), puts all its effort into a glorious display in late summer. As each individual eucalyptus flower secretes nectar continuously until it fades, the total quantity exuded by a tree in blossom must be very considerable.

If lack of space prevents the planting of even one small eucalypt, there are numerous smaller producers of nectar. A clump of kangaroo paws - the green species, *Anigosanthos flavida*, is very hardy - is eagerly attended by honey-eaters, and the nectar flow extends over several weeks in spring and early summer.

Whether birds nest in the garden depends on quite a few factors, the chief of which would be safety. Dense foliage is favoured by some birds, while others like a high position or one protected by thorns. The harsh prickly leaves of the king hakea have been chosen by our yellow-wings, bushy lilly pillies by blackbirds and higher branches of a Wyalong wattle by a pair of gold finches.

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GALLS. AND GALL-INSECTS

By J. Barnes

Scale-galls. These are Coccids Brachyscelinae. Living in hard woody galls of aborted plant tissue. Often galls containing males are differently shaped to those containing females, some however live in harmony in the same gall.

Gall-wasps. The true gall-wasps belong to the family Cynipidae, of which there are only three species identified in Australia. There are also a few fig-wasps, which make pseudo-galls, I have mentioned one of these as being essential to the pollinating of the Smyrna fig.

However, there are many other small wasps living parasitically on both gall-coccids and on gallgnat larva.

Some are inquilines or klepto-parasites these are insects that steal the stored up food of other insects, there are many stages in this klepto-parasitism reaching to parasitism and peredation.

The inquiline not only consumes all the food of its host but finally finishes its life cycle by devouring its host.

Gall-gnats. Cecidomyiidae. The majority of the smaller galls found on trees and plants are hosts of a member of the family Diptera. More than one hundred species have been identified in Australia.

It is one of these small flies that attacks the wattles forming the distorted seed-pods we often see.

The counter attack by one of the micro-hymenoptera, a small parasitic wasp can account for the majority of the larva of the fly, so much so that breeding from these galls leads one to believe that them gall former is a species of gall-wasp.

Another Cecidomid is responsible for those round red galls found so often on the mid-rib of Eucalyptus leaves.

'TWEEN TOLL AND TEA

By Joyce Hunt

After work one day in early April, we went for a half-hour run to a favourite haunt. So many things of interest were seen during this time. First, a small black wallaby crossed our path, and at the same time we sighted seven or more swifts circling very low over the trees. Caught in the barbed wire of a fence was a bat; perhaps his radar equipment was out of action, causing his death.

At a spot where we expected to find honey-eaters, we found their usual water supply had dried up; so we scraped a hollow, pressed it firm, and emptied in a gallon of water, then placed a dead branch nearby and sat down to watch. It wasn't long before a white browed scrub-wren arrived and proceeded to make use of the toilet facilities so unexpectedly provided.

With the aid of binoculars we admired this attractive little bird as he splashed so merrily in the pool which was little more than a pool of mud after he had been in and out of it twenty or more times. However two more scrub-wrens found it, and they continued to bathe and splash until the water was almost gone. Then they sat on the dead branch sunning themselves before going off presumably in search of their evening meal. It was very obvious that they enjoyed their bath tremendously, but maybe the humans who provided it received just as much pleasure from watching them.

Next we turned our attention to a roadside pool near which several crimson rosellas were hiding, awaiting a chance to drink. Several cars passed, disturbing them, but at last they came down and we were rewarded by the sight of nine glorious red louries beside the pool, their colour reflected in the muddy water as they came to drink. Later a flock of a score or more of immature birds came into sight and settled on a bare shrub, making it look like some rare plant covered with exotic green flowers.

At another stopping place, an inquisitive gray thrush came to within a few feet of the car, but not being able to see enough, flew to a branch about 6 feet high where he could look right

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'TWEEN TOIL AND TEA

into the car and study its occupants before going off to call another thrush who also came to look. Oh well, if it is all right for humans to spy on birds, why not birds on humans?

Amongst the scrub and trees numerous small birds moved too quickly for identification, but we noted several robins, white throated tree creepers, wrens and wagtails.

The biggest thrill was watching three or four birds we couldn't name until we consulted "the book". In many years of bird watching we have never seen it around this area before. That's not to say it wasn't there; it's just that we haven't seen it. That's why we were so delighted to watch the antics of these Eastern Shrike tits. These lovely birds came so close that the glorious yellow front, white patches and curious black crest were seen clearly, and they weren't at all disturbed by our presence.

Against the setting sun we saw the reason for the presence of so many birds:- myriads of flying insects, great clouds of them - up to 30 feet in height and mile after mile. Any little insect-eating bird who went to bed hungry that night had only himself to blame, as there was food in abundance, just for the taking.

In all, our list comprised:- Dusky wood swallows, Grey fantails, Wrens, Wagtails, Robins, Kookaburras, Swifts, Magpies, Yellow-winged honey-eaters, Ravens, Firetails, Gray thrushes, Mudlarks, Crimson rosellas, white faced nuns, white throated tree-creepers, scrub wrens, eastern rosellas, yellow faced honey-eater, whistling eagle, currawong, ground lark - and that delightful little creature who surely deserves a prettier name than "eastern shrike-tit".

JOYCE HUNT.

QUESTION OF THE MONTH

At the April meeting of the Club, it was suggested that at each future meeting a "Question of the Month" be answered; the questions are submitted in advance by any member, and an experts answer is given at a subsequent meeting.

The best questions, and the answers, will be published in "Geelong Naturalist".

The first question to be answered in the Journal is -

"Could you please tell me why the Australian trees shed their bark? The English trees only shed their leaves. Why does this occur in the autumn? A time when one would think Mother Nature would want her children to keep their overcoats on."

Answering this, Mr. Allan Sonsee of the Ballarat Field Naturalist Club, and an expert botanist, said -

"In the case of eucalypts, the outside bark is dead and is not a living tissue. As the circumference of the tree increases during growth, and the outside bark cannot grow, it becomes too small in circumference for the tree. The pressure of the new growth causes the outside tight fitting bark to crack and eventually peel off. Sometimes it comes off in long ribbons, e.g., as with some white gums and stringy barks. In some trees the bark splits both vertically and horizontally, and in such cases the bark comes off in flakes as it does in box trees.

As growth is seasonal and more so at one period than another, many eucalypts have an annual shedding of bark corresponding with the period of maximum growth.

Some gums retain the old bark for long periods, e.g., ironbarks on which the deep furrowed bark is caused by a splitting which does not cause the bark to be shed. Such trees may have a deep layer of dead bark and have an appearance of cork-oaks. Bark contains tannin, a chemical which protects the more delicate tissues below from insect and fungi attacks. Many insects such as white ants, appear to find admittance at a damaged place such as where a limb has broken away, probably during a storm.

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Most trees that have coppiced after wood cutting are readily attacked by termites or white ants. This is why some consider that the local eucalypt forests will eventually have to be replaced by seedling growth, not coppice growth. Coppice trees are second rate, but apart from this, will grow very quickly, as they already have an established root system. Seedling growth is slower but one eventually gets a better tree.

"Why do English trees shed their leaves in autumn?" The answer is really a very simple one. The term "the fall" has never come into common use in Australia. In the early days of settlement there was no need for the term, and it was then that many English phrases and words became part of what could be called an Australian language.

Deciduous native trees are almost non-existent in Australia. In the far north we have a few examples such as the Baobab of the Kimberleys and Eucalyptus alba, both of which lose their leaves in the dry seasons, an adaptation of lack of moisture. It was not until introduced deciduous trees became widely planted, that the fall of the leaves in autumn became a feature of the landscape in many areas. This is true of many Victorian towns where early citizens planted streets and gardens with the deciduous trees of Europe and America. The Victorian climate in most cases favoured their growth. We could now justly talk of "the fall", but we fail to do so.

The deciduous trees, the oaks, elms, chestnuts, maples, ash, poplars, sycamores, liquidambers, tulip trees, vines and willows, bring a touch of old England to many of our towns each autumn.

These trees follow the ways of their homeland. They are New Australians, who refuse to become naturalized. The reason for their behaviour must be sought in their old homes. Here it is an adaptation to environment, and this adaptation was brought about over a long period of time. Likewise, it will take a long period of time to make them change their ways.



LEFT: BAOBAB TREE, NORTH-
WESTERN AUSTRALIA

Photo: Jack Wheeler

RIGHT: POPLARS, GEELONG

Photo: Trevor Pescott

ALL THESE INTRODUCED
DECIDUOUS TREES



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Leaves are light traps, and to enable them to function they must have a large surface area and a minimum thickness. School children are taught that the leaf is the kitchen of the plant ; the botanist would say it is the plant's laboratory. To enable the leaf to carry out its work, light and a suitable temperature are required. By a process known as photosynthesis, raw material absorbed in liquid form by the roots is converted into "plant food" in the leaves. The green colouring matter of the leaf, chlorophyll, is the great chemist. In fact all life is made possible by this master chemist. We say disdainfully, "its green as a cabbage". That same cabbage is in many ways superior to man. Life is suspended by a thread over a great abyss, and the supporting thread is the green we see in the cabbage.

Remember all animal life is parasitic to plant life. Earth, rain, sunshine, grass, sheep, to mutton on your table, thus the story runs. He who can grow two blades of grass where once one grew is indeed a great man, a benefactor of mankind.

If you are observant, you will have noticed that many of the deciduous trees have large leaves. Think of the plane, sycamore, mulberry, liquidamber, chestnut, tulip tree, grape vine, and many others. They "make hay while the sun shines". During spring and summer they grow, flower and fruit, but when winter comes they pass into a state of dormancy or suspended animation, or as a child says "they go to sleep".

You ask the reason - short days, lack of sunshine, low temperatures, all make nigh impossible the normal life processes; in animals metabolism, in plants photosynthesis. The way out, or the response, a period of inactivity, a hibernation, a sleep. The lizard, the snake, the squirrel, the dormouse, pass into a period of suspended animation, and the trees do likewise, resting the long winter through.

Why some trees favour yellow, some red, orange and all the in between colours, I do not know. Liquidambers vary in colour. You purchase a tree with its autumn foliage on, hoping that each autumn it will keep that colour, and in the main they do.

QUESTION OF THE MONTH

Liquidambers have personalities. Poplars favour yellow and some oaks red. The claret ash adds beauty to Ballarat streets. It is said to be a mutation that occurred among ordinary ash seedlings grown in Germany.

The leaves are prepared for their final ordeal. The sap tubes inside the leaf stalk are sealed off. Food no longer enters. The leaf changes colour, an indication of death. You can see the sealed leaf or sap tubes on the leaf scar of the horse chestnut. They give the scar the appearance of a horseshoe, and people suppose this is the reason for the name given to the tree. The name, I feel, means rough chestnut in contra-distinction to the edible or Spanish chestnut." We use the word "horse" in the same sense when we speak of horse mushroom, horse radish, or horse play.

Eventually a layer of thin cork grows between stem and leaf. The leaf is pinched off.

Leaves fall on windless days, but the wind is an aid to quick shedding. All substances of use in the leaf have been removed, and sent to the roots for storage. The sealing of the leaf scar prevents infection by fungus and other diseases. It is the scab that seals the wound. Nor is the leaf entirely wasted. In death there is life, and the dead leaves provide a rich humus for the seeds that start life again. There is no such thing as death, but change of form.

The wise old tree prepares for the awakening in spring. Where the leaf has fallen you will find a bud or buds. These buds are worthy of study, but I do not propose to do this here. Their study is best made in spring. Then you will receive surprises, for some are flower buds, some leaf and others stem.

For many local people, autumn is the piling up and burning of leaves. The soft smoke of autumn drifts through the mellow autumn sunlight. Some love the perfume of burning leaves, the stoking of a fire, for in man's nature is a deep attachment to fire. The aged aboriginal was left behind to die by a small fire, perhaps the symbol of his life.

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The northern hemisphere are lands of snow and ice. Snow falls gently, silently, and covers all the world in a heavy blanket of white. It loads all objects and they must bear its weight. The broad, spreading oak of summer would break under the burden of accumulated snow, so would the sturdy elm, beech and birch. The bare branches of winter collect a minimum of snow, and the trees live on to rejoice in another spring.

Again, the liquids of life, the running sap, would freeze to ice, and liquids expand when frozen; so in autumn the liquid content of bark and branches is reduced to a minimum and stored deep below in the roots.

You may well ask "Why do the pines and other conifers survive?"

Their pyramidal shape allows the snow to slide from branch to branch, and eventually fall to earth.

Their leaves are not the wide type of plane and sycamore, but small and compact. Their adaption is of a different nature, but they too become inactive in winter.

The shape of a pine is in many ways the shape of the roofs of northern European homes. The steep roof sheds the snow. It slides to the earth below. People must remove it from the door to gain an exit from home. In fact the steep pitched roof became a feature of European architecture. The slate roofed schools and churches of many towns are prepared for the snow that never falls. Roofs with little pitch are now common, but of course if these flat roofs were built in Europe the owners would, in winter, be forced to shovel the snow from the roof, otherwise the house "would groan under the weight of snow".

Is it necessary here in Australia for these trees of another land to lose their leaves in autumn?

No, they continue to behave as they did in their far away home. So they carry on in a new land the ancient traditions of their race. Perhaps they will adapt in their own good time. Some already show a tendency to retain their leaves. But adaption is a slow process, not a matter of years, but centuries. They almost say "Why hurry? Time is endless, non existent, an invention of man, the child of motion."

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Question Number Two: "The term 'bird nest soup' is a popular term amongst Asiatics and a very popular Chinese dish. I would like to know if this dish is actually made from a birds nest or is it just a mythical term?"

The answer from President Mr. Jack Wheeler is as follows:-

First checking with a dictionary, I found the following definition: "Birds nests from the Malay Archipelago, much prized in China as an article of food, being mixed in soups. It is of gelatinous nature consisting and formed from a marine plant digested by the bird." No clue was given as to the identity of the bird.

To find this answer, I referred to Iredale's 'Birds of New Guinea'. Under the reference of Swiftlets, I found this answer. Listed here, is the Edible-nest Swiftlet (*Collocalia esculenta*), a small bird under five inches in length and much smaller than the swifts we know in southern Australia. These birds resemble the larger swifts in form and flight, even though naturally slower. The Edible-nest Swiftlet was so named because of its curious nest which, being made by the birds salivation, has edible qualities and is commercialised throughout South-East Asia. This specie has a range from Moluccus to the Solomon Islands and they nest in great colonies of countless thousands in large caves and cliff cavities.

In this same family, other swiftlets make similar nests, and in some cases are more sought after than that of the Edible-nest Swiftlet I have mentioned, but this original name has never been changed.

Recently a Malay student here in Geelong, gave Mr. Col. Gibson, a member of our Club, several of these nests and he kindly made one available to me for use as a specimen. Its measurements are 2-1/4 inches by 1-1/2 inches with a depth of 1-1/4 inches. Half-cup shaped in structure it has flanged ends for attachment to the walls or ceiling of caves. To procure these nests, long poles are used to knock them from their positions and when collected they are cleansed of debris and waste material before use for culinary purposes in the kitchen. I have been told they are in such demand that a single nest brings about 2 dollars. During the present conflict in South Vietnam, where many of these birds nest, their collecting has become much more restricted and are being traded at

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almost 'black-market' prices, so it is not the ordinary peasant type who can afford bird-nest soup on the menu.

Finally, one may ask, 'are swiftlets found in Australia?' Yes, there is one unmigratory species; the Grey Swiftlet, and it nests in caves on Dunk Island, Bedarra Islands and on the mainland near Tully in North-east Queensland. These nests are in remote places and they too are made of gelatinous material and no doubt would be suitable for this age-old Chinese dish but I have no records of anyone in Australia having used the nests of the Grey Swiftlet for this purpose.

One record is known in Australia of the Edible-nest Swiftlet; many years ago a specimen was collected on the Cape York Peninsula.

Question Number Three: Answered by Mr. J. Barnes at our May meeting.

"A reference is often made to the Beach-fly or March-fly which is so troublesome during January. Can you please supply some information about its habits?

The March-fly or Horse-fly or one of a dozen other names is a member of the family Tabanidae, which is a very large genus and is spread throughout the world where-ever animals exist. It not only sucks the blood of horses, cattle and humans but is quite catholic in its taste, attacking such unpromising subjects as elephants, hippo's, reptiles, alligators, turtles etc. Research has shown that the female is the true blood sucker whilst the male is apparently like the male mosquito, lacking the necessary piercing apparatus for blood sucking. Birds however appear to be immune to the attacks of these flies.

It has been estimated that a single grazing animal can lose as much as one hundred cubic centimetres of blood in a day. In some parts of the old world, nomadic tribes still move their animals about not looking for food and pasture but avoiding horse-fly attack. It was the usual practice to drive sheep

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into the night-folds in Greece at sun-down and the cattle out to graze free of horse-fly attack overnight.

The local specie is known as 'Tabanus froggatti'.

"When a bowl of fruit (grapes etc.) is left unused, it becomes thick with tiny flying insects and as these are not normally in the house, where do they come from?"

This is probably the best known insect in the world. It is commonly called the 'ferment-fly' or 'vinegar fly', *Drosiphila* probably *melangaster*.

It will readily breed in dregs of milk left lying in unwashed milk bottles, any fermenting material in corners of neglected kitchen sinks or in any cut or damaged fruit etc. In three days the insect has changed from egg to larva to pupa and in five days its life cycle is on its way again.

This insect has been used extensively in experimental work on genetics and hereditary. It is a very good laboratory animal for colonies are easily maintained, and larvae, pupae and adults all live happily together in any fermenting media.

ON WILSON'S PROMONTORY

"On 2 January 1798, at seven o'clock in the morning, Wilson's Promontory, the southern-most extremity of the Australian coast was discovered. "We were surprised by the sight of high hummocky land right ahead, and at a considerable distance." When this high land was sighted they left the coast they were skirting and made direct for it... Hunter, on the recommendation of Bass and Flinders, called it Wilson's Promontory after Thomas Wilson, a London merchant. Bass considered that the Promontory was "well worthy of being the boundary point of a large strait, and a corner stone of this great island New Holland". As they passed it on 2 January, vast numbers of petrels (mutton birds), gulls and other birds were resting upon an adjacent island, and on the rocks were many of the large Bass Strait seals, with remarkably long tapering necks and sharp pointed heads."

Bowden, K.M. "George Bass" Oxford University Press, London, 1952, page 61.

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"RELATIVE AGE"

By L.W. Elms

"What is the oldest living thing you have seen today?" If asked this question, many people would say it was the old gentleman who lived at the end of the street, and who had just had his 90th. birthday. And this, of course, is a fine old age for human beings, because our normal life span averages about 72 years. But the length of life of other living creatures varies considerably.

Some butterflies, for instance, live only for a few short days. The house-fly grows to maturity in 14 days, and a female fly could then lay 300 eggs. If all these eggs hatched and survived, there could be over half a million descendants of that one original female fly at the end of six weeks. What an awful thought!

On the other hand, a good Italian Queen Bee can live for quite a number of years, and very high prices are paid for them, as they lay about 1,500,000 eggs in their lifetime.

This is by no means an egg-laying record, as termites, (or white ants) lay something like 30,000 eggs daily, or 100 million eggs in their lifetime.

Animals of various kinds have a wide range of life span. Elephants have a similar life span to human beings, and at certain ages they go through similar stages of life as do human beings, such as their normal years for schooling, adolescence and mating etc.

It is known that the tortoises of Galapagos live up to 200 years. In 1773, Captain Cook gave one, of unknown age, to the native chief at Tonga, where it lived in the Royal Palace grounds. It was reported in the press recently that this tortoise died on 19th May, 1966, so its known life was 193 years, and goodness knows how old it was when Captain Cook captured it.

It is frequently claimed that the oldest "living" things in the world are the giant Redwood trees in America, some of which are 340 feet high and estimated to be about 5,000 years old - and still living! In 1952 a 230 foot Redwood, with a diameter of

"RELATIVE AGE"

107 inches was cut down, and a cross-section is now on display at Parliament House, Victoria, Vancouver Island. It is estimated to have been 1,092 years old, and the heartwood at its centre was probably first growing in the time of Alfred the Great. Many of our largest redgums are estimated to be 800 to 1,000 years old, but being of slower growing habits, they have not reached the size of the American Redwoods, (Sequoia Gigantea).

This claim about the Redwood trees being the oldest "Living" things may have to be reconsidered if ever the mystery of the Loch Ness Monster is solved, and it is definitely identified as a Plesiosaur - a pre-historic type of lizard.

Of things that are not living, we have only to look at the fossils in the rocks to see some exhibits, right at our door, which are millions of years old. And of course, if we glance up at the moon, we see something which is considered to have come into creation some 4,500 million years ago. Or if we look up at some of the furthest star clusters, we see the light that set off on its journey to us some 120,000 years ago.

And so it is seen that age is a relative matter, and whether it be butterflies, human beings or tortoises, let us make the most of the years of life that are allotted to us.

SUBSCRIPTIONS DUE ...

Members are reminded that subscriptions are due in April of each year.

They can be forwarded to the Treasurer -

Mr. I. Woodland,

33 Grant Street,

NEWTOWN.

July
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51.

AT RANDOM
PROPOSED NATURE RESERVES FOR ANGLESEA
By Jack Wheeler

The Geelong Field Naturalists Club has for some time been very concerned at the huge scale development going on in the Anglesea district which means the loss of much good bushland.

On June 18th last, members carried out a survey of two areas in the Parish of Jan Juc (County of Grant) for the purpose of making recommendations that they become Nature or Wildflower Reserves.

Both are crown lands and have good accessibility. The first to be inspected was a narrow strip of approximately 70 acres on Forest Road and about three miles north of Anglesea. This area had been burnt out several years ago and is steadily regenerating with eucalypts, banksias, golden wattle and grass trees. It is an excellent area for the common heath.

The second area to be inspected was a larger area adjacent to the Great Ocean Road and north of Eumerella Scout Reserve and consists of approximately 350 acres. This area is in its natural state and has a great variety of wildflowers and one gully has an excellent patch of coral fern, a rare plant in this district.

Geof Carr is compiling a list of the plant life of both areas and when completed will be submitted to the proper authorities with our Committee's recommendation for preservation.

LITTLE EGRET VISITS LAKE CONNEWARRE
By Jack Wheeler

Church's Point is always a popular vantage point for observing the birdlife on Lake Connewarre. Visiting this area on 4th March last I became very interested in a pure white bird with a black beak, feeding along the north shore just below where I was standing. One has to be very careful before declaring the presence of a rare or new bird in a district, so a much closer

AT RANDOM
LITTLE EGRET VISITS LAKE CONNEWARRE

scrutiny was desired. Approaching the bird to within 150 yards, it flushed and flew several hundred yards westwards to land near another but larger white bird. This is just what I had hoped for and as I approached further along the foreshore I obtained excellent views of both birds. Both birds were Egrets, the larger bird being pure white in plumage and with a long yellow beak easily identified it as a White Egret, the largest of the four species of egrets known to inhabit Australia.

The other bird was much smaller with pure white plumage and a distinct black beak. By this comparison I was able to identify it as the Little Egret, a bird very rare to the Geelong District. In Sir Charles Belcher's book of 'Birds of Geelong' it is not recorded. In more recent years it has been recorded at Little River.

In the north of this state where White Egrets breed, they have a breeding change in the colour of beak, from yellow to black and can easily become confused for a Little Egret and for this reason a comparison in size is desirable.

ANGLESEA'S NEW PRIVATE WILDLIFE SANCTUARY
By Jack Wheeler

Over recent years, the Anglesea Golf Course has become a mecca for our native Kangaroos and Wallaby and they were permitted to graze on the greens and fairways quite unmolested. Today it is common place to see up to 30 or 40 of these lovely creatures living in quiet harmony with the golfers as they made their rounds.

Apart from being a popular golf course it has also become a very popular tourist attraction. Club officials have become very aware of the ever possible threat of poachers and shooters and on June 12th had great pleasure in officially declaring the area a properly constituted Private Wildlife Sanctuary.

We congratulate the Anglesea Golf Club on its action and may nature's creatures enjoy continued protection in such a lovely setting for many generations to come.

(This course was recently described by colomists in New York and London as being "unique in atmosphere and setting".)

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53.

AT RANDOM
KOOKABURRAS STOLE THE SHOW

By J.H. Whitmore

While on our annual holidays in April, my wife and I were fortunate enough to be in Canberra when the Inter Parliamentary Conference was being held there.

The Conference was attended by representatives from 52 countries throughout the world, and their arrival and greeting on the steps of Parliament House was quite an event, and the long row of flag poles, one for each country, opposite Parliament House, carrying the flags of the visiting nations added to the colour of the spectacle, and was watched by quite a crowd of tourists and local residents.

The Indonesian group arrived and posed for photographs on the steps. While these were being taken 4 Kookaburras sitting on the immense statue of King George V set up a half hearted laugh and chuckling. The Indonesians then moved across to the pole carrying their flag and posed for another photograph under it. Just at this moment 2 more Kookaburras alighted on the statue, and all 6 birds threw back their heads and laughed and laughed in their truly traditional manner.

Their effort really stole the limelight, and tickled the many onlookers. It was almost as if the birds were saying "We can also put on a grand show".

It was a truly unique but very appropriate Australian welcome to our overseas visitors.

FRINGED HARE-ORCHIDS AT ANGLESEA
By Frances Poole

Leptoceras fimbriatum (Fringed Hare-Orchid) - Slender stems up to eight inches high. Flowers one to three yellowish-brown on slender pedicels. Petals longer than the other segments. Labellum greenish with red-brown pubescent spots.

Last April we found a colony of these lovely orchids at Anglesea, about twenty-five flowers in all. The previous Spring we came across a large patch of the leaves and three dried flower stems; as these Orchids do not seem to flower very profusely we carefully marked the spot and went back in the Autumn. On the second trip we were fortunate to find the flowers in full bloom. Six weeks later they were still flowering, so we had plenty of time to photograph them and add another slide to the collection of Orchids of Anglesea.

GROWING ACACIAS FROM SEEDBy Oonah McHaffiePark Orchards

First of all, collecting the seed in any quantity presents some difficulty since it has to be collected at the right time.

It is necessary to keep a close watch on the shrub or tree and collect the seed pods just when they are about to open. Otherwise, you are likely to find that, after one hot day, the seed pods have "popped" and their contents have been ejected. If only a few seeds are required, enough may be found still clinging to the opened pods to serve your purpose.

Acacia seeds, being of the hard-testa type, require treatment before sowing.

Place the seeds in a cup and pour boiling water over them till they are well-covered and leave them in the water overnight.

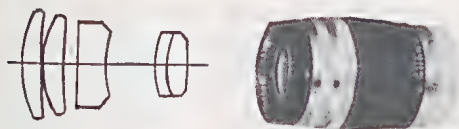
The next morning those that are swollen are ready for sowing. Those that have remained the same size will require further treatment: If, after a further soaking, they have not responded, it may be necessary to cut the testa or hard outer coating with a razor blade or sharp knife. This is to enable moisture to be absorbed, but care must be taken not to damage the embryo or to cut the seed in two pieces if too much pressure is applied.

After treatment, sow the seeds in a seed box filled with sandy soil. River sand or decomposed coarse sandstone are the best, mixed with leaf mould or well-rotted humus which has been sieved or well broken up, but the main thing is to use a light soil which is porous and will not pack tightly, and if there are no spaces between the boards in bottom or sides of box, holes will have to be bored. Before sowing, water the soil well to consolidate it.

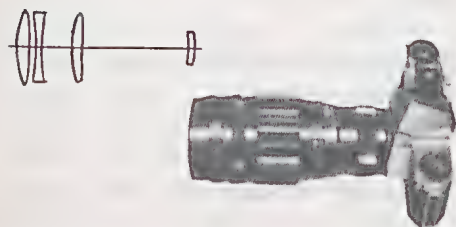
If you only wish to sow a few seeds and would like to avoid pricking the seedlings out, you can sow a few seeds in tins, removing all but the strongest seedlings later.

Having prepared the seed box, sow the seeds not too closely so

PHOTOGRAPHERS!

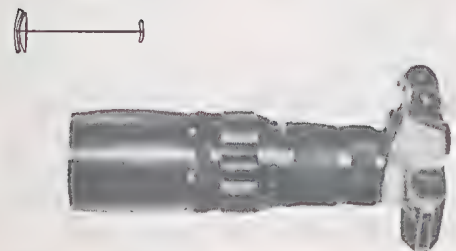


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PICTURED ABOVE ARE LENSES FOR THE ASAHI PENTAX — FROM THE TOP —
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that air can circulate around the seedlings and cover with soil to a depth of twice their thickness.

Watering may present some problems. A fine spray is really essential. We did not have the necessary equipment hence the soil gutted out and I feel sure if this had not occurred we would have had a larger percentage of germination. Next time we intend to use the method of mulching with gravel on top of soil in seed box to combat this. Very fine gravel, of course, so that the seedlings can push through.

Place the seed box in a position where there is morning sun only. We covered ours with a sheet of glass, raised slightly at one end for ventilation.

Germination may take some time and may also be spread over some weeks. When the first or second pair of leaves has formed, prick out into tubes or tins. Poke a hole in the soil with a small stick, and then prick out a seedling with a sharpened stick. Hold seedling between the thumb and fingers of left hand and lower into the hole to approximately the level to which it was growing in the seed box. Still holding seedling in position, gently firm the soil with the right hand, using the small stick to ram the soil round the seedling. Shade the seedlings for a few days, then gradually expose them to full morning sun. The seedlings should be kept in the containers until a good root system has formed.

As a general rule those seedlings transplanted in the Spring are ready for planting out in the Autumn.

Although seed may be sown at any time, that sown in late Autumn or Winter is not entirely satisfactory as it may not germinate till Spring and some seed may rot. Sowings in mid Summer may germinate in a shorter period but this advantage is off-set by the additional care required to prevent the soil drying out. Spring is generally considered the best time to sow and the end of August is early enough for most species.

These methods will apply equally well for other hard-testa seeds which are chiefly of the pea family, but include some others.

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ORCHIDS IN THE ARARAT DISTRICT

By Lorna Banfield

Summer rains have ensured a good season for autumn orchids in the Ararat district. Though most people associate orchids with the spring, you may rejoice in their beauty in almost any month of the year - not so much in the coddled varieties of hot-houses, but in the more modest and no less fantastic ground orchids of our bushland.

Many of the cinderellas of the orchid world, especially the autumn flowering Prasophylls or leek orchids, are in this area of western Victoria, but you will have to search for them.

Three or four varieties of this diminutive group will be found around Ararat, particularly in ungrazed country between the golf links and McDonald Park, also in virgin bush around Pomonal and elsewhere along the foot of the Grampians.

The plants are usually leafless at flowering time and the stems ranging from three inches to eight inches all carry numerous minute flowers in tints of reddish brown, prune or green. One variety looks almost black from the dense dark hairs which crowd the margin of the flowers and tremble in the slightest breeze. To some observers the little autumn prasophyllums look like tiny flies dangling from their slender stems. Most common varieties in this district are the elfin, the tiny, the hairy and the Archer leek orchids.

GREENHOODS

Greenhoods will be out very soon and the first to appear will be *Pterostylis parviflora*, which has often been collected off Picnic road and in other places to the west and north of the city. It has two to five small green flowers to each stem so compact in form that a casual observer may imagine that the buds never open.

Pt. revoluta on the other hand has very large single flowers growing conspicuously in colonies often around the butts of trees or fallen logs. There used to be a big colony near the rifle butts. Look for them between March and June.

May to July is the time to look for banded green-species of

ORCHIDS IN THE ARARAT DISTRICT

Spiranthes, known in the Grampians and also the purplish which is common everywhere. The blunt-tongued (April to May) has also been reported at Ararat.

Australia has only one of Spiranthese, known as Austral Lady's Tresses, flowering from January to March. If you see in wet, swampy ground grass-like stems with numerous, small pink flowers curling spirally up them you may be sure you have found this attractive orchid. In the bush country to the west of Moyston and around the Grampians, the stems are usually from six inches to a foot high but in northern New South Wales the flowering spikes are often two feet tall.

Best known of our local autumn orchids are the aptly named Parson's Bands whose single pink and white flowers will be seen almost anywhere in the bush in April and May.

But if you want to see the autumn bird orchid or the fringed hare orchid you will have to go out to the Grampians in May or early June.

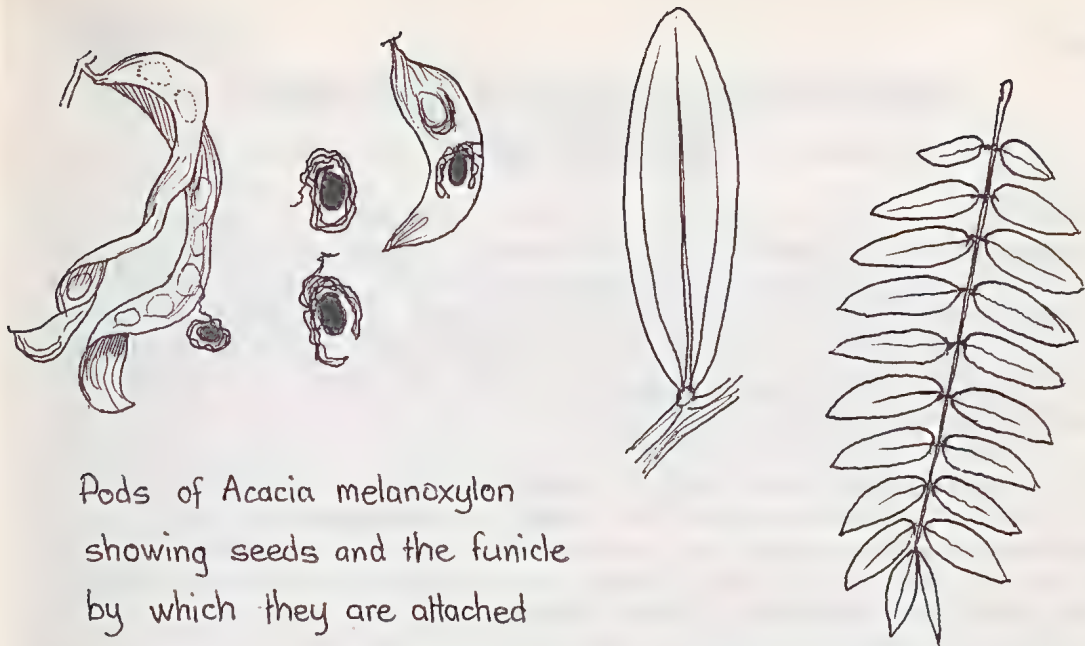
ORCHIDS ARE DELICATE PLANTS

Orchids are very hard to grow from seed and cannot germinate without assistance. Their seeds are among the smallest in the world, so small that there is no room for the stored food material which constitutes the bulk of most seeds.

Assistance for germination in the natural state is provided by a fungus. It comes in contact with the seed as a fine thread which enters a small hole in the skin of the seed and gradually takes possession. As a rule it lasts with the plant after germination and until it attains flowering size.

Orchid seeds are usually scattered about the roots of the parent plant and have a fair chance of making contact with the fungus if the ground is not disturbed.

This is why it is so important not to interfere with orchids growing in the bush and one reason why all orchids are on the list of protected flowers in Victoria. It is illegal to pick or dig up any orchid on Crown land or State forest.



Pods of *Acacia melanoxylon* showing seeds and the funicle by which they are attached

True leaves of *Acacia* and leaf-like phyllode - a flattened stem.



Acacia seeds before and after soaking. (magnified)



Nitrogen fixing bacteria on roots of *Acacia* which make available nitrogen for the plant



A. floribunda seedling

OBSERVATIONS ON FRIGATE BIRDS. PORT MORESBY.30th December, 1965.By K. Campbell

At about 1.15 p.m., I was surprised to see, from my window on the vessel "Moresby" tied up at Port Moresby wharf, a fairly large flock of Frigate Birds (I counted approx. 24), along with one smaller bird which looked like a Shearwater but was all-white in colour, flying over the waters of the harbour in the vicinity of the "Macdhui" wreck and Flying Boat take-off area, and about half a mile to the Southward.

How long they had been there I do not know, but they remained in the area for about another half hour. The larger birds appeared to be chasing the smaller white bird and harassing it, which is likely, as I understand they are predatory birds which get their food by robbing other birds.

When flying near the water they were in almost continual flapping flight, with the exception of small groups of two or three soaring at a height of about 500 feet above the others, but on two occasions all the birds soared upwards to a height of approximately 800 to 1,000 feet in the vicinity of Paga Point for a few minutes, returning each time to fly low over and skim the water, but not diving or alighting. Their most remarkable performance, however, was when soaring high over Paga Point. There was a strong South West breeze, about 12 knots at sea level, and bringing up a number of "white horses" in the harbour. At a height of 800 feet it would probably be at least 20 knots.

The birds were not only able to make forward progress into wind in pure soaring flight, but at the same time to steadily gain altitude for periods of about ten seconds at a time, without any previous dive to gain momentum. Several times I noted they would turn round and soar rapidly across and down wind, and then immediately turn straight into wind and soar ahead at reduced speed, continuing to gain altitude.

When soaring into wind their long, very narrow, sharply pointed wings (wing span about 7 feet) took up an attitude similar to that of the albatross, with down curving tips, and in plain view an even more exaggerated inverted shallow W shape, straightening and flattening out to some extent on the down-wind run.

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OBSERVATIONS ON FRIGATE BIRDS. PORT MORESBY.

Another noticeable feature was the prehensile behaviour of the tail assembly.

When soaring into wind the normally wide fan-shaped "swallow" tail was closed up like a Japanese fan to form a long thin tail like a pointed stick, opening slightly to form a double pronged tail occasionally, but when flapping or soaring down wind the tail feathers opened or closed to a greater or lesser degree when manoeuvring, the left and right sides of the tail being independently controlled in a similar manner to that employed by the kite hawk. This display continued for about half an hour after I first saw them, when the birds completely disappeared.

Whilst they were not close enough for me to do any good with the 35 mm Camera, I was able to get what I hope will turn out to be a few very good shots of their soaring flight with the 8 mm Zoom lens movie camera.

Another thing I noted was that a small number of the large birds had a white head and neck, the rest of the plumage being black, whereas most of them were black all over with a couple of white flashes on the under side. All appeared to be about the same size. I am wondering if the white ones could have been what is called the Bosun Bird, as I noted on one which flew over the ship fairly high up that it appeared to have the characteristic 2 long single feathers projecting beyond the tail of the Bosun bird.

Due to their fast and erratic flapping flight, and the fact that they were never much closer than 500 yards, it was difficult even when using binoculars, to get an exact idea of their plumage colouring, but the white head and neck showed up quite clearly on a few birds.

The weather was cloudy and unsettled. Subsequent inquiries locally revealed the fact that the birds were migrating, are rarely seen here, and then only in unsettled weather conditions at the start of the rainy season, which commenced here on Christmas Day. The most outstanding impression gained from these observations was the amazing, quite fantastic, soaring ability of

OBSERVATIONS ON FRIGATE BIRDS. PORT MORESBY.

these birds. I have often read that they were very good at soaring, but the few isolated instances last voyage when I saw not more than two at a time, they were flapping all the time, and I was not prepared for this remarkable display, which indicated that they exploit a much greater height spectrum than albatrosses. Their ability to gain height while making steady forward progress into wind in pure soaring flight has to be seen to be believed. It definitely proves beyond any shadow of doubt, and in a much more positive way than a study of albatross flight proves, that the ability to soar into wind without the expenditure of power is only a matter of correct aerofoil design.

Why this is not more generally recognised in aerodynamic design circles at this stage of the game is something very difficult to understand.

However, the above is my story, and I'm sticking to it.

JUNIOR PAGESTORY PUZZLE

The puzzle has been supplied by one of the senior Club members, and it may give you some fun trying to find the names of birds to fill the blanks. For the answers, see page 64. To help you, the first blank is for the name Robin. - "It was Robin's birthday, and he had invited four little friends to an outdoor party".

Now you try to find the missing words - remember all the blanks are the names of birds.

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JUNIOR PAGE
STORY PUZZLE

It was .(1). 's birthday, and he had invited four little friends to an outdoor party. They were Bobby and .(2). and Billy and .(3). . . Amongst his gifts were a big paper .(4). and a set of the .(5). books, and a pair of .(6). skates. He was pleased with the books because, although he had read them, he had .(7). of his own.

They all played with the new .(4). which had a face painted on it with big .(8). . Unfortunately someone trod on the tail and broke it. "Oh, it's .(9).," cried .(1). . "Don't say .(9).," said his father; "say 'broken'."

Father cooked chops and sausages over the barbecue that had a special .(10). around it to prevent children getting burned by the hot .(11). . Little Billy tried to .(12). his food too .(13).-ly and started to choke; so father .(14).ed him over and thumped him between the shoulder blades to dislodge the food.

Then they played a Scouting game where one boy had to .(15). another, but Bobby tripped on a big .(16). in a log of wood, cut his leg and started to h.(17). with pain. As he tried to tie it up with a small handkerchief .(1). said: "Here's one of mine, .(18). bigger than your's."

Just then a kookaburra swooped down to pick up some meat scraps, and they all had to .(19). .

Next day there was another present for .(1).; it was a working model of a .(20). . "Does it run on .(21).?" he asked. "No, on batteries" said Dad as he went off, whistling. "Gee, Dad's a beaut .(22). said .(1). as he started his new .(20). working.

This month, we have two excellent stories about possums. The first, written by Douglas Bolton, aged 10 years, of Mannerim, tells of a Ring-tailed possum. Douglas writes -

"Last Friday night we got home very late and when we drove the car into the shed we saw a possum sitting on a rafter with its tail curled around a frayed rope which had been tied to the rafter. It was biting, scratching, and twisting at the rope, which was nearly cut through, and we guessed that it was collecting materials for another nest, for the bag it used to sleep in, in a boat high up

JUNIOR PAGE

near the rafters, had been taken away.

It slipped right off the rafter and hung to the rope by its tail, doubling back and trying to gnaw through the rope.

This went on so long that we began to think its tail must be caught in the rope, so my brother got a ladder and began to climb up to see. When he got near, the ring-tail quickly swung itself back to the rafter and scampered off, so my brother cut off a little bit of rope for it and hung it on the rafter."

These possums build a snug little nest, about the size and shape of a football in which to sleep and rear their young. The long, curled-up tail (the name for this is "prehensile" tail) is ideal for carrying nesting material, as well as an aid during climbing.

The second story comes from Malcolm MacDonald, who attends Mannerim State School. Malcolm writes -

"Last year we found a baby ring-tail possum inside the gate, so my brother took it inside near the stove then Mum got a little lid and put some warm milk in it and tried to make it drink, but after a few days it died."

Young possums are quite hard to rear, and although babies are sometimes found deserted, rarely can they be raised. Constant care, feeding through an eyedropper, warmth, - all of these are necessary. Even then, without their mother to look after them, they often die.

ANSWERS TO STORY PUZZLE

- | | |
|----------------------------|----------------------|
| 1. Robin | 12. Swallow |
| 2. Albatross (ALBERT ROSS) | 13. Swift |
| 3. Jacky Winter | 14. Tern (TURN) |
| 4. Kite | 15. Stork (STALK) |
| 5. Noddy | 16. Knot |
| 6. Roller. | 17. (h) Owl (HOWL) |
| 7. Nun | 18. Miner (MINE ARE) |
| 8. Silver eyes | 19. Duck |
| 9. Bustard (BUSTED) | 20. Crane |
| 10. Rail | 21. Petrel (PETROL) |
| 11. Koels (COALS) | 22. Whistler. |

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FLAME ROBIN

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The Statements and the opinions contained in the papers published in this Journal are the responsibility of the respective authors.

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COVER PHOTOGRAPH

Male Flame Robin at its nest -
an Alpine breeding species.

Photograph by Eric Bound.

GEELONG NATURALIST

EDITORIAL

Vol.3 No.3.

October 1966.

No doubt the most noticeable feature of the July issue, and to a lesser extent, this issue, has been the lateness of publishing; for this I must apologise.

But the delay has given me time to review the standard of both material and presentation in previous Journals, and some new ideas are being brought out in this and future issues. To continue to improve "Geelong Naturalist", a variety of contributions are needed. We need, firstly, original articles of natural history flavour which can be used to fill the pages; the more articles received, the better is the selection and wider scope can be covered to satisfy all tastes. Photographs and sketches are needed as well, particularly if they accompany copy.

Ideas, too are needed - don't be afraid to write to the Editor and criticise if you feel you need (I hope you don't!).

And we need additional finance.

By doing "art work" on the photographs being processed for plates - that is by trimming prints, making titles, arranging spacing and so on - we have been able to cut costs to a minimum; and by substituting sketches in the place of photographs, we have reduced this still further.

But costs rise and the budget does not, so additional funds are sought. Can you help?

Donations - marked for "Publication" - should be sent to the Treasurer, and will be gratefully received. By all means nominate the use you wish the Editor to make of the donation - perhaps as extra photographs; we will ensure it is well used!

Finally, in this issue, I have tried out several new processes - I hope the presentation meets your approval.

TREVOR PESCOTT
Hon. Editor.

OBSERVATIONS OF FLYING FISH IN NEW GUINEA WATERS

By K. Campbell
Pennant Hills, N.S.W.

Early this year in the course of my employment I had the good fortune to make three voyages to New Guinea and Papua in Burns Philp Ltd. new Motor Vessel "MORESBY". This gave me a wonderful opportunity to renew my nature studies of Tropical Flora and Fauna.

My main interest is in birds and bird flight mechanics, but there are many aspects of this study, and in the realm of flight not only birds, but Bats, Flying Foxes, Insects, ----- and remarkable though it may at first seem ----- Porpoises and Dolphins, can teach us a lot about the principles of flight; or as it is known in scientific circles, Aerodynamics.

The Flying Fish come in several varieties, ranging in size for full-grown specimens from about six inches to twelve inches in length, the larger ones being about one pound weight, and, with the wings removed, closely resembling a mullet in shape and appearance. The wing span is roughly the same as the body length, with a wide chord near the body tapering to a point at the wing tips; the wing has what is known as a low aspect ratio (ratio of average width to length of wing span). The various species are widely distributed in Pacific tropical and sub-tropical waters, and I have even seen them as far south as Hobart, but they are rarely seen in latitudes south of Brisbane. They are good eating, and have often been the means of saving the life of castaways on the ocean. They are frequently referred to by adventurers sailing the Pacific on rafts, and some tall stories of their alleged flying ability have been published. This account is purely factual (although visual observation has its limitations as far as absolute accuracy goes). They are frequently to be seen in great numbers in the waters between New Guinea and Australia, and put on their best performance when the strong Southeast Trade Wind blows and brings up a moderate ocean swell. Great flocks can then be seen emerging from the wave crests and soaring to considerable heights for long distances. Their flight is probably a method of escaping from their numerous enemies in the sea, but it often happens that they are no sooner airborne than they are grabbed up by a sea bird, so life for them is indeed a grim business. They do not appear to have any directional control of their flight when once airborne; they do not flap their

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FLYING FISH (Cont'd.)

wings as a bird does but just soar along, at times almost directly into wind. From the wind they derive both lift and velocity, although their initial take-off is said to be due to the tremendous propelling force exerted by the tail in the water.

That they are able to perform even soaring flight is a baffling problem in Aerodynamics, in the existing state of knowledge of that Science, and according to the rules we now know, as their wing loading (pounds weight per square foot of wing surface area) is greater than that of any soaring bird. The wing is a thin, almost transparent membrane, with pronounced camber (curvature) but possesses neither streamlined shape nor porosity of structure such as exist in the bird's wing - these are regarded by leading scientists as essential characteristics for efficient flight performance.

It would, of course, be reasonable to assume that in a strong breeze they could use the wind to remain airborne for brief periods, --- one school of thought avers they can only soar whilst the wings remain wet, but as they shed water like an oilskin coat this would not be long. In actual practice it is quite common to find them landing on a ship's deck, to do which they would have to reach an altitude of at least 20 feet, and I have been reliably informed of one particular case where one landed on an upper deck 50 feet above the waterline.

The detailed observations which I am about to describe were made on the afternoon of 21st March, 1966. The ship had left Kavieng, at the Northern tip of New Ireland in Latitude 2 degrees South, at about Noon bound Rabaul, and at the time was on a Southward course between offshore islands and the mainland of New Ireland. The waters being relatively narrow and the sea dead calm, there was no ocean swell to assist take-off. The wind was officially recorded as "light airs" which means it was never in excess of three knots. It was not the season for the S.E. Trades and what little variable wind there was came from dead ahead. The ships speed was about 14 knots, but apart from the disturbance it caused, which probably frightened the fish, it would have no effect on their flight performance. The fish were not very numerous, and were of the smaller variety. According to all the known laws of Aerodynamic

FLYING FISH (Cont'd.)

Science it would be absolutely impossible for the most efficient aerofoil ever designed by man to remain airborne under those conditions. But wait, let us see what actually happened.

As we proceeded along in these calm, slightly rippled waters, I took up a position amidships on the main deck on the Starboard (right) side, and carefully observed their flight behaviour, using the second hand of my watch to time their flight duration. Groups of four to six, and sometimes about a dozen, would suddenly break surface alongside and soar off in a direction almost at right angles to the ship's course, with the wind coming from slightly forward of their Port beam (left side). At no time did their altitude exceed three inches above the water. On short flights of about thirty yards they made a clear soaring flight, and then returned to the water, but on longer flights of up to 15 seconds duration, and sometimes up to 20 seconds, their tails would momentarily dip into the water for about a quarter of a second about every 25 yards, and thus would gain impetus for the next hop. In this way they traversed distances up to about 200 yards almost wholly airborne. At such low altitude there could be no question of a "gliding angle". Another remarkable feature was that they appeared to make no appreciable leeway. The fact that numerous fish were able to duplicate the performance showed it was no freak. When all factors are considered in relation to the above observations, their amazing flight performance gives rise to the following queries:-

1. How does the fish remain airborne for such relatively long periods?
2. How does it derive lift from an apparent zero angle of incidence?
3. Are the wings angled relatively to the body centre line to give an angle of incidence, or is the lift derived a function of the large Camber.
4. From what source is energy to provide lift obtained? Would atmospheric turbulence from such low wind velocity in close proximity to the lightly rippled smooth sea surface provide sufficient energy? And what is it that enables the fish to make forward progress under these conditions?

Thermal effects can definitely be ruled out.

I think I know the answers to some of these questions, but I am waiting an opportunity to prove my theories experimentally. In the present state of the art I know I will be ridiculed if I go "shooting off my big mouth" in "scientific" circles.

What do readers think? Any suggestions will be welcome.

PLATYPUS CENSUS

"Although the settlement [Port Jackson, now Sydney] had been established for almost ten years, little advance had been made in the study of its natural history apart from that done during the first two years. The kangaroo, the dingo, the possum, the flying squirrel, the kangaroo-rat, a spotted rat, the common rat, and the large fox-bat (as the animals were then known), were the only ones that had been studied. The platypus had very recently been found on the banks of a lagoon near the Hawkesbury, and it aroused fresh interest."

Bowden, K.M. "George Bass",
Oxford University Press, London, 1952, P.56.

Few notes have been received on the occurrence of the Platypus in local rivers, and more are needed to help the Platypus Census. Two notes are as follows:-

"One animal observed in the Moorabool near Steiglitz in July 1966; it was seen swimming at the surface late one Sunday afternoon."

The second observation is of a Platypus seen in the Moorabool River near the Fyansford Limestone quarries on 11/9/66.

An interim report was printed in Geelong Naturalist, Volume 2, No.3, October 1965.

Question

of the month

Question No. 4.

What is the greatest height a bird has been known to fly and which bird was it?

The answer by Mr. Trevor Pescott is as follows:-

It is generally accepted that few birds fly at a greater altitude than 30,000 feet, at such an altitude, the identity of the bird is difficult to determine, because the observations are generally made from aircraft, or on radar screens.

The greatest height generally accepted is a flock of geese picked up by radar at a height of 29,000 feet. These would be birds on migration, for this would be the only reason birds would reach this altitude.

Another "record" flight was reported by Charles Stonor in his book "The Sherpa and the Snowman". He recorded a huge flock of Yellow-bellied Choughs which flew out of sight in a spiraling, courting flight. Stonor was at an altitude in the Himalayas of 15,000 feet, and he estimated the birds rose to a height of 10,000 to 15,000 feet above him.

Of course these altitudes mentioned are actual heights above sea level, and the distance from the ground may be considerably less.

Asiatic Warblers have been recorded at some 20,000 feet, for they have to cross the Himalayan mountains in their course of migration. Their actual distance above the ground may have been less than the 14,000 feet recorded for small English birds on migration - unidentified species for they were recorded by radar.

QUESTION OF THE MONTH (Cont'd.)

Finally, if we consult "The Guinness Book of Records", 11th edition, October 1964, we find the following reference - "The celebrated example of a skein of 17 geese photographed crossing the sun from Dehra Dun, India, on 17th September, 1919 at a height variously estimated up to 58,000 feet has been discredited by experts. The highest acceptable altitudes are 24,000 to 25,000 feet by a lammergeier (*Gypaetus barbatus*) on Mt. Everest in 1922, and by a chough (*Coracia pyrrhocorax*) at 26,000 feet in 1953. The Bushy Hill radar station, Essex, England has occasionally recorded birds at a height of 20,000 feet (3.78 miles)."

Footnote - the Lammergeier is a bird of prey allied to the vultures.

Question No. 5.

What was the reason for the largest mammal, the whale, to take to the water?

The answer is given by Mr. Trevor Pescott.

The answer to this question is basically that because the whale took to the sea, it was able to grow so large.

Forerunner of the modern whale probably began as a coastal, semi-aquatic animal which fed on fish. As it developed more intensively as an aquatic species, so its basic needs of life, food and shelter, became integrated with the ocean.

The first known Cetacea, or member of the whale family, is a fossil called Zeuglodont; this was a long, slender creature resembling the legendary sea serpent. It grew to 65 to 70 feet long.

As the Cetacea developed, they became even larger and much broader as they attained the thick layer of blubber needed to keep warm.

The water supported the enormous weight of this blubber, and it was this factor alone which made it possible for the whale to grow so large.

Once in air, the muscles of the whale's lungs are unable to lift the blubber, and the whale suffocates.

THE KIEWA TERRITORY AND ITS VARIABLE BIRDS AND FLORA
AT VARYING ALTITUDES
By Jack Wheeler, Belmont.

In Australia, altitudes play a big part in the distribution of flora and fauna. The now accessibility of the Kiewa Territory gives excellent examples of this, from the Kiewa Valley at 1,200 feet above sea level, to the Bogong High Plains at 5,500 altitude.

Mt. Beauty, a picturesque township situated at the foot of the Victorian Alps was the venue for the Royal Australasian Ornithologists Union Field Outing in November, 1965. The group consisted of naturalists from New South Wales, South Australia, Victoria, Tasmania, New Zealand, and the United States of America, and the total of 54 were all accommodated together in comfortable quarters, and all movement was carried out in two buses especially hired for the ten days duration of the outing.

Mt. Beauty is situated at the eastern section of the Kiewa Valley, and is surrounded by mountain ranges on three sides, with the summit of Victoria's highest mountain, Mt. Bogong, clearly visible.

Even though the emphasis was on bird observing, one of the aims of this group was to study the birdlife existing at variable altitudes, and to do this, three full days were allotted for visits to the Bogong High Plains, and on each occasion varying weather was experienced, from blizzards and heavy snow to bright clear sunshine.

Immediately to the east of Mt. Beauty Guesthouse, is a forest, predominately Peppermint, intermixed with Bluegum, Candlebark, Broadleaf Sally and Manna-gum. The under-cover includes a variety of ferns, acacias, and small shrubs. This type of forest extends to above Bogong Village at about 3,000 feet above sea level. In this forest, bird life was fairly prolific and gave great variety. Apart from the more common species those which created the most interest were such species as Wonga Pigeon, Gang Gang, Leaden Flycatcher (N), Cicada Bird, Mountain Thrush, Spotted Quail Thrush, Red-browed Treecreeper, White-throated Warbler (N), Regent Honey-eater (N), Noisy Friar Bird, and Pied Currawong.

To the west of the Guesthouse there is the pondage reservoir which attracted water birds such as Black Swans and several varieties of ducks.

THE KIEWA TERRITORY (Cont'd.)

The valley in the region of Tawonga and along the Kiewa River was also rich in birdlife, and provided a variety of habitat from swampy marshes and swift flowing streams to lightly timbered savanna country. Amongst the interesting species recorded in this area were Lewin Water Rail, Brown Song-lark, Rufous Song-lark, Rainbow Bird (N), Reed Warbler (N), Golden-headed Fantail Warbler and Olive-backed Oriole (N).

From Mt. Beauty the road climbs to the Bogong High Plains through some of the most picturesque mountain regions in Victoria. Ten miles up this road is very attractive Bogong Village, situated in a deep wooded valley at an altitude of approximately 2,000 feet, the terraced homes being immediately above Junction Dam.

A visit to the Forestry Office provided valuable information on local flora and its insect life. We were told that at one stage the Phasmatid, in 1960, threatened vast areas of forest, and that its invasion was arrested in 1961 by aerial spraying.

Bogong Village provided us with three surprises, the first and most significant being the occurrence of many Ground-larks (Pipits) around the shores of Junction Dam, which was rocky and stony and the type of habitat in which one would never expect to see birds of the open plains. The reason for this was presumably the very heavy snow falls and blizzard conditions experienced on the Bogong High Plains two days previously. These harsh conditions had, no doubt, forced them to seek shelter at lower altitudes. This was also the case in regard to the Crescent Honey-eaters, several of which were noted below Mt. Beauty at the same period.

The second surprise at Bogong Village was the occurrence of the Rufous Fantail just below Junction Dam, but two days later I observed the same specie at 1,000 feet higher up. It would be interesting to know if the Rufous Fantail nests at this altitude.

The third surprise was the tameness of several Yellow-tailed Black Cockatoos feeding on borer grubs from the trunks of wattles, right in the heart of Bogong Village.

In this region the song of the Superb Lyre-bird was heard in the deep valleys to about 3,000 feet above sea level but not beyond.

THE KIEWA TERRITORY (Cont'd.)

The breeding season for these birds had finished and their calls did not include very much mimicry.

After leaving Bogong Village, the road climbs steadily and at the 3,000' altitude, the forest habitat changes to thick sclerophyll type forest where the rainfall average is in the vicinity of 70 inches. Here the trees are taller and more thickly established. They are mostly Alpine Ash (Woolly Butt) and Mountain Bluegum, with very thick undergrowth of tree-ferns and a big variety of tall shrubs. This region in November is a delight with masses of flowering plants. The Prickly Bush Pea (*Pultenaea juniperina*) predominates and hung in masses of golden glory from the tall road banks. Masses of Mountain Daisy Bush (*Olearia phogopappa*) added contrast with cream-white flowers. Here also bird life was abundant, with some change in species. The first Flame Robins were noticed and were already nesting in cavities of banks where they were cosy from any adverse weather. Striated and Brown Thornbills as well as the White-browed Scrub Wrens were everywhere, as were also Blue Wrens, and they shared much of the undergrowth in what appeared to be complete harmony.

In the treetops were dozens of Pardalotes, both the Eastern-striated and Spotted species, and they too at times showed some interest in nest sights, inspecting numerous small cylindrical holes in the tall road banks.

Every clearing and roadside camp appeared to have its population of Pied Currawongs and at Howmans Gap two Grey Currawongs and one White-backed Magpie were also noticed. Three species of Whistlers, the Golden, Rufous and Olive were all in good voice, and of the active Honeyeaters, the Crescent was by far the most abundant, supported by the Yellow-faced Honeyeaters and Red Wattle-birds. Whip-birds and Wonga Pigeons also occurred to the 4,500' altitude but not beyond.

Between Howmans Gap and Falls Creek another change of habitat takes place, and this is where the tall timber gives way to the more stunted Snow-gums and White Sally. This is the sub-alpine forest region and occurs above 4,500 feet above sea level. Here the undergrowth was less abundant but still quite attractive with the Royal Grevillea (*G. Victoriae*) and the Hickory Wattle (*Acacia*

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THE KIEWA TERRITORY (Cont'd.)

falciformes) predominating. Birdlife had also thinned out. The most common were the Flame Robins and they were everywhere; the fully plumed males made a pretty sight with their rich red breasts as they searched in the snow for food.

They had spent the winter on the lowlands, and had returned to the Alps to breed over the summer period.

A surprise to us all were the numbers of Bronzewing Pigeons to be found at such an altitude, and later we were to find that they also occurred well above the snow line in lightly timbered areas on the edge of the Bogong High Plains at well above the 5,000 feet mark. In this sub-alpine area other birds noticed were the Olive Whistlers, Grey Shrike Thrushes, White-browed Scrub Wrens, Pied Currawongs, and Ravens.

On reaching Falls Creek the road soon flattens out and here an area is encountered which is known as the Bogong High Plains. The term plain may be a little misleading, but despite the altitude averaging about 5,500 feet, there are undulating areas which provide gullies and ridges where pockets of Snow-gums and a variety of alpine shrubs exist, and it was in these areas that I listed several bird species. The most common, again, was the Flame Robin. They appeared to be sheltering in these pockets of scrub from the bleak conditions we experienced on two of the visits, but on another visit when it was calm and sunny, they were scattered everywhere, flying from rock to rock or from tussock to tussock.

Pipits also were common, and like the Flame Robin, they appeared to cover a vast area. Here I was most intrigued to find so many small birds isolated in several small patches of scrub and they included the White-browed Scrub Wrens, Brown Thornbills, Silvereyes, and odd Olive Whistlers. Of the larger birds several Pied Currawongs were noted as were also Ravens, but I thought my best find was a lone White-backed Magpie, so strange indeed to be so far away from its usual habitat of open savanna paddocks of the Kiewa Valley.

The Kiewa Hydro-electric scheme has a catchment area of 117 square miles, much of which comprises the Bogong High Plains and it is in this region that peaks such as Spion Kopke (6,025 feet), Mt. Nelse North (6,181 feet), Mt. Nelse South (6,175 feet), and Mt. McKay

THE KIEWA TERRITORY (Cont'd.)

(6,045 feet) all do their part in providing water for the scheme. Here vast areas are covered with snow grasses and Pete-mosses, the latter acting as huge sponges of natural reservoirs, which by their absorption of water from the melting snows of the spring, will provide during the summer minute rivulets of water for catchment reservoirs then so important to hydro-electric schemes.

Despite the severe extremes in climate at such high altitudes, springtime brings a great contrast to the highlands and this was very evident during my November visit. As soon as the snows have cleared, nature provides vigorating energy to its alpine plants, plants which have to flower and then seed, well before the rigors of winter are again experienced, to entomb them in deep drifts of snow. During my visit several shrubs and plants were already in flower and included such plants as the Alpine Phebalium (*P. podocarpoides*), Tough Rice Flower (*Pimelia axiflora*), Long-leaf Hovea (*Hovea longifolia*), and Alpine Buttercups (*Ranunculus lappaceus*). These shrubs, growing mostly in pockets sheltered by patches of Snowgums and White-Sally in turn provide adequate shelter for the small birds I have mentioned.

The large expanse of water known as Rocky Dam only produced a few Black Cormorants, all resting with outspread wings after a morning's fishing in the icy waters, and a visit to the Pretty Valley bogs only produced a pair of Black Ducks. The nearby "refuge" hut surprisingly provided a nesting place for a small group of Starlings. Introduced birds are rarely observed at such high altitudes.

My last observation of interest to this fascinating region was the repeated flight of a Flame Robin, in and out of an open window of a disused workshop building near Rocky Dam; had it also adapted the habit of our Welcome Swallows, of nesting in comfort in a man-made habitat? This appeared to be so but the bus was ready to depart and further investigation had to be terminated.

The alpine regions have an attraction all their own which make a strong desire to return for further exploration, very real indeed.

Note ..

"(N) Denotes Nesting".

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VISITORS IN THE DESERT
By Mrs. May Batchelor

Possession is nine tenths of the law. This no doubt you have heard many times. I recall the time two Stumpy Tailed Lizards took possession of my home, and insisted on staying. It happened this way. -

My husband and I were digging for opals at Andamooka, South Australia. Our claim was six miles from the township. We were entirely alone, camped in the desert.

On one occasion we were prospecting and were away from the camp for three weeks. We returned to find a rather large Stumpy Tailed Lizard occupying the space between cooker and table.

He was about fourteen inches long, and took up more space than I could afford in the confined area of the tent.

After stepping over him, on him and dodging him for a couple of days, I decided he must go. Rather reluctantly my husband carried him to the shade of some salt bush, about half a mile away.

Two days later he returned! I was lying on the floor of the tent, having my midday rest, when I saw the nose, then the body of the Lizard wriggle in under the canvas. He walked quietly past me, pausing long enough to look me over, and again took up the same position by the cooker.

This time we decided to take him in the car, about two miles to the dry creek bed, for we had seen several such creatures there.

This time it took him three weeks, but he duly arrived back. I was cooking at the stove as he came in, with the same wriggle at the same spot. Again he looked at me, with that long deliberate stare, and made his way into the annex where we kept our stores and gear.

My husband thought there must be another one there, so we moved everything outside, and found the other one.

It was no doubt a female about to produce a family, for she had made quite a nest in a plastic coat.

VISITORS IN THE DESERT (Cont'd.)

She was very timid, with none of the assurance of the male. We gathered them up in a box, plus the coat, and returned them both to the creek bed.

Two weeks later we moved our camp to a new place. We would never know if they returned again.

I ask myself over and over again. How could the first one find his way back again, such a distance over this bleak desert where stones lie by the million each stone identical to a thousand others?

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MACQUARIE ISLAND AND ITS NATURAL HISTORY

By Dr. Stefan E. Csordas, Nunawading.

Macquarie Island is the least known among the permanent stations of the Australian National Antarctic Research Expedition (A.N.A.R.E.). Being only a subantarctic island ($54-1/2^{\circ}\text{S}$ and 159°E), half way between Australia and the Antarctic Continent, it is not glorified in the daily press, radio and television. No matter how important the work the expedition members have done, they receive neither distinction nor medals. It is an important meteorological station supplying three hourly weather information for New Zealand and Australia. It is also an ideal place for physicist to study cosmic radiation, ionospheric conditions, aurora australis, earth magnetic variations etc.

It was discovered by Capt. Hasselborough on the 11th July, 1810. He was sailing in these latitudes, looking for sealing grounds. Large herds of fur-seals were found on the beaches of Macquarie Island and a wholesale slaughter started. The sealers recklessly killed bulls, cows and pups. Within fifteen years the entire fur-seal population was exterminated. The sealers then turned their attention to the elephant seals and penguins, killing them for their oil. Reports about their extremely cruel methods appeared in the daily press. As a result of this public campaign, at the beginning of this century all sealing licences have been cancelled and in 1933 the island was proclaimed a sanctuary for wild life. In 1948 the Australian Government established a permanent weather and scientific station and it has been maintained continuously ever since.

Politically the island belongs to Tasmania, geographically it is the southernmost member of the subantarctic island group of New Zealand. It is about 22 miles long and at the widest part 3 miles wide. It consists of a high plateau with narrow coastal margin. On the plateau there are numerous fresh water lakes.

The climate of Macquarie Island is cloudy, wet and cold. The winds are strong and persistent, sometimes up to 106 miles per hour. The lowest temperature ever recorded was $+17.0^{\circ}\text{F}$, the highest $+52.7^{\circ}\text{F}$.

The native flora is presumed to be postglacial in origin and reached the island probably through seabirds. More than 30 vascular plants has been identified so far. 41 species of lichens are known. No trees or shrubs are found.



1. Elephant Seal
2. Black-browed
3. Gentoo Peng
4. Chin-strap
5. Fur Seal &

See Page 96 for

Photo by S. E.



Albatross
in
Royal Penguins
up
)

details.

sordas.



MACQUARIE ISLAND (Cont'd.)

The island is one of the richest wildlife sanctuaries in the world and it is a real treasure island for field naturalists. The waters around it, teeming with diatoms, crustaceas, squids and fishes, support enormous numbers of seals and seabirds.

Until 1960, the following birds were known to be nesting on Macquarie Island :-

| | |
|------------------------------|----------------------------|
| King penguin | Dove prion |
| Gentoo penguin | Macquarie Island cormorant |
| Royal penguin | Brown or southern skua |
| Rockhopper penguin | Dominican gull |
| Wandering albatross | Antarctic tern |
| Black-browed albatross | Grey duck |
| Grey headed albatross | Weka |
| Lightmantled sooty albatross | Redpoll |
| Giant petrel | Starling |
| Cape pigeon | Muttonbird |

Casual visitors are:-

| | |
|------------------------|-------------------|
| Adelie penguin | Mallard |
| Chinstrep penguin | Swamp harrier |
| Erect-crested penguin | Bar-tailed godwit |
| Snares crested penguin | Snipe |
| Black cormorant | Knot |
| White heron | Arctic tern. |

This list is continuously increasing, nearly every year one or more new species has been and is sighted and reported.

Some birds are permanently around the island (gentoo and king penguins, dominican gulls, cormorants, antarctic terns, ducks), some migrate during the winter period (royal and rockhopper penguins, albatrosses, skuas, etc.). The giant petrels represent a special

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MACQUARIE ISLAND (Cont'd.)

group. The chicks leave the island and until they reach the breeding age, they travel around the world several times then they return to the island to nest and never leave it again. This theory is based on banding experience. In 1959 our banded chicks have been sighted in New Zealand, Australia, Norfolk Island, Fiji, Tahiti, North-West Africa, Chile and Uruquay. Since 1960 several banded adult birds, banded as chicks 4-5 years earlier, have been found in rookeries on the island. Some of these birds were also sighted during the winter period.

Five species of seals have been recorded on Macquarie Island. The elephant seal, fur seal, leopard seal, Hooker sea lion and Weddell seal. The elephant seals breed on the island and can be found everywhere on the beaches in smaller or bigger groups throughout the whole year. The number of fur seals is increasing and in 1955 I was fortunate to find the first Macquarie born fur seal pup after more than 100 years. Since then their number is growing and last year several pups were seen. The leopard seals coming from the Antarctic Continent, are regular winter visitors. Their number varies between 50-200 and are mainly young, immature animals. Nearly every year one or more sea lions turn up from the "neighbouring" Campbell Island (400 miles to north-east). Weddell seals, also from the Antarctic Continent, are extremely rare visitors. Usually very young injured seals come ashore and stay there for one or two weeks. Since 1948 only three Weddell seals have been sighted.

There are also some introduced animals. The sealers released some rabbits near the end of the last century. They wanted to have them as fresh meat supply. The rabbits multiplied rapidly and now cause quite considerable damage to flora and soil. Cats, also introduced by the sealers, are not in large numbers around and are in a certain way useful, killing rats, mice and rabbits. The expedition took down a cow, a bull and several sheep. They live entirely on the vegetation growing on the island and seemed to be quite fat and happy.

I hope this short summary will give you some idea of my favourite island's natural history.

THE LAZY MAGPIEBy Oonah McHaffie, Park Orchards.

At the time of writing, late Spring, we are having a lot of amusement at the antics of the magpie family who are entertaining us in our garden at Park Orchards. Although I might add we were not quite so amused on the morning when they woke us up at 5 a.m. right under the bed-room window, with one of the offspring fairly bellowing for food. Maybe bellowing is not the right term for a vociferous magpie but "bellowing" is the term that first came to mind - at 5 a.m.!

The two young birds are almost as big as the mother, or were, when first observed two or three weeks ago. Now, I am not sure that they are not the same size - or almost - and definitely plumper. This does not astonish us as, with two large offspring to feed, she is almost literally "run off her feet", as she runs backwards and forwards between the two to feed them and seems to get very little herself.

We are encouraging them to stay close to the window, for easy observation, by supplementing their diet with a little finely chopped raw meat, which they seem to consider quite a delicacy.

But to return to the lazy magpie. From the first time they graced our lawn one has refused to feed himself. The young birds are both able to fly and fly well - up to the top of quite tall eucalypts. One, although quite glad of tit-bits from mother, will pick up food for himself. The other follows squawking in the wake of the parent bird, only a few inches in the rear, demanding to be fed in no uncertain terms. Even in the case of the raw meat, when there is no necessity for hunting, he still expects mother to put it in his gaping beak.

Today, for the first time, he is making a pretence of getting worms or grubs from the lawn, but it would appear to be all play, much as a kitten or pup plays. While we watched he would give a little jump in the air and pounce as though there was something specially good there and then, after a lot of play, with his beak as though wrestling with something, he would desist with absolutely nothing to show for his efforts.

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THE LAZY MAGPIE (Cont'd.)

Unlike most of the animal kingdom, I have not yet seen either of the parent birds chase the young off in order to teach them to fend for themselves. The parents do try to teach them by foraging and eating the catch in front of the young but the insistent loud demands of the lazy one soon gets results and the parent bird continues to feed him.

We are surprised to see that the male parent is also still feeding the young birds, though not quite so frequently as the female. We thought that by the time the young birds had reached this stage the family would have broken up. I suppose it will happen at any time from now on. In spite of the noise we will miss them when that day arrives.

FURTHER COMMENTS ON BEHAVIOUR OF MAGPIES

Since my previous notes two amusing incidents have occurred. Twice, today, when the squawking of the young bird has seemed particularly loud and prolonged, I have glanced out the window to see what was the trouble, if any.

The first time, mother and offspring were having a tug-of-war with an unfortunate worm. Both birds were pulling back as hard as they could with the worm stretched between them. I was unable to see who won.

On the second occasion I really feared a tragedy had occurred. One magpie - I think the squawker - was lying on its back with feet in air and another was pulling at its tail feathers. As I watched the tail puller moved off and the one on the ground ceased yelling and lay perfectly still on its back. I could not see a movement and feared that it was dead. So after watching a few seconds I flung up the window to lean out for a better view. On which the "dead" magpie got up and walked away to a nearby bush as though nothing had happened.

Discipline or a fight? I am inclined to think it was all play-acting. None of the birds seemed at all perturbed and were around again as one happy family shortly after this incident.

APIOMORPHINAEBy J. Barnes, Melbourne.

The Apiomorphinae (Brachyscelinae) are a remarkable group of gall-forming Coccids peculiar to Australia, more than 40 species being known, mostly comprised in the genera APIOMORPHA (29 species) and OPISTHOSCELIS (10 species). APIOMORPHA duplex Schrader forms the largest gall in the world; it is attached to the twigs of eucalypts, and is usually about three inches long, of a very graceful shape, consisting of four-sided chamber with ridged edges continued as two elongated appendages; the enclosed female coccid has been measured up to 1-1/2 inches in length. The males of *A. pileata* Schrader form narrow urn-shaped galls often found in large clusters on leaves or twigs; the females make much larger, woody galls shaped like the conventional bishop's head in chess. *A. pomiformis* Frogg. forms a large gall shaped like a small apple on stunted gums in central and Northern Australia; *A. strombylosa* Tepper makes large, rounded, rugose galls resembling nutmegs; the galls of *A. munita* Schrader resemble the fruit of *Lambertia*, but with three much longer processes.

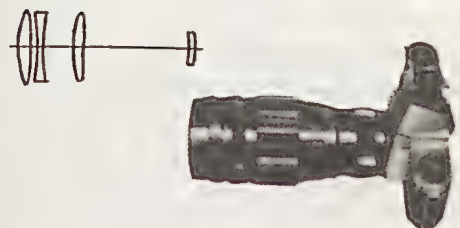
All the species of this genus live on eucalypts, as do also the species of *Opisthoscelis* and *Ascelis*, which make smaller galls. The genus *Frenchia* contains two species which form swollen galls with blunt, thorn-like processes on she-oaks (*Casuarina*).

The Idiococcinae are a peculiar group having neither anal tubercles nor antennae; some form tests and some galls. About 30 species are known from Australia, of which 20 belong to the genus *Sphaerococcus*; the best known is *S. pirogallus* Mask forming pear-shaped galls along the slender terminal twigs of tea-tree (*Melaleuca*). The genus *Cylindrococcus* contains four Australian species, of which *C. spiniferus* Mask forms large galls, resembling true cones, on the stems of she-oaks (*Casuarina*).

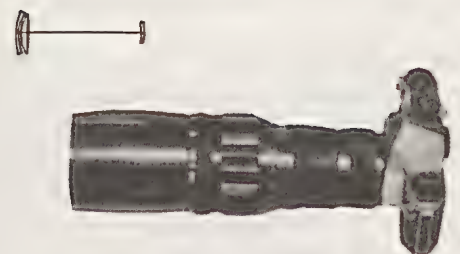
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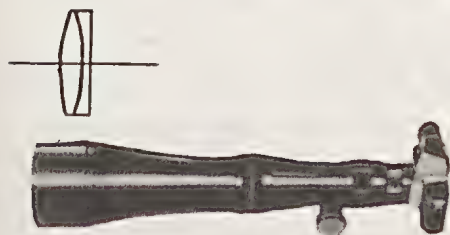
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THREE FROGS
By Joyce Hunt, Paraparap.

This is the tale of three frogs. The first and smallest used to live in the rain gauge. How he got there is a mystery, because the entrance hole to the gauge is only 1/2 inch in diameter, and it would be a pretty tight squeeze. Not only that, but it's about five feet high, and nothing nearby for it to jump from. Such a pretty fellow he was, yellow and gold in colour, and although tipped out twice, he found his way back into the rain gauge again.

The second was a bigger one, and was noticed on the dam tank, looking decidedly seedy. To the country man this suggested something, so he looked around, and sure enough, right behind him was a copperhead snake - over 4 feet in length. It was not aggressive, but was pressed back against a ledge of the dam bank trying to make itself as inconspicuous as possible. The frog - this one was green in colour - died soon after. Our guess is that he was either bitten and/or swallowed by the snake, and later re-gurgitated.

The third and biggest was a really big one, at least three inches across. It was at Wartook dam in the Grampians that I noticed a movement in the grass and reeds beside the water and saw a kookaburra fly up to a low bough with the live frog in its beak. He was holding it cross-ways, but with a bit of juggling, got it head first in his mouth. Then, like the little Gingerbread Boy in the Nursery tale, it disappeared in just THREE GULPS. Our looks of surprise soon gave place to amusement, as having swallowed his breakfast all in one piece, he sat there with the silliest expression of smug self-satisfaction on his face. He was still looking like that when we left.

Does anyone know how long it would take for such a large frog, swallowed whole, to digest?

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A FOX IS TRAPPED
By Trevor Pescott

For several years, we have spent a day every few weekends walking along the ocean beach near Barwon Heads; our main object was to search the beach for seabirds which may have been washed ashore. Many birds are unable to withstand the raging of the ocean, or perish there if it is too rough for them to feed; their bodies are brought ashore by the tides, and it is their specimens which give us evidence of the occurrence of some of the rarer birds. The practice of beach-combing, then, is a valuable one if we are to build up a greater knowledge of our ocean-going birds.

Our beach we patrolled regularly, each month or so, and it was our practice to walk out along the high tide line, then return behind the sand dunes past a swamp where other birds abounded.

One January, during our return walk, we located a nest containing two young Singing Honeyeaters; we retrieved our photographic gear from the car, and spent several very pleasant hours photographing the adult honeyeaters and the two fledglings. Before long, the parents conquered all fear of us, and we had no trouble in securing photographs of the birds feeding the young on our hands, heads, or wherever we put them.

We were thoroughly engrossed in our task, and time passed rapidly; suddenly, we became aware of being watched - we looked around us, and it was only then that we noticed a fox sitting on a sand dune above us, watching with considerable interest. We exchanged stares for a few minutes, but at our first movement, she quietly turned and disappeared into the teatree scrub.

I pushed the incident into that remarkable storehouse of memory, and it remained just another pleasant brush with nature that had enlivened one summer Sunday afternoon.

A FOX IS TRAPPED (Cont'd.)

But the following August, about eight months later, I again followed the same path of beach patrol and returned past the swamp; as I came through the scrub where the honeyeaters had nested, the unmistakable scent of fox assailed my nose, and a furtive rustle drew my attention to a low teatree.

There, under a low branch hung a rabbit trap, and firmly ensnared was a fox!

Strangely enough, the animal's foot was not caught in the jaws of the trap, but a loop of the chain had wrapped around the paw, and had then whipped in a loop around the branch. The fox was caught, by one of those peculiar quirks of fate which occur so rarely. She was very weak from hunger and thirst, and must have lain there for several days, so I went home, and returned with a bag to cover her as I released her - and a rifle should it be needed. My idea - which I know was absolutely wrong - was to release her; she had not deserved to be trapped that way, and I could not help but remember that pleasant Summer day with the Honeyeaters. She was released, but her suffering had been too hard, and she could barely move. The only fair thing to do was to use the rifle, for she was too frail to find food or water.

Many times, I have seen the work of foxes, and I know the damage they do to our native wildlife - but it was with reluctance that I broke the night silence with three rifle shots, and ended the vixens life.

SECRETARY RESIGNS

It was with deep regret that the resignation of our founder secretary was received earlier this month. Voi, now Mrs. John Williams, has, with her husband, travelled to England where they intend to stay for an extended visit. All who knew her as a most enthusiastic Club member and a very charming person, extend to her and John every best wish for the future.

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1966

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NATURE NOTES
TAKEN

AT RANDOM
FROM BUSH,
PLAIN & SEASHORE

TORTOISE DESTRUCTION

The question of legal protection or at least greater protection from pet shop suppliers is raised by Miss Jean Falconer, who writes:-

"Early this year I enjoyed a five days' cruise on the Gippsland Lakes. Travelling 250 miles through the Mitchell, Tambo and Latrobe Rivers, as well as through Lakes Wellington, Victoria, and King, we saw emus, pelicans, ibis, black swans and lots of other sea birds.

We were particularly interested to see tortoises in the Latrobe and Tambo Rivers. We were told that the Latrobe River is a favourite hunting ground for "pet" shop proprietors, who net these reptiles. We were shocked to hear that an estimated 75% of tortoises sold as pets, died because of the ignorance or carelessness of their owners, many of whom do not know that a pool of water is essential for their existence."

Tortoises are not unique as are our platypuses and echidnas. But they are relics of a prehistoric age, and surely as such should be protected.



AT RANDOMBIRDS IN ITALY

Mrs. Joyce Hunt writes -

"In his book - 'A Traveller in Rome' - the noted author H.V. Morton describes 'gingeproni'. These are thrushes, torn and blood stained, which, having been fattened on juniper berries, are said to have the flavour of gin. These little birds are considered a great delicacy and are sold by the dozen. He also refers to 'pickled blackcaps which have grown fat in the fig trees'.

The author said that the sight of these and other small birds hanging in bunches in the street markets made him very angry, and also that this 'explains the absence of bird song in Italy'.

The Pope's garden is apparently the only part of Italy where birds' songs may be heard."

It is regretted that many new Australians, particularly Southern Europeans, do not realise that in Australia most small birds are protected by law. Not infrequently, offenders are prosecuted and are fined. But most breaches of these laws are probably missed, and the need for greater education of new Australians, and old Australians too, on bird protection cannot be too greatly stressed.

WILSONS PROMONTORY
1966 CAMPOUT SITE

"... the consequent delay [in January 1798] gave Bass an opportunity to explore Wilson's Promontory. It was twenty miles long and varied from six to fourteen miles in breadth. There was little good soil on the Promontory, the rocks being hidden by brush and dwarf gums and other smaller vegetation, which gave it a deceitful appearance of fertility to the eye of a distant observer."

(Bowden, K.M. "George Bass" Oxford University Press, London, 1952, page 64.)

AT RANDOM

WILSONS PROMONTORY 1966 CAMPOUT SITE (Cont'd.)

About 60 members of the G.F.N.C. have spent a weekend this month at Wilsons Promontory at the second Club "Campout". A full report will be printed in the January 1967 issue of "Geelong Naturalist".

FOWL YARD AVIARY

By Joyce Hunt, Paraparap.

The old fowl yard was open at the top, and the ravens took advantage of this. They built their nest in the pines above the yard, assured of drinking water, scraps and a supply of fresh eggs. They have been observed taking the eggs away, having spiked them through with their beaks.

When the new yard was built, it was totally enclosed with wire netting. This kept the ravens out, but hordes of sparrows ate more grain than the hens did. So - a layer of bird wire was placed over the netting which kept out the sparrows.

On several occasions we have discovered tomtits and wrens who have entered through the door but could not find their way out again. It took a great deal of time and patience to get them safely out.

Last week the enclosure almost became an aviary, as on one day a gray thrush and a male flame robin were there together. It took two of us more than five minutes to "shoo" them safely out. But the very next day there was a wren inside. The poor little thing was getting desperate and I was afraid it might hurt itself. Eventually I caught it, with the help of a grain-sieve, and once again had the curious pleasure of handling one ounce of feathers and fluff before it flew off to its family. One wonders did it tell them of its terrible ordeal and the lucky escape it had from a cruel human who chased it with a grain sieve. It certainly did not seem to realise that my act was one of kindness!

POMMIES SAFARI
By Roy Memmott, Belmont.

Silently I crept through the bush, finger ready on the trigger. My wife followed, heeding my warning not to step on any dead twigs. The bush was alive with birds and we could hear their calls from every direction. Suddenly she touched my arm, I froze and followed her pointing finger.

"What bird is that?" she whispered.

On the branch of a dead tree lying on the ground was a cheeky little bird with a vivid red chest.

"Scarlet Robin, I think" I whispered back.

On again we crept, ever on the alert to shoot. Eagerly I scanned ahead for my prey, occasionally glancing into the trees above. Away to the right could be heard laughter rolling round the tree tops. "Kookaburras" my wife whispered again. I nodded and put my finger to my lips for silence. I was afraid she would frighten away the game I was seeking.

Little wrens darted in and out of the trees. Tree-creepers scurried up the trunks busily searching for insects. A flock of birds flew by. I could see the white tips to their black wings, anxiously I waited for them to settle on a tree. When they did so I could not see the white. "White-winged Choughs" I whispered.

Suddenly I stiffened and pointed to the top of a large gum-tree. Curled up in the fork of two limbs was a large Koala, sound asleep. My wife started making queer little noises.

"Hush" I whispered.

"I want to see him wake up" she answered.

"You will frighten the kangaroos" I warned.

"There are none near enough to hear me" and she started her noises again. The koala raised his head and looked at us through bleary eyes. "Isn't he lovely" Lilian cooed. Almost as though he understood what she had said Teddy sat upright and gave us a good view of himself, then promptly curled up and went to sleep again. My wife was pleased, she had seen her first koala. Now she wanted to see some kangaroos and I wanted to shoot them.

I don't know how many miles we sneaked through the gum-trees but there was no sign of any kangaroos. It was time to return to the

POMMIES SAFARI (Cont'd.)

car for lunch. Disappointed, we turned and retraced our steps. I picked a route about a hundred yards from our outward journey. Part of the way was through where timber had been felled and had suckered. Still on the alert we picked our way over the semi-cleared ground. "Look, kangaroos" my wife screamed. I saw her arm pointing in the opposite direction to which I was looking. Wheeling, I took a pot shot at the kangaroo bounding away through the trees. Happily I set off for my lunch, I had got my first 'roo on cine film.

JUNIOR PAGE

Now that the weather is warming up there is plenty of work for the Junior field naturalist to do, e.g. bird watching, collecting insects and exploring rock pools.

October is bird month and many members of the Gould League will be busily at work listing birds in their area. If you can make a "hide" near a small water hole and have plenty of patience your wait will be rewarded. One of our adult members Mr. Layland has been most successful at bird observing in his garden. Test tubes have been bound to various shrubs and a mixture of sugar water and honey has been poured into them. Birds have been coaxed right up to the living quarters much to Mr. and Mrs. Layland's pleasure. Perhaps some of you can write and tell us of your experiences in bird watching.

From the beetle albums that were donated by the Shell Company, many of our junior members may become interested in collecting different types of beetles and other insects. It is a good idea to collect two of each species if possible. To make an insect collection you need a jar or plastic bag in which to place the specimens. Later on you will need a "killing jar". One with a screw top lid is preferable. Ammonia or carbon tetrachloride may be used to insects. A few drops of the poison on a piece of cotton wool placed in the bottom of the jar will be sufficient to

JUNIOR PAGE (Cont'd.)

kill the insect. Further particulars on this interesting hobby can be obtained from many natural history books.

Studying sea life is also another interesting hobby for junior field naturalists. All you have to do is to find out what time low tide is in your area and then proceed to the nearest rock pools. Many forms of marine life can be studied at close quarters, especially if small rocks are overturned. Such creatures as sea worms, sea slugs, crabs, shrimps, shellfish and many smaller types of marine life may be found.

These are just a few of the different fields of natural history that are open to you at this time of the year.

Don't forget to keep observing and recording. Let me know what you have found. Please forward all your articles to -

Mr. I.F. Woodland,

33 Grant Street,

NEWTOWN.

NOTES ON PHOTOGRAPHS - See Pages 80-81.

The centre pages photographs were all taken by Dr. S.E. Csordas who includes the following notes:-

Elephant seal (*Mirounga leonina linnae*) : close-up of head of old bull seal.

Black-browed albatross (*Diomedea melanophris*) with chick; they nest every year and raise one chick.

Gentoo penguin (*Pygoscelis papua*) on nest with two young.

A rare visitor to Macquarie Is., a Chin-strap penguin (*Pygoscelis antarctica*) among Royal penguins (*Eudyptes chrysolophus schlegeti*).

The Chin-strap penguin lives on the Antarctic Continent.

The very young Fur seal pup (*Arctocephalus fasteri*) is the first Macquarie born pup after more than 100 years.

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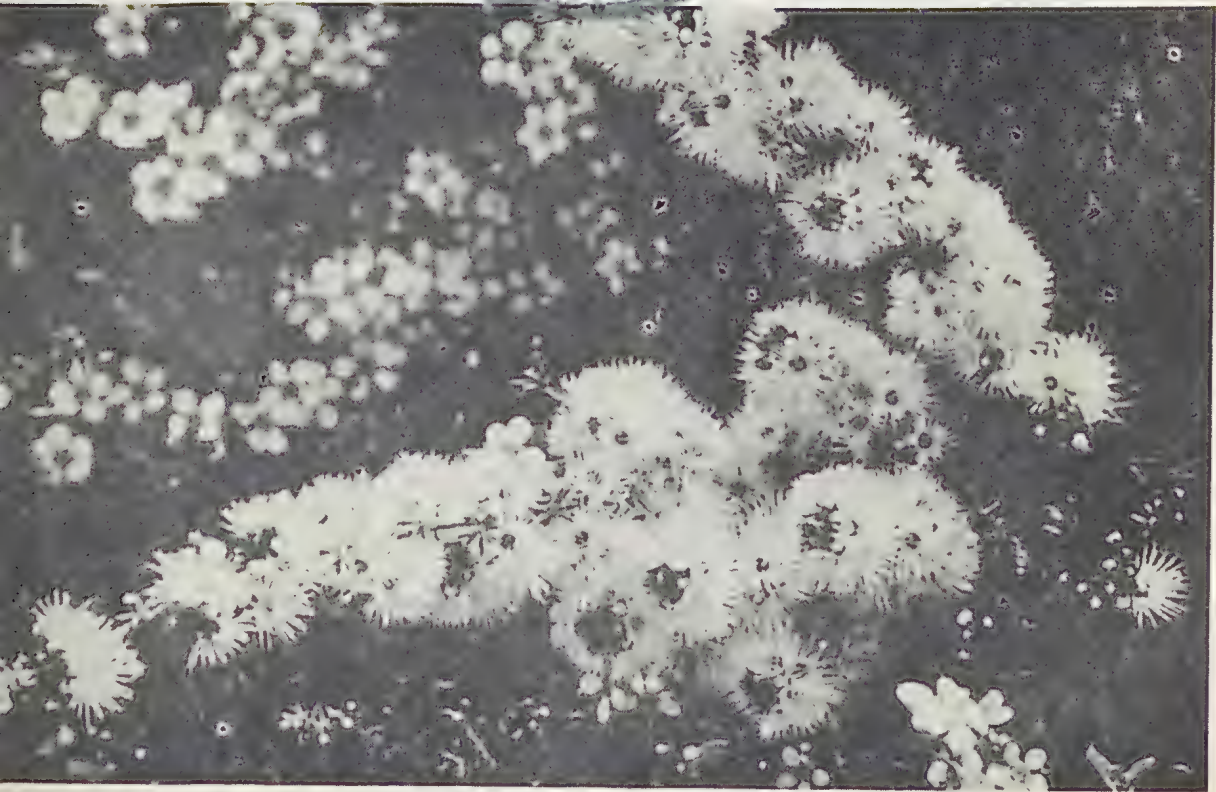
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GEELONG NATURALIST



JOURNAL OF THE GEELONG FIELD NATURALISTS CLUB



KINZEA

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The Statements and the opinions contained in the papers published in this Journal are the responsibility of the respective authors.

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COVER PHOTOGRAPH

Kunzea and Leptospermum, photographed at Wilson's Promontory by Frances Poole.

GEELONG NATURALIST

Vol.3. No.4.

EDITORIAL

January 1967.

The problem of bushfires is again with us, for February seems to be one of our blackest months; this summer, however, the scorch has come early, for already we have lost a vast majority of the bushland around Gum Flat and the Bald Hills.

It was remarked that this particular fire gave Anglesea a perfect firebreak and since it did 'little damage', it came as a blessing rather than a curse. I suppose it all depends upon our outlook - I walked the smouldering blackened bushland a week after the fire, and could see nothing to create a philosophical view. The miserable, charred bodies of bandicoots and possums were scattered amongst the ashes, and the only sign of life was a half-starved and scorched wallaby that scrambled just out of reach through the blackened brush.

Granted, it could have been worse, for we could have lost human life and property - but we are all too often blasé about the loss of our natural assets. They regenerate, we say, just a few years and you will never know a fire passed this way!

I often wonder how the little creatures survive - some do, I know - but the loss of so many animals must be replaced in a slow and hazardous way.

Far too frequently these fires are the acts of carelessness - the 1951 "Prom." fire for example, which cost one of our too-few National Parks 75,000 acres, was caused by careless campers.

Are we, as naturalists, always blameless? Do we always act with fire, matches, butts and ashes in a way that ensures maximum safety? You, personally, be the judge.

TREVOR PESCOTT,

Hon. Editor.

GEELONG FIELD NATURALISTS CLUB'S VISIT TO WILSON'S PROMONTORY
OCTOBER 14th, 15th and 16th, 1966.

This, our second 'Field Outing', was an outstanding success and our choice of Wilson's Promontory proved to be a delightful setting for such a get together whilst the weather was all that could be desired.

Our party was accommodated in eight lodges, all of which were quite comfortable and amenities included hot and cold showers, sewerage, electric lighting and gas cooking.

Our personnel list was:

Wallaby Lodge: Mrs. Wilkinson, Don Vincent, Geof. Vincent, Tom Pearce, Gerald Wilks, Mr. & Mrs. J.R. Wheeler (Pres.), Mr. & Mrs. G. Layland, Mr. & Mrs. J. Whitmore, Mr. & Mrs. Vincent, Ken Vincent, Mr. & Mrs. Gillham, Mr. & Mrs. H. Pescott, Mr. & Mrs. N. Povey, Mrs. Cassidy, Carol Cassidy, Miss F. Poole, Miss E. Poole, Mrs. Joeman, Mrs. Quirk; Wombat Lodge: Mr. L. Wilkinson, Mr. I. Woodland (Treas.), Mr. O. Andrews, Mr. G. Mathison, Mr. G. McCarthy (Sec.), Mr. E.G. Errey, Mr. G. Carr, Keith Koppelaar, Philip Campbell, Lee Sullivan; Vereker Lodge: Mrs. Singleton, Miss M. Arthur, Miss Buckland, Miss J. Buckland, Miss L. Hill, Mrs. B. Campbell; Shellback Lodge: Mr. & Mrs. Whiteside & family; Wilson Lodge: Mr. & Mrs. Lonsdale & family; Waratah Lodge: Mrs. Marsh, Mr. D. Marsh, Mr. D. Marsh, Miss R. Marsh; Leonard Lodge: Mr. & Mrs. T. Pescott & family; Bishop Lodge: Mr. & Mrs. H. Green, John Green, Kathleen Green; In Camp: Mr. & Mrs. A. Chapman, Mr. & Mrs. Gayner, Geof. Gayner.

Our itinerary was as follows:

- Saturday morning A short conducted walk to wildflower areas at rear of Wallaby Lodge.
- Saturday afternoon: Official photograph. Conducted walk to Squeaky Bay.
- Saturday evening: Assembly at Wallaby Lodge. Bird and plant list. Pictures: Movies by Messrs. Wilkinson, Chapman & Woodland (Nature rambles and excursions); Slides: Miss Poole (New Zealand), Mr. Marsh (Central Australia), Mr. McCarthy (Nature), Mr. Wheeler (Wahgi Valley, New Guinea).

Nature Quiz was won by Mrs. B. Campbell whilst three juniors shared the junior prize.

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G.F.N.C. VISIT TO WILSON'S PROMONTORY (Cont'd.)

Supper was then served by members of the Committee with Miss F. Poole as hostess.

Sunday morning:

Pack up. Visits were made to Camp Museum, Turntable car-park Mt. Oberon and short walk along 'lighthouse' track. Lunch area, Vereker Range.

Sunday afternoon:

Return to Geelong.

My personal thanks to all who assisted in making this trip to the Wilson's Promontory National Park such a memorable one.

J.R. WHEELER
President.

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BIRDS SEEN DURING THE WILSON'S PROMONTORY CAMPOUT
Compiled by Trevor Pescott, Belmont.

The total list of birds recorded for Wilson's Promontory is in excess of two hundred species, but this is a compilation of lists and observations made over many years. The list made by members of the Geelong Field Naturalists Club during this October 1966 Campout numbers sixty species, five of which were found to be nesting.

The main areas visited were -

1. Tidal River camping areas: large Banksias, teatrees in flower, scattered Eucalypts.
2. Heathland: areas north of the camping reserve, low "heathy" vegetation.
3. Squeaky Bay: a walk from Tidal River to Squeaky Bay, return along road to camping area.
4. Mt. Oberon, Car Park and "Lighthouse Track": timbered areas, wet gullies with tangled ferns.

Species seen are listed below, with brief notes on observations.

Emu (*Dromaius novaehollandiae*) One adult with a young was seen during the drive from Yanakie; later a party of five was seen.

Common bronzewing (*Phaps chalcoptera*) Not common, a few only being seen.

Short-tailed shearwater (*Puffinus tenuirostris*) A specimen was found on the Squeaky Bay beach.

Giant petrel (*Nacronectes giganteus*) One found beach washed at Squeaky Bay.

Little black cormorant (*Phalacrocorax sulcirostris*) Seen at Tidal River mouth.

Pied cormorant (*P. varius*) Recorded at Tidal River mouth.

Silver gull (*Larus novae-hollandiae*) A very common bird at Tidal River.

Pacific gull (*L. pacificus*) Several seen on the sand banks at Tidal River.

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BIRDS SEEN DURING THE WILSON'S PROMONTORY CAMPOUT (Cont'd.)

Sooty oystercatcher (*Haematopus unicolor*) Two birds seen on the reefs near Squeaky Bay.

Hooded dotterel (*Charadrius cucullatus*) A pair were seen on the beach at Squeaky Bay.

White-faced heron (*Ardea novaehollandiae*) A few birds only were seen, mainly along the margin of the river.

Swamp harrier (*Circus approximans*) One very light bird was watched for some time hawking over the heath lands beside the main road near the entrance to Tidal River.

Wedge-tailed eagle (*Aquila audax*) A few birds were seen over the mountains.

Whistling eagle (Kite) (*Haliastur sphenurus*) Several birds were seen during the weekend.

Goshawk (*Accipiter fusciatus*) An inhabitant of the forested areas.

Peregrine falcon (*Falco peregrinus*) Two were seen to pass overhead at Tidal River.

Boobook owl (*Ninox novaeseelandiae*) Although not seen, the birds were heard calling at night.

Yellow-tailed black-cockatoo (*Calyptorhynchus funereus*) Several small flocks were seen, notably at Mt. Oberon.

Crimson Rosella (*Platycereus elegans*) A very common and tame bird; recorded feeding on teatree blossom.

Kookaburra (*Dacelo gigas*) A few only were noted.

Rainbowbird (*Merops ornatus*) One pair seen beside the main road.

Golden bronze-cuckoo (*Chalcites plagosus*) Heard and seen around Tidal River.

Fan-tailed cuckoo (*Cacomantis pyrrhophanus*) Heard and seen in several areas.

Welcome swallow (*Hirundo neoxena*) Quite plentiful around the Tidal River area.

Grey fantail (*Rhipidura fuliginosa*) Common in the Teatree around the camping areas.

BIRDS SEEN DURING THE WILSON'S PROMONTORY CAMPOUT (Cont'd.)

Scarlet robin (*Petroica multicolor*) Quite plentiful in most areas.

Flame robin (*P. phoenicea*) Few seen during the weekend.

Yellow robin (*Eopsaltria australis*) Few seen during the weekend.

Golden whistler (*Pachycephala pectoralis*) Quite plentiful in timbered areas; heard and seen.

Grey thrush (*Colluricincla harmonica*) Seen in most wooded areas but not in large numbers.

Ground thrush (*Oreocincla lunulata*) Very few seen.

Mudlark (*Grallina cyanoleuca*) Quite common around the camping area and river margins.

Eastern whipbird (*Psophodes olivaceus*) Heard calling in undergrowth.

Brown thornbill (*Acanthiza pusilla*) Commonly seen in small parties frequenting the undergrowth.

White-browed scrub-wren (*Sericornis frontalis*) Common; a nest with young found near the cabins.

Striated field wren (*Calamanthus fuliginosus*) Heard and seen in the heathland country.

Emu wren (*Stipiturus malachurus*) Heard and seen in the heathlands.

Pilot bird (*Pycnoptilus floccosus*) Very few seen; frequented the undergrowth.

Blue wren (*Malurus cyaneus*) Very common; tame around camping area and cabins.

Dusky wood-swallow (*Antamus cyanopterus*) One pair seen beside the main road.

White-throated tree-creeper (*Climacteris leucophaea*) A few only seen in the timbered areas.

Spotted Pardalote (*Pardalotus punctatus*) Several pairs nesting in the embankment beside the old lighthouse road.

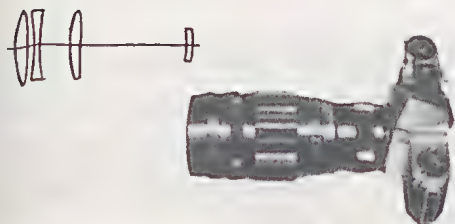
Silvereye (*Zosterops lateralis*) Quite common in the teatree areas.

Eastern spinebill (*Acanthorhynchus tenuirostris*) Several seen feeding in gum trees near the rangers house.

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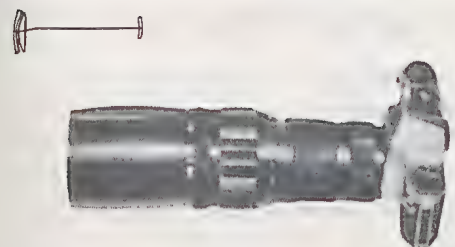


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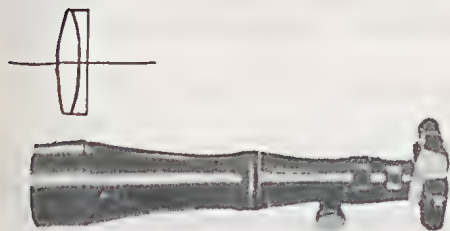
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BIRDS SEEN DURING THE WILSON'S PROMONTORY CAMPOUT (Cont'd.)

Tawny-crowned honeyeater (*Glipiphila melanops*) A few seen and heard in the heath.

Yellow-winged honeyeater (*Meliornis novaehollandiae*) Scattered but quite common.

Crescent honeyeater (*Phylidonyris pyrrhoptera*) Common in the Banksias; one pair carrying nesting material.

Yellow-faced honeyeater (*Meliphaga chrysops*) Common beside the river.

White-eared honeyeater (*M. leucotis*) Quite commonly seen and heard.

Brown-headed honeyeater (*Melithreptus brevirostris*) A few seen and heard calling.

Little wattlebird (*Anthochaera chrysoptera*) Common amongst banksias; a nest with two eggs found near Mt. Oberon car park.

Pipit (*Anthus australis*) Plentiful in the open areas and low heath.

Red-browed finch (*Aegintha temporalis*) Several flocks seen in the undergrowth.

Raven (*Corvus coronoides*) Common generally.

Grey butcherbird (*Cracticus torquatus*) Several seen and heard.

White-backed magpie (*Gymnorhina hypoleuca*) Common and quite tame.

Introduced birds recorded were Starling (*Sturnus vulgaris*), Blackbird (*Turdus merula*), Goldfinch (*Carduelis carduelis*), and Greenfinch (*Chloris chloris*).

Acknowledgments:

The writer wishes to thank all who assisted in the compilation of these notes. Scientific names are from C.S.I.R.O. publication.

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PLANTS ON THE PROM.
By Geoff Carr, Hamlyn Heights.

Wilson's Promontory cannot fail to impress. The coastal scenery unsurpassed with its translucent sea and surf breaking on great granite slabs and jumbled boulders. Then look to the hills; great tors and rock faces, the hills sometimes rivalling the blue of the sea, and islands shrouded in mist. Phenomena like squeaking sand and great cloud banks on a high saddle, that stay there all day, like a great wall of snow, are just two attractions.

With this no less than magnificent physical setting goes an equally impressive clothing of vegetation with no less than seven hundred (700) species, about one-third of the species found in the state. This vegetation takes on a great diversity with habitats ranging from sand-dunes and coastal heath to deep mountain recesses and the luxuriant vegetation to go with them.

We duly arrived at our destination and retired to wake in the morning to the buzz of bees and the clatter of parrots.

It may be as well to mention at this stage the limits of a botanical resume such as this. The length and nature of our visit allows us to have only a superficial look at the plants and because it is a national park (and thank heaven it is) collecting cannot be carried out. Many plants found in a "new" area are unfamiliar and are usually determined from botanical collections made at the time. Some plants then must be overlooked because it is no use guessing their identity.

Around the Camp: The Sandhills and Camping Area.

The overpowering impression on the sandhills taken in by sight and smell was of great floral abundance. Everywhere there was the Coastal Tea-tree (*Leptospermum laevigatum*) in full flower. We were not the only ones to recognise its presence as tame rosellas, honey-eaters and myriads of insects feasted on the white flowers. This tea-tree is the dominant vegetation over much of the sandhills but shares a place with Coast Beard-heath (*Leucopogon parviflorus*) and Coast Wattle (*Acacia sopharae*). About the camp these trees occur to a lesser extent and seem to be replaced by banksias; the Coast Banksia (*B. integrifolia*), Saw Banksia (*B. serrata*) and Silver

PLANTS ON THE PROM (Cont'd.)

Banksia (*B. marginata*). The Beard-heath was in full bloom like the *Leptospermum* but the Wattle was not flowering. Some banksias showed a few spikes. *Wirilda* (*Acacia rhetinioides*) was also represented but only by scattered specimens which showed few flowers.

The dunes facing the beach were a wealth of colour with the yellows and purple offset by the rounded softness of the Cushion Bush (*Calocephalus brownii*). The yellow was the Variable Groundsel (*Senecio lautus*) which was common and nearly as abundant was the Purple Groundsel (*S. elegans*) a plant which attracted a good deal of attention. This plant has large brilliant heads like a cineraria and is a naturalized alien from South Africa originally escaping from cultivation. The dunes also supported the usual flora of grasses and sedges and efforts are being made to encourage growth to prevent erosion by fencing off the dunes. The batter slopes along the access roads in the camp ground are also being treated in the same way and in the sanctuary of their confines the senecios thrive.

Also growing on the dunes is the Purple Swainsonia (*S. lessertifolia*) and one plant was found with white flowers, still with the yellow "eye" and faintly tinged with pink. The mauves and purples took precedence on the dunes and another plant was the mauve Sea Rocket (*Cakile ? maratima*). It's curious fruits are of interest. One half of the seed vessel is forcibly ejected (hence "rocket") while the other half remains attached to eventually grow where the plant dies.

Apart from the upper stories of trees and shrubs and the lower Bracken (*Pteridium esculentum*) which is thick in places, there is an interesting ground flora. The orchids are well represented in numbers at least the commonest being Helmet Orchids (*Corybas* sp.). None were in flower but from the dried flower remains the Purple Helmet Orchid (*Corybas diemenicus*) could be distinguished. The Fringed Helmet Orchid is recorded for the area but was not noticed, but it could easily escape detection. Another very common orchid was Pink Faries (*Caladenia latifolia*). Like the *Corybas* they were in large colonies with a number of flowers but most were poor specimens, at least by local standards (at the You Yangs). Hare Orchids (*C. menziesii*) were also found but only a few colonies which I did not see, though some were reported flowering.

The genus *Diuris* did not go unrepresented and good Wallflower Orchids

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PLANTS ON THE PROM (Cont'd.)

(*Diuris longifolia*) could be seen, often in dense tea-tree. It was the typical colour form for the species. Only one *Pterostylis* was found here but it was not possible to tell which species it was. It was certainly not the Striped Greenhood (*Pt. alata*) recorded for the area.

One would not expect Potato Orchids (*Gastrodia sesamoides*) here amongst the tea-tree only a matter of yards from the sea, but, lo, several specimens were discovered near Wallaby Lodge. It is a summer flowering species and was therefore in bud. I noted no *Acianthus* under the tea-tree but others have found the Gnat Orchid (*Acianthus reniformis*) here.

A few climbing plants are worthy of note as recorded from the area, namely the Common Apple-berry (*Billardiera scandens*) with dainty pendulous bells, and Love Creeper (*Comesperma volubilis*) livened the undergrowth with clouds of blue, as well as the Small-leaved Clematis (*C. microphylla*). Its flowers had passed and were being replaced by the feathery seeds.

Returning to the small herbs of the tea-tree association we noticed the green flowers arranged in umbels of the Pennywort (*Hydrocotyle* sp.) and in many places the leaves were numerous. Kidney Weed (*Dichondra repens*) was also common, and Cut-leaf Geranium (*Geranium pilosum*), also Austral Centuary (*Centaurium pulchellum*). Bidgee-widgee Burr (*Acaena anserinifolia*) the curse of walkers was another plant which made its presence felt.

Kangaroo Apple (*Solanum* sp.) was a luxuriant shrub of the camping area.

The Humpy Heath

This is a curious little association of heath land only a few acres in extent lying between the aforementioned *Leptospermum* covered sandhills and the foot of Mt. Oberon, the beach and Tidal River road. It is far from flat but contoured in the form of tiny steep-sided pillocks and depressions. The area was quite extensively covered by the naturalists and early in the day yielded some good plants.

The major shrubs are the Shrubby Casuarina (*Casuarina distyla*) and Silver Banksia (*B. marginata*), which changes dramatically within a few chains from a tree on the camping ground, to a dwarfed shrub on the heath. All the plants on the heath are of course by necessity

PLANTS ON THE PROM (Cont'd.)

short in stature. The *Leucopogon* encroaches onto the heathland from the sandhills but it does not attain the stature of the plants from there. Common Beard-heath (*Leucopogon virgatus*) is numerous in both these areas.

Silky Guinea-flower (*Hibbertia sericea*) and its counterpart the Bundled Guinea-flower (*H. fasciculata*) provided a good deal of the yellow colour for the heath, and a few *Senecios* were also present. While we are speaking of composites one of the gems of the area was the Blue Daisy-bush (*Olearia ciliata*) with its mauve heads on slender erect stems. Everlastings too were common with the Curling Everlasting (*Helichrysum scorpioides*) and its yellow flowers abundant over the heath. Massed white flowers of the Blunt-leaf Everlasting (*Helichrysum obtusifolia*) were also a common sight, and Billy-buttons (*Craspedia uniflora*) could be seen.

The heaths of the heath were several in number - the Cranberry Heath (*Astroloma humifusum*) with its small red tubes and edible fruit, and Honey-pot Heath (*Acrotsiche serrulata*) with hidden flowers brimful of nectar and needless to say the state floral emblem the Common Heath (*Epacris impressa*).

Family *Proteaceae* is usually represented and here one could see Horny Cone-bush (*Isopogon ceratophyllus*) with yellow flowers nestled in prickly foliage and the flowers of much the same colour belonging to the Prickly Geebung (*Persoonia juniperina*). These too are well protected amongst the foliage.

There is always a group of peas on the scene and representing the legumes here was the Running Postman (*Kennedya prostrata*) a bold gem of scarlet and several *Dillwynias* (*D. hispida* and *D. floribunda*). Leafless Globe-pea (*Sphaerolobium vimineum*) along with the Common Flat-pea (*Platylobium obtusangulum*). Another delicate plant is the Dwarf Wedge-pea (*Gompholobium minus*) and Dwarf Bush-pea (*Pultenaea humilis*) both of which were to be seen. Sweet Wattle (*Acacia suaveolens*) was represented by a few specimens.

The tough little Silky Tea-tree (*Leptospermum myrsinioides*) with masses of white or pink flowers provided much colour. Also Dwarf Rice-flower (*Pimelea humilis*) scattered here and there and Slender Candesticks (*Stackhousia viminea*), both with creamy flowers.

Why such an exquisite should have an unbecoming name like Heath Milkwort I don't know. This plant (*Comesperma ericinum*) has

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PLANTS ON THE PROM. (Cont'd.)

brilliant magenta pink heads which make it very conspicuous where it is found. Black-eyed Susan (*Tetradlea ericifolia*) was another familiar plant of the heath.

Herbs of the heath were many and varied and by far the most abundant was the Short Purple-flag (*Patersonia fragilis*) which was flowering well. Another was the Dwarf Wire-lily (*Laxmannia sessiliflora*) also flowering abundantly. Other liliaceous plants were the Austral Grass-tree (*Xanthorrhoea australis*) and Milkmaids (*Burchardia umbellata*) which are encountered everywhere. The grass trees had finished flowering and were breaking forth with pointed seed capsules. Only several large plants were there.

One is always sure of meeting one of the insect eating plants and the heath revealed to us three species from the minute Pygmy Sundew (*Drosera pygmaea*) which is a ground hugging rosette of leaves only about three quarters of an inch across and red flowers on hairlike stems, to the huge (by comparison) Climbing Sundew (*D. planchonii*) which may be up to two foot high. It had finished flowering but the other Sundew (*D. auriculata*) was in bloom. Also on the heath was found Hairy Centrolepis (*Centrolepis strigosa*), the Variable Stipa (*Stipa variabilis*) with tall waving inflorescences and the very common Broom Spurge (*Amperaea xiphoclada*), and Orchids.

Orchids always attract an inordinate amount of attention and it was none the less so on this trip as the heath proved to be quite well endowed with orchids. There was certainly a lot of film shot off, the heath proving to be most famous this weekend for its spider orchids, there being four species present.

Fleshy-lip Spider-Orchids (*Caladenia tessellata*) were in comparative abundance and widely spread on the heathland; and at their peak of flowering. This odd species was much photographed. No less common was the Small or Clubbed Spider-Orchid (*C. clavigera*) so named because of the "clubs" on the sepals. These specimens differ from local specimens in having much longer floral segments (petals and sepals) which droop after the style of the well known Common Spider-orchid. Local specimens have short segments which are held almost horizontal. The specimens of *C. tessellata* were poor by local standards.

Of the other two *Caladenias* found only one specimen was noted of each. The Veined Spider-orchid (*C. reticulata*) was found in the

PLANTS ON THE PROM (Cont'd.)

middle of a track. Unfortunately the flower was in a rather advanced state so it was not a good specimen. It was new to most people. The sepals and petals are creamish and the labellum was red lined with dark red. Though it was withered at the tips of the petals and sepals it was much admired.

No doubt the most impressive orchid on the whole heath was the Common Spider-orchid (*C. patersonii*). It was the only one found and warrants a description, differing considerably from Anglesea specimens. Anglesea specimens are (usually) white with various red marks, especially on the tongue. The teeth on the margin of the labellum (tongue) are usually fine. Our specimen was not as long in the floral segments which were a yellowish-cream, but as broad. The striking contrast about the flower was the wholly deep red labellum with regular comb-like teeth. The flower had all the regal poise so typical of the species and one would certainly have to go a long way to find an orchid with more striking form than this "spider".

It is not unusual to find as many orchids not flowering as flowering because the leaves betray the presence and the species. The only orchid we did not find flowering was the Tall Leek Orchid (*Prasophyllum elatum*). Several leaves were found and it will probably flower next season.

The one remaining orchid seen was the Redbeaks (*Lyperanthus nigricans*) which delighted members by revealing a few flowers. There has not been a fire in the area for some years but it is noted that some colonies flower consistently year after year while others flower only after a fire and then very profusely.

So much for the heathland. We will now have a quick look at Mt. Oberon where several members spent a short time inspecting the bush along a track from the turntable.

This area is steep and densely vegetated with shrubs. Its main trees are Eucalypts of which Messmate (*Eucalyptus obliqua*) is conspicuous. The whole mountain side is studded with granite rocks and boulders.

The main shrubs are hakeas, pea bushes, tea-trees and banksias. The Silky Hakea (*H. sericea*) was flowering but the Furze Hakea (*H. ulicina*) was not. Silver Banksia (*Banksia marginata*) had

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PLANTS ON THE PROM (Cont'd.)

several flowers but none were seen on Hill Banksia (*B. spinulosa*). The legumes had a good show of flowers and there was several Pultenaeas - Large-leaf Bush-pea (*Pultenaea daphnoides*), Narrow-leaf Bush-pea (*P. angustifolia*) and the Dwarf Bush-pea (*P. humilis*) already familiar from the heath. Other legumes included the Handsom Flat-pea (*Platylobium formosum*) and a *Bossiaea* sp., also Gorse Bitter-pea (*Davesia ulicina*).

Different plants presented themselves as we walked along the track. A few Common Apple-berry (*Billardiera scandens*) grew here and Cranberry Heath (*Astroloma humifusum*), with the white of Milkmaids (*Burchardia umbellata*) everywhere.

At random through the shrubberies was a good growth of Austral Grass-tree (*Xanthorrhoea australis*) and here and there red Correa (*Correa reflexa*) lit up the path, along with its cousin Black-eyed Susan (*Tetratheca ericifolia*). Candlesticks (*Stackhousia viminea*) were common, as was the Dusty Miller (*Spyridium parvifolium*).

The lesser covering of herbs and sub-shrubs included Dwarf Rice flowers (*Pimelea humilis*), Horny Cone-bush (*Isopogon ceratophyllus*), Ivy-leaf Violet (*Viola hederacea*) and the everpresent Sundews (*Drosera ?auriculata*). The Love Creeper (*Comesperma volubilis*) was not abundant but conspicuous because of its masses of blue flowers.

The Squeaky Bay Walk.

On Saturday afternoon a walk to Squeaky Bay was on the agenda and it proved most enjoyable.

At the end of the foot bridge across Tidal River we saw some fine specimens of trees. Blackthorn (*Bursaria spinosa*) and Boobialla (*Myoporum insulare*) and Moonah (*Melaleuca pubescens*). Further along, not far from the river grew Hazel Pomaderris (*Pomaderris betulina*), Clematis aristata, and Native Raspberry (*Rubus triphyllus*).

The air was deliciously heavy with the honey scent of Kunzeas (*Kunzea ambigua*) which was at the height of flowering, as well as the Tea-tree (*Leptospermum laevigatum*). The track at this point was a wall of flowers on the seaward side.

Different plants kept appearing as we progressed along the track. One of the only orchids Mayfly Orchid (*Acianthus caudatus*) seen on





WILSON'S PROMONTORY
PHOTOGRAPHS

Top left; Campout members.

Photo. Owen Andrews.

Top right: From Mt. Oberon car park.

Photo. Trevor Pescott.

Lower left: Senecio.

Photo. Frances Poole.

Lower centre: Red-beaks.

Photo. Owen Andrews.

Lower right: Crimson rosella.

Photo. Trevor Pescott.

PLANTS ON THE PROM (Cont'd.)

the walk was here under the trees.

As the track graded out into the short dense scrubby growth we could see the stands of She-oak (*Casuarina* sp.) to the left on the prominence. Here too was the Shrubby She-oak (*C. distyla*), and everywhere *Spyridium* (*Spyridium vexiliferum*) grew with myriads of white flowers. Here near the sea grew Sticky Daisy-bush (*Olearia glutinosa*) and Woolly Grevillea (*G. lanigera*) which had a few flowers. Nearer the sea was Sea Box (*Alyxia buxifolia*), White Correa (*C. alba*) and Climbing Lignum (*Muelenbeckia adpressa*). All these shrubs grow to a uniform height, being kept small by a continuous sea wind.

What interested some members most was the herbs near the sea and the convergence of coastal and heath land types on the sand of the beach, where several associations were formed. This was the broad beach of Squeaky Bay to end nearest Tidal River. The main plant was the Water Buttons (*Cotula coronopifolia*) in the soaks made from the run off from the heath, and Pearlwort (*Sagina procumbens*) and Brookweed (*Samolus repens*) formed small carpets here and there. Such brilliant displays as the pink of Angled Noon-flower (*Carpobrotus rossii*) and Rounded Noon-flower (*Disphyma australe*) and yellow of Variable Groundsel (*Senecio lautus*) could be seen. These made a refreshing contrast with the white sand on which they grew.

Other plants near the beach were the Tall Daisy (*Brachycome diversifolia*), Sea Rocket (*Cakile ? maritima*) and Cushion bush (*Calocephalus brownii*).

To return to the plants of the dwarf scrub association we found a number of small plants - *Oxalis corniculata*, Stonecrops (*Crassula* sp.), Kidney Weed (*Dichondra repens*), Common Everlasting (*Helichrysum apiculatum*), and Austral Centuary (*Centaureum pulchellum*). Here too was the Austral Geranium (*Pelargonium australe*) and Bent Goodenia (*Goodenia geniculata*).

After a much needed rest and a paddle in the sea or the icy creek members returned to Tidal River, some via the road.

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PLANTS ON THE PROM (Cont'd.)

The track to the carpark at Squeaky Bay runs by the creek and here more plants were encountered though lack of time bade us make haste and we could only have a quick look. The most interesting plants here were the aquatic species, the Buttercups (*Ranunculus* sp.) of which were most conspicuous.

Around the stream grew dense thickets of scrub mainly Scented Paperbark (*Melaleuca squarrosa*) and the largest of sedges the Giant Saw-sedge (*Gahnia clarkei*). Out of the scrub peeped the bunched white flowers of the heath *Epacris paludosus* and the Woolly Tea-tree (*Leptospermum lanigernum*) grew commonly.

On the heath that border the road to Tidal River Sweet Wattle (*Acacia suaveolens*) was noticeable and a practically continuous carpet of Blunt-leaf Everlasting (*Helichrysum obtusifolia*), every flower of which was fully out in the warm sunlight. There was also a host of legumes, *Hibbertias*, and heaths, also the Butterfly Flag (*Diplarrhena moraea*) at its peak with its white and mauve flowers waving on long stems.

Lunch was had on Sunday several miles from Tidal River and not within the national park limits. Though I was not present many orchids were found. Plants observed here included Spreading Guinea-flower (*Hibbertia procumbens*), Stonecrops (*Crassula* sp.), mauve and white *Tetratheca*, Pygmy Sundew (*Drosera pygmaea*), *Wirilda* (*Acacia rhetinioides*) and *Clematis*. Orchids included Salmon Sun-Orchid (*Thelymitra rubra*), Slender Sun-orchid (*T. pauciflora*), Dotted Sun-orchid (*T. ixioides*), Rabbit Ears (*T. antennifera*) and Banded Greenhoods (*Pterostylis villata*).

After lunch and an inspection of the area members departed for home.

WILSON'S PROMONTORY "CAMP OUT"MY IMPRESSIONS - CAROLYN M. CASSIDY.

We're travelling to Melbourne, the weather is fine;
Then out through the traffic, line upon line.

Green pastures come in to view as we pass,
Jerseys and Guernseys and Friesians and grass.

Huge rhododendrons and mint bushes vast,
Townships and villages come - and fly past.

Dairy herds, beef herds and green all the way.
Does anyone tire of it day after day?

Trees by the wayside - the colours are legion;
Heath and clematis abound in this region.

On to the Prom. now, a wallaby leaps;
We stop for a wombat that silently creeps.

The lights of the "Wallaby Lodge" meet our view.
Let's unload our luggage without more ado.

Car loads of people and blankets and meetings!
Boxes of eatables, bedrooms and greetings!

A cup of hot coffee at quarter to ten,
A big day tomorrow - we'll see you all then.

A typewriter tapping, a bird in a tree,
Let's get up early, there's so much to see.

The parrots are friendly, they feed from the hand;
Look at the pattern of claws in the sand!

Sausages, bacon, egg and burnt toast,
Appetites grow when we visit the coast.

Up to Mount Oberon; view is divine,
Isn't it great that the weather is fine!

Tea-trees and wattles are there by the score,
Correa, iris and myriads more.

Bright yellow daisies and banksias tall,
How can I ever remember them all!

MY IMPRESSIONS - CAROLYN M. CASSIDY.

The sweet Black-eyed Susan seems anxious to meet,
The Red Running Postman in bashful retreat.

Look at the skink as it basks on a stone;
Look at the colours in granite alone.

We're off for a hike now, follow who will;
It's orchids we're looking for out on the hill.

Cameras are ready. Mind where you walk!
Look out for candid shots too, while you talk.

Trigger plants, cone bush - the bay is in sight,
I must find an orchid before it is night.

On to the beach, where the Tidal runs through,
A picturesque bridge enhances the view.

Home through the park, the hungry gulls fight,
Barbecued steak makes the world seem just right.

Over the hill now and round Squeaky Bay,
The silver sand squeaks as we go on our way.

The bravest adventurers we find the surf cool,
The cowards sit dabbling their toes in a pool.

The longest way home is the sweetest they say,
I doubt that my feet would describe it that way.

What else I remember? A swim before tea.
A bird in a nest with young ones to see.

Films of New Guinea, New Zealand and more,
The heart of Australia and near our own door.

Pictures of insects and birds rarely seen,
Flowers of breath-taking beauty on screen.

The Promontory grips you - it's wild and it's gay,
Let's hope we don't spoil it; let's keep it that way.

Barbecues, emus, blue orchids and pink,
Birds in the tea-tree - I'm too tired to think.

My brain's in a whirl but I'd just like to say
It's a trip I'll remember for many a day.

QUESTION OF THE MONTH

The following questions were chosen from the 'Question of the Month' Box. -

"Could you please identify the following spiders:

- (A) *A large dark coloured spider which spends the day hidden in a sheltered place with its legs folded round it, and in this position measures 1-1/4 inches. Each night it spins a perfect orb web which is destroyed the following morning.*
- (B) *A spider which builds a permanent rather oval shaped web and lives in the centre, and hangs the garbage on a special part of the web."*

The answer from Mr. J. Wheeler is as follows:-

"From the information given, (A) is undoubtedly the Garden Orb Weaver or Queen of the Night Spider. This spider is very largely distributed in Eastern Australia and its scientific name is *Araneus - productus*. It is the female which spins the very lovely cart-wheel web of an evening, usually in our gardens. It is variable in size and may be coloured from light to very dark brown with creamy to white markings on the upper surface of the abdomen. The body is covered with thousands of very fine hairs. Often the legs have a tinge of reddishness. There are eight eyes on the cephalothorax or the front segment of its body. As in many spiders the male is very small and is rarely seen. After a night of insect catching, by morning, the web is usually tattered and torn but there are occasions when perfect webs may be observed in the early morning light, as creations of real beauty.

Question (B) would be the *Nephila* or Golden Web Spider and here again it is the female that is frequently seen at the web centre and being something like 60 times larger than the male, the latter is seldom seen and at the time of mating early in the season, is usually devoured by the female when she has no further use for him. The *Nephila* builds huge structures of silken webs with a central diameter of up to three feet or so and is supported with long silken strands extending between bushes and trees for distances that are often up to 15 feet. It is the inner web that is made of sticky golden silk whilst the supporting strands are of dry grey silk. So strong are these silken webs that apart from

QUESTION OF THE MONTH (Cont'd.)

trapping large insects, small birds have been known to be trapped. Upon being trapped, all victims are dealt a death blow by the female which in turn feeds on their body juices, leaving the skeleton remains suspended in sections of the large web. In New Guinea, Nephilas are very common and the masses of debris noticed in their webs is a true indication of their enormous appetites.

The eggs sacs of the female Nephila being enclosed in an untidy mass of golden strands, can often be mistaken for debris. On occasions the egg sacs are enclosed in a curled leaf supported in the web.

In southern Australia, the spiderlings hatch out in the spring, long after the first winter frosts have killed off the parent female. The Nephila can inflict a nasty bite but it is in no way dangerous.

Aboriginals found uses for the strong silken strands of the Nephila by using them for fishing lines and fishing nets.

What is the trigger mechanism that causes the leaves of certain insect eating plants to close when insects alight on them? In other words - an explanation of mechanical movement in plants.

The question is answered firstly by Mr. A. Sonsee of Ballarat. -

I have not read an explanation of this, and failed to find any in botany books I studied after reading your question.

The fastest "mechanical" movement I know in any plant is the movement of the labellum or lip in the long leaf greenhood orchid - *Pterostylis longifolia*. The movement is so sudden that it is hardly visible to the eye. The movement of the column in the trigger plant is a little slower. I have not seen the Venus fly trap but books record it as a fast movement.

Movement in plants occurs in other plants, e.g., the oxalis and clover that close their leaves at evening. An English name of one is "four o'clock", as the leaves close during afternoon as light intensity decreases.

Wattle leaves too close at night (I mean the bi-pinnate or feathery type). Then we have yellow flowers opening and closing according to the degree of sunlight.

Capewood illustrates this. The sunflower follows the day's journey

QUESTION OF THE MONTH (Cont'd.)

of the sun from East in the morning to West in the evening.

Many flowers close at night and hang their heads. This is to protect pollen from dew, whereas night pollinated flowers open and disperse their perfume. I have a pittosporum at my back door that is doing that as I write. The scarlet pimpernel is called the poor man's weather glass - glass meaning barometer, a sailor's term for this instrument, because it closes as the days get dull and clouds gather, an indication of rain.

So I could go on quoting example after example. Botanists call plant attraction to light heliotropism.

Now none of this explains the physical action - the plant tissues that cause the movement - fast in the orchid and slow in the capweed flower.

The sticky hairs of the sundew are another example.

In psychology we speak of the stimulus response theory. In the case of the orchid, take for example one I have not mentioned, the flying duck.

The insect lands on the trough like column, it touches the "neck" of the duck's head, and it immediately travels in a semi circle and pushes its head into the column, and the insect against the stigmatic plate. All this, and more, to ensure pollination! Later the "duck's head" which is the labellum, returns to the "set" position, as does the labellum of the long leaf greenhood. In the latter the labellum lifts the insect through a small opening into the "hood". It stays there to block the entrance forcing the insect to leave by a prepared exit. The trigger plants "trigger" also returns to the set position and is aided in remaining set by a specialized sepal.

So nature's marvels never end. One would suspect a nervous system in the plants used to illustrate the stimulus response action. But animals alone have nerve and brain. You can see that there is more than one anticipates in the whole matter. One problem leads to another. No doubt all will be solved. Patient observation and experiment is better than perusal of text books.

We talk of nature carelessly as if it is a known phenomenon, but when asked to define the word nature we are in trouble.

Is nature the organic world in contradistinction to the inorganic?

QUESTION OF THE MONTH (Cont'd.)

Likewise instinct is a useful word, used to explain unexplainable processes, a mask to our ignorance, a trap for new players."

The second aspect of Mechanical Movement in Plants is given by E.G. Errey. -

The best known of our insect-eating plants are the sundews, which were closely studied by Charles Darwin when he visited Australia in the thirties of last century. In these plants the trigger mechanism appears to be in the complex glands that form the tips of the hairs or tentacles on the sundew's leaves.

Cells filled with red sap show through the droplet of glistening mucilage secreted by each gland, and this colour apparently is the attraction to the insect. Each gland is connected to the veins of the leaf by a strand of tubular tissue. An insect on the gland provides a stimulus to neighbouring tentacles which bend over and attach themselves to the victim. Movements of the tentacles bring the insect to the centre of the leaf blade, which can bend to surround the prey. This bending could be brought about by faster cell growth on the underside of the leaf, and the opening up after the insect is digested would be due to the reverse - cells of the upper surface outpacing those below.

This differential rate of cell extension will be met again in other aspects of plant movement.

Very different is the trap of the bladder wort or fairies' aprons (*Utricularia*), a swamp-loving plant with mauve or yellow flowers shaped like tiny aprons half an inch across. Submerged leaves develop pear-shaped bladders varying in size from a wheat grain down to almost microscopic dimensions. If we liken the sundew leaves to butterfly nets, then these bladders can be thought of as fish traps.

Each one has a hinged watertight door opening inwards. With the door closed, water is exuded through the wall of the trap, which dents inwards under the pressure. On the outside of the door are sensitive bristles. When a tiny creature touches these, their reaction causes the edge of the door to twist out of shape and the visitor is carried inside by the rush of water. The door immediately flies back in place, all in 1/35 of a second.

Venus's flytrap, a relative of the sundews, is restricted in its native state to Carolina. Like a sundew in appearance, it differs greatly in speed of movement. The blade of the leaf is in the form

QUESTION OF THE MONTH (Cont'd.)

of two lobes set at an angle of about 45° , and fringed with projections that intermesh like clasped fingers when the trap springs.

Each lobe bears three bristles, jointed near the base. Cells at the joint are extremely sensitive to unequal pressure resulting when an insect alights, attracted by nectar glands on the leaf. But here a peculiarity arises, for at temperatures around 60° , one stimulus is not enough to spring the trap. Two touches are needed, either on separate bristles or on one bristle twice, and they must occur not less than 1-1/2 nor more than 20 seconds apart. However, the plant becomes more sensitive as the temperature rises, and near the century mark, one stimulus is sufficient. The trap closes in a quarter of a second.

This would be about the speed of movement of the trigger plant though air temperatures, and possibly light, exert an influence. Stylidium, of course, are not insectivorous plants. The trigger action is for purposes of cross-pollination only. I have found no explanation of the mechanics of this action, but I think the most logical one involves sudden collapse of pressures in cells at the hinge of the trigger. The gradual jerky return of the trigger, which takes a couple of minutes, would then be brought about by mounting sap pressure in the deflated cells. This is the basis of movement in the sensitive plant, an acacia whose leaves collapse at a touch.

Most plant movements, such as the opening and closing of flowers and turning towards light, are slow, and are brought about by chemical changes causing different rates of growth on opposite surfaces. For example, the petals of a poppy open out because cell growth in their upper surfaces is faster than in their lower surfaces. When flowers and leaves fold up at night the opposite process takes place. Due evidently to the influence of light, the growth hormones cause faster extension of the plant cells on the outer layers than the inner, with the result that the petals curl inwards.

Living plant tissue contains a number of these growth hormones, some being the chemicals of the vitamin B-complex. One group of these substances, known as auxins, is responsible for the phenomenon known as phototropism or heliotropism, that is, turning towards the light. Children who have grown wheat seeds in a saucer on the window sill (and which one hasn't) have noticed how the shoots lean to the window. Auxin is the chemical that causes plant cells to lengthen. But it is apparently light sensitive, for it moves across the shoot from the lighted side, and its concentration on the darker side causes the plant cells there to speed up their growth, making the shoots bend very noticeably in the direction from which the light comes.

"THE PROM." At Random.

Wilson's Promontory was "invaded" last October by a group of Club members; this issue of "Geelong Naturalist" carries notes and impressions from various members. This first section of "At Random" deals with some observations from members who attended the campout.

Owl and President.

The bird list on display early on Saturday morning had been typed by Mr. J. Wheeler, Club President, before most members were awake.

One bird listed - "heard calling" - was the Boobook Owl. One wonders if the Owl awakened Mr. Wheeler, and set him to work - or did the tap-tap of the typewriter keys prevent the owl from sleeping, at a time when most respectable folk (feathered and human) were asleep or at least trying to doze?

Cape Barren Geese.

The offshore islands known as "The Glennies" are one of the few places where these extremely rare Geese can breed. Many graziers, particularly at Flinders and other islands claim pasture damage by the birds, so in an attempt to obtain accurate data on the birds, scientists have banded many of the Geese with number leg-bands and colored "collars".

Should any member see a flock of Geese, a close check should be made for banded birds. Remember that every observation should be recorded and is of importance to the scientists.



AT RANDOMFires.

In February 1951, about three quarters of the entire National Park was burnt by an uncontrolled fire; in the few days about 14th and 15th, 75,000 acres were wiped out. Any mammals, and most brush in the fires path would have died, for the fire came down from the north, leaving no means of escape.

Even now, 15 years later, gaunt white tree trunks could be seen standing out above the surrounding bush.

Rats, Rosellas and Wrens.

Some members with families accompanying them stayed in the smaller cabins; the Crimson Rosellas have become extremely tame, particularly around these cabins and announce their arrival each day by landing on the window sills and knocking on the glass for attention. Almost invariably the reaction is the same - bread, cake or biscuit crumbs are found, and the birds receive their rations.

But the parrots drop many crumbs, and smaller fry, both Blue Wrens and Rats have found a ready supply of food. The latter do not make themselves a nuisance as they do in the cities - perhaps they realise they are too well off to chance a poison bait by invading the homes; instead they live in the lap of luxury afforded by free food and shelter in the undergrowth between the cabins.

Rodondo.

The Geelong Club has a very interesting historic link with one of the large offshore islands called Rodondo, for in January 1947, Mr. John Bechewaise lead a party of Geelong College students to make the first landing on the island.

Mr. Bechewaise of Belmont, a member of this Club, has since become a leading authority on Antarctica.

The expedition has been written up in several issues of "Wild Life" in 1947, and judging from the difficulties encountered, it is not hard to understand why there had been no previous landings.

AT RANDOM
NEW BIRD SPECIES FOR PAPUA-NEW GUINEA
By J.R. Wheeler, Belmont.

New Guinea is comparatively free of introduced birds, there being no exotic types such as sparrows, European Starlings, goldfinches, turtle doves etc., but how much longer they can be kept out remains to be seen. Climatic conditions are such that most of Australia's introduced species could easily survive in New Guinea, particularly in the highlands where climatic conditions, as compared with the coastal regions would suit most species down to the ground.

It was during my recent visit to New Guinea that the Spice Finch was recorded in light rain-forest at Brown River, 24 miles north-west of Port Moresby. This specie had not been listed previously by ornithologists visiting New Guinea and it is thought that this small party of five birds may have found their way from Indonesian Islands where they are native. Then one must not overlook the possibility of them being escapees from some aviary in the Port Moresby region as the spice finch found its way into eastern parts of Australia by this means.

Mr. Roy McKay, curator of the Port Moresby Museum first noticed the birds feeding on the seeds of bamboo growing along a creek bed.

Major Harry Bell, Evan Cleland and myself substantiated the find. The date of their find was 21st August, 1966. It was during a visit to Cooktown in 1961 that I observed a flock of 35 spice finch on the camping ground there and this increased their northern range in North Queensland by almost 200 miles. The spice finch, often called the cinnamon finch, is slightly smaller than the goldfinch and in colour is a very dark chocolate brown.

OCEAN GROVE NATURE RESERVE (CUTHBERTSONS)
By J.R. Wheeler, Belmont.

The latest development in this project is that the Committee has been successful in purchasing 200 acres of this property for the purpose of a nature reserve and is situated in the North west corner of the property with an access road to Grubb Road. This area has now been made Crown Land and will be under the control of the Lands & Survey Department who will arrange for an appointment of a committee of management in the near future. One of the first commitments of this committee will be the vermin proof fencing of the reserve and the making of the access road. This Club together with the Bird Observers Club, have made application for representation on the committee of management.

AT RANDOM
ARE MAGPIES CANNIBALS?
By Oonah McHaffie, Park Orchards.

Some while ago, when in the garden, our attention was attracted by the antics of a magpie who was standing over a fairly large object on the driveway and apparently picking at it.

On closer inspection, we could see that it was a medium sized bird, lying on its back, with its feet in the air.

We wondered if the magpie was attacking the bird, so moved in closer with the idea of rescuing it. At this the magpie picked the bird up in its beak and half hopped and half flew further off amongst some grass and shrubs, when it either found it too heavy to carry (hardly surprising when one considers the size of the bird - it turned out to be a starling) or was frightened off by our closer approach, as it then abandoned the smaller bird. We picked it up and found it was a starling, quite dead, but still limp, and showing no appearance of damage of any sort, though from a distance we had thought that the magpie was picking at its breast.

Did the magpie kill the bird, would it have eaten any of the flesh if not disturbed, or was it just playing with a dead bird, dead from some other cause?

WAGTAIL AND MAGPIE
By Oonah McHaffie, Park Orchards.

Is it usual for a Willie Wagtail to attack a Magpie?

Recently while I was sitting amongst our native shrubs, doing a little bird watching, a Magpie alighted nearby on the top rail of the wooden gate leading to the paddock. Almost immediately a Willie Wagtail also alighted on the top rail, about a foot away from the Magpie. He then skimmed across the back of the Magpie to a foot away on the other side. Then he flew back to his original position. He did this forward and backward flight about a dozen times, chattering all the time and just skimming over the back of the Magpie, who, in her annoyance, made one or two pecks at the small bird but the latter was too quick. The Magpie eventually flew off.

As this was early January it seemed rather late for the breeding season but I suppose it was possible that the fantail was protecting young somewhere in the vicinity.



"Geelong Naturalist"
Junior Pages



Once again, we have a story written about a Ring-tailed possum, so to head our page we have two appropriate sketches.

The first part of the story about the possum has been written by Donald McDonald, age 9 years, who lives at Mannerim.

"About two weeks ago, my two sisters and I were coming to school one morning, when we noticed a ring-tailed possum on a barbwire fence by the roadside, with a young one on her back. When we went closer we found she was hooked up by the barbwire and could not get away. We tried to set her free, but could not."

The second part of the story is written by Donald's cousin, Malcolm McDonald.

"When Donald reached school and told our teacher about the ringtail, she let me ride my bike down to where it was to try to set it free.

But its skin was so caught up in the barbwire that I could not, so I went back and told Donald's father about it, and he came back with me. He had to make a little cut in the possum's skin to get it off the fence. Then we found there was another baby in the possum's pouch.

Mr. MacDonald brought us all to school in his car then we let Mrs. Ringtail and her babies go, and they quickly ran off into a tree in the school ground."

Birds Feet.

On this page are drawings of five birds feet; can you identify them?



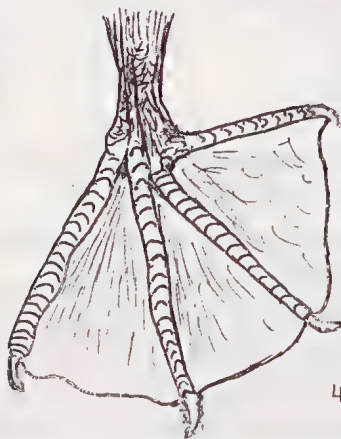
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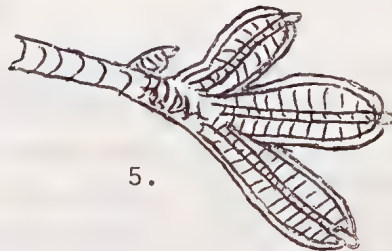
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3.



4.



5.

The feet and beak show the way of life of the bird, for it is these which enable the bird to find or catch its food.

Number 1 is the duck, showing the webbing between the three main toes - they act as a paddle when the bird swims.

Terns, figure 2, have only partly webbed toes, because they rarely swim but live at the sea or around lakes.

Number 3 is the quail, which live always on dry land.

Cormorants swim underwater to catch fish, and so have all toes webbed (figure 4) just like your swim flippers.

And 5 is the grebe, with its flattened or lobed toes - he lives in lakes or swamps where there is muddy, weed-covered water.

Can you think of other birds feet, and how they help the bird in its way of living?

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The Statements and the opinions contained in the papers published in this Journal are the responsibility of the respective authors.

MEMBERSHIP

Membership of the G.F.N.C. is open to any person interested in Natural History. The 'Geelong Naturalist' is distributed free to all members, and the Club's reference and lending library is available.

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COVER PHOTOGRAPH

Burramys, a type of Pigmy possum photographed at the Fisheries and Wildlife Department by I. Cooper.

GEEELONG NATURALIST

EDITORIAL

Vol.4 No.1

April 1967.

Over the last few months, a number of acts of cruelty and vandalism to native fauna have been brought to light. At Portland, for example, came the instance of a rabbit trap set on the roof of a house to catch a possum that lived under the eaves. The trap worked, and the animal was left trapped on the roof where it would have died had not naturalists intervened.

At Kerang, a group of shooters were seen returning from a hunting trip beside Kangaroo Lake. Their bag? One Noisy Miner.

The list of this nature of offence of course is very long, and it seems to be endless - perhaps we can never prevent it entirely, and at times we tend to blame the Fisheries and Wildlife Department for their inefficiency in not suppressing it.

But it is impossible to police all these acts and we should look to the value we have in the very excellent Fisheries and Wildlife Department, rather than blame them for missing a few offences. After all, any one of us can legally lay a complaint to the authorities. We should, wherever practicable, do just that.

Where the Department has its strong points are in the overall wildlife conservation solution; the setting aside of wildlife reserves and game reserves.

One act I feel deserves full credit is the handling of the Pelican rookery at Lake Hindmarsh, where without Departmental control a wonderful event could have ended in tragedy for the birds, and indirectly for us all.

I believe that every naturalist in Australia gives their praise to the Fisheries and Wildlife Department of Victoria for preventing unnecessary disturbance by shooters to this Pelican rookery. May the Department always be as astute as it is at present!

TREVOR PESCOTT
Hon. Editor.

PRESIDENT'S REPORT

Following the recent tragic fires in Tasmania, I wrote to Mr. David Thomas, President of the Tasmanian Field Naturalists' Club expressing our concern at this great tragedy which had hit the Hobart region. This is his reply: "Many thanks for your letter and for the concern and thoughts of yourself and the Geelong Field Naturalists Club.

It is now ten days since the fires and we are just beginning to realise the cost in terms of our flora and fauna. The devastation can only be described as appalling and make no mistake, all could have been prevented. The Tuesday was the only day of declared fire danger (extreme), but the number of fires that were burning on the Monday night was staggering. There were probably over twenty within a thirty mile radius of Hobart, and some had been burning for days and even weeks.

Wildlife must have suffered catastrophic losses, although there have been very few reports. I know over 700 bush birds of over 30 species were found washed up on a beach on Wednesday of this week.

Of the places you specially ask about, I have no information other than St. Chad which was burnt to the ground. Mount Field escaped but you are probably not aware that 25% of this National Park was totally burnt out in March of last year. However, the better known area from Russell Falls to Lake Sobson was untouched.

These fires may have sounded the death-knell of one of Australia's rarest birds, the Forty-spotted Pardalote. Some have survived but I fear that numbers may have been reduced drastically and that the destruction of their habitat may do the rest.

Your thoughts were very much appreciated by myself and members of the Tasmanian Field Naturalists Club; please convey our thanks to your members." End of quote.

The truth of the matter is as Mr. Thomas has said --- all this tragic loss of life, property and natural bushland could have been avoided. How often also, does this occur on our mainland. Each summer we experience losses and in many cases they could have been avoided. Are we lacking in education of fire prevention?

April
1967

3.

PRESIDENT'S REPORT (Cont'd.)

The State Government of Victoria have just published an excellent booklet "Summer Peril", and I commend you all to read it. There are copies in our library. It brings home to us the stark tragedy of fire whilst on the other hand it gives us great room for thought in prevention.

Finally as our year of 1966/67 comes to a close, I want to thank our members of Committee for the splendid support they have given me and our Club throughout. I must mention how sorry we were to lose the services of our Secretary early in the year and now we are to be without the service of our very active Treasurer, Mr. Ian Woodland, in order that he can pursue further studies. Both Mrs. Voi Williams and Mr. Ian Woodland have given stirring service to this Club and I wish to say a big 'Thank-you' to them both.

JACK WHEELER
President.

SIXTH ANNUAL REPORT

The Club is now entering its seventh year, and with a membership of 380 continues to grow. Enthusiasm amongst both Junior and Adult members remains high, which augers well for another successful year.

The Club regretfully accepted the resignation during the year of its Secretary, Miss Voi Boardman, who married Mr. John Williams in July and is now living in England. Voi had been Secretary since the inaugural meeting of the Club in 1961, the success of which, has been largely due to her efficiency and enthusiasm.

Another resignation the committee has accepted with regret is that of our Treasurer, Mr. Ian Woodland, who has resigned because of pressure of work. Mr. Woodland has been Treasurer for the past 2 years.

Mr. Ted Errey became a member of the committee during the year, to fill the vacancy caused by Miss Boardman's resignation.

SIXTH ANNUAL REPORT (Cont'd.)General Meetings

We have continued to have well attended general meetings, with speakers offering a variety of subjects. The exhibits have always proved to be of interest, as has the "Question of the Month" segment.

Five members - Messrs. Andrews, Boardman, Chapman, Pescott and Wheeler, contributed to the members night, following the Fifth Annual Meeting in April.

May - Entomologist, Mr. J. Barnes, from the Plant Quarantine Section of the Department of Agriculture, once again entertained members with slides and exhibits.

June - Dr. Stephan Csordas, gave a highly interesting and entertaining look at life on Macquarie Island. He showed many excellent slides of birds and seals of the area.

July - Mr. Max Downes of the Fisheries & Wildlife Department showed films, and described the work of the Department with special reference to an expedition studying the Bustard.

August - In the absence of a guest speaker, members, Miss Joan Banks, Mr. B. Boardman, and Mrs. C. Ling, at shore notice, provided members with an interesting evening of slides and films.

September - Mr. Edgar of the Natural Resources Conservation League of Victoria, spoke on the formation of a "Save the Forests Campaign" originated by Mr. Iscacs after the disastrous 1939 fires which swept the State.

October - The subject chosen by Miss Helen Aston, "Bird Watching in Thailand and Japan" gave members an insight into the customs and ways of life of our Northern neighbours.

November - The flora of Central and Western Australia was shown to advantage, by the slides of Mr. H.A. Morrison.

December - Messrs. Rowe, Bound, Carr and Pescott covered Geology, Birds, Flora and Mammals in a "Symposium of the Otways".

February - Four excellent movie films were shown by Mr. David Corke of the C.S.I.R.O. film unit. One of the best was a film showing the work of amateur and professional bird banders.

March - Mr. Gordon Beaton, whose subject was the structure of fungi, spoke at the final meeting of the year.

SIXTH ANNUAL REPORT (Cont'd.)

Excursions

The second "Camp-Out" held by the Club was an outstanding success, this was at Wilson's Promontory, and was attended by over 60 members. A full report appeared in the January issue of "Geelong Naturalist".

The Club's monthly excursions were held to widely differing areas, Anakie Gorge, Modewarre, Coimadai, Serendip and You Yangs, Brisbane Ranges, Moggs Creek, Otway Ranges, Anglesea-Jarosite Area, the last trip of the year was by bus to Healesville Sanctuary. All were well attended by members, and by guests from different countries.

Club Activities

The growing list of subscribers to the "Geelong Naturalist" shows the popularity of the magazine.

The annual tree planting at the You Yangs in conjunction with the B.O.C. again proved very successful.

Groups of boys from the Grammar School were again active, pulling Bone Seed at the Dog Rocks, and erecting fences around rare plants on Mr. Boardman's property at Steiglitz.

A number of donations of books have been made to our Library over the past year, particular thanks are due to the donors; these include Mrs. Leigh, Mr. & Mrs. Thomson, Colin Begg, Mr. Jack Wheeler, Mrs. Higgins, Mr. & Mrs. Hunt, Mr. Woodland.

Several monetary donations have been made towards blocks for our magazine. These have been received with sincere thanks.

Two of our very active members Mr. & Mrs. John Hunt were involved in a serious accident last year, but are now well on the way to recovery.

Congratulations must go to our President, Mr. Jack Wheeler, for the work he puts into the news and excursion sheet which is now available to all members.

A public address system, purchased with the aid of Mr. Geoff Gayner has proved very beneficial at our General Meetings.

Junior members were presented with a number of bird and beetle project Albums and Cards from The Shell Co.

A survey by members of 300 acres of bushland near Anglesea was made with a view to having it declared a flora reserve.

SIXTH ANNUAL REPORT (Cont'd.)

The deaths of two members recently, Mrs. Chapman and Mr. Leyland have been a sad loss to the Club.

This has been a brief resume of our year's activities and as we start another year, I would like to urge all members to try and pass on their interest in natural history and conservation, particularly to the younger generation, who will be the future keepers of our heritage.

GORDON McCARTHY
Hon. Secretary.

A BIRD IN THE HAND
By C.J. Gibson, Highton.

Of course any bird in the hand is worth a dozen turkeys in the bush - particularly when life might well depend on it.

Plants, animals, reptiles and fishes contributed to the maintenance of life of the tribe for the Australian Aborigine was a skilful hunter. A wide variety of species of birds were also included in his menu to vary his diet and prove beyond doubt his exceptional skills of hunting.

The following few notes relate to the aborigines of Victoria either before or during the early years of European settlement when there were still several thousand natives following their traditional tribal life. Interest is directed to the birds that were caught for food and the ingenuity practiced in catching some of them.

Some birds on the food list

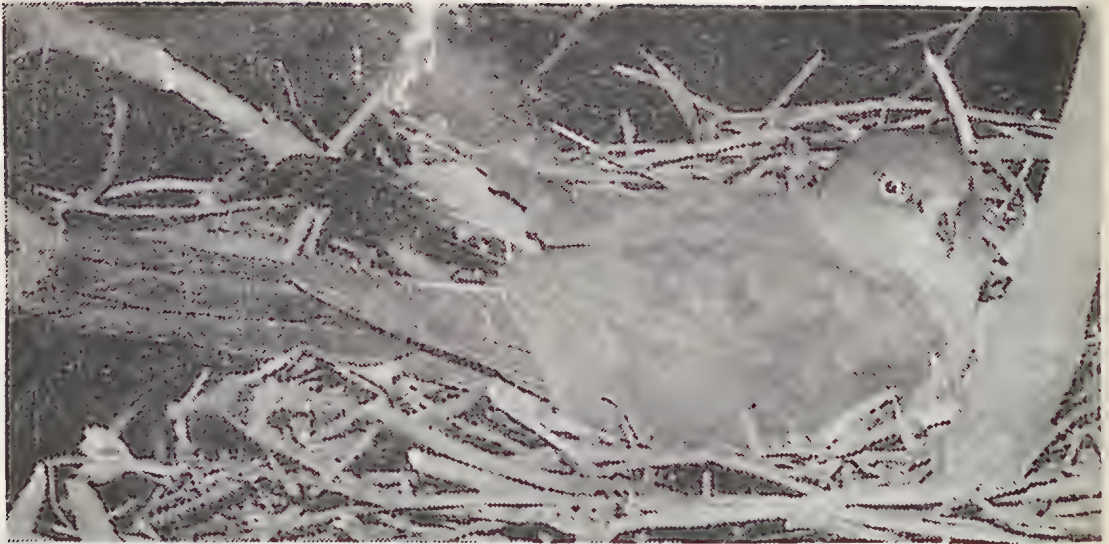
Turkey (*Otis Australasiensis*) - Bustard (*Eupodotis australis*)
Emu (*Dromaius Australis*) - Emu (*Dromaius novae-hollandiae*)
Native companion (*Grus Australasiensis*) - Brolga (*Grus rubicunda*)
Swan (*Cygnus atratus*) - Black swan (*Cygnus atratus*) - Goose
(*Anseranas melanoleuca*) - Pied Goose (*Anseranas semipalmata*)
Pelican (*Pelecanus conspicillatus*) - Pelican (*Pelecanus conspicillatus*)

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A BIRD IN THE HAND (Cont'd.)

- Common wild or Black duck (*Anas superciliosa*) - Black Duck (*Anas superciliosa*)
Mountain duck (*Casarca Tadornoides*) - Chestnut-breasted Shelduck (*Casarca tadornoides*)
Pink-eyed duck (*Malacorhynchus membranaceus*) - Pink-eared duck (*Malacorhynchus membranaceus*)
Spoon-bill (*Platalea flavipes*) - Yellow-billed Spoonbill (*Platalea flavipes*)
Musk duck (*Biziura lobata*) - Musk duck (*Biziura lobata*)
Wood duck (*Chlamydochen jubata*) - Maned Goose (*Chenonetta jubata*)
Teal (?) - perhaps the Grey or Chestnut Teal (*Anas gibberifrons* or *castanea*)
Speckled teal (*Anas punctata*) - could it be the freckled duck (*Stictonetta naevosa*)?
Cormorant (*Phalacrocorax carboides*) - Black Cormorant (*Phalacrocorax carboides*)
Shag (*Phalacrocorax melanoleucus* and *P. leucogaster*) - Little Pied Cormorant (*Phalacrocorax melanoleucus*) and probably the Black and/or Yellow-faced Cormorant (*P. fuscescens* and *P. varius*)
Sea Eagle (*Polioetus leucogaster*) - White-breasted Sea Eagle (*Haliaeetus leucogaster*)
Large gull (*Larus pacificus*) - Pacific Gull (*Larus pacificus*)
Small common gull (*Xema Jamesoni*) - Silver gull (*Larus novae-hollandiae*)
Rosehill (*Platycercus eximius*) - Eastern Rosella (*Platycercus eximius*)
King lory (*Aprosictus scapularis*) - King Parrot (*Aprosictus scapularis*)
Green leek (*Polytelis Barrabandi*) - Superb Parrot (*Polytelis swainsoni*)
Blue mountain (*Trichoglossus multicolor*) - Rainbow Lorikeet (*Trichoglossus moluccanus*)
Ground parrakeet (*Pezoporus formosus*) - Swamp Parrot (*Pezoporus wallicus*)
Pennant's parrot (*Platycercus Pennanti*) - Crimson Rosella (*Platycercus elegans*)
Cockatoo (species that fly in flocks) (*Cacatua galerita*) - White Cockatoo (*Kakatoe galerita*)
Cockatoo (without a crest) (*Licmetis tenuirostris*) - Long-billed Corella (*Kakatoe tenuirostris*)
Eagle (*Aquila audax*) - Wedge-tailed Eagle (*Apuila audax*)



Brown Goshawk



Frogmouth (left)

Photos Robert McKenzie

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A BIRD IN THE HAND (Cont'd.)

Hawks (*Teracidea berigora*) - Brown hawk (*Falco berigora*)
(*Astur approximans*) - Brown Goshawk (*Accipiter fasciatus*) or
Swamphawk (*Circus approximans*)
(*Tinnunculus cenchroides*) - Nankeen kestrel (*Falco cenchroides*)
Pigeon (large pigeon of upper Yarra) (*Leucosarcia picata*) -
Wonga Pigeon (*Leucosarcia melanoleuca*)
Bronze-wing pigeon (*Peristera elegans*) - Brush Bronze-wing Pigeon
(*Phaps elegans*)
Crested pigeon (*Ocyphaps lophotes*) - Crested Pigeon (*Ocyphaps*
lophotes)
Magpie (common) (*Gymnorhina leuconota*) - Perhaps the Black-backed
and/or White-backed Magpie (*Gymnorhina tibicen* and/or *G. hypoleuca*)
Minah-bird (*Myzantha garrula*) - Probably Noisy Miner (*Myzantha*
melanocephala)
Wattle-bird (*Meliphaga carunculata*) - Red Wattle-bird (*Anthochaera*
carunculata)
Mutton-bird (*Puffinurus brevicaudus*) - Short-tailed Shearwater
(*Puffinus tenuirostris*)
Crow (*Corvus coronoides*) - Raven (*Corvus coronoides*)
Lyre-bird (*Menura superba*) - Superb Lyrebird (*Menura superba*)
Owl (*Strix delicatula*) - Barn Owl (*Tyto alba*)
Laughing jackass (*Dacelo gigas*) - Laughing Kookaburra (*Dacelo gigas*)
More-pork (*Podargus humeralis* and *P. Cuvieri*) - Tawny Frogmouth
(*Podargus strigoides*)

The above list although extensive is not necessarily complete. It was taken in the main from Brough Smyth¹ giving the terminology in use about a century ago together with - following the dash - the modern nomenclature according to Cayley².

Catching the Bird

Perusal of this amazingly extensive list of birds caught by the aborigine for food is certain to lead on to other questions - questions such as, how did they catch such a shy bird as the plain turkey, or the wary parrots, or the mutton bird which is a sea bird that nests on islands off the coast. Some of these questions can be answered and prove the skill and ingenuity of the aborigine hunter.

The Bustard - The distribution for the bustard is now given as, inland Australia - rare in south eastern Australia. The fact that

A BIRD IN THE HAND (Cont'd.)

Gippsland, Yarra and Western District tribes all had names for this bird suggests their acquaintance with it.

The natives matched this bird's shyness with their cunning. In the Western Districts they took a long flexible rod and attached the skin and feathers of a small bird or a dead butterfly to the end and a running noose. When the hunter saw his bird he approached slowly with his decoy held up and a bush held in front to hide his body. The decoy was swung until the bird's attention was attracted and then while the bird stupidly stared the hunter moved closer until he could slip the noose over the bird's neck. It was roasted either in an oven or on the ashes of a fire. The oven consisted of heated stones placed beneath and above the flesh to be cooked - the flesh being protected by leaves, usually grass.

The Emu - Emus can still be seen around the Grampians although the Yarra and Gippsland tribes, having names for these birds, apparently also knew them well.

The emu was hunted in much the same manner as the kangaroo. This called for a thorough knowledge of the habits of the bird, great skill, perseverance and endurance on the part of the hunter for the bird was not easily captured. However a 130 lb bird with plenty of nutritious meat was a prize to be sought.

The native after discovering the whereabouts of the birds would stealthily stalk them until able to use his spear - rarely missing. If no natural shelter was available to hide his approach he would construct a screen of branches or have an accomplice break a twig or two in a different direction to distract the birds until he could get within range. The emu was usually roasted in the ashes of the fire.

Ducks - That early explorer Major Mitchell gives an account of nets being used to catch water fowl.

"The natives had left in one place a net overhanging the river, being suspended between two lofty trees, . . the meshes were about two inches wide, and the net hung down to within about five feet of the water . . . It is customary for some of the natives to proceed up and others down the river, in order to scare the birds from other places; and when any flight of them comes into the net, it is suddenly lowered into the water, thus entangling the birds beneath until the natives go into the water and secure them."³

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A BIRD IN THE HAND (Cont'd.)

Another extraordinary and ingenious method was observed in the Coulbourn region. A native swam under water, breathing through a reed, to a flock of ducks without alarming them. When within reach of a duck he took it by the feet, dragged it under water, wrung its neck, tucked it under his belt and noiselessly proceeded to take as many as he could carry or as many as he wanted. Variations of this method are used in some places where the native might cover his head with rushes or weed that grows in the water and then swim toward the flock.

Of course many water fowl were taken during moulting and nesting when they were more easily taken than at other times.

Parrots are wary birds generally and will require extreme caution of the hunter. Some were taken with the boomerang or kiley as it was sometimes called. A flock of cockatoos after being stalked carefully by the cautious hunter would take flight at which instant the native would bound forward and hurl the boomerang at the ground. It would spin in contortions first towards the ground and then sweeping upwards meet the startled flock. A bird or two was almost certain to fall.

Small birds - Mallee natives caught small birds that were attracted to the blossoms by digging a hole in the ground large enough for one of them to sit in comfortably. The hole was covered with bushes and in front small sticks were stuck in the ground. The native used a stick with a running noose and his imitations of chirping birds to catch up to two or three hundred birds in this way. A sufficient reward for a patient hunter.

It is obvious that the adroit hand of a skilful aborigine hunter could take almost any bird he fancied on the menu. That is, of course, taking into account the season of the year for there were undoubtedly times when hunger would be satisfied by any bird, any bird at all.

I can't help wondering, though, whether a particular bird was hunted because of a preference for the taste of its flesh or because it could be taken more easily. I also wonder how the mutton bird was taken - presumably on their nesting islands off the coast. The main question is, how did the natives get onto the islands?

References ..

1. Brough Smyth, R., The Aborigines of Victoria, Government Printer & George Robertson, Melbourne, 1878. Vol.1, Chapter, FOOD, page 183.
2. Cayley, N.W., What Bird Is That? Angus & Robertson Ltd., 2nd Ed 1958.
3. Mitchell, Major T.L., Interior of Eastern Australia, 1838.

"SOME SMALL SHRUBS FOR THE GARDEN"
By Oonah McHaffie, Park Orchards.

Following the Editorial in the July Journal, in which Mr. Pescott mentioned that a few plants are used at the expense of better, more interesting, plants, it is, I feel, worth commenting on a few of the not-so-common natives which have done well for us under very adverse conditions.

We are in a heavy clay area, with very little topsoil, the land slopes to the West, and we are exposed to strong winds from all directions.

At first, because of our lack of knowledge, we dug holes and planted our natives into the clay and just hoped for the best, with consequent losses due to "wet feet".

Now we have put in one drain, and elsewhere, to correct lack of drainage, we plant on surface and build up around the plants with lighter soil. One of our greatest sources of loss among the natives has been root-damage by plants blowing about in strong gales following wet weather.

One small plant we would strongly recommend to anyone wishing to grow natives is the Victorian plant, *Crocea exalata* (Small or Summer *Crocea*). It is listed as approximate height one foot, though one catalogue gives the height as from two to four feet.

Our small bush was planted in December, 1964. It flowered in its first year and last season (1965-66) it commenced flowering in December and continued to be covered with pink waxy star-like flowers until the second week in July. This is no mean feat for a native and, added to the fact that it flowers in Summer and Autumn when, except for *Melaleucas*, few others are in flower, makes it a very desirable plant. This year it commenced flowering in October, so time only will show if its flowering season will continue till July again. Our bush is only about one foot high now and is such a delight when in flower that I cannot understand why it has not appeared more in gardens. As far as I know it is not commonly grown although readily available from nurseries. The cost may be a little higher than some (ours cost 6/- in 1964, but I have seen it listed recently at 55¢) but is

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"SOME SMALL SHRUBS FOR THE GARDEN"(Cont'd.)

well worth it as it takes up little room, has a long flowering season, is very attractive, and appears to be very hardy. I think it would probably be frost resistant. At least, it stood up to the frosts this year and we are in a heavy frost area. I think we may have covered it for its first winter.

Another high on my list of recommendations is *Pimelea ferruginea*. We grew our plant from a cutting obtained from a fellow member of the Society for Growing Australian Plants. It was struck in a tin and planted out in April, 1961. As this was before we started planting on top of the ground, it is growing in heavy clay, in a very exposed position and doing very well. The only attention it has had is very sporadic feeding, and pruning after flowering. It produced one or two flowers in its first season and since then it has been covered with pink flowers every Spring. Between flowering seasons it is still a most attractive bush. It is about three feet high and six feet wide. It seems to be very hardy, disease resistant and does not suffer from frost. I note that in "Growing Australian Plants" by Lothian & Holliday mention is made that it has not proved generally reliable. It is possible that our soil, which I think would be acid - it is not growing in a garden bed - may suit it.

Another of the smaller plants which has done well for us is *Boronia elatior* (Tall Boronia) one of the West Australian natives. Our shrub is three feet high and about four feet across and is five years old. It is an attractive bush with light green divided foliage giving a feathery appearance and has deep pink - almost red - flowers. It flowers for a long period in Spring and seems hardy except that it, like so many natives, is subject to attack by white scale.

Of the tea-trees the only one I would really recommend is *Leptospermum squarrosum* (Peach Tea-Tree), N.S.W. This is a particularly attractive tea-tree and not as much seen in gardens as the much grown hybrid varieties such as *Lambethii*, *Crimson Damask* and *Scarlet Carnival*. The advantage *Leptospermum squarrosum* has over these hybrids is that, in our experience, it is free from scale. Also it is less common and therefore more interesting. We have removed two *Lep. lambethii* and one *Red Damask*, both very sick from scale attack.

"SOME SMALL SHRUBS FOR THE GARDEN" (Cont'd.)

Another advantage with *Lep. squarrosum* is that it flowers in the Autumn. A mass of pink flowers clustered thickly along the stems amongst the green foliage is a delightful sight.

The only disadvantage we can find is that it is a slow grower, comparatively, and takes longer to flower. Our shrub is now 6 ft. 6 ins. high which would be about the maximum but it did not produce any flowers until about two and a half years after planting and then only a few. It was five years old before it put on a really good display for us. Since then it has never looked back and has required no attention.

Grevilleas which have done well for us and are not as common as some varieties are *juniperina rubra* (Prickly Spider Flower of N.S.W.) - a very hardy variety - *dallachiana* (Dallachy's Grevillea - Eastern States) which only grows to about two feet and is easily struck from cuttings, and *oleoides dimorpha* (Olive Grevillea, Vic. & N.S.W.). The latter did partly blow over in a gale and had to be firmed back in the soil, since when it has not been in robust health but still flowers profusely. As it is easily propagated from cuttings we have two more planted out. Others which have not been in the ground for very long but appear to be satisfactory additions for a native garden are *baueri*, a small plant with red flowers, *punicea* (Red Spider Flower, N.S.W.) three feet, and *sericea* (Pink Grevillea, N.S.W.) four feet.

We have not had much experience to date with the smaller acacias but *Ac. pulchella* (W.A. Prickly Moses) is recommended as a fast grower and very beautiful when in flower as the small shrub is covered with large golden balls in late September and October.

Other shrubs in the small to medium group which have proved very satisfactory are *Melaleucas hypericifolia* and *nesophila*, *Eriostemon myoporoides* and *Bauera rubioides* (Wiry Dog-rose) but these are more usually found in gardens.

In Mr. Errey's article "Bringing Birds to our Garden" in the July "Naturalist", he mentions *Euc. priessiana* (Bell-fruit Mallee, W.A.) as being attractive to honey-eaters. Our small *E. priessiana* is about three years old and about two feet tall. The buds, which had

"SOME SMALL SHRUBS FOR THE GARDEN" (Cont'd.)

formed in the previous Spring, opened in September this year to a lovely display of large yellow blooms which attracted much attention from human visitors as well as honey-eaters. On one occasion, on an almost windless day, we wondered why the small bush was swaying about and on closer inspection discovered it was caused by a Little Wattle Bird clinging to the branches while feeding. It may be called the Little Wattle Bird but it looked rather large on such a small shrub!

Euc. priessiana, although a West Australian, would appear to be a good subject for Eastern gardens.

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GEEELONG FIELDSTATEMENT OF RECEIPTS
ENDED 14thReceipts

| | |
|----------------------------------|-------------|
| Donations | \$ 86.30 |
| Members Subscriptions | 436.10 |
| Geelong Naturalist Sales | 53.95 |
| Sales Club Badges | 12.00 |
| Sale Various Magazines | 17.25 |
| Advertising - Geelong Naturalist | 123.00 |
| Bank Interest | 12.03 |
| Sale Club Transfers | 9.60 |
| Sundry Receipts | 8.05 |
| Wilson Prom. Excursion | 134.00 |
| Healesville Excursion | 126.00 |
| Hall's Gap Excursion | 9.00 |
| | <hr/> |
| TOTAL RECEIPTS | \$1,027.28 |
| | <hr/> |
| | \$1,027.28 |
| | <hr/> <hr/> |
| Balance of Funds at 15/3/66 | \$295.70 |
| Surplus for Year | 0.56 |
| | <hr/> |
| | \$296.26 |
| | <hr/> <hr/> |

I hereby certify that I have examined the Cash Book and Vouchers of the Receipts and Expenditure gives a true and fair view of the Club's

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NATURALISTS CLUB

AND EXPENDITURE FOR YEAR
MARCH, 1967.

Expenditure

| | |
|----------------------------------|-------------------|
| Magazine & Newsheet Costs | \$ 482.36 |
| Rentals | 24.00 |
| Postage | 11.29 |
| Photoflora '66 | 41.00 |
| Subscriptions & Donations | 18.50 |
| Presentation | 26.00 |
| Club Transfers | 20.00 |
| Loud Speaker | 64.61 |
| Insurances | 14.94 |
| Petty Cash Expenditure | 60.00 |
| Wilson Prom. Excursion | 126.00 |
| Healesville Excursion | 131.00 |
| Sundry Expenditure | <u>7.02</u> |
| TOTAL EXPENDITURE | \$1,026.72 |
| Surplus for year c/d. | <u>0.56</u> |
| | <u>\$1,027.28</u> |
| Balance of Funds at Bank 14/3/67 | \$296.26 |
| | <u>\$296.26</u> |

(Sgd.) I. WOODLAND
Hon. Treasurer.

Geelong Field Naturalists Club, and that the attached Statement of financial position for year ended 14th March, 1967.

(Sgd.) G.M. GILBERT A.C.I.S. A.A.S.A
Auditor.

OBSERVATIONS ON TWO SPECIES OF BIRDS NESTING IN THE GEELONG AREA
By Mrs. F.F. James, Belmont.Rainbow Birds

November 27th, 1966. Bird Observers' Club Excursion to "Lilydale", Batesford, the home of Mr. & Mrs. G. Belcher.

Observed Rainbow Birds nesting on the slopes above the Moorabool River.

December 10th, 1966. Returned to "Lilydale" to observe and photograph Rainbow Birds at nesting tunnels.

We had 4 tunnels under observation. Parent birds were actively feeding, catching small moths on the wing and returning to the outer branches of nearby trees while they devoured their catch.

No sign of young.

December 17th, 1966. Again returned to "Lilydale" to observe and photograph Rainbow Birds.

Parent birds still active, with no sign of young.

January 14th, 1967. Again visited "Lilydale" and site of nesting tunnels. All four tunnels had been cunningly dug out by a fox (or foxes) which had not followed the tunnel but dug down from above entering the burrow close to the nesting chamber. Claw marks and the odour of fox evident. No young were apparent.

Only one bird was seen.

NOTE. Early in February Mr. McCarthy observed a number of Rainbow Birds in this vicinity apparently gathering prior to their northward migration.

We are very grateful to Mr. & Mrs. Belcher for allowing us to enter their property on the above occasions.

Rainbow Birds - are also known as Bee-eaters, Spine-tails, and Pintails. About 10 inches long, their colouring is most striking. The crown, back and inner wings are brownish green; wing quills are orange brown, with black tips; there is a black band on the throat, the lower back is blue and the tail black. Two long feathers clearly seen in flight extend about two inches beyond the tail (hence Pintail). During the nesting season these become considerably worn

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OBSERVATIONS - BIRDS NESTING IN GEELONG AREA (Cont'd.)

as the bird moves in and out of the burrow, and may almost disappear.

The birds breed in Southern Australia arriving in September or October and departing in February or March. It is thought that most of the birds winter in islands north of Australia. However, we observed them in great numbers in the vicinity of Cairns, at Magnetic Island, off Townsville, and as far south as Rockhampton, in August of last year.

The nest is a tunnel in sandy soil from 1 to 3 feet in length with a cavity at the end. The call note is characteristic and resembles the initial shrill notes of a cricket.

Their flight is graceful and erratic, soaring high above the tree tops and then swooping down to catch their prey - insects - which they catch on the wing and devour while at rest on the outer branches of tall trees. Although Bee-eater is an alternative name, they were not seen to eat bees at Batesford.

Nankeen Night Herons.

January 14th, 1967, 11.30 a.m. Observed 4 Nankeen Herons in swamp at Marnock Vale, at southern end of Shannon Avenue.

2.00 p.m. Returned with photographic equipment. Birds had left swamp and were perched in a tree beside swamp. They were very wary and flew off in the direction of Queen's Park.

January 15th, 1967, 9.30 a.m. Observed and photographed at least 10 herons feeding in swamp.

Both days were heavily overcast, with misty rain falling.

February 4th, 1967. Observed and photographed Nankeen Night Herons at nesting colony and wooded area within the Geelong district.

In one roost counted approximately 12 adult birds, and at least 4 immature birds - grey and brown mottled - which had left the nest and were practising flying in outer branches.

Since birds leave the nest at about 4 weeks and fly at about six weeks, it would appear the young were from 4 to 6 weeks old. (Birds of the World P.53.)

Other colonies in same area had birds in similar numbers and ages to that first observed.

Beneath the roosts were some young birds which had fallen from the

OBSERVATIONS - BIRDS NESTING IN GEELONG AREA (Cont'd.)

nests and died, and many small fish approximately 6-8 inches in length. A large bird 19 inches in length, the Nankeen Night Heron is mainly nocturnal. Further reading, however, revealed that on cloudy or rainy days it may leave the roost to forage for crabs and other crustacea, frogs, insects and small fish. Thus our observations of a group of birds during a typical cold, wet spell were unusual but not out of character.

The Nankeen Night Heron bears a strong resemblance to the Black-Crowned Night Heron of the Americas and Eurasia and the Yellow-Crowned Night Heron found only in the Americas, but its colouring is unique. Its crown is black with long, white plumes extending from the nape, but its back is a rich chestnut brown with the abdomen buff, and the neck and chest reddish chestnut. The legs are long for wading; and so is the neck. In flight the neck is kinked like an S. The bill is thick; much thicker, for example, than that of the White-faced Heron.

By day Nankeen Night Herons roost in the leafy tops of tall trees in colonies. Nests are roughly constructed platforms of sticks, and may be clustered quite close together.

Two interesting observations I would like to mention. In colouring, and when at rest the young seemed to me to strongly resemble the Brown Bittern which we saw one wet year in the swamps along Barwon Heads Road. This likeness was confirmed when I read later that the Herons and Bitterns are closely related, both belonging to the Order Ciconiiformes.

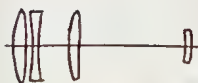
With wings outspread, and neck and head held high one young bird looked for all the world like a drawing of its primitive ancestor Archeopheryx. How apt this fleeting impression was! For here I quote,

"The Ciconiiformes are an ancient group dating back some 100 million years to Cretaceous times."

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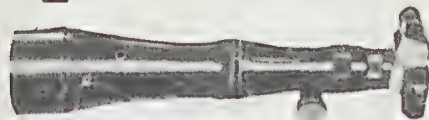
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BIRDS AROUND THE FARM.
By Joyce Hunt, Paraparap.Honeyeaters.

White-plumed honeyeaters are rather pugnacious, and for this reason they are the only honeyeaters that nest in our garden. This we regret, as there is plenty of room and plenty of food for other types. However, they are welcome, and they seem to particularly like the red bush salvia that we have in several places. (I don't know the name of this old-fashioned shrub, but my older readers will remember it, as they probably pulled the red flowers out of the calyx, and sucked the nectar out of the base of the flower on the way home from school!)

We are often fascinated by the way these birds hover for seconds at a time with their beaks in the flowers. They hang at all angles, frequently upside down while imbibing the nectar. Another amusing feat is the way they use the wooden upright of the bird table to cling to while they stretch out to reach the flowers. We thought this rather clever until they discovered the new hose stand. This is of metal, less than half an inch in diameter, and of course slippery. Yet they cling to this vertical pipe, using it as a stand from which to reach the nectar in the bush!

Goldfinches.

Early in November we suspected that the goldfinch was going to build in the crab-apple beside the path to the back door. Two days later I watched her carrying building material to the chosen site, and later, when she got to the carpeting stage, she was observed on the telephone wire with a piece of downy white feather in her beak. There were several other goldies about at the time, and she would not betray the presence of the nest.

From the doorway I watched her for minutes. She flew from one bush to another, even up into the big blue gum, but she would not go near the crab-apple, nor would she drop the feather, but flew around looking like an old man with a white beard. Eventually she flew around the back of the crab-apple very swiftly, and with astounding accuracy disappeared into the exact spot where the nest was. None of the other goldies would have seen her, and had I blinked at that second I would not have seen her either.

Does anyone know if there would be a reason for this evident secrecy?

BIRDS AROUND THE FARM (Cont'd.)

Victory.

Wagtails seem to enjoy dislodging other birds, and even annoying them. One day, hearing a lot of noise, I discovered two kookaburras were perched on the wind-indication arrow on top of the flagpole. One would hardly expect it to accommodate one kookaburra, let alone two! The noise was caused by their resentment of a wagtail who was chirrying them repeatedly. Despite pecks and divebombings, they refused to move, just ducking their heads when the attacks came. This went on for so long that I couldn't spare time to watch but next time I looked the kookas were gone, and the wagtail was in sole possession of the flagpole. He wasn't singing, but if he had been, I'm sure it would have been his own setting of

"I am monarch of all I survey;
My right there is none to dispute."

Swallows.

Last year I reported on a swallow's nest built inside a carton inside another carton on the rafters of the shed. This nest has been used again for at least three more families. The strain on the old house evidently became too great and it started to come adrift. This was discovered when two dead nestlings were noticed on the ground. There were two more babies in the nest, which was hanging precariously. The nest was then tied up with string and made secure, and the two young were raised successfully and gave the writer much pleasure as they were brought round to the sunshine every morning, and sat on the wire outside the kitchen window. Young swallows are really beautiful in the sunshine and these two sat close together, while mum and dad ran a shuttle service keeping them supplied with food. The previous family had numbered four, and it was a full time job to keep them fed. Usually all sat facing the same way, but it was amusing to watch when, as sometimes happened, the two outside ones faced the garden and the two inside ones faced the window. One could always tell when one of the parent birds was approaching. There would be a sudden agitation of tail and wing feathers which stopped abruptly when the food arrived. With four young to feed, and both parents bringing food, one wondered how they received a fair share each. On one occasion we timed them - visits with food were made at intervals of 10 seconds to 40 seconds, but most times one or other would return with food after about 20 seconds. They certainly have to work hard for their food!

"RED GUMS"By L.W. Elms, Belmont.

The Red Gums are varieties of our Eucalypts which are to be found fairly widely distributed throughout Victoria. They gain their name from the blood-red gummy sap which the tree exudes when damaged, and from the distinctive red coloring of the timber, both in the growing tree and in the seasoned wood.

Actually there are two varieties of red-gums, namely the River Red Gum (*Eucalyptus Camaldulensis*), and the Forest Red Gum (*Eucalyptus Tereticornis*). The River Red Gum is predominant right throughout the Murray River Valley, where it grows up to 150 feet in height. It is also to be found growing beside water in southern and eastern Victoria, and is one of the few Eucalypts to extend across the Torres Strait to Papua, and throughout Central Australia.

Although they cannot survive without occasional flooding, they also cannot survive under perpetual flooding, and along the banks of the Murray River at Mildura, there are hundreds of redgums standing dead as a result of the ponding caused by the weir. This tree was originally known as *Eucalyptus Rostrata*, because of the distinctly rostrate, or beaked cap of the flower bud. However about 1943 it was realized that the species had been described and named from a tree in the garden of the Duke of Camalduli in Italy. The law of priority required therefore that the name be changed - (i.e. the name first given to a newly discovered species must be adopted.) Hence this tree is now officially known as *Eucalyptus Camaldulensis*.

The other red gum is called the Forest Red Gum, as it does not need to grow beside water, and is found growing widely as single specimen trees of more upright habit, over the moist alluvial plains of Victoria. Its botanical name is *Eucalyptus Tereticornis*, the latter word referring to the long "round-horned" caps on the flower buds. These are definitely conical, and can be easily distinguished from the finely pointed caps of the River Red Gum. The timber of both varieties is much sought after for heavy construction because of its hard and durable nature. It is used for posts, piles and railway sleepers because of its resistance to rot at ground level, and also because it is one of the few timbers



Canoe Tree at Queens Park



*Red Gum at Barwon River
A favourite nesting tree of at least
five different species within 3 years*

Photos Trevor Pescott

"RED GUMS" (Cont'd.)

which the white ants (termites) will not attack. The Forest Red Gum flowers from mid-winter until summer and is valued as a honey tree, but the River Red Gum usually only has its small creamy colored blossoms every second year. It stays in bud for 11 to 12 months, but then has only a very short blooming period. It is one of the heaviest yielders of nectar, but the leaves are subject to gall insect attack, and the blossoms attract the "Rutherglen Fly", to the consternation of apiarists.

As is common with many eucalypts, the juvenile leaves are different from the adult leaves, being rounded in shape, whereas the mature leaves are long and sickle shaped. The juvenile leaves of the River Red Gum have no stalks, and grow in pairs with one on each side of the stem.

As an Art Form, the red gum is highly esteemed by artists and photographers, and paintings of these lovely trees with their many coloured trunks, by Hans Heysen and John Rowell are well known. Because of their beauty and their extremely wide distribution throughout Australia, the Red Gums could almost claim recognition as Australia's national tree. However, it is not wise to camp or picnic immediately under an old red gum, as sometimes in quite calm weather, particularly when it is very hot, a large branch may crash down without any warning.

Footnote ..

The Editor would like to hear of any Canoe trees or Aboriginal Middens, or Artifacts found in the Geelong area.

See Page 25 for Queen's Park Canoe Tree - a Red Gum.

"QUESTION OF THE MONTH"

Questions please

The question box is available at each meeting for your use - if you would like any question answered, please write it down and place it in the box.

The "Question of the Month" answered at the March meeting of the Club was a multi-barrelled one. -

How do the cicadas make their noise?

What makes them stop simultaneously?

Why do we never see them flying about?

Where do they go when silent, do they remain in the trees?

Is it true they breed underground and come up like shoots after a storm?

The answers to these questions are well covered in the November 1951 issue of the magazine "Wild Life" edited by the late Mr. P. Crosbie Morrison.

The author of these following notes, F.G. Elford, wrote a series of articles in the Wild Life series under the heading of "Wild Life in the Schools". About the song, Mr. Elford writes -

"Throughout the ages, people have recognised cicadas mainly by their "song". They are the "shrill singers" mentioned in many ancient myths and poems. Few animals are capable of producing such a continuous shrill, ear-splitting noise. However, this "song" is not made by all cicadas. The males are the songsters; the females are dumb. There are exceptions to this rule, for there is one Australian species at least of which both sexes are dumb. As in the mole cricket we studied earlier in the year, it

"QUESTION OF THE MONTH" (Cont'd.)

is believed that the song is a mating call.

The production of the noise appears to be based on the same principle as that whereby a crackling sound is made when the sides of a kerosene tin are suddenly pushed in or forced out. Near the union of the thorax and abdomen, on the underside of the males, are a pair of membranous covers or drums covering pits that are separated from a large abdominal air chamber by tightly-stretched parchment-like membranes. Attached to these membranes are a number of strong muscles. The air chamber occupies the greater part of the insect's abdomen, the internal organs being squeezed into a very small space at the tail-end of the abdomen.

The membranes, on being rapidly pulled in and out by the muscles, produce crackling sounds that merge into one shrill, continuous noise, amplified by the walls of the pits and the drums, and made more resonant by the air chamber. While the noise emitted by one insect is sufficient to attract attention, that produced by hundreds of cicadas on a hot summer's day becomes almost nerve-racking."

With regard to the other section of the question; the Editor answered as follows:-

Being related to the bugs or Hemiptera, the entire life of the Cicada revolves around its home trees. Cicadas do fly, but only to move for a well defined purpose of finding a mate, and eventually producing their progeny. After this, their adult life is useless and they die or are eaten by birds.

The female lays a series of eggs in crevices in the bark of trees; they hatch and the flea-like larvae fall to the ground, burrow in and live by sucking sap from tree roots.

One species - at least, stays underground as a nymph for about 17 years; other species spend shorter juvenile periods.

When reaching maturity, they come to near the surface of the earth, and as soon as atmospheric conditions are suitable, they emerge and become adults - rather like "shoots after a storm".

I do not know why they should stop singing simultaneously - presumably the interference to stop one singing affects all others in the area in the same way.

LOSS OF A TRIBE
(From "Man of Yesterday")

"The two to three thousand who roamed the District at the beginning of settlement were reduced to something over six hundred by about 1876. There were 173 in the Geelong tribe alone in about 1840; it had dwindled to thirty-four thirteen years later.

It will never to known how many were killed by the squatters and their men - certainly the numbers were much greater than the official records indicate. Many were shot down. Some - and there is evidence for it - were poisoned by gifts of food. But the chief cause of their extinction was the destruction of their way of life and their infection with white diseases."

(Kiddle, M. "Men of Yesterday"
M.U.P. 1961, page 127.)

FLOATING SWAN'S NEST
From Jim Quirk, Sandringham.

I have recently returned from a trip which took me through Wodonga, and the following observation struck me as most remarkable.

It is of a black swan on its floating nest on a lagoon right in the township of Wodonga, about 15 acres in extent which is a sanctuary for native birds. I understand this nest which was only 3-4 yards from the bank when I snapped it, had been blown there from further out, in a storm - however the swan stuck to it - I saw it in September and

NATURE NOTES
At Random

AT RANDOM
FLOATING SWAN'S NEST (Cont'd.)

I believe 2-3 weeks later 2 cygnets were hatched. Although this area is small and has habitation and a golf links very close by, a good variety of birds are found there, earlier in the year I saw about a dozen glossy ibis there, a bird I personally had never seen before. It is to be sincerely hoped that areas like this survive despite population pressures, we can't afford to lose any of them.

From "Wildlife Review", (the British Columbia Journal, May 1963.)

The quotations are undoubtedly the best we have come across; if we all remember them, what a wonderland our bush would be, and how well we can preserve and publicise them.

*"Leave nothing behind in the woods except
your footprints. Take nothing but
pictures."*

And again -

*"Don't be afraid to use what talents you
possess; the woods would be very silent if
no birds sang except those that sang best."*

R E M E M B E R ...

ARTICLES AND PHOTOGRAPHS ARE ALWAYS REQUIRED
BY THE EDITOR.

JUNIOR PAGES

These are your pages juniors - it's up to you to give the Editor Nature notes and views to fill them.

A HINT FOR BIRDWATCHERS

A wise old owl sat on an oak,
The more he saw, the less he spoke.
The less he spoke the more he heard -
Why aren't you like this wise old bird?"

We too often think of an essential feature of a bird watcher's equipment is a good pair of binoculars - an item usually too expensive for us to buy until we start work and can save some money especially for this.

But remember the old owl - he sees so very much, not only other birds, but animals, and insects, by moving quietly, and speaking rarely. Remember, too, that it is most important to write down every detail including the date and place you see anything of interest - I believe the Wise Old Owl would do this, if he could carry pencil and notebook under his wing.

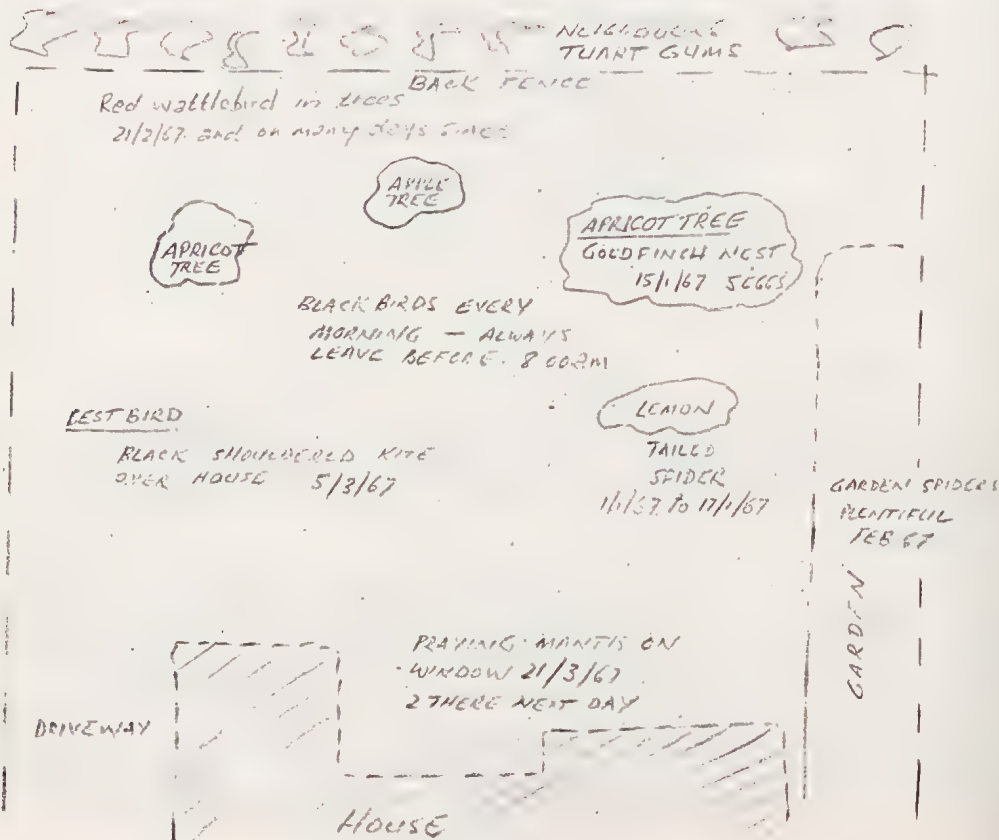
JUNIOR PAGES

Most juniors are very busy with school work and do not have time to make many nature excursions. But even notes about your garden can be extremely interesting if you keep your eyes wide open and a note book handy.

My back garden looks like this - see how I have made notes about particular plants etc. over the three months. Can you do better? Remember day-by-day observations take only a few very brief moments but can be most interesting if kept up to date.

Try it over the next three months, and let the Editor have your plan and your day-by-day or week-by-week diary. The best we receive will be printed in the next issues.

Remember my notes are VERY BRIEF. Make your notes VERY DETAILED.



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MALE SATIN BOWERBIRD

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The Statements and the opinions contained in the papers published in this Journal are the responsibility of the respective authors.

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COVER PHOTOGRAPH

The male Satin Bowerbird photographed in Queensland by
Mr. F. James.

GEE LONG NATURALIST

Vol.4. No.2.

EDITORIAL

July 1967.

One of the most thought-provoking statements about national parks I have yet read was published in the British Columbian journal "Wildlife Review", December 1966.

"Let us go back for a moment to the initial problem: the space available in a national park is not big enough for all who want to use it. But the size of the park is directly related to the manner in which you use it. If you are in a canoe travelling at three miles an hour, the lake on which you are travelling is ten times as long and ten times as broad as it is to a man in a speed boat going thirty.

An hour's paddle will take you as far away as an hour in a speedboat - if there are no speedboats. In other words, more people can use the same space with the same results - every road that replaces a footpath, every outboard motor that replaces a canoe paddle shrinks the size of the park." (Written by Paul Brooks in 'Atlantic Monthly')

How true this is - one needs to look only briefly at our own Victorian Parks to see its implications. Hattah Lakes, Wyperfeld, The Prom., even our own You Yangs Forest Park are all shrinking as more roads bring more people - a chain-reaction which brings demands for still further roadways, car parks, boating facilities.

At Mud Islands, when we first began visiting this bird wonderland some 12 years ago, our weekend stay was interrupted by occasional fishermen only. Last January, all day the incessant hum of speedboats offshore shattered the solitude - and incidentally the birds became very restive because of interference.

Is the only answer the adoption of "Primitive areas" where no one without good cause can gain an entry permit?

It is to be hoped that there are other means of solving the problem of National Park space, and the heavily increasing usage of parkland; but whatever the answer, it is needed now before existing Parks become too small for the requirements of our growing population.

TREVOR PEScott, Hon. Editor.

NOTES FROM BANKS IN AUSTRALIABy C. J. Gibson, Highton.

Young (later Sir) Joseph Banks first saw Australia on April 19, 1770. The young 27 year old country gentleman from England had already accomplished much since leaving Plymouth in August, 1768 - almost two years earlier. It was Banks' interest in natural science that led him to join the scientific expedition led by Captain James Cook and destined to become such an important historic expedition. For his own contributions to science resulting from this one voyage he received many honours during his lifetime and the appreciation of many naturalists since his death in 1820.

His personal diary and the information collected by his biographers reveals much data of particular interest to naturalists in Australia. These short notes are merely brief references to some of his observations of the flora, fauna, and natives studied on the east coast of Australia.

Crossing the Tasman

During the first half of April the Tasman Sea crossing was made at about the 40° South latitude. A number of birds were observed, several albatrosses being collected:

Wandering Albatross (*Diomedea exulans*)

'*Diomedea impavida*' - Black-browed Albatross (*Diomedea melanophris*)

A number of other birds were seen, including:

'*Diomedea profuga*' - Grey-headed Albatross (*Diomedea chrysostoma*)

'*Procellaria melanopus*' - The Kermadec Petrel (*Pterodroma neglecta*)

'*Procellaria velox*' - A gadfly petrel (of the *Cookilaria* group)

'*Procellaria oceanica*' - Wilson's Storm-Petrel (*Oceanites oceanicus*)

'*Procellaria vagabunda*' - The white-headed Petrel (*Pterodroma lessonii*)

'*Procellaria longipes*' - The Grey-backed Storm-Petrel (*Garrodia nereis*)

'*Nectris fuliginosa*' - Probably the Sooty Shearwater (*Puffinus griseus*)

'Red tailed Tropic bird' - (*Phaethon rubricauda*)

'Black shearwaters' - Probably Short-tailed shearwaters (*Puffinus tenuirostris*) or Wedge-tailed shearwaters (*Puffinus pacificus*)

'Gannet' - The Australian Gannet (*Sula bassana serrator*)

July
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NOTES FROM BANKS IN AUSTRALIA (Cont'd.)

'a small bird of the Sterna kind' - possibly an immature White-fronted Tern (*Sterna Striata*)

'Port Egmont hen' -

'Pintado bird' - Pintado Petrel (*Daption capensis*)

On April 12 Banks noted that Albatrosses ate 'Portugese men of War' and gave one of the earliest descriptions of the manner in which this animal sails and stings.

On April 22 'in the morn we stood in with the land near enough to discern 5 people who appeared through our glasses to be enormously black.' That was just north of Bateman's Bay. An unsuccessful landing was attempted just north of Bulli on April 27. Here Banks noted sighting many cabbage trees - probably *Livistona australis*.

Botany Bay

'The land this morn (April 28) appeared cliffy and barren without wood. An opening appearing like a harbour was seen and we stood directly in for it.' After dinner the boats were manned and the first landing made - the historic landing at Botany Bay where the ship stayed until May 6.

During the week that Banks and his colleague, Dr. Solander, had 'botanising in the woods' they gathered an 'immensely large' collection of plants. This harbour was originally named Sting Ray's Bay because of 'the great number of these sort of fish found ...' but Cook records that 'the great quantity of new plants etc. Mr. Banks and Dr. Solander collected in this place occasioned my giving it the name of Botany Bay.' Perhaps a compliment to the naturalists and their enthusiasm.

Although several hundred plants were probably collected very few are specifically referred to in his journal for this place. Banks recorded on May 12, 'this evening we finished drawing the plants got in the last harbour (i.e. Botany Bay). In 14 days just one draughtsman (i.e. Parkinson) has made 94 sketch drawings...'

Plants collected included:

'*Leucadendron serratum*' - Red Honeysuckle (*Banksia serrata*)
Red Bean (*Kennedyia rubicunda*)

NOTES FROM BANKS IN AUSTRALIA (Cont'd.)

- 'Parsley (*Apium*)' - (*Apium prostratum*)
 'Spinage (*Tetragonia cornuta*)' - (*Tetragonia expansa*)
 '(*Eugenia*)' - (*Eugenia banksii*)
 '(*Isopogen anemonifolius*)' - Drumsticks (*Isopogen anemonifolius*)
 (*Darwinia fascicularis*)

Several references could be to the Grass Tree (*Xanthorrhoea*) but it seems amazing that Banks made no specific comment on this remarkable plant.

Rays taken included:

- Stingaree (*Urolophus testaceus*)
 Fiddler Ray (*Trygonorhina fasciata*)
 Banks's Sovelnose Ray (*Aptychotrema banksii*)
 Eagle Ray (*Myliobatis [australis?]*)

'the biggest of which weighed without his gutts 336 pounds.'

Some birds were observed:

- 'Parrots'
 'Loryquets'
 'Cocatoos'
 'Quails' - probably Brown Quail (*Synoicus australis*)

They did see evidence of a few animals, including, probably:

Kangaroo, dingo, native cat, and perhaps bandicoot.

The natives were observed to be armed with 'long pikes and a wooden weapon made something like a short scymetar' - the spear and probably boomerangs; the throwing sticks were seen later. They also saw a shield. The people were the blackest seen on the voyage and without any clothing. A small village of about 6 or 8 houses was seen.

They went to sea on the morning of May 6 with a fair breeze and dined on 'the stingray and his tripe' and 'with it a dish of leaves of *tetragonia cornuta* boiled which we eat as well as spinage or very near it.' Banks introduced this to England but it was generally regarded as inferior to spinach. The antiscorbutic properties of

NOTES FROM BANKS IN AUSTRALIA (Cont'd.)

such greens were appreciated by Cook who was able to control the dreaded scurvy on this voyage and eliminate it entirely on his next voyage.

The North Coast

While sailing north they saw many porpoises about the ship, innumerable shoals of fish and some birds of the Nectris kind (May 13) - the shearwater, probably *Puffinus pacificus*.

On the 18th two water snakes swam by the ship and a few birds were seen:

- 'Men of War birds (*Pelecanus aquilus*)' - The Lesser Frigate Bird (*Fregata ariel*) probably.
- 'Bobbies (*Pelecanus Sula*)' - probably the Brown Booby (*Sula leucogaster*).
- '(*Nectris munda*)' - possibly Audubon's Shearwater (*Puffinus l'herminieri*).

Later sharks, dolphins, turtles and a middle sized grampus were seen.

On May 22 they anchored in Bustard Bay going ashore next day - 'here we found a great variety of plants' said Banks. The plants included:

Mangrove trees, probably (*Ceriops candolleana*) and (*Bruguiera gymnorhiza*).

Several eucalyptus trees

'*Xeranthemoides fulgida*' - Golden Everlasting (*Helichrysum bracteatum*).

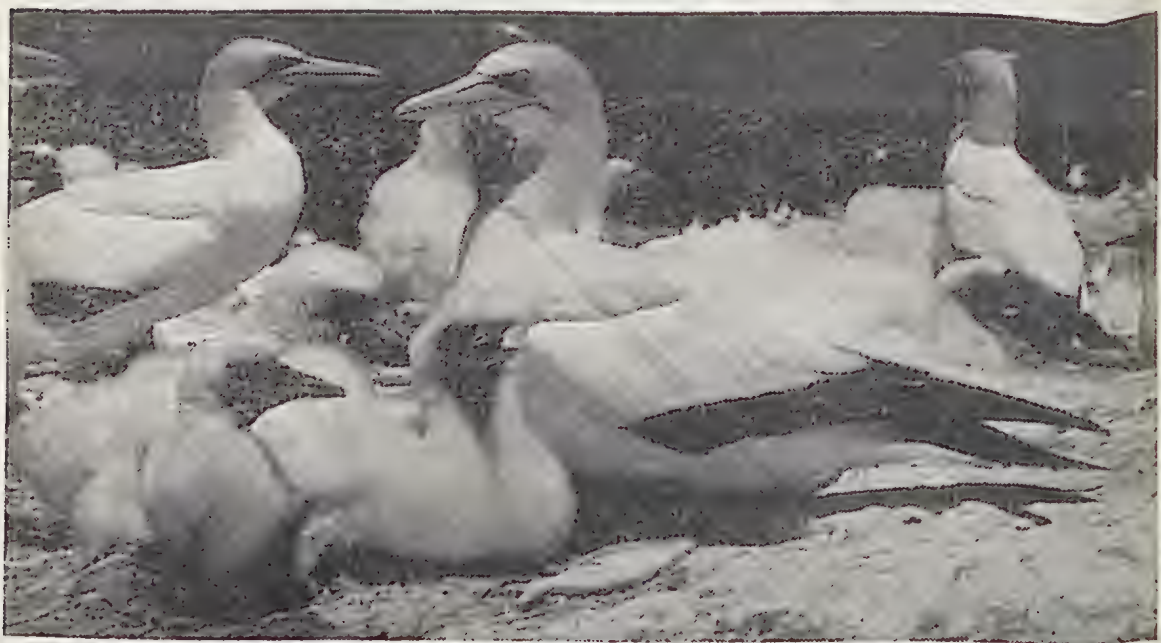
The birds included:

- 'Bustard' - The Eastern Bustard (*Eupodotis australis*)
- 'Pelicans' - (*Pelecanus conspicillatus*) nearly five feet high.

Many fish and oysters, including Hammer oysters (*Malleus albus*) and small Pearl oysters (*Pinctado margaritifera*).



Wedge-tailed Shearwater



Australian Gannet

PHOTO'S BY TREVOR PESCOFF.

July
1967

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NOTES FROM BANKS IN AUSTRALIA (Cont'd.)

May 29. The ship came to anchor and they went ashore after breakfast - at Thirst Sound - so called because they could find no fresh water. Several new plants were collected, including the Narrow-leaf Ironbark (*Eucalyptus crebra*). They saw some Bustards and many beautiful Loriquets. On the 31st they continued along the coast sailing between the Main and the Islands during the day and usually anchoring at night.

On June 5 and 6 more sea snakes were seen and many cuttle bones. A *Nectris nugax* was taken - possibly the Dusky or Audubon's Shearwater (*Puffinus l'herminieri*).

Endeavour Reef

'At a few minutes before 11 (on June 11) the ship struck and stuck fast' recorded Cook. The Endeavour Bark had a flat bottom and shallow draught - about 15 feet - but it had grounded. It was on the S.E. edge of a reef of Coral rocks with 18 to 24 feet in some places and 3 to 4 feet of water in others. About a ship's length (106 feet) away on starboard (bows heading N.E.) was about 60 feet of water. To help float off the ship was lightened by about 40 to 50 tons by throwing overboard everything that could be spared - including 6 of the guns - all that were on deck - and casks, hoops, jars and stores. For the information of any keen diving treasure hunters the latitude was given by Cook as 15°45' South and about 6 or 7 leagues (that is 18 to 21 miles) from the Main.

On the 14th they got to a harbour and safely anchored about 8 leagues from the reef on which they had struck - Endeavour Reef. On the 17th they got the ship in and moored. Even before the ship was moored the enthusiasm of Banks and Solander had taken them off plant gathering - although it was clear that the ship would remain some time. In fact it remained for almost two months while the damage was repaired.

Birds observed, and in some cases collected, were:

- 'Pigeons' - including the Topknot pigeon (*Lopholaimus antarcticus*)
- 'Crows' - probably the Australian Crow (*Corvus ceciliae*)
- 'Whistling Ducks' - possibly the Whistling Tree Duck (*Dendrocygna arcuata*) and/or the Plumed Tree Duck (*Dendrocygna eytoni*)

NOTES FROM BANKS IN AUSTRALIA (Cont'd.)

- 'Cranes' - probably the Australian Crane (*Grus rubicunda*)
 'Curlews' - perhaps the Stone curlew, Eastern Curlew or Whimbrel.
 'White cocatoes' - White cockatoo (*Kakatoe galerita*)
 'Black cocatoes' - Red-tailed Black Cockatoo (*Calyptorhynchus magnificus*)

Plants mentioned included:

- 'Coccos (*Arum Esculentum*)' - Taro (*Colocasia esculenta*) the roots of which were too acrid to be eaten unless roasted. The green tops, called Kale or Indian Kale, were collected for the ship being 'little inferior to spinage.' Banks also referred to this plant as 'Palm cabbage'.
 'Cabbage trees' - (*Livistona australis*)
 'Wild Plantain' - (*Musa banksii*)
 'fruit like indiferent Damsons' - The Sweet or Burdekin Plum (*Pleiogynium cerasiferum*)
 'Mangroves' - probably (*Ceriops candolleana*) and (*Bruguiera gymnorhiza*)
 'Hibiscus' - perhaps (*Hibiscus radiatus*)
 'Ficus caudiciflora' - Cluster Fig (*Ficus glomerata*)
 'Digitalis hispidiuscula' - (*Centranthera cochinchinensis*)
 'Dillenia alata' - (*Dillenia alata*)
 'Leucadendroides glauca' - (*Grevillea glauca*)
 'Mimosa anceps (?)' - (*Acacia complanata*)
 Black Bean (*Castanospermum australe*)
 Rattle Pods (*Crotalaria calycina*)
 River Mangrove (*Aegiceras corniculatum*)

Fish:

- Rough skinned Stingaree (*Urogymnus asperrimus*)
 Epaulette Shark (*Hemiscyllium ocellatum*)
 'Concertina Fish' - (*Drepane punctata*)
 (*Eleutheronema tetradactylom*)
 'a toad fish' -
 'Cockles (*Chama Gigas*)' - Giant Clam (*Tridacna gigas*)
 'Gar fish' - not clear which of the many species.
 'Allegator' - probably the Estuarine Crocodile (*Crocodilus porosus*)
 'Crab (*Cancer Latro*)' - Coconut opening Crab (*Birgus latro*)
 'Turtle' - green turtle (*Chelonia* sp. possibly *mydas*) and logger-heads, probably *Caretta* genera.

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NOTES FROM BANKS IN AUSTRALIA (Cont'd.)

Animals:

'Flying fox' - (Pteropus sp.)

'an opossum (Didelphis)' - probably the Grey Queensland Ring Tail
(Pseudocheirus peregrinus)

'wolf' - probably the dingo.

'Our second lieutenant who was a shooting today had the good fortune to kill the animal that had so long been the subject of our speculations. To compare it to any European animal would be impossible as it has not the least resemblance of any one I have seen. Its forelegs are extremely short and of no use to it in walking, its hind again as disproportionally long; with these it hops 7 or 8 feet at each hop in the same manner as the Gerbua, to which animal indeed it bears much resemblance except in size, this being in weight 38 lb and the Gerbua no larger than a common rat.'

'15th. The beast which was killed yesterday was today dressed for our dinners and proved excellent meat.'

Present day readers would have little hesitation in recognising the mystery animal as a kangaroo. This specimen was probably a young Great Grey Kangaroo (Macropus cangaru). Banks called it 'Kanguru' from the Indians, sometimes spelling it 'kangooroo.'

Musketos were in evidence and also noted.

Ants - termites mounds noted.

'(ants) green as a leaf living upon trees' - (Oecophylla smaragdina virescens)

Black ants 'inhabiting the inside of branches of one sort of tree'

'a third sort (of ant) nested in the inside of the root of a plant which grew on the bark of trees in the same manner as mistletoe.'

These latter have not been identified yet.

Indians observed were 'in general about 5 ft 6 in high and very slender.' 'Their colour was nearest to chocolate.' 'They were all of them clean limn'd, active and nimble.' 'Cloaths they had none, not the least rag.' 'They painted themselves with white and red, the first in lines and barrs on different parts of their bodies, the other in large patches.' 'Their ornaments were few: necklaces

NOTES FROM BANKS IN AUSTRALIA (Cont'd.)

prettyly enough made of shells, bracelets wore round the upper part of their arms... a string no thicker than a packthread tied round their bodies .. a piece of Bark tied over their forehead, and the preposterous bone in their noses ...'

Torres Strait

On July 19 the ship was hauled off shore ready for departure from Endeavour River. They finally cleared the river and sand banks on August 13 and on the 14th 'for the first time these three months we were this day out of sight of land to our no small satisfaction.'

Cook sailed north taking care not to miss 'the passage we expected to find between New Holland and New Guinea.' At noon on 21st it was seen. They passed between the Main and several Islands the last of which was Booby Island (August 23). It was 'white with the dung of birds ... we went ashore upon it and shot bobies (probably the Brown Booby). I myself botanised and found some plants which I had not before seen.' These would have included the Sesbania Pea (*Sesbania aculeata*). On 25th the ship sailed and Banks had left the shores of Australia.

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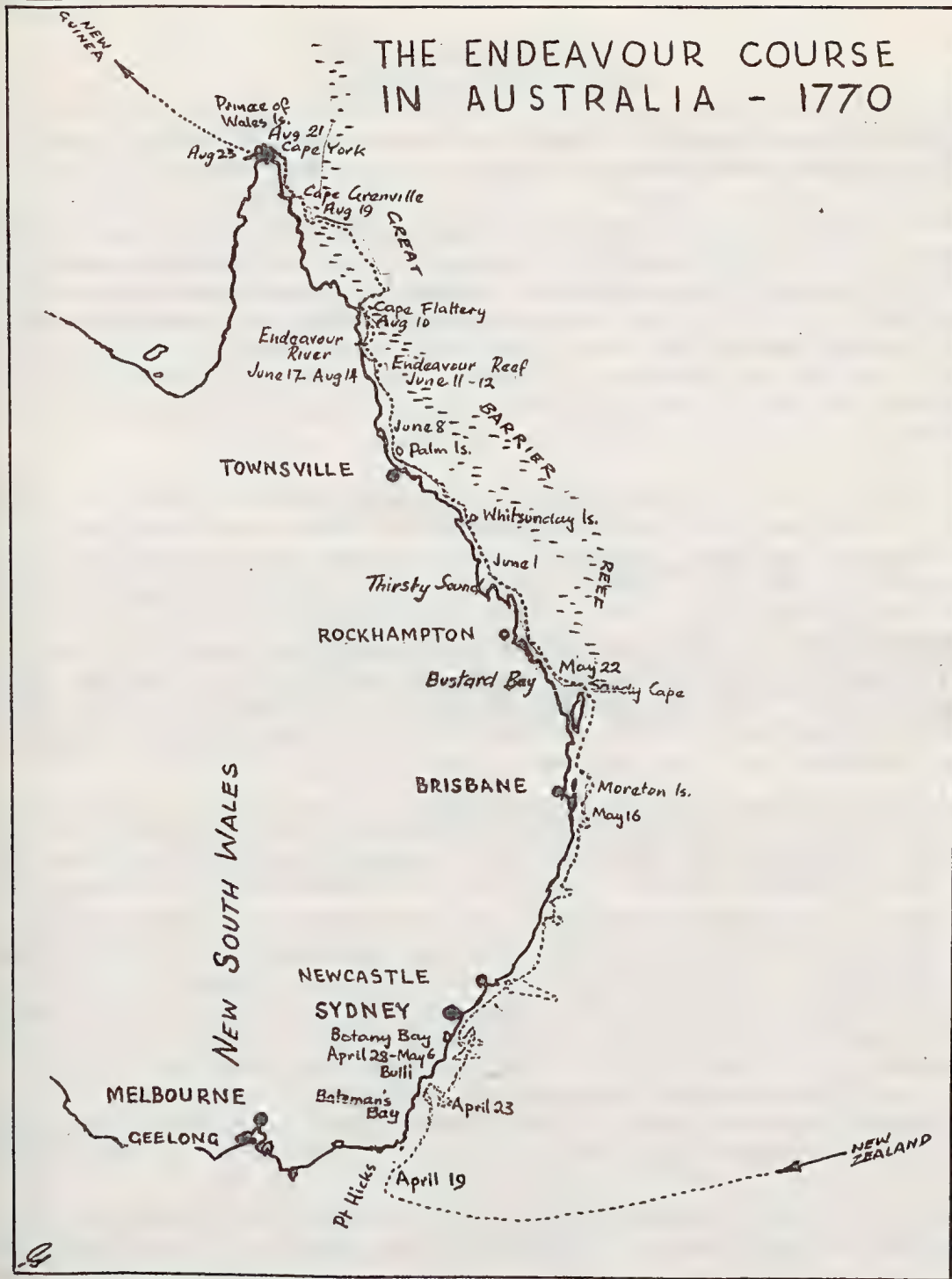
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This author personally identified 203 species of birds and saw Quail that he could not identify specifically. He lists, in addition, 37 other species noted by earlier visitors; D. Le Souef in 1890's, H.C. Robinson in 1900, and A.J. North during the first decade of 1900's. I wonder how many of these Banks saw?



HUNTER CATSBy Alma Ling, Geelong.

It may be a good thing to know a cat is a good rat catcher, but quite another thing when that same cat hunts for birds.

For 3 years now our neighbours cat has upset the lives of our black birds. Our kitchen window juts out from the wall giving a good view of the growth each side and imagine our delight when we observed a blackbird building in the Maple tree. We could watch the setting process and after the hatching the feeding of the young until one day the stronger of the two chicks sat outside the nest. He must have been a strong little chap for next day he flew off over the house tops and we didn't see him again.

The second one took longer to leave the nest and sat nearby all day, and I think got into the nest overnight. Next day it ventured further to the fence, then back into the tree, fence again and onto a low bush, and back into the tree for the night out on a limb. Next day it flew off. Two little grand-daughters came to stay and we watched in vain for the bird's return until at tea-time I was conscious of a flash of shadow cross the window, and, with the aid of four other eager young eyes, we spied the little bird which had returned once more. Quite a thrill to all of us as that, I think, was its final visit to its home ground.

The next year we noticed a black bird again start to build. Lunch time, and my husband just home, and I eagerly said "Come and see our bird building again". Going to the window my voice changed to alarm. "A cat, quick, get it"! and was greatly relieved to see the bird fly off as my husband lunged at the cat with a broom handle he'd grabbed. I wondered if the bird had been injured. In any case that was the end of nest building for that year, but this year again a nest was built and I could just see the head of the bird on the nest. The next day or two no movement was observed and I kept away as I didn't want to disturb it. Finally I went out to investigate and the sight of two broken eggs on the ground was proof enough that tragedy had struck.

A few days later I found myself peering hard trying to make out a dark shape in the tree. Sure enough that tabby cat was sitting in the tree, right on top of the old nest, and intently watching

HUNTER CATS (Cont'd.)

small wrens as they twittered and flew in and about the maple tree. I picked up the broom, sneaked round the side, and lunged the handle into that cat dislodging it. Down it went with a heavy plop onto the path the other side of the fence. It was so intent, hungrily watching the wrens, that it hadn't sensed my coming, and, so I believe, I saved the life of at least one wren, and hope I have discouraged that cat from hunting in our particular tree. At least it hasn't been seen there since.

MAGPIES AND MOTORISTS

A letter dated April 1st and signed by "Maggie Pie" has been received by the Editor.

There are two complaints levelled at the motorist; as Maggie Pie puts it - "I hope you will allow me through the medium of your journal to protest at the dangerous and thoughtless way you humans behave on the road"

"Then there is the habit of scattering glass from broken windscreens all over the road. It could easily be picked up in mistake for grit - it is a wonder there has been no cases of appendicitis"

The first complaint is one that all motorists should be aware of - the fact that magpies often feed on the road and are slow in taking off is well known. Generally a warning "beep" on the car horn given sufficiently in time will make the bird move - provided of course this does not cause more serious complications to other road traffic. It is particularly timely to bring this to the motorists' minds - as within the next few months many young birds will be newly fledged and they are even less conscious of road hazards than the older bird. With regard to the shattered glass, there seems to be little we can do, as broken windscreens seem invariably to happen at the most inconvenient (for the motorist) time. Should the motorist be so unfortunate as to lose a windscreen, before he brushes the remains out onto the road, perhaps he will spare Maggie Pie (and the Anti-litter campaigns) a thought, and find a suitable place for deposition of the glass chips.

FIRST EXCURSION INTO BIRD WATCHINGPART IBy Marjorie James, Belmont.

During the months of September and August last year (1966) my husband and I travelled from Geelong to Cairns and return. The trip was to be a holiday. We expected to do a great deal of sight-seeing, and we hoped there would be opportunities for bird-watching and photography and the study of natural history.

We are not competent ornithologists, but we have always had a keen interest in the bush, particularly in bird life; during the past two years a growing interest in photography and much patience has been rewarded, occasionally, by a bird study which has pleased us and spurred us on to further efforts.

Although we had no introductions to enthusiasts or kindred societies we were surprised how often other nature-lovers noticed 'An Australian Bird Book', by Dr. Leach, and 'What Bird is That?', by Neville Cayley, our constant companions, which we carried on the back window-ledge of our car. Many an interesting conversation was thus begun. Mention that we were members of the Geelong Field Naturalists Club was another "open sesame". For instance, at a chance meeting in Byron Bay, we were directed to a thicket by a swamp outside the town where we saw our first red-backed wren. After another such encounter we were able to recognize from a distance the long legs and black and white colouring of a jakiru - the only one we saw in all our travels - fishing in the shallows of the broad Richmond River. Creeping up in the shelter of the lantanas which lined the river-bank my husband took his picture before the subject became suspicious and flew off.

Travelling north through Finley and Forbes we broke our journey at Coonabarabran to visit the Warrumbungle National Park. In this area of 14,000 acres massive rock formations, the remnants of ancient volcanic peaks, tower in spectacular shapes such as the Breadknife, a sheer wall hundreds of feet high but only a few feet wide. The highest peak is Mount Exmouth, reaching to 4,028 feet. Walking tracks lead through cypress-pine and ironbark. Eagles and galahs are plentiful as well as currawongs and a variety of parrots. Here we cut our photographic teeth on crimson rosellas and tree-creepers, as well as a very obliging eastern shrike-tit.

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FIRST EXCURSION INTO BIRD WATCHING (Cont'd.)

Whenever possible we visited bird sanctuaries and nature reserves. We do not really like to see caged birds, but species first observed in these conditions were quickly recognized later when we were fortunate enough to see them in their natural habitat. Those two beautiful Sea Eagles - the White-breasted and the Red-backed - we saw first at David Fleay's Sanctuary at Burleigh Heads. We saw them again, both in the vicinity of Townsville. The Red-backed soared across actually at our feet, as we stood looking down from the craggy heights of Castle Hill; and a glorious specimen - a White-breasted - twice dived to seize the living bait from the lines of exasperated fishermen on a jetty at Magnetic Island.

Another point on the subject of sanctuaries - those we visited were designed to provide the best possible surroundings for their inhabitants, and the naturalists who conducted them had a knowledge of, and respect for, birds and animals which was deep and sincere. We found them most helpful. Wild birds flocked to such shelter. At Currumbin chattering flights of Rainbow lorikeets streamed out of the bush to feast on the nectar of the coral tree flowers. At Poinsettia Gardens, near Cairns, hundreds of finches scrambled and fluttered to drink from the fountain provided for them in this exotic garden. Here, too, at the same fountain, we were fortunate enough to see a Spangled drongue fly in to quench his thirst; and living in the garden was a pair of Yellow-breasted Sun-birds. They are so tiny - about four and a half inches over all, but of this the bill is at least an inch long. The male has a vivid metallic purplish blue vest, on his breast, which the female lacks. They have the humming-bird characteristic of hovering while they feed from the bright tropical flowers. Our pair were nesting, and it was fascinating to watch the dainty little female slip through the side entrance under the hood of her almost completed nest, and busily tuck the soft cob-web lining into position.

Of course, not all the species we observed were in sanctuaries. As we crossed the Waverley Plains north of Rockhampton we rushed to the windows of the train at the first mention of Brolgas. It took over an hour to cross these extensive plains and Brolgas were everywhere. We counted over four thousand of them and we thought how excited we had been at home when we sighted our first Brolgas - a single pair at Anakie! Around Cairns the Rainbow birds, their

FIRST EXCURSION INTO BIRD WATCHING (Cont'd.)

vivid colours flashing in the sun, were a constant delight. Perched on trees along the shore at Green Island were Reef herons, showing the two plumage phases of this particular species. Some birds were dark slaty-grey in colour, while others on the same tree were snow white. On the tidal flats each morning we watched a variety of sea-birds gathering their breakfast of crabs. The Royal spoonbill, classified by Leach as "Rare", was a frequent visitor. Several times on the Atherton Tableland, and in the sugar country, we sighted the elusive "Native pheasant", or Coucal, scuttling for cover among the underbrush. Another bird closely associated with the canefields was the Fork-tailed kite. Numbers of these birds hovered over the fields, particularly after a 'burn', scavenging for small mammals, reptiles and grass-hoppers disturbed by the fire.

But our most fruitful period of bird-watching was a week spent at Green Mountains on the Lamington Plateau in Southern Queensland. Shortly before the First World War eight young men, all O'Reilly's, scaled the cliffs near Moran's Falls to take up their selections on the plateau, amid the dense tropical rain forest. A few years later the area was declared a National Park, and since then O'Reilly's Guest House, in the heart of the forest, has been a mecca for naturalists. Here we met Bernard O'Reilly, noted author, and skilled bushman, who by virtue of his amazing bushcraft, found in 1935, the crashed Hinson airliner, and led the rescue party up into the wild mountain country to the two injured survivors - a truly remarkable feat of endurance! His knowledge was a great help to us, as it is to all visitors, and from him we learnt much of the area.

As there is complete protection of all flora and fauna in the area, the birds have no fear of humans. The Pied currawong was, I think, the most numerous species. Uninvited, Crimson rosellas formed a queue at our window each morning demanding their breakfast ration. Lewin honeyeaters flew into the dining room to help themselves to honey from the tables, and perky little Red-browed finches pecked for seed right at our feet. We read that the Brush turkey "when flushed, runs for cover", rapidly disappearing into the forest. We had to persuade these birds (with a trail of bread-crumbs) to quit the scene so that we might continue photographing other species. At four o'clock when a great trough of feed was provided for them, I

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FIRST EXCURSION INTO BIRD WATCHING (Cont'd.)

have counted from fifty to seventy of these birds, completely wild, coming out of the forest. The breeding season was approaching and we noticed with interest how the wattles on the male birds grew during the week we were there; and how their disposition became increasingly belligerent. They had not started mound-building for this season but we found several of last year's mounds.

Perhaps the most beautiful of all the birds in this birdland paradise were the bower-birds. The gleamish bluish green sheen of mature male Satin bower-bird is beyond description; but almost as beautiful were the females and immature birds so different from the male, greenish brown in colour, with bronze-gold on the underside of their wings, and violet eyes. Mr. O'Reilly led us to our first bower. We carefully observed the terrain and were later able to discover several more around the edges of the forest. The Satin bower-birds seek out - and steal, if necessary, even stealing from one another - all manner of blue articles. There were blue plastic pegs, and tooth-brushes, blue buttons and blue-bags - all stolen! Each morning the first chore of the male bird is to gather fresh blue flowers and arrange them to his liking. The wild tobacco plant was in bloom at the time, and the flowers - blue, of course - were the favourite decoration.

The other bower-bird which frequents the area, the Regent, was more difficult to observe. While the wild berries on the hillside were plentiful they would not approach the house. We stalked them up hill and down dale and saw from a distance the brilliant gold and black flashes of small flocks moving through the trees. But we just could not come close enough to photograph them, and for once had to confess failure and buy slides for a record of these birds.

There were other, rarer species. The Prince Albert we did not even see. Lyrebird, almost as competent a songster and mimic as his close relative, the Superb lyrebird, we heard usually at dawn and dusk. Well adapted to moving swiftly through the dense forest, a fleeting glimpse would be the most one could hope for. Skilled ornithologists were seeking the extremely elusive Rufous Scrub-bird. This mouse-like creature (it is also called the mouse bird) lives in the densest part of the forest in association with the ancient Antarctic Beech Trees. It is found under similar conditions on the



Sea-eagle at Fleay's



Rainbow Lorikeet

FIRST EXCURSION INTO BIRD WATCHING (Cont'd.)

Dorrigo Tablelands of New South Wales and is thought to be confined to these two small areas. It too has a famous relative, the Noisy Scrub-bird; seen on very rare occasions in South-Western Australia in the vicinity of Albany. It was thought to be extinct, but has since 1961 been rediscovered in a new habitat, to which it has apparently adopted after timber-getting threatened its original territory.

One morning we woke to find the mountains completely shrouded in thick grey cotton-wool clouds. Visibility was reduced to a few yards, rain poured down - four inches in one day. Bush-walking and bird-watching were quite impossible. We spent the morning listening to Mr. O'Reilly's tape-recordings of the two most versatile performers of the region - the Lyrebird and the Scrub-bird. We hope one day to go back and continue our search for them.

Altogether, in eight weeks, we identified one hundred and thirty different species of birds. We did not photograph them all, but we have three we photographed and have not yet identified - a brown pigeon with an unusual topknot, and two representatives of that confusing group, the small grey birds. Can anyone help us?

Footnote ..

This article will be completed in the October issue of Geelong Naturalist when a complete list made by Mr. and Mrs. James will be printed.

ALTERATION TO WEEKEND CAMP

The weekend campout at Halls Gap has been put back to a later date - October 28th-29th. For further details contact Mr. Wheeler, Excursion Secretary.

"THE AGGRESSIVE MYNA"By Oonah McHaffie, Park Orchards.

Can anything be more aggressive in the breeding season than the Indian Myna (*Acridotheres tristis*)?

During late Spring and early Summer they attempt to drive all other birds from the garden - especially the native birds, much to our annoyance. Fortunately some, such as the Little Wattle Bird, persist.

I had missed the Magpie-Larks. There had been one or two, almost daily, on the lawn outside the bedroom window. I had seen a Myna chasing them off. Then, on one occasion, a Magpie-Lark arrived on the lawn. A Myna took up its stand a little way off and watched the other bird. Shortly afterwards two other Magpie-Larks joined the first bird. Immediately, with a series of hops, the Myna covered the intervening lawn and the three birds quickly took refuge in flight.

A few days later, hearing a vast amount of squawking, I threw up the window to see if rescue work was required and found that a large blue-tongued lizard was in the shallow concrete drain under the window. The Myna was "dive-bombing" it and making a terrific noise while doing so. Whether it would actually have harmed the lizard we do not know. The lizard was not waiting to find out. After frantically running up and down the drain, it eventually managed to get out and hide under an Azalea bush while the bird was temporarily distracted.

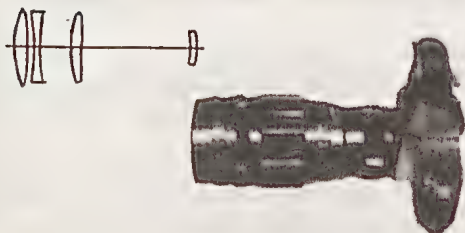
One strange aspect was that a blue-tongued lizard, who is a past master in the art of bluffing, was in turn bluffed by the Myna. I have known a blue-tongued lizard to keep a cat at bay by just puffing itself up and poking out its blue tongue, accompanied by a hissing noise. The same cat caught and killed Copperhead snakes!

The Mynas also bluff our cats. The "dive-bombing", accompanied by a lot of squawking, soon has the cats running for cover.

PHOTOGRAPHERS!

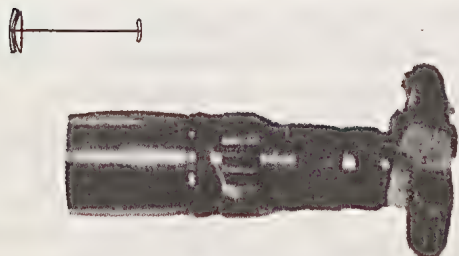


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"LOOK UP"By L. Elms, Belmont.

We go upon a bushwalk, and proceed with eyes cast down
To look at Natural History things spread out upon the ground.

Flowers, insects, fungi, and sometimes orchids rare
Combine with ferns and other things to hold our interest there.

But look a little higher, and we see the shrubs in flower,
And the bees are taking nectar from them, hour after hour.

Look up above these too, and there we see against the sky
The lovely trees, with nests to which the homing birds will fly.

Look through the trees, and far beyond, a mighty mountain range
Holds mysteries and secrets of things we find so strange.

The cliffs have rocks and minerals, and gemstones green and blue,
As well as caves with stalactites and fossils in them too.

Look higher still, and there we see the clouds go rolling by;
The Cumulus and Stratus set against the deep blue sky.

Yes, do look skywards up at night, to see the stars and moon.
Though Nature's creatures fade and die, and pass away so soon
There's little change up skywards - it's the same since time began.

These are the things to study, so observe them while you can.

And do keep "LOOKING UP".

AT RANDOM

ISLAND FAUNA THRIVING

An extract from the "Petroleum Gazette" for March, 1967, reads as follows:

A RECENT SURVEY on Barrow Island, off the north-west of Western Australia, has revealed that, far from decreasing the native species of fauna - as forecast in some quarters - the oil drilling activity and other work on the island appear to have increased the wildlife generally. Preparations are nearing completion for the start of oil production in May from the Barrow field, Australia's third - and largest - commercial oilfield.

Reporting on the survey, made under a grant from the Explorers' Club of New York, naturalist W.H. Butler of Perth said he had found that the disturbance of surface soil due to road building and other development has increased the growth of vegetation, thus making extra food available to the animals. Among the seven types of marsupials and the varieties of bats, rats, and birds there are several unique species.

Feed obtained from rubbish heaps and grazing on the lawn of the main camp has also benefited some animals. On one night of the survey 37 hare wallabies were observed feeding together on the lawn area of 40 ft. by 20 ft.

Mr. Butler stated in his report: "West Australian Petroleum is to be congratulated on its present attitude to fauna conservation and the company should be asked to carry on this programme as far as possible, and extend it to other areas under its control".

It is most encouraging indeed to know that progress of this nature does not always bring destruction of wild life.

AT RANDOM (Cont'd.)WINTERING ROBINS RETURN

The study of Flame Robins has become an important project for bird banders and observers alike. There is very little known of the migratory movements of the birds, and the following notes from Mrs. J. Hunt of Paraparap are of particular interest.

Incidentally many Flame Robins have now been color banded and observers are asked to take particular note of all Flames seen in the hope of "sight recoveries".

"Arrival of the Robins" - Usually in April and May there are scores of robins, both Flame and Scarlet around the paddocks, but this year, being so dry, there were just the odd ones here and there. However about midday on May 18th we noticed two males, a scarlet and a flame, bathing together! In the second bird bath there was another pair, with numerous other birds in the trees and shrubs around. For some minutes we went from one window to another as three bird baths were all occupied by robins; - two or three in the water together, while others waited their turn on the edge, and others waited above. There were at least fifteen, both male and female, Flame and Scarlet - all together. Since then there have been many robins in the paddocks, so we assume that they had just arrived after a long journey, and were just as anxious for a 'clean up' as humans are at the end of a long journey."

CORRECTION ...

The Editor apologises for an error which appeared in "The Prom - At Random" Page 124 (Vol.3, No.4 - January 1967). The man who explored Rodondo Island is of course Mr. Bechervaise of Belmont (those members who attended the July meeting will know him well as an authority on Antarctica).

NATURE SHOW - Members are advised of a nature show to be arranged for October; for more information watch our News Sheets each month.

QUESTION OF THE MONTH

The following questions have been chosen from the 'Question of the Month' Box. -

"The Western District was described by early explorers as a treeless plain.

*I have also heard it said that the "River Red Gum" (*E. camaldensis*) is the only eucalypt to have colonized the basalt there.*

On the other hand, planted sugar gums thrive.

- 1. Did the treeless plain correspond approximately with the basalt area?*
- 2. What geological or botanical explanation is there for the absence of trees?"*

Mr. Allan Sonsee - well known botanist of Ballarat replies.

The answer to the question is found in an article by J.H. Willis, in the Victorian Year Book 1962.

The article is entitled Land Flora of Victoria.

My answer uses portions of this article.

Early explorers, e.g., Major Mitchell, did write concerning the lack of large forests on the Western Volcanic plains, but it is an exaggeration to call them 'treeless plains'. This description is used when comparing the laval plains with surrounding well forested areas, e.g. The Otways.

The question regarding an explanation for the lack of vegetation on the plains can be partly answered. After the great volcanic

QUESTION OF THE MONTH (Cont'd.)

upheavals in the Middle Pliocene Age and extending to Recent, the vegetation had to be established over this large area of laval flows, tuffs and scoria. In many cases the long and slow process of weathering had to operate to produce soil suitable for plant growth. Even now, in many places, thin veneers of soil cover the basalt rock below. In areas commonly called "stony rises" the rock still protrudes through the thin coating of soil. This soil, often only inches deep, provides a suitable habitat at certain seasons, for a growth of annual grass and herbs, but not sufficient depth for large shrubs and trees. This is noticeable on the Keilor Plains, near Melbourne.

The depth of soil becomes known when bores are put down for underground water. It must be remembered that the volcanic age was not a matter of a few years - it was a long period of millions of years, and in some areas weathering over a long period has produced a greater depth of soil, also the volcanic material erupted varies, and scoria and tuff produces soil more rapidly than lava or basalt.

After weathering had produced soil, the surrounding areas provided seed for the establishment of plants. Possibly all plants did not find the particular chemical nature of the soil ideal. The high iron content could be a disqualification. It is certain at least that not all plants favour what the farmer and grazier designates chocolate soil. Farmers know that it favours certain crops, e.g., potatoes. In many places the lack of depth in the soil allowed only annual plants. The soil, in summer, dries to the rock below, making difficult the establishment of forests of trees. Where depth of soil permitted, trees did grow. The red gum is one. This is a very adaptable tree, as it is found growing all over Australia.

It is found growing along the Yarra in Victoria, and the rivers of the Territory, so one is not surprised to find it along the rivers of the volcanic plains. It is a good mixer, a good migrant or pioneer, favouring a wide range of soils and climates, but it has one demand - water. It is a true river gum. It is not the only eucalypt that favours basaltic areas. *Eucalyptus viminalis* - the manna gum - grows between Colac and Camperdown, and in places *E. ovata* - the swamp gum - is found.

QUESTION OF THE MONTH (Cont'd.)

Recent investigation indicated that snow gums were once more widely spread than they are today. All specimens recorded in a recent survey were growing on basalt. Wherever gorges have been cut by streams in the basalt, the tree violet is likely to be found. With it grows Sweet Bursaria, accompanied quite often by the Scrub Nettle and the native Elderberry.

It must be remembered that some of the old extinct volcanoes or points of eruption became heavily timbered, e.g., Mt. Buninyong and Warrenheip, because these cones are composed in the main of loose material that disintegrated rapidly and formed suitable material (soil) for tree growth.

Some areas became depressions, and lakes are common. These in the main are laval depressions, blocked river valleys, or old volcanic vents. All are found in the Colac areas. These in their turn provided habitats for aquatic plants.

But, generally, the plains remained as Hume and Hovell in 1824 found them - practically treeless, Major Mitchell in 1836 remarked in his diary about the treeless nature of the old volcanic cones in the Smeaton - Ascot district, and today they remain as treeless as they did when the Major gazed at them over a hundred years ago.

Sugar gums and pines seem to find many areas suitable to their particular needs. Perhaps this is because *Pinus radiata* is a surface rooting tree, and the sugar gum is highly drought resistant, as are most eucalypts. But the sugar gum is a native of South Australia, and its lack of an efficient means of seed dispersal did not permit it to become a migrant to the volcanic plains of Western Victoria.

Man has aided it by establishing it on the plains. If given the opportunity does it produce seedlings without aid from man? I have seen plantations established in the Mt. Bute (Skipton) area by sowing with the aid of a seed drill after the land is first cultivated. Other species of eucalypts have been used as windbreaks.

Wide areas of the volcanic plains now have little indigenous vegetation, this having been replaced by introduced grasses and alien weeds.

QUESTION OF THE MONTH (Cont'd.)

Often it is difficult to visualize the old scenes, and the old ecological pattern must be sought in isolated areas which today decrease in number. An attempt is being made to recreate the old ecological pattern at Tower Hill, and those who try are resorting even to old photos of the hill - photos taken before man ruthlessly destroyed one of nature's wonders. Another "save" is Sugarloaf Hill. The people concerned must be highly complimented by all interested in the preservation of natural features.

We today say "Thank You".

What will future generations say? I have no doubt a more emotional thank you than we can ever imagine today.

Can you identify the parrots please, seen in the trees and alongside road, near Jamieson, March 1966?

Description - Green body, red head, blue underneath jaw (or lower cheek), red chest, green tail, blue side feathers in tail, size of Eastern Rosella.

The answer is given by Mr. Trevor Pescott.

These birds would be juvenile Crimson Rosellas, birds which are colored quite differently from the beautiful red and blue adults; how long the juvenile plumage remains is uncertain.

There are some similarities in plumage pattern - the blue cheek patch and tail feathers for example - which are quite distinctive; however, these birds are often confused with the King Parrot, although a check in a bird book will quickly show the basic differences.

Subscriptions are now due and payable to the Treasurer. Early payment of subs will make the work of these Committee members far easier.

July
1967

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AROUND THE FARM
From Joyce Hunt, Paraparap.

Gray Thrush

The gray thrush usually arrives in our garden the first week in April. This year it arrived on March 25th and came straight to the bird table, evidently remembering this from last visit. It has been a constant visitor to the bird table ever since; in fact there have often been two thrushes around together, and on one occasion three were seen together on the bird bath.

Spiny cheeked Honeyeater

A welcome visitor who was seen here for the first time in May of last year, has been around again this May. The quaint "quonk" sound from the pepper tree always indicates the presence of this Spiny cheeked honeyeater as it feeds on the peppercorns.

Robins

The first Flame Robin, a female, was sighted on March 24th this year. The first male was sighted on April 12th, the first Scarlet male having been seen two days previously.

Golden Whistler

This is the seventh year that a female Golden Whistler has visited our garden in the Autumn. At first she used to sit on the wires for minutes, looking in all directions before making a rapid dive to the bird table to pick up a crumb - and be off again in a split second. Each year she became a little more daring, though still cautious. This year she sits on the wire and looks all around before descending to the table, but once there, stays pecking for perhaps ten seconds or more. On one occasion she even threatened a wren who dared to approach the table while she was there. The female lacks the beautiful colouring of the male, but she is very appealing with the pale golden tinge on her breast, the rather prominent eyes and her timid approach to the bird table.

Chook yard prisoners

At last we have had to alter the bird-wire above the door of the fowlyard, because, although the door is open only a few inches, little birds WILL find their way IN, and CAN'T find their way out.

AROUND THE FARM (Cont'd.)

On May 17th no less than three White plumed honeyeaters got in together! They could not find the wide-open door, so we had to undo the wire in order to release them. A few days earlier a Wagtail had got in, and it took two of us many minutes to get him out. Actually, in the end, we had to catch him in a grain sieve, but he held on so tightly to the wire that one had to hold him with the sieve while the other went outside to try to release his grip on the wires. When released he flew directly to the bird bath and had a thorough splashing; then sat in the willow to preen himself, - as if to say, "I've been contaminated by being handled by humans; but now I am clean again".

Mixed Bathing

During the dry spell all the birds seemed particularly hungry; they also patronized the bird baths a great deal, and it was quite common to see a robin or thrush or goldfinch among the wrens at bath time.

Wrens

These are so numerous at present that it is impossible to count them. At the time of writing there are seven in sight, five on the bird table, one on the rosebush and one on the path; but they change places so rapidly that a count is impossible. On February 18th the young male started to moult and is now distinguished only by his black beak and blue tail feathers. Towards the end of July he should start getting his new plumage, and will probably have his full black and blue colouring by the middle of August.

Galahs

Galahs had not been known as far south as this until 1961. Until this time there was just an occasional one seen, but in 1962 a pair evidently nested nearby, as a family of five birds was seen several times. Since then, they have been about each Spring and into the Winter in increasing numbers. In May this year we were discussing birds in general and wondered if Galahs were ever likely to breed up in such numbers down here that they might become a problem as they are further north in Victoria. Ten minutes later, as if in answer to our questioning, a flock of sixty galahs appeared, and settled on a dead tree, transforming it into a mass of pink and gray "blossom".

JUNIOR PAGES



Now, with spring so close, there is a steady increase in the activity of birds; during the autumn and early winter they are quiet, and it seems that most have left us and migrated northwards. Careful watching shows that many birds spend the winter with us, but because they become silent, we do not see them.

July and the next few months see the first spring wildflowers at their best, and if you search carefully, you may find the first birds nests for the season. Remember, however, that the days are still very cold, and it takes only a little interference to make the mother leave the nest; the eggs and young birds will die from cold very easily if the mother is not there to keep them warm. If you find a nest, take a quick look at it, then leave the area quickly so that the mother can return before the eggs become chilled.

A letter from Gregory Bolton from Mannerim State School arrived just before we went to press, and this shows that some birds at least already have started nesting.

"On Monday morning, when we were saluting the flag at school, we noticed a butcher bird fly down on to the wash-basin and pick up the soap in his claws and carry it off. We looked around the trees afterwards, but could not find it so we do not know whether he ate it or not. We put bread-scraps on the bird-table at school, and magpies and butcher birds came for them.

A plover has a nest close by the roadside and when cars come past at night it stands straight up with its wings spread. There are 4 large green-coloured eggs in the nest."

Can anyone tell Gregory why the butcherbird should steal the soap? Could it have eaten the soap in mistake for bread?

JUNIOR PAGES (Cont'd.)

You can help ...

We need your nature notes, Juniors, and your stories and puzzles to help fill these two pages.

They are kept for your use, because we think it is a good idea to have reserved a place where you can have nature observations published.

To give you something to write about, printed below is the photograph of a bird at its nest.

DO YOU KNOW:

What is the name of the bird?

Have you seen it in your garden or in the bush?

Do you know what its nest is made of, and where it is built?

What does the bird feed on?

These and many other questions can be answered after a little time has been spent in observing birds, and reading such books as "What Bird Is That?" and "An Australian Bird Book".

Your observations will be printed in the next "Geelong Naturalist" if you send them to -

The Editor, "Geelong Naturalist",
4 Victoria Terrace,
BELMONT, 3216.



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The Statements and the opinions contained in the papers published in this Journal are the responsibility of the respective authors.

MEMBERSHIP

Membership of the G.F.N.C. is open to any person interested in Natural History. The 'Geelong Naturalist' is distributed free to all members, and the Club's reference and lending library is available.

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COVER PHOTOGRAPH

Emus passing the famous "Wonga Hut" Wyperfeld National Park.
by H.E. Tarr.

GEELONG NATURALIST

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October 1967.

EDITORIAL

Since the Geelong Field Naturalists Club was formed in April 1961, a great deal has been achieved particularly in the field of publicity towards the needs of conservation. But it may seem that some - indeed most - of our activities have been designed solely for the satisfaction of the few who have become Club members.

This, of course, is not a true picture of the value of Club activities; although we undoubtedly enjoy our recreation, there is the tendency always to search for ways of enlarging and consolidating our system of reserves and parks, and to bring the needs of nature conservation to the fore.

One may wonder how a campout at the Grampians or Wilsons Promontory for example, can help conservation of the areas - the simple fact is that most of us have not seen these areas from the naturalists' viewpoint; and until we know an area at least to a small extent from first-hand observations, we are not qualified to present our views should the need arise.

The same thing applies to the various places we visit during the normal excursions, and once having inspected an area, we can, as a Club, air our views with something of authority.

This even extends to the various views we hear expressed at our monthly meetings - admittedly the speaker gives his own ideas, and these could be quite biased; but at least we have something on which to base our own statements at a later date.

The Club's latest venture - jointly with the Geelong Group of S.G.A.P. - is a Nature Show. These two Clubs have combined extremely well to present the Show, and now that the ground work has been done by the Show Committee, it is up to the individual member of each Society to complete the task by ensuring the attendances are up to expectation.

TREVOR PEScott,
Hon. Editor.

OBSERVATIONS OF BIRD LIFE PRECEDING AND
DURING THE DROUGHT IN 1967 IN WYPERFIELD
NATIONAL PARK. By H.E. Tarr, Nunawading.

The year 1967 has produced the most severe drought the Park area has undergone since its Gazettal in 1921 as a National Park. The rainfall since mid-December 1966 has only been 185 points up to May 31st, 1967.

Judging by the actions of some birds it would appear they are fully aware of what is to follow. The Emu (*Dromaius novae-hollandiae*) would be an extra good example. The normal season's sightings in the Park of males with young would range from twelve to twenty birds with clutches averaging about eight young. During the 1966 breeding season from June onwards only two clutches of young were observed, these were clutches of four and six young respectively. An amazing feature of this bird in the Park is the fact that only one full clutch of eggs have ever been officially recorded there and these have been deserted. This clutch and odd broken eggs observed in the Park have all been found amongst thick scrub such as Mallee and Tea-tree. Males are noted with their families until the second season when in about April a female will be noted in the party. This appears to be the breaking up of the happy family.

Birds such as the Lowan (*Leipoa ocellata*) and the Wedge-tailed Eagle (*Aquila audax*) appeared to have a normal breeding season during 1966. Numbers of species recorded were at an all time low during this season. The Park bird list at present stands at 201 native and 3 introduced species. In a normal season it would be possible to list in the vicinity of 100 species in a week but during the 1966 season one would be flat out to reach the 60 or 70 mark. The usual migratory species were either missing altogether or in very small numbers. In one week in the Park during October 1966 I noted only one single Wood swallow - a Dusky (*Artamus cyanopterus*) White-winged Trillers were very scarce, and the only cuckoo noted during the season was a Fan-tailed (*Cacomantis pyrrhophanus*). Songlarks were also absentees, but a few Sacred Kingfishers (*Halcyon sanctus*) turned up and we were able to list our first breeding record of this bird in the Park area. Very few Cockatiels (*Leptolophus hollandicus*) and Budgerigars (*Melopsittacus undulatus*) paid us their usual annual visit.

Following the 1966 breeding season, I have made the following

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OBSERVATIONS OF BIRD LIFE PRECEDING AND
DURING THE DROUGHT IN 1967 IN WYPERFELD
NATIONAL PARK. (Cont'd.)

observations. Following the normal pattern Regent Parrots (*Polytelis anthopeplus*) have practically vanished from the area. Flocks of White Cockatoos (*Kakatoe galerita*) and Galahs (*K. roseicapilla*) appear to be larger than usual. Smaller Parrots such as the Mulga (*Psephotus varius*) and the Red-backed Parrot (*P. haematonotus*) are in very low numbers indeed to a normal season. On the other hand, a small flock of Little Corellas (*Kakatoe sanguinea*) have paid us more visits than normally. Hawks such as the Peregrine Falcon (*Falco peregrinus*) and the Little Falcon (*Falco longipennis*) and Goshawks are more noticeable now; food probably being easier to secure with the small birds feeling the pinch of the very dry season. Smaller birds, such as Honeyeaters are more easily observed now as there are very few places left for them to bathe and drink at. The Yellow-throated Miner (*Myzantha flavigula*) has carried on in its normal pattern with young leaving the nest as late as May.

Footnote:

During July 1967 Mallee Fowls placed more material in their mounds than I have ever noted before.

What reason lies behind this strange behaviour on their part?

A TREASURE SHRINE OF LIVE JEWELS

By Lilian Memmott, Belmont.

This is a very apt title for the Glow-worm Grotto in the Waitomo Caves, New Zealand.

Here hundreds of thousands of tiny insects shed a luminous glow on the Stalactites. They seem to cover the roof of the cave above the underground river like a living Milky Way. These Glow-worms are not the ordinary ones seen elsewhere. They are unique to New Zealand. The shine comes from the larval stage and its "lamp" is situated on the last segment of the tiny body. It goes through four stages, egg,

A TREASURE SHRINE OF LIVE JEWELS (Cont'd)

larva, chrysalis, imago. At the grub stage they are about one and a half inches long, very slender looking almost like a matchstick.

The food of the Glow-worm consists of tiny midges which it catches on silken threads covered with globules of a sticky substance. They spin these threads, sometimes as many as twenty, and hang them from a little silken hammock they weave. Attracted by the glow or light from the larvae, the midges fly onto the sticky thread and are caught fast. The thread is then drawn up with the tasty meal.

The cave provides plenty of sustenance as the banks of the underground river are infested with midge grubs that live on the organic matter in the mud.

Looking up as the boat is pushed midstream one sees this sky of living jewels - a sight once seen never forgotten.

FIRST EXCURSION - PART 2.
By Marjorie James, Belmont.

Part two..... In the July issue of Geelong Naturalist, the article describing a trip to Queensland by Mr. and Mrs. James of Belmont was printed; the following is a list of birds seen, and the place where the first observation was made.

Throughout Victoria.

Eastern Rosella, Willy Wagtail, Blue Wren, White-backed Magpie, Magpie-lark, Raven, Welcome Swallow, White-faced Heron, Black Swan, Kookaburra, White Cockatoo.

Northern Victoria.

Flame Robin.

Through New South Wales.

Crested Bronzewing, Yellow-billed Spoonbill, White-plumed Honeyeater, White-winged Chough, Nankeen Kestrel, Brown Hawk, Spur-winged Plover,

FIRST EXCURSION - PART 2 (Cont'd)



Brush Turkey at O'Reilly's
Photo by F. James.

Coolangatta, Qld.
Rainbow Lorikeet.

Glasshouse Mountains, Qld.
Noisy Miner.

Grey Fantail,
Budgerygah, Little
Black Cormarant,
Black-backed Magpie,
Galah, Pied
Currawong.

Warrumbungle Ranges
N.S.W.

Wedge-tailed Eagle,
Crimson Rosella,
Eastern Shrike-tit,
White-throated Tree-
creeper, Yellow Robin.

Keepit Dam, N.S.W.
Eastern Spinebill,
Grey Teal, Pelican,
Yellow Weebill,
Black-faced Cuckoo-
shrike.

Richmond River, N.S.W.
Jabiru.

Byron Bay, N.S.W.
Silver Gull, Eastern
Swamphen, Fairy Tern,
Gannet, Yellow-
winged Honeyeater,
Red-backed Wren.

FIRST EXCURSION - PART 2 (Cont'd.)Brisbane, Qld.

Whistling Eagle, Red Wattle-bird, Java Dove, Sacred Kingfisher,
Southern Fig-bird.

St. Lucia, Qld.

Blue-faced Honeyeater, Apostle-
bird, Pale-headed Rosella.

Caboolture, Qld.

Red-backed Sea-eagle.

Central Qld.

Brolga, Grey Butcher-bird.

Townsville, Qld.

Blue-winged Kookaburra,
Whistling Tree-duck, Masked
Plover, White-headed Stilt,
Noisy Friar-bird.

Cairns, Qld.

Fork-tailed Kite, White Ibis,
Plumed Egret, Black Duck,
Rainbow-bird, Yellow Fig-bird,
Satin Flycatcher, Peaceful Dove,
Bar-tailed Godwit, White-necked
Heron, Little Egret, White
Egret, Royal Spoonbill.

Green Island, Qld.

Reef Heron.

Atherton Table-land, Qld.

Pheasant Coucal, White-
breasted Wood-swallow.

Poinsettia Gardens, Qld.

Yellow-breasted Sunbird,
Spangled Drongo, Jacky Winter,
Chestnut-breasted Finch, Bar-
shouldered Dove.



Yellow-breasted Sunbird at nest.
Photo by F. James.

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FIRST EXCURSION - PART 2 (Cont'd.)

Magnetic Island, Qld.

White-breasted Sea-eagle, Pied Butcher-bird, Stubble Quail, Varied Triller, Mistletoe-bird.

Rockhampton, Qld.

Singing Honeyeater, Rufous Whistler.

Mt. Coottha, Qld.

Scaly-breasted Lorikeet.

Wynnum, Qld.

Eastern Curlew, Whimbrel.

Redland Bay, Qld.

Yellow-faced Honeyeater.

Cleveland Bay, Qld.

White-breasted Cormarant.

O'Reilly's, Qld.

Regent Bowerbird, Satin Bowerbird, Red-browed Finch, Lewin Honeyeater, Brush Turkey, Spotted Scrub-wren, Green Cat-bird, Whip-bird, Red-sided Parrot, King Parrot, Black-faced Flycatcher, Golden Whistler, Yellow-throated Scrub-wren, White-browed Scrub-wren, Grey Thrush, Mountain Thrush, Brown Weebill, White-headed Pigeon, Flock Pigeon (Top-knot).

Evans Head, N.S.W.

Little Friar-bird, Green-backed Honeyeater, Caspian Tern.

Nambucca Head, N.S.W.

Yellow-tailed Black Cockatoo, Pipit, Little Wattle-bird, Grey-backed Silvereeye.

Sydney, N.S.W.

Black-faced Wood-swallow, Red-whiskered Bulbul, Goldfinch.

Bateman's Bay, N.S.W.

Double-banded Dotterel.

Lakes Entrance, Vic.

Wonga Pigeon, Mountain Duck, Brush Bronzewing, Dusky Moorhen, White-fronted Chat.

QUESTION OF THE MONTH

In this issue of "Geelong Naturalist", three questions have been answered.

"The national emblem of Ireland is known as the 'Shamrock'. What plant constitutes the 'Shamrock'?"

The answer to this question is as follows:

According to tradition, St. Patrick when preaching to the Irish, plucked a leaf from a weed on the roadside to illustrate the principle of the Holy Trinity - three individuals, yet as one individual -, the three leaflets, each complete in themselves, yet all combining to make one complete leaf. For such a parable, there are species of clover and wood-sorrels with leaves almost identical but of course their flowers are different as are also their botanical relationships.

Today, plants are classified by their flowers and not by their leaves but of course descriptive botany was probably not an exact science in St. Patrick's day, and as no mention is made of any flower we are more or less left in doubt.

We do know that the Shamrock in its tradition had a trifoliate leaf. Clovers and wood sorrels have this feature. Some authorities regard one of the clovers as the traditional Shamrock but there are others who claim it to be the oxalis or wood-sorrel, of which there are several species in Ireland. The latter claim that the Shamrock is an edible plant to humans and that clovers are most unpalatable to human taste, on the other hand, the oxalis has very sappy stems and its acid content can make it pleasant to chew. As children, we used to love visiting a certain church yard where oxalis grew, and we delighted in chewing handfuls and relished its distinctive taste. To us the plant was known simply as 'sour-grass'.

On referring to my library I find that in an encyclopaedia a Shamrock is the name of several plants akin to clover, one of which is now

QUESTION OF THE MONTH (Cont'd.)

generally accepted as the Shamrock - hop clover (*Trifolium minus*). A modern dictionary has this to say: "A small trefoil plant, the national emblem of Ireland is now regarded as either white clover or wood-sorrel."

Perhaps we should leave it at that.

"Do butterflies eat?"

The answer is given by Mr. E.G. Errey.

Many moths and butterflies take in liquid food and water through a proboscis. This is a tube extending from two mouth-parts, the jawlike maxillae, between the upper and lower lip. Lobes of these maxillae are elongated and joined at the edges. When not in use the proboscis is coiled beneath the head like the hair-spring of a watch.

It is very small or absent altogether in some species, such as the gum emperor, which need no food. In these types the eggs of the female are fully developed when she leaves the pupal case.

On the other hand, the proboscis of some insects is up to five or six inches long. Some tropical moths can penetrate fruit skins, even of oranges, in order to extract the juice. Spores of mould may enter the fruit with the proboscis, and considerable damage can be caused.

The life span of moths and butterflies varies greatly, being so short in some cases that feeding is unnecessary. Some species, however, live for months, often travelling great distances, so food is taken to augment the energy supplies stored up by the voracious eaters during the larval stage.

Regarding the taste buds on the feet of these insects, some species do have these sensory taste organs. Drops of sweet liquid applied to them by experimenters have caused the proboscis to

QUESTION OF THE MONTH (Cont'd.)

uncurl, a phenomenon that could be compared in humans to mouthwatering at the sight or smell of food.

It seems highly probable too, that these taste organs would enable the female to find the right plant for the larva food supply before depositing her eggs.

"What is the origin of the name 'Nankeen' as applied to the Nankeen Night Heron, etc.?"

Mr. E.G. Errey has the following answer to this question.

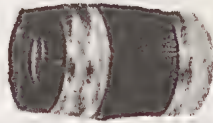
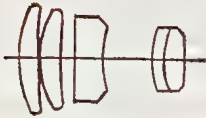
The word "Nankeen", meaning yellow or pale buff, came into the English language over 200 years ago. It came from Nankin, or Nanking, a kind of cotton cloth originally made in the Chinese city of Nanking from a yellow variety of cotton, but now made from white cotton dyed yellow.

The Nankeen Night Heron mentioned is not uncommon in this district. Groves or plantations of tall pine trees seem to be favourite roosting places of these birds. Members of this Club inspected one such site on Mr. O'Halloran's property at Leopold about two years ago.

The Nankeen Kestrel is perhaps a better known bird with this colouring. It is often seen hovering over grassland in search of insects or mice. This member of the falcon family is sometimes misnamed Sparrow Hawk.

Some early issues of the "Geelong Naturalist" are still available; enquiries for back numbers can be made through the Editor or Secretary.

PHOTOGRAPHERS!

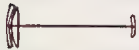


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"THE IMPORTANCE OF LEAVES"By L.G. Elms, Belmont

The leaves of trees and other flora are of great importance, not only to mankind, but to the trees and shrubs themselves. Probably the first people to appreciate the importance of leaves were Adam and Eve, but since their day some hundreds of various other uses of leaves have been made. For example there are several millions of the leaves of the cabbage, lettuce, eucalyptus, tobacco and tea used by us every day. Also in the warmer zones, palm leaves are used for thatching houses and shacks.

Back in 1770, Captain Cook, being very conscious of the need to eat leafy vegetables and fruits to avoid scurvy, insisted on his crew consuming a beverage made by boiling the Leptospermum leaves he had gathered ashore when he discovered Australia. This practice gave rise to the common name of Tea Tree for the Leptospermum, and incidently resulted in him being the first ship's captain to get back to England without having lost a sailor through scurvy.

In Australia we have some 18 million cattle and 158 million sheep on whom, directly and indirectly, we are dependent for our daily existence, but they in turn are dependent for their existence on the leaves of the various pastures.

In the case of the plants and trees, the leaves are virtually a chemical laboratory acting as a kitchen for them. Water with various minerals in solution is taken up by the roots and passed up to the leaves where carbon dioxide is taken in from the air, and energy is taken in from the sunlight. With the aid of chlorophyll which is in the leaves, these elements are then converted into starch and sugar etc. for the nourishment and growth of the plant. In the course of this process the leaves give off oxygen, thereby purifying the air for all forms of animal life to breathe. The leaves also give off large quantities of the water vapour through extremely small pores on the under side of the leaf. There are some thousands of these pores, or stomata, on each leaf, and they act as valves to liberate the right amount of water to control the leaf's temperature under all weather conditions. A large sunflower leaf may give off a pint of water on a hot summers day, whilst an acre of dense beech forest may give off some 200,000 gallons of water, in the form of

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"THE IMPORTANCE OF LEAVES" (Cont'd.)

vapour, in one day. It can therefore be seen why the heavy rainfall areas are associated with forest regions, and again why our own existence is dependent on leaves..

The pattern adopted by the leaves about the stem is of such a nature that each leaf may obtain the maximum amount of sunlight from above, and that the lower leaves are not entirely in the shade of the leaves above them.

Fungi are an interesting form of vegetable life which are devoid of chlorophyll, and therefore cannot make food materials for themselves as the normal plants do with their leaves. The fungi must forage for their subsistence from decaying organic matter of all sorts. Lichens are a type of algae which combine with the matted strands of a fungus, and as these contain chlorophyll, they are able to live on sunbaked rock surfaces, where neither algae nor fungi could exist otherwise.

One interesting aspect of the importance of leaves is their assistance to geologists in assessing the age of the earth by studying fossil plants in the numerous rock layers. The oldest forms of plant life were the Algae or Seaweeds, which were followed in turn by the ferns and mosses in the coal formation periods. Then followed a primitive type of general plant growth, which in turn has developed into the trees and palms etc. which are common with us today. One of the most important discoveries of Scott's last Antarctic expedition was a strata containing fossil plants at Buckley Island within 300 miles of the South Pole.

Plants, of course, have to endure the hardships of Winter, and Nature has arranged that the leaves are shed for many of the species in the Autumn. If this did not occur, the leaves could be giving off more water vapour during the Winter than could be replaced by the roots deep down in the cold (and sometimes frozen) soil, and this could result in the death of the tree. With the Autumn shedding of leaves, a suitable balance is restored, and the tree remains dormant until Spring arrives and a new growth of leaves occurs.

"THE IMPORTANCE OF LEAVES" (Cont'd.)

Their usefulness does not end when the leaves fall to the ground, for there they form a carpet over the soil, combined with bark and twigs and other mossy growths. This layer is known as a "Forest Floor", and by controlling the sudden rush of surface water in wet seasons, prevents soil erosion from spoiling our countryside.

The common pattern of leaves on trees in the colder northern countries (e.g. oak, poplar, plane, beech etc.) is to have a shiny upper surface through which the sun's energy is absorbed, and a downy undersurface from which water vapour is given off. The leaves adopt a horizontal position so that these two functions can operate to the best advantage in regions where there is not so much sunlight. But here in our sunny Australia the position is very different, and the leaves of our native Eucalypts hang vertically downward to protect them from taking in too much sunlight. They also contain a eucalyptus oil, the vapour of which is given off in warm weather to restrict the passage of light and heat from the sun, and thus protect the leaves from sunburn.

It is of interest to note that in 1858 the Kyneton Gas Company spent £5,000 on building a gas-works, and produced a gas of first-rate quality from gum leaves.

And so we could go on to explain in hundreds of different ways the extreme "IMPORTANCE OF LEAVES".

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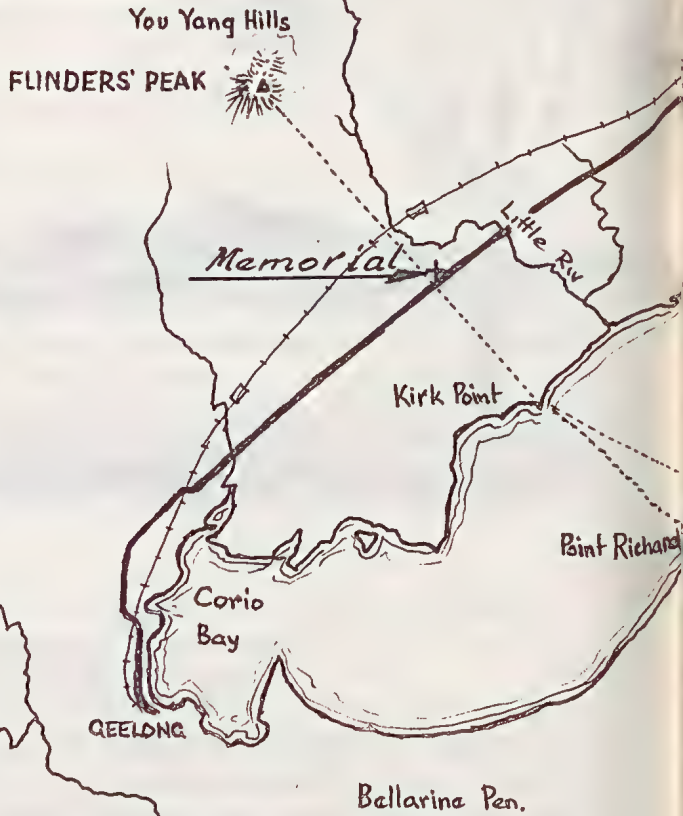
State Requisites-

1967FLINDERS PEAKBy C.J. Gibson, Belmont.

Each day 12,000 eyes are attracted almost mystically towards the You Yangs as the drivers travel between Geelong and Melbourne. In one week then some 100 to 200 thousand people, allowing for passengers and heavier weekend traffic, would have gazed at this solitary land mark and undoubtedly noted Flinders' Peak, the highest point¹ in these hills.

But just how many of them, I wonder, know of the existence of the memorial to Flinders between the 33rd and 32nd mile posts on the lanes to Melbourne² for it seems relatively few are distracted from their urge to be there the instant they begin. Perhaps the sense of urgency afflicting present day motorists just doesn't allow time to satisfy curiosity - such privilege belonged to an earlier age of liesure. While I certainly can't claim to be entirely free from such afflictions; on those occasions on which I do stop to

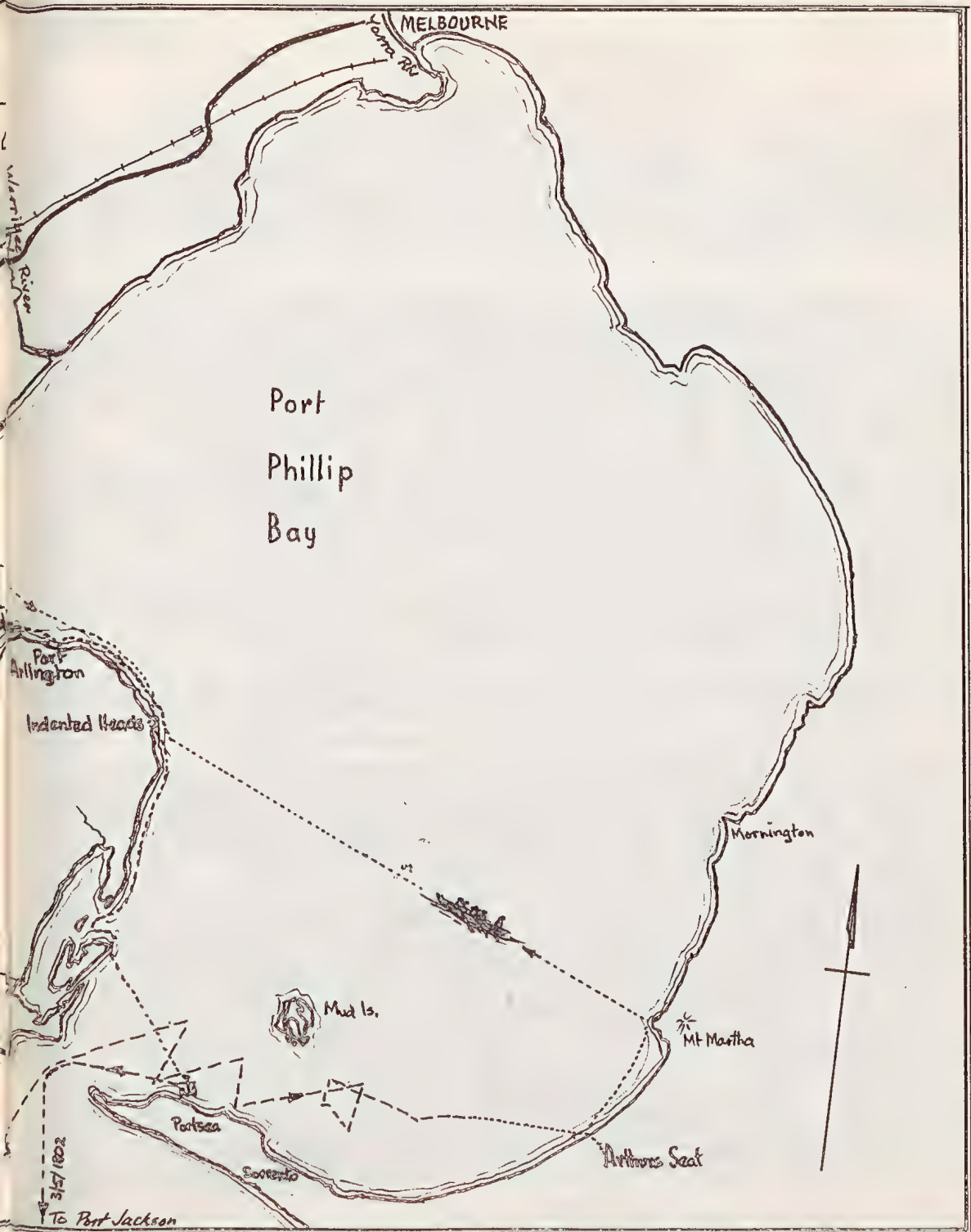
Capt. MATTHEW FLINDERS'
VISIT TO GEELONG DISTRICT
April 27 to May 2, 1802.



H. H. H.

"Investigator" Capt. M. Flinders

26/4/1802



FLINDERS PEAK (Cont'd.)

show my children or some visitors I inevitably find myself again wondering just what the countryside looked like before European civilization improved it. That would be well over 100 years ago now. You and I are left to form our own impressions from the writings, sketches, and later, photographs of the first explorers and pioneers who left us such records describing it.

Captain Matthew Flinders was one such explorer seaman, or perhaps we could say, seaman explorer, for he certainly explored and charted for the first time much of Australia's coasts. His were undoubtedly the first eyes to see the Geelong district which he viewed from Flinders Peak as it is now known, or Station Peak as he then named it. That was on Saturday morning, May 1, 1802, after his party had camped the previous night on the shores of Port Phillip Bay not far from Little River. I have heard it said that there is a rock here with markings thought to have been made by Flinders, but have been unable to date to verify this. Perhaps a reader has knowledge of this?

His excursion to the You Yangs is best told in his own words which I quote from his "Voyage to Terra Australis."⁴

"At dawn [Saturday, May 1, 1802] I set off with three of the boat's crew, for the highest part of the back hills called Station Peak. Our way was over a low plain, where the water appeared frequently to lodge; it was covered with small-bladed grass, but almost destitute of wood, and the soil was clayey and shallow. One or two miles before arriving at the feet of the hills, we entered a wood where an emu and a kangaroo were seen at a distance; and the top of the peak was reached at 10 o'clock. My position was then 21' of latitude from Point Nepean, in the direction of N 28°30' W and I saw the water of the port as far as N 75° E at the distance of 7 or 8 leagues³ so that the whole extent of the port, North and South is at least 30 miles. The extremity of the western arm bore S 15°45' W which makes the extent east and west to 36 miles; but there was no communication with the sea on that side, nor did the western arm appear to be navigable beyond 7 miles above where I crossed it. ... and so far the country was low, grassy, and very slightly covered with wood, presenting great facility to a traveller desirous of penetrating inland. I left the ship's name on a scroll of paper, deposited in a small pile of stones upon the top of the peak; and at three in the afternoon reached the tent, much fatigued,

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FLINDERS PEAK (Cont'd.)

having walked more than 20 miles without finding a drop of water. Mr. Lacy, the midshipman of the boat, had observed the latitude at the tent from an artificial horizon to be $38^{\circ}2'22''$ and Station Peak bore from thence N 47° W. In the evening we rowed back to Indented Head and landed."~~4~~

They slept the night at Indented Head and on the Sunday (2/5/1802) rounded the Head to Swan Harbour (Pond) and 'caught three swans and some delicate teal, and took some bearings.' They then headed straight for the ship which was anchored three miles inside the mouth of the port.

One cannot but admire the enthusiasm and energy of this young seaman⁵ even when on land, for he had only entered Port Phillip Bay on April 27. Being unable to sail around the bay because of sand banks he anchored inside Point Nepean towards Sorrento and immediately climbed Arthur's Seat "to gain some knowledge of the form and extent of this great piece of water." He couldn't see the northern limit so took one of the ship's boats with "provisions for three days; in order to explore as much of the port as could be done in that time." The limited supply of provisions remaining was forcing him to limit his stay.

The accompanying map shows the route taken across the bay to Indented Heads which he named "from its appearance." Here he noted "some dry rocks with bushes on them surrounded with mud flats..." The party landed at the north of Indented Heads and took bearings from the brow of a hill a little way back. This would appear to be about where Port Arlington is now. They gave the natives a shag here - perhaps also establishing favourable first impressions with the aborigines that only 20 months later (December, 1803) adopted William Buckley, the escaped convict. From here they proceeded westward until "the water became very shallow abreast of a sandy point[perhaps Point Richards just west of Port Arlington] whence the shore trends nearly S.W.... I steered across the western arm as well to ascertain its depth as with the intention of ascending the hills lying behind the north shore." It was on that northern shore that they camped Friday night and early the following day set off for Flinders Peak as related above.

FLINDERS PEAK (Cont'd.)

Flinders had noted that casuarina and eucalyptus and most common kinds of wood grew in the district. His botanist (Robert Brown) on board does not appear to have been on this little excursion to the Bellarine Peninsular but no doubt was busily engaged on the Mornington Peninsular during the week the ship was in the bay. What Brown did collect I don't know not yet having enjoyed the privilege of perusing his more detailed accounts of the visit.

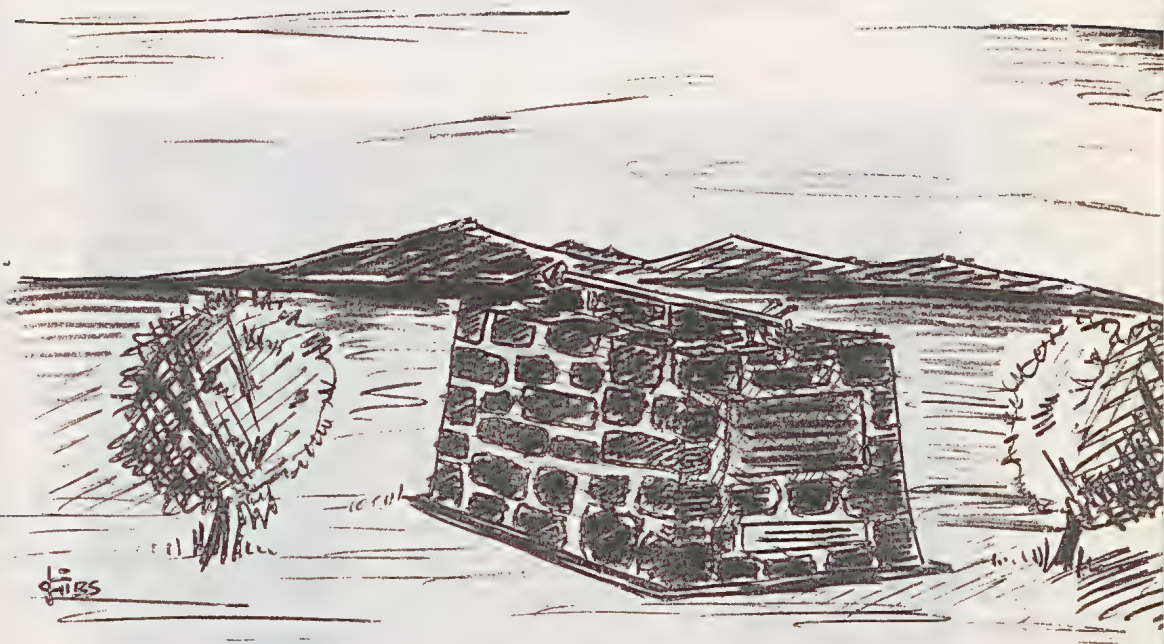
On May 3 anchor was weighed at dawn and the H.M.S. Investigator was on its way to Port Jackson and the newly established settlement of Sydney. It was not until Flinders arrival in Sydney that he discovered, no doubt to his disappointment, that he was not the first to discover Port Phillip as he had thought. Lieutenant John Murray had discovered and named Port Phillip only ten weeks before (February 15).

This memorial on the side of the Geelong - Melbourne highway is only one of a great many that perpetuate the memory of Captain Matthew Flinders, the young English sailor and explorer who contributed so much to the knowledge of this new continent, Australia. For those whose curiosity impels them to stop and also to enquire, an intensely interesting human story emerges to catch something of the fading past - a picture of the virgin country with its natural cover and various animal and native inhabitants before their extermination.⁶

For those whose curiosity still remains unsatisfied reference to some of the following might help:

Flinders, Matthew, A Voyage to Terra Australis, 1801 - 3 in H.M.S. Investigator, G. & W. Nicol, London, 1814, Vol. 1 & 2 and charts. Australian Facsimile Editions No. 37, Libraries Board of South Australia, Adelaide, 1966.

These large volumes contain a complete detailed account written about ten years afterwards in England. As no copies of this valuable work were available in Geelong I had to borrow a set from the State Library of Victoria in Melbourne. Although it includes a rather long academic introduction giving the history of previous exploration and in the contents rather too much nautical detail, this book is obviously the authoritative source concerning Flinders exploration.



FLINDERS PEAK (Cont'd.)

Scott, Ernest, "The Life of Captain Matthew Flinders, R.N."
Sydney, 1914.

Although many books have been written about Flinders this was one of the first and is still perhaps the most comprehensive and adequately documented.

Austin, K.A., "The Voyage of the Investigator, 1801-3." an interesting and useful account published for the Adelaide Festival in 1964.

Some readers might be interested in the analysis or interpretation of Flinders' character and his actions as given by such authors as: Ernestine Hill in "My Love Must Wait", Sidney Baker's "Mine Own Destroyer", or James D. Mack's "Matthew Flinders, 1774-1814".

FLINDERS PEAK (Cont'd.)References:

1. The height of Flinders Peak or Station Peak, for both names are used on the maps, is on some given as 1132' and on others 1154'. The reader can take his pick or check the official height as recorded on the Peak on his next climb.
2. That is not far past the Avalon turn-off and just before the Little River turn-off travelling to Melbourne from Geelong.
3. A league is a varying measure but usually taken as about three miles.
4. Flinders, M., "Voyage to Terra Australis", page 216.
5. He would be 28 years of age having been born March 16, 1774. He was born at Donington, Lincolnshire, England, and was the eldest of seven children. He completed his schooling at the age of 15 and entered the Navy.
6. William Buckley who lived with the aborigines as one of them in the Geelong district from 1803 to 1835 is according to his amanuensis John Morgan, supposed to have said prophetically, "... the native knew nothing of the value of the country, except as hunting grounds. I therefore looked upon the land dealing.. as another hoax of the white man, to possess the inheritance of the uncivilized natives of the forest, whose tread on the vast Australian Continent will very soon be no more heard, and whose crimes and sorrows are fast fading away amongst other recollections of the past." Morgan, J., The Life and Adventures William Buckley, first published 1852, republished by Heinemann Ltd., 1967, page 88.

OUR WINTERS SPELL DEATH TO OUR OWLS

By Jack Wheeler, Belmont.



Boobook Owl Nestling (Drysdale)
Photo by J.R. Wheeler.

For many years, naturalists have shown concern at the toll of many owls which, for some unknown reason, die during very cold snaps during the winter months. To date, there appears to be no conclusive answer as to why they should die.

Early last winter I was asked to identify an owl which had been roosting in the garden of a home at Newcomb, east of Geelong.

The garden was spacious and the roost tree was a small eucalypt situated near the entrance gateway. The morning I arrived to see the bird, I was told by the owner that the bird was found the previous evening by the children, fluttering its last and by dusk the bird had died.

OUR WINTERS SPELL DEATH TO OUR OWLS (Cont'd.)

I examined the bird closely. It appeared to be fully plumed and an adult bird which I identified as a boobook owl. The plumage was a rich chestnut brown with well marked under parts. There was no evidence of injury nor was there any trace of food in the stomach, and the bird was extremely poor. Visiting the roost tree, there were very few fresh 'pellets' of undigested particles which are regurgitated by birds of prey. Most were dry and had been there quite some time. The particles revealed the bird had been feeding on small birds such as sparrows and silvereyes. There was no fur in the pellets suggesting that mice were being caught.

The basic food of owls in this district would be mice, lizards, large nocturnal insects and small birds. Just prior to the death of this bird, I had examined the roost tree of another boobook owl at the Geelong Botanic Gardens. Here, there was an abundance of pellets on the ground, and indicated by their freshness that there was no shortage of food in that particular area as was probably the case with the Newcomb bird. Two nights prior to the death of the Newcomb bird, two severe frosts were experienced.

During this last winter I examined another boobook owl at Leopold and in this case the bird had no visible injuries, and was also in an extremely poor condition. This was the day before the Newcomb bird died and a day following a heavy frost.

Previous years it has been mostly barn owls that have been found dead. In such cases, the examination has always been the same, no injuries and extremely poor in condition.

What then is the answer to this problem?

Some research was carried out on dead owls by the Walter & Eliza Hall research medical team. The result revealed nothing - no virus, no bacterial disease, no poisoning.

In the study of biology there is an interesting rule - Bergman's Rule - where a single species or a number of closely related species, of warm-blooded birds and animals, cover a very wide range of latitude, the larger individuals are always found to be in the colder latitudes.

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OUR WINTERS SPELL DEATH TO OUR OWLS (Cont'd.)

As winter approaches in southern Australia, we humans change to our winter clothing and at the same time we eat more in order to generate and retain more body heat to offset the loss of heat as the temperatures drop. Birds and animals do the same. After the autumn moult, they too take on their coats of winter feathers and fur, and at the same time more fuel must be generated by the taking of more food.

The smaller the creatures the greater the loss in heat because they have a greater radiating surface in proportion to their bulk.

Our barn owl is a cosmopolitan bird and is found the world over. Our boobook owl occurs all over Australia and may be found also in New Guinea. Both, as far as we know, have no set pattern of migration. Both are very nomadic in their movements. A barn owl, banded as a juvenile in its nest in the East Geelong 'Drive-in' screen in January 1963 was caught in a rabbit trap 21 months later at Baruta (S.A.) on Spencer Gulf.

Owls that move southwards into central and southern Victoria, and to be suddenly caught in our winter with a very restricted food supply, would certainly soon lose condition and become poor. In a weakened condition they could succumb to a sudden temperature drop.

We could argue that in some inland areas such as Central Australia where night temperatures can often drop lower in winter than any experienced in central and southern Victoria, and there appears to be no similar mortality there. On the other hand there would certainly be a better supply of general food in inland areas.

Some would say - why don't owls migrate like so many other species do or better still why come at all?

Evolution is a very slow process and the slightest change in behaviour may take centuries. The simplest solution appears for nature to evolve larger and more robust owls to counter the rigours of our changeable climate but in the meantime all we can say is that our present owls are just not fit enough nor are they big enough to really take it.

AT RANDOM

HONEYEATER TRAPPED IN FOODSTORE: by Jack Wheeler.

Shopping recently in the S.S.W. Foodstore at Belmont I noticed a bird flying high above overhead advertising signs. At first I thought it a cunning sparrow doing some indoor raiding as sparrows often do. On viewing the bird closer, I recognised it as a Yellow-faced honeyeater. The bird was certainly not at home, inside a foodstore of this size and how it gained admittance is rather a mystery as all upper windows were sealed.

I questioned the attendant about the bird and she said the bird was first noticed the day before and they had hoped it would gain its freedom through the wide entrance doors. This was very unlikely to happen as the bird continually remained near the ceiling of the building and showed no inclination to move down to door level.

I then asked permission to revisit the store at closing time as during the day, the store was crowded and not a very convenient time to endeavour to net the bird. So at closing time I arrived with a long-handled fishing net and as soon as the store was closed, I went to work with my net. The bird was showing evidence of tiring after its two days indoors without food. However, after several unsuccessful attempts to net the bird, I got an attendant to wave a straw broom in front of the bird each time it perched whilst I held the net at the ready immediately at the rear of the bird. This time I was successful in netting it and I wasted no time in releasing it in a shrub at the Police Station almost opposite, as it was already almost dark. The bird did not show any signs of panic as I held it gently in my hand. What frail creatures these small honeyeaters are, and yet they have untiring energy as they flit from branch to branch and from tree to tree in search of food.

I feel sure that this particular bird won't want to visit a foodstore anymore and its night in the police yard, would give it added protection until first light the next day when it would be on its way in search of a much needed meal of insects and nectar.

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AT RANDOM (Cont'd.)

DEAD RUFIOUS FANTAIL - ROBIN WINDOW CRASHING: by Rev. Father Eames,
Ringwood.

On 27th March of this year, I was surprised to find a dead bird which I identified as a Rufous Fantail, in the backyard of a home situated near the corner of busy Ballarat Road and Church Street. It had been dead about a week and there appeared to be no injuries.

(Each year reports come in from various parts of Geelong about that time of the year, of Rufous Fantails visiting gardens. However they do not remain very long, which indicates a migratory movement, no doubt a northward movement from the Otways where they breed each year.)

On 16th June this year at Ringwood I was intrigued to see a Scarlet Robin fighting its own reflection in the window of a suburban house. Is this unusual?

(Many birds fight their own reflection in windows. I have seen Magpie Larks persistently attack reflections in chrome wheel caps on cars until they themselves become quite bedraggled with their repeated efforts. In a letter recently, from Invermay near Ballarat, a lady observed a Scarlet Robin (female) fly into her lounge window with fatal results; it had broken its neck.)

UNUSUAL VISITORS TO ADDISCOT - TORQUAY: by Tim McKellar, Addiscot.

During the period 29/31 March this year, was a real letter in my home garden. First of all there were visits by two of the finch family - the Diamond Firetail and Beautiful Firetail, both species I had not seen in this district for several years. To cap this off, an Olive Whistler graced us with its presence. Even though this species is resident in this district, their visits to my garden are rare.

Later in the year, early in June, imagine my surprise when I noticed two strange lorikeets on the top of my own aviary. Examining them through my binoculars, I was amazed to identify them as a Rainbow Lorikeet and a Scaly Breasted Lorikeet. Wheeler's "Handlist of the Birds of Victoria" does not list the Scaly Breasted Lorikeet for this State - were they caged escapees? -- Your guess is as good as mine.

AT RANDOM (Cont'd.)

LONE EGRET IGNORES TRAFFIC: by Jack Wheeler.

Daily travellers over the busy Barwon Bridge have become well acquainted with a lone White Egret which has graced the small lagoon beside the southern approach of the Barwon River Bridge, Belmont.

This bird first arrived early last February and as I write these notes in July, this bird is still with us. Over four months now we have watched its tactics with interest. There are times when it is stationary, with a very hunched and dejected appearance, then on other occasions it is wide awake and alert, with its long neck outstretched in search of aquatic creatures. We call it 'Snow' because of its pure white plumage and everybody refers to it in the male gender - he or him whichever suits but then nobody is sure - it could quite easily be a she!

However, Snow is quite at home and rarely leaves his own small domain. Photographers have disturbed him at times but he always returns. One photographer told me that Snow was feeding on small fish, no more than two or three inches long. During the recent very dry autumn which turned out to be the driest on record, we became very concerned for Snow as the lagoon became shallower and shallower until the area of water was only half the size of a normal suburban back yard.

We expected each day to see Snow gone, but he remained. The June rains were very welcome and now the lagoon is back to its normal size and Snow has much more feeding ground to cover. Earlier this year he had six companions - Cattle Egrets - all in breeding plumage but they only remained a few hours. At times, Snow looks very lonely, being the only inhabitant but each day now there are Silver Gulls and Spur-winged Plovers in attendance. Of late, we have noticed how elegant his plumage has become since the autumn moult. Soon Snow will be making his way north in search of a mate as the breeding season approaches - we wonder. However, we have enjoyed his stay and whether it be male or female, we will always admire his or her choice of a busy thoroughfare as his feeding ground.

AT RANDOM (Cont'd.)

THOSE BLUE BUTTERFLIES: by F. Pannell Leigh.

From "The Wonders of Life on Earth" published by Time Inco.,
Life Book Dep. 1960.

Blue Butterfly and the Ants.

The life cycle of the large blue English butterfly is shown in color.
The butterfly wings at rest measuring 1-1/2 and 1-2/10 inches and in
flight, diagonally across 3-1/10 X 2-9/10 inches.

"In June the larva hatches on the wild thyme bushes and for about
20 days feeds on the flowers and other larvae." (Does this indicate
that it is its own enemy?) "After moulting the larva stops
eating and wanders about aimlessly. At this point ants gather about
the larva stroking its honey gland with their antennae and drinking
the sweet droplets it gives off. Finally one ant picks the larva
up in its jaws and carries it underground to the nest. Here the
larva feeds on ant grubs and continues to yield honey whenever
the ants stroke it. By winter the larva has become four times its
original size and has gone into hibernation. The following spring
it becomes active again and encases itself soon into a cocoon. In
May a butterfly emerges and makes its way above ground where it
spreads its wings and flies off to lay eggs."

Blue Butterfly and the Ants - measurements -

The ant 7/10 in. the ant grub 5/10 in.
The larva when captured and carried off 7/10 in.
The winter larva in hibernation (4 times original size) 2 in.
The cocoon 1-6/10 in. after emergence of butterfly.

If our Cuthbertson sited Small Ant Blue butterfly is similar to
this English one, these illustrations, even if enlarged, justify
those who worked so enthusiastically to preserve the area.

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FOR BOOKS ON NATURAL HISTORY.

JUNIOR PAGES



In this issue of our Journal, we have some rather interesting questions which will really test your knowledge of natural history. Do not be too disappointed if you do not know all the answers - very few senior members would either. But use the quiz as a guide to further reading, and see if you can learn more than is given by the answer.

The questions are:

1. One of these is different from the other two. Which?
(a) Echidna (b) Koala (c) Platypus
2. The Bower Bird builds its bower
(a) as a decoration (b) to use as a nest (c) as a playground
3. The Koala has an unusual appendix. It is
(a) 2 inches long (b) 2 feet long (c) 6 feet long
4. A Marsupial has
(a) strong hind legs (b) a pouch (c) long ears
5. Father Magpie differs from Mother Magpie in this part of Victoria because he has
(a) a black back (b) a grey back (c) a white back
6. The Grass tree is known as The Bushman's Compass because
(a) the flowers die on the south side first (b) its shadow always points east (c) the flowers come out on the north side first.
7. The male Blue Wren moults and loses his color every winter until he is
(a) 4 years old (b) 5 years (c) 7 years
8. A spider has
(a) 6 legs (b) 8 legs (c) 12 legs

JUNIOR PAGES (Cont'd.)

9. You can tell the female Scarlet Robin because she has
(a) more red than the male (b) less red than the male (c) no red at all
10. You can tell a male Scarlet Robin from a male Flame Robin because the Scarlet has
(a) a white tail (b) a black throat (c) no white spots over the eyes
11. A butterfly's wings are different from a moths because
(a) there are 6 of them (b) they stand up together when at rest (c) they are prettier
12. Which one of these lays its eggs on the ground?
(a) Blue Wren (b) Spurwing Plover (c) Wedgetail Eagle
13. Before it becomes a butterfly, a caterpillar becomes
(a) a cripple (b) a crystal (c) a chrysalis
14. One of these is found only in Australia
(a) White swan (b) Black swan (c) Skylark
15. A Kangaroo could
(a) travel at 60 miles an hour (b) be as tall as a man (c) jump over the moon
16. Young Naturalists should
(a) Collect as many birds eggs as possible (b) take only one egg from each nest (c) never collect birds eggs at all
17. One of these is NOT depicted on our present mixed coins. Which?
(a) Glider (b) Lizard (c) Koala (d) Platypus (e) Emu (f) Echidna (g) Kangaroo
18. Australia has many different Eucalypts. There are more than
(a) 100 (b) 250 (c) 500

JUNIOR PAGES (Cont'd)

19. The letters G.F.N.C. stand for
 (a) Good For Naughty Children (b) Grand For Nice Children
 (c) Geelong Field Naturalists Club

Now, remember that these questions are hard - the answers are given at the bottom of this page.

The Editor has received two letters from Juniors at Mannerim School. The first is from Belinda Mac Donald (age 9 years) who writes - "Last Saturday morning when I went to feed our ponies a tall, long-legged grey bird was by the water-hole. Since then I have seen it several times, and we think it may be a curlew, because at night we hear curlews calling down that way and in our plantation."

Actually, the grey bird would probably be the White-faced heron; it is very good to know there are still some Curlews (or Stone plovers) so close to Geelong.

The second letter comes from Andrew Belfrage. "In a tall eucalyptus tree in our school ground a tawny frog-mouth has its nest. The nest consists of a few fine twigs or coarse grass in a fork of the tree and the bird sits almost straight up, so that it looks very like a broken piece of limb. One has to look very closely to be sure that it is really a bird.

Last year the frogmouth nested in the same place, and the two young birds stayed with the parent birds all the year, but we have not noticed them just lately. Frogmouths have nested in the playground for many years."

It is a fine tribute to the teacher and students at Mannerim school that these birds should nest there so freely - can any other school do better than this?

The bird in the photograph on Page 64 of the July Naturalist was the Yellow-faced Honeyeater - more about this bird in the next issue.

ANSWERS:

1b....2c....3c....4b....5c....6c....7a....8b....9b....10b....11b....
 12b....13c....14b....15b....16c....17c....18c....19c.

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Visitors Welcome

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The Statements and the opinions contained in the papers published in this Journal are the responsibility of the respective authors.

MEMBERSHIP

Membership of the G.F.N.C. is open to any person interested in Natural History. The 'Geelong Naturalist' is distributed free to all members, and the Club's reference and lending library is available.

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COVER PHOTOGRAPH

A pair of Grey Currawongs at their nest.

by R.G. Mackenzie.

GEELONG NATURALIST

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January 1968.

EDITORIAL

With this issue of Geelong Naturalist, the last of Volume 4 and the 16th of this series, comes an index to cover these first four volumes. It is largely by the work of Mr J. James, formerly of Bellbrae and now teaching at Hamilton, that this index has been compiled, and many thanks are due to him for the work he has put into it.

It is timely, too, to review the past four volumes, to look back through 512 pages, and consider if we are achieving the aims of the Journal; these aims are, I believe, to provide an outlet for naturalists in Geelong to record their observations and write of their natural history experiences locally and in distant areas, and to gather together material relevant to Geelong.

Have we succeeded in these aims? That is for you, the reader to judge!

But whatever your comments, I would gladly receive them - hopeful that they are favourable, yet ready to accept criticisms.

My own thought is that the general, descriptive matter has dominated a little too heavily - that we need more constructive, original observations. With your help, this can be remedied - but I must stress, the remedy is up to you to provide.

Photographs, in glossy, contrasty black-and-white prints, are particularly welcome to "boost" the articles.

TREVOR PESCOTT,
Hon. Editor.

GEEELONG FIELD NATURALISTS CLUB'S VISIT TO HALL'S GAP
Third Field Outing - October 27th, 28th & 29th 1967.

These outings have become very popular as is evident by the record number of members that journeyed to Hall's Gap for our third 'Field Outing'.

Our accommodation was taxed to the limit, and the overflow took the advantage of staying at guest houses and motels, whilst some camped.

The main party was accommodated at 'Norval' and the 'Youth Camp', both under the control of the Methodist-Presbyterian Conference Centre. Both were sewerred and hot showers were available. Some of the family groups 'did' for themselves at the Youth Camp whilst all others took the advantage of the reasonable catering and had their meals at Norval.

At Norval, members were rostered to 'set tables', 'wait on tables', 'wash-up', 'fill woodbox' etc. and all carried out their duties with incredible willingness and efficiency.

The assistance, on our excursions, extended to us by members of the Stawell Field Naturalists Club, was most gratifying and to them we must extend a special 'thank you'.

Our intinerary was as follows:

Saturday morning: Car trip along Mt. Zero Road. Walks in scrub and heathlands to study birds and wildflowers.

Saturday afternoon: Short car trip to turntable for 'Wonderland' hike. Many reached the 'pinnacle' despite the blustery conditions. Photographic studies, rock formations and wildflowers.

Saturday evening: Assembly at Norval. Welcome by Club President. Film night on 'The Grampians' presented by Mr I. McCann (President of Stawell Field Naturalists Club) assisted by Mr. Barrett. Supper.

Sunday morning: Mt. William per car. Walk to summit. Magnificent views and great variety of wildflowers. (Prior to breakfast three parties visited Fyans Lake, McKenzie Falls and Victoria Valley).

Sunday afternoon: Visit Jimmy's Creek, Miranatwa Gap and Dunkeld. Depart for Geelong.

Thanks: My sincere and personal thanks to our Committee who organised this trip, to all those members who made transport available, and for co-operation generally.

GEELONG FIELD NATURALISTS CLUB'S VISIT TO HALL'S GAP
(Cont'd.)



Photo by O. Andrews.

Personnel List: 'Norval': Mr. O. Andrews, Miss M. Arthur, Miss G. Buckland, Miss I. Buckland, Mrs. B. Campbell, Phillip Campbell, Mr. G. Carr, Mr & Mrs E. Errey, Miss R. Errey, S. Errey, Mr & Mrs N. Gillham, Miss L. Hill, Mr & Mrs J. Hunt, Mrs. G. Layland, Mr & Mrs C. Ling, Mrs H. Lomas, Mr & Mrs A. Lonsdale & family, Mr G. Mathison, Miss M. Parks, Mr & Mrs H.B. Pescott, Mr & Mrs T. Pescott & family, Miss E. Poole, Miss F. Poole, Mr & Mrs N. Povey, Mrs B. Quirk, Mrs Singleton, Mr & Mrs L.W. Vincent & family, Mr J.R. Wheeler (President) & Mrs. Wheeler, Mr L. Wilkinson, Mr I. Woodland, Mrs F. Yoeman.

Youth Camp: Mr & Mrs W. Anderson, Mr & Mrs G.N. Earp & family, Peter Houston, Mr & Mrs H.E. Jennings & family, K. Koppelaar, Mr D. Marsh, Miss R. Marsh, Mr G. McCarthy (Secretary), Mr & Mrs W. Raynes & family, Miss K. Stoddart, Lee Sullivan, Mr & Mrs Whiteside & family.

Rocklyn-Guest House: Mr & Mrs B.R. Keith, Miss I. Laugher, Mr & Mrs R. Sherwood, Mr & Mrs J. Whitmore.

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Naturalist

GEE LONG FIELD NATURALISTS CLUB'S VISIT TO HALL'S GAP

(Cont'd.)

Motel: Mr & Mrs F.W. Grueber, Helen Grueber, Rosemary Grueber, Mr & Mrs O.A. Usher.

Camping Ground: Mr A. Chapman, Mr G. Gayner, Miss J. Gayner, Mr & Mrs Memmott, Mr C. Tingate.

JACK WHEELER,
President.

BIRDS SEEN DURING THE HALL'S GAP CAMP
List by Trevor Pescott & Geoff Vincent

The main areas visited during the Campout are listed in the President's report (Page 98) of this issue; however, on the morning of the 29th one car load of ornithologists led by Mr J. Wheeler visited Lake Fyans and there added many birds not seen elsewhere. The wide variety of habitats within easy reach of Hall's Gap makes the listing of birds fairly easy - never-the-less, the list of 87 species is an excellent one.

The birds seen, with brief notes, are as follows:-

Emu: Few seen in various parts of the Grampians.

Common bronzewing: Not common, a few only being seen.

Coot: Huge rafts of these were seen on Lake Fyans, many thousands being present.

Little grebe: Common and scattered on Lake Fyans.

Hoary-headed grebe: Quite plentiful on Lake Fyans.

Crested grebe: A few only seen on Lake Fyans.

Black-fronted dotterel: Five birds seen on the Lake Fyans shores.

Spur-winged plover: Numerous pairs were seen generally near water.

White-faced heron: Single bird seen in several parts of Victoria Valley.

Royal spoonbill: One seen in Victoria Valley.

Yellow-billed spoonbill: Several birds seen at Lake Fyans.

White ibis: About 100 birds seen in a paddock near Lake Fyans.

Little pied cormarant: Common on Lake Fyans.

Little black cormarant: Common on Lake Fyans.

Black cormarant: Several on Lake Fyans and at other water.

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BIRDS SEEN DURING THE HALL'S GAP CAMP (Cont'd.)

- Black swan: Very plentiful on Lake Fyans.
Mountain duck: Three birds only were seen.
Black duck: One pair seen.
Grey teal: Several seen on the lake in Victoria Valley.
Musk duck: One only was seen on Lake Fyans.
Swamp harrier: Recorded from near the lake in Victoria Valley.
Wedge-tailed eagle: Seen in several areas.
Whistling kite: A few only seen in the open areas.
Brown hawk: Recorded in several areas over grasslands.
Peregrine falcon: One bird had been roosting in the cliffs behind the guest house; it was seen on several occasions.
Yellow-tailed black cockatoo: Quite common in the timbered areas.
Gang-gang: Heard and seen in several areas.
Galah: Small flocks seen over the grasslands.
White cockatoo: Quite common in several areas.
Long-billed corella: One flock only was seen near Hall's Gap.
Cockateil: A flock of 8 birds seen near Lake Fyans.
Eastern rosella: Quite common.
Crimson rosella: Very plentiful in timbered areas generally.
Red-backed parrot: Small flocks seen along the roads through open areas.
Purple-crowned lorikeet: A small flock flew over Lake Fyans.
Kookaburra: Quite common throughout the area.
Golden-bronze cuckoo: Several heard calling and seen.
Fan-tailed cuckoo: Quite plentiful in most areas.
Welcome swallow: Common; a nest was in use, built in the rafters of the shelter at "Wonderland".
Tree martin: Several small flocks seen around dead red gums.
Restless flycatcher: Recorded from several timbered areas.
Jacky winter: Only a few seen in the lightly timbered areas.
Grey fantail: A common species throughout.
Willie wagtail: Common generally.
Scarlet robin: Seen in several areas.
Flame robin: Several seen; an empty nest found in a road cutting near Mt. William.
Yellow robin: Quite plentiful throughout.
Rufous whistler: Seen and heard in most areas.
Golden whistler: Favoured the gullies and denser timber; not common.
Grey thrush: A common bird in all areas.

BIRDS SEEN DURING THE HALL'S GAP CAMP (Cont'd.)

- Mudlark: Common, nesting; one male bird made repeated attacks on children in the camping area at Hall's Gap, hovering and clawing at their heads.
- Eastern shrike-tit: One heard calling near Hall's Gap.
- Little cuckoo shrike: Two seen near Lake Fyans.
- Black-faced cuckoo-shrike: Not common; seen in several areas only.
- White-winged triller: One seen near Bellfield.
- White-fronted chat: A few seen near the lakes....
- Brown thornbill: Common in undergrowth in the timbered country.
- Striated thornbill: Common in timbered areas.
- Reed warbler: In the reeds around Lake Fyans.
- Blue wren: Very plentiful in all areas visited.
- Dusky wood swallow: A few only were seen.
- White-throated tree-creeper: Common in timbered areas.
- Brown tree-creeper: Heard calling near Lake Fyans.
- Eastern striated pardalote: Common; nesting in a tree hollow in Hall's Gap.
- Spotted pardalote: Common in several areas.
- White-browed scrub-wren: Recorded in the undergrowth in several areas.
- Yellow-faced honeyeater: Common along the creeks.
- Crescent honeyeater: Quite plentiful in the timbered areas.
- White-eared honeyeater: Found in heathland and along the gullies.
- White-naped honeyeater: Common in the timbered areas particularly where eucalypts were flowering.
- Yellow-winged honeyeater: Common in most areas visited.
- Brown-headed honeyeater: Seen and heard calling in timbered areas.
- Tawny-crowned honeyeater: Several seen in the heath along the Mt. Zero Road.
- White-plumed honeyeater: Seen in red gums near Hall's Gap.
- Eastern spinebill: Quite common in the heathlands.
- Noisy miner: Found in red gums near Lake Fyans.
- Little wattle-bird: Seen and heard in several areas.
- Red wattle-bird: Quite plentiful throughout.
- Pipit: Seen in grasslands.
- Red-browed finch: Small flocks seen along the creeks.
- Grey currawong: Recorded in several areas.
- Pied currawong: Common in most areas.
- White-backed magpie: Common.
- Raven: Common in most areas.
- Goldfinch: Quite plentiful generally.
- Starling: Common, nesting in dead red gums.

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NOTES ON THE GRAMPIAN'S FLORA - PART 1

By Alan Lonsdale & Geoff Carr

The Grampians is an area of great botanical richness, and was an excellent venue for the 1967 weekend excursion. In the Grampians occur over seven hundred and seventy species of flowering plants and ferns, more than one third of the total Victorian flora, and of these, greater than twenty are endemic, occurring nowhere else in Australia.

The reason for the richness of the flora is to be found in the geology of the ranges. The whole formation is sedimentary sandstone, varying in texture from fine grained freestone to rough sandstone. These sediments were laid down in a carboniferous sea approximately two hundred and fifty million years ago. After extensive faulting and erosion, followed by uplift and further erosion which removed much of the softer surrounding rocks, rugged mountains resulted, having a general slope to the west, and abrupt escarpments exposing the fractured beds to the east. The result was virtually an island of sandstone hills rising above the surrounding plains, in which the highest peak now is Mount William, being 3829 feet above sea level. Further weathering and erosion gradually produced from the sandstone a rich soil, upon which the vegetation began to develop and thrive.

Although well inland, the Grampians display many coastal features, for, approximately twenty million years ago the surrounding plains were covered by marine waters, so that the ranges extended out to sea as promontories, and on these, coastal flora became established. Some of this flora still persists, notably *Banksia integrifolia* (Coast Banksia), which may be observed at and above the 2000 foot contour. The richness of the flora is therefore due to isolation; the isolation of an area of sandstone particularly suitable for the growth and development of plants in an area of comparatively less suitable soil, and, for a period, its isolation by inland seas. Consequently, a number of plants unique to the area have developed.

The slow weathering of the hard sandstone, and the variety of geological formations within the ranges has resulted in the development of a variety of habitats, each with its own characteristic flora. These range from alpine regions, fern gullies, heathland and swampland to quite arid mallee to the north. As the following account shows

NOTES ON THE GRAMPIAN'S FLORA - PART 1 (Cont'd.)

examples of several of these types of habitat were visited during the weekend.

The Grampians were discovered by Major Mitchell in July 1836 while on his famous overland explorations. Because of their resemblance to Scottish ranges of the same name, he named this impressive range of mountains the Grampians. During his visit he collected the first botanical specimens from the area. In the 1850's, Baron Von Mueller collected and identified a large number of species. At later times the area was studied by the botanists Sullivan, French, Walter, Williamson, D'Alton and Audas, all of whom discovered new species, and after some of whom plants are now named.

It was notable that on this visit the entire area was extremely dry. By way of comparison, in November 1966, a considerable amount of surface water was in evidence in the Victoria Valley; in October 1967 in the same area many plants were observed to be wilting from the lack of rain. Quite large plants on the north side of Mt. Zero were badly wilted. Nevertheless, there was still much to see of botanical interest, with a large number of plants in flower.

Three main visits were made. On Saturday morning (October 28th), heathland areas along the Mount Zero Road, between five and ten miles from Halls Gap, were visited. The same afternoon the party walked along the Wonderland track to the Pinnacle, and on Sunday morning Mount William was ascended. In addition, at various times on Sunday, some members of the party made visits to Lake Fyans, Jimmy's Creek Road, and the Victoria Valley.

On Saturday evening, a very enjoyable gathering was held at Norval. The feature of the evening was an excellent and informative illustrated talk by Mr Ian McCann, of Stawell. Although Mr McCann discussed all aspects of the natural history of the Grampians, the major portion of his talk was devoted to Botany. His large number of superb slides, and very knowledgable commentary made this an evening to be remembered. We were fortunate to have the services of Mr McCann and other members of the Stawell Field Naturalists Club as leaders on the visits to Wonderland and Mount William, and their detailed knowledge was very valuable.

NOTES ON THE GRAMPIAN'S FLORA - PART 1 (Cont'd.)

The lists of plants compiled for each major area are not comprehensive. Only a limited time was spent in each area, and numbers of plants present would not have been observed. Others, which were observed, were not identified, and consequently are not included in the lists.



MT. ZERO ROAD

This area is a gently easterly sloping sand heathland bounded on the west by the abrupt wall of the Mt. Difficult Range, and intersected by small streams which rise in the Range.

The heathland is densely vegetated but contains a great variety of plants with sedges, various heaths, peas and many others. Scrubs of Banksia, Hakea, Melaleuca and Acacia trees provide the scattered tree cover. The vegetation is more luxurious along the streams and everywhere there is a rich herb flora including many orchids and lilies.

Some of the more interesting or noteworthy plants were as follows.

Holly-leaved Grevillea - Photo by Trevor Pescott.

NOTES ON THE GRAMPIAN'S FLORA - PART 1 (Cont'd.)

Acacia retinodes, Wirilda. Some good specimens of this tree were seen along the streams where it is at its best. It is by no means scarce and we observed it wherever we went. It flowers for most of the year.

Astroloma conostephioides, Flame Heath. There is hardly a more attractive heath in Victoria than this species which is so typical of the Grampians. The flowers are comparatively large and are followed by succulent red fruits which form a good part of the emu's diet. The emus probably act as the main seed dispersing agent as the seeds are very hard and indigestible. Few of the scarlet flowers were in evidence at this time, probably because of the dryness.

Banksia ornata, Desert Banksia. This is one of the three species of Banksia which occur in the Grampians and here on the heathland it often forms scrubs. It is an ornamental plant with harsh serrated foliage and large yellow spikes of flowers in autumn and winter which are relished by honey eating birds. Though usually thought of as a northern Grampians dry area plant some specimens were observed in the southern Grampians a week earlier. Here they grow much larger on the soil which is often very wet.

Boronia nana, Waxy Boronia. A few plants of this small species were seen along the tracks on the sand heath. They were flowering well with their small white, pink backed flowers but were usually passed unnoticed because of their size.

Calectasia cyanea, Blue Tinsel-lily. No other plant on the heathland created greater interest than this notable species. Although only a few specimens were seen, one was particularly fine and in full bloom with the six segmented purple-blue flowers gleaming with metallic lustre. This low shrubby plant is related to the lilies and ranges from Western Victoria to Western Australia.

Conospermum mitchellii, Mountain Conosperm. Why this plant should have the common name of Mountain Conosperm is not clear because it is found on highland and lowland alike. It is a particularly fine shrub in the Grampians where it grows to about five feet, and it was numerous along the Mt. Zero Road where it was making a fine show with its masses of white flowers.

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NOTES ON THE GRAMPIAN'S FLORA - PART 1 (Cont'd.)

Conospermum patens. is a rare relative of the former plant but we saw quite a few specimens. The mauve flowers were plentiful and were most plentiful and were most noticeable along the road. The C.S.I.R.O. has been interested in this plant because of some chemical properties. It is a slender erect shrub up to about four feet.

Epacris impressa, Common Heath. The well known heath could be seen in abundance here, in many colors. The Grampians is a noted stronghold for this plant where it attains unrivalled glory.

Gompholobium huegelii, Karalla. Only a few specimens were blooming in the open spaces of the heath but they were sufficient to earn it the attention the plant deserves. Its large golden pea flowers were some of the most beautiful seen that morning.

Grevillea alpina, Mountain Grevillea. The common and botanical names of this plant are also somewhat of a misnomer as the species is found at all altitudes in the Grampians. It was one of the most admired plants in evidence that morning being very showy with its gold and scarlet flowers. Good specimens were noted along the roadside. At Mt. Zero specimens are up to five feet high with wholly yellow flowers.

Helichrysum blandowskianum, Woolly Everlasting. This is a small perennial which was not common in the area. It is notable for its woolly nature, the whole plant being covered in dense white wool. The flowers are clustered at the ends of the stem and are white, the whole plant presenting an attractive sight.

Melaleuca decussata, Cross-leaf Honey-myrtle. Only a few flowers of this shrub were yet out but it promised a good show. The species is a small woody shrub which often grows in thickets. The flowers are delicate mauve and are followed by hard sunken seed capsules which sometimes earn the plant the common name of "Totem-poles".

Stylidium graminifolium, Grass Trigger-plant. Trigger plants never fail to attract attention and here were eagerly sought after even though they were not numerous. The pollination mechanisms were quickly set off by members of the party.

NOTES ON THE GRAMPIAN'S FLORA - PART 1 (Cont'd.)

Styphelia adscendens, Golden Heath. This is another of the beauties of the Grampians where it is common. The large yellowish flowers are beautifully formed with rolled fringed petals. Flowers are partly hidden in the neat foliage. They appear in winter and spring.

Tetratheca ciliata, Pink-bells. On his famous expedition through Western Victoria Major Mitchell considered this to be the most beautiful plant he saw. He noted the species at Pidgeon Ponds south of the Grampians. The plant was conspicuous along the roadsides and in all other places we went.

Thelymitra ixioides, Dotted Sun-orchid. Several specimens of this orchid were noted by the roadside and creek where the flowers were expanded in the sunshine. Here the plants are more showy than local forms because of the larger flowers which are skyblue in both cases. These orchids were several of the very few we saw that morning, probably because of the dryness. The only other orchids seen were a few withered Greenhood rosettes.

When the main party had dispersed to return for lunch a carload of members drove further along the Mt. Zero road to inspect plants of the Showy Bauera Bauera sessiliflora which had been seen a week earlier at a small creek. It did not prove disappointing and was a mass of magenta bloom; the water also appeared coloured from reflections and fallen petals. The Showy Bauera is one of those many shrubs confined to the Grampians where it grows along almost all the creeks. It is difficult to imagine a more beautiful plant.

Also along the creek we noted ferns of several species and the Forked Sundew, Drosera binata, which is also typical of Grampians streams where it grows on mossy knolls and more open banks. The Forked Sundew bears claim to fame because it is one of the largest species of these fascinating insect eaters.

The roadside in this locality seemed to be a wall of white, the Silky Tea-tree Leptospermum myrsinoides and the Mountain Conospermum Conospermum mitchellii vying for pride of place. Both plants were growing to five feet and over.

NOTES ON THE GRAMPIAN'S FLORA - PART 1 (Cont'd.)



Alpine Grevillea

Photo by Trevor Pescott.

MT. ZERO ROAD - PLANT LIST:

- | | |
|---------------------------|-------------------|
| Acacia mearnsii | Late Black Wattle |
| Acacia melanoxydon | Blackwood |
| Acacia mitchellii | Mitchell Wattle |
| Acacia oxycedrus | Spike Wattle |
| Acacia retinodes | Wirilda |
| Acacia verniciflua | Varnish Wattle |
| Acrotriche serrulata | Honey-pots |
| Amperea xiphioclada | Broom Spurge |
| Astroloma conostephioides | Flame Heath |
| Banksia marginata | Silver Banksia |
| Banksia ornata | Desert Banksia |

NOTES ON THE GRAMPIAN'S FLORA - PART 1 (Cont'd.)

| | |
|-----------------------------------|-------------------------|
| <i>Bauera sessiliflora</i> | Showy Bauera |
| <i>Billardiera scandens</i> | Wild Apple Berry |
| <i>Boronia nona</i> | Waxy Boronia |
| <i>Burchardia umbellata</i> | Milkmaids |
| <i>Calectasia cyanea</i> | Blue Tinsel-lily |
| <i>Calytrix tetragona</i> | Common Fringe-myrtle |
| <i>Casuarina pusilla</i> | Dwarf She-oak |
| <i>Conospermum mitchellii</i> | Mountain Conosperm |
| <i>Conospermum patens</i> | |
| <i>Correa reflexa</i> | Common Correa |
| <i>Davesia mimosoides</i> | Narrow-leaf Bitter Pea |
| <i>Dodonea cuneata</i> | Giant Hop Bush |
| <i>Drosera auriculata</i> | Tall Sundew |
| <i>Drosera binata</i> | Forked Sundew |
| <i>Epacris impressa</i> | Common Heath |
| <i>Eucalyptus obliqua</i> | Messmate |
| <i>Eucalyptus viminalis</i> | Manna Gum |
| <i>Exocarpus cupressiformis</i> | Cherry Ballart |
| <i>Gahnia radula</i> | Thatch Saw-sedge |
| <i>Gompholobium heugeli</i> | Karalla |
| <i>Grevillea alpina</i> | Mountain Grevillea |
| <i>Grevillea aquifolium</i> | Prickly Grevillea |
| <i>Hakea rostrata</i> | Beaked Hakea |
| <i>Hibbertia fasciculata</i> | Bundled Guinea-flower |
| <i>Hibbertia stricta</i> | Erect Guinea-flower |
| <i>Hibbertia virgata</i> | Twiggy Guinea-flower |
| <i>Helichrysum blandowskianum</i> | Woolly Everlasting |
| <i>Helichrysum scorpioides</i> | Curling Everlasting |
| <i>Isopogon ceratophyllus</i> | Horny Cone Bush |
| <i>Kennedyia prostrata</i> | Running Postman |
| <i>Laxmannia sessiliflora</i> | Dwarf Wire-lily |
| <i>Leptospermum myrsinoides</i> | Silky Tea-tree |
| <i>Leptospermum nitidum</i> | Shining Tea-tree |
| <i>Leucopogon virgatus</i> | Common Bear-heath |
| <i>Lindsaya linearis</i> | Screw Fern |
| <i>Lomandra longifolia</i> | Spiny Headed Mat-rush |
| <i>Melaleuca decussata</i> | Cross-leaf Honey-myrtle |
| <i>Microseris scapigera</i> | Yam |
| <i>Persoonia juniperina</i> | Prickly Geebung |

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NOTES ON THE GRAMPIAN'S FLORA - PART 1 (Cont'd.)

| | |
|--------------------------------|---------------------|
| <i>Pimelea glauca</i> | Smooth Rice-flower |
| <i>Pimelea humilis</i> | Dwarf Rice-flower |
| <i>Pteridium esculentum</i> | Austral Bracken |
| <i>Pultenaea humilis</i> | Dwarf Bush-pea |
| <i>Spyridium parviflorum</i> | Dusty Miller |
| <i>Stylidium graminifolium</i> | Grass Trigger-plant |
| <i>Styphelia adscendens</i> | Golden Heath |
| <i>Tetradlea ciliata</i> | Pink Bells |
| <i>Thysanotus patersonii</i> | Twining Fringe-lily |
| <i>Xanthorrea australis</i> | Austral Grass-tree |
| <i>Xanthorrea minor</i> | Small Grass-tree |
| <i>Diuris maculata</i> | Leopard Orchid |
| <i>Pterostylis nutans</i> | Nodding Greenhood |
| <i>Thelymitra ixioides</i> | Dotted Sun-orchid |

NOTE: Part 2 - The flora at Wonderland and Mt. William will be printed in the April issue of "Geelong Naturalist".

FOUR SEASONS AT ANN ARBOUR
By Mrs J. Doman, formerly of Highton



Michigan is one of the northern states, to the right of the central part of the United States. Our part is Ann Arbor in the southern section, along with the other ninety per cent of the state's population.

We live on about three acres of land and it is my biggest joy to be able to not see it all at one glance, but to be able, on occasion, to go to the parts that are 'less travelled by'. There is a big

FOUR SEASONS AT ANN ARBOUR (Cont'd.)

pond on one side of us, to the left, and a channel on our right separating a railroad trestle from the Huron River, which at our spot is about twice the width of the Barwon in Geelong.

Part of our plot has a small woods on it - mostly secondary growth of poplars, a thin, brittle tree that snaps easily in a storm. The leaves of this tree tremble with the slightest breeze making a clattering sound. A row of a dozen mighty oaks marks one boundary. We also have two old shagbark hickories, very easy trees to identify, and some wild cherry, elm and maple. The biggest tree in the area is on our property - a sycamore, standing about 150 feet tall with a 17 foot girth three feet off the ground. The bark of this tree does not stretch as much as other trees and so it breaks and falls off. It will remind us of the eucalypts. We have to keep track of the health of this tree for the sake of the community.

Part of our land is a little swamp. When the site was first chosen, I said, "Why did you have to pick the lot with a swamp on it?" as if that were land wasted, but as I became a little wiser, I appreciated this untamed section. In it is a grown tamarack tree which is unusual in that, although it is a member of the pine family, it loses its needles in the autumn. We have tiny paths through the woods and across the edge of the swamp and we act as if we had a large estate. Our neighbour, who owns part of the swamp, looks on it as a breeding spot for mosquitoes and would like to fill it up. In the summer, it is true, there are often so many mosquitoes that it is not a pleasure to be outside near the water. It is in the winter that we get the most benefit.

PLEASANT WINTER

Winter is a pleasant time of the year, apart from the driving. Snow does 'cover up the errors' and gives a brightness which makes the nights seem not so long. The first snowfall usually surprises one in the morning and the children especially, but really all except the most hardened, find it a wonder. The first snowflakes are usually the picture-book kind with perfect symmetry and they can be appreciated best when captured for a second on the back of a mitten. Jack Frost etches some fine designs on the windows, although with better insulation, this is not seen so often in houses - more in cars. The snow usually disappears not to come again for sometimes a month. This is a hard

FOUR SEASONS AT ANN ARBOUR (Cont'd.)

time to take, with the ground looking bare, dry and frozen. However, if one has an eye, it is the time to appreciate the beauty of the shape of the trees as in the other seasons this is obscured by the leaves. We get our only view of the pond at this time because of this.

Fish are supposed to be the tastiest at this time and men will push their shanties out on the edge of the river and sit for hours in with their pot-belly stoves and the hole they have chopped in the ice. We had an opossum once come up just outside the windows to warm himself. The muskrats' homes can be best seen now - dome-shaped huts of cat-tails and twigs. There are bright red cardinals with us all winter with their cheerful song, rather spoiling it for the robin who is supposed to be the harbinger of spring.

Early spring is very messy - seemingly all mud and our road is a dirt road. Winter has to put in a last blow and then one day we'll go out and can just tell by the smell in the air that spring is really here. We all succumb to 'spring fever' - a terrible sickness with no energy or ambition - just a profound desire to bask in the warmth out-of-doors. As we recover, we notice with new eyes the marvel of new life - in the budding trees, the first flowers, even the skunk cabbage down in the swamp, the bird songs. The first wildflowers are very delicate and their stay very brief. They are just a breath and then gone, and for that reason, probably, they are the most prized. One sure sign of spring is the sight of fishermen, usually negroes, walking up the railroad track. They always saunter along as if time were of no matter and they don't much care if they catch a carp, a bass or a pike or not.

Spring is a very busy time as the debris from the past months that has accumulated has to be cleared away and the ground made ready for planting. The time to plant each annual is fairly short with a growing season of four months or so the time that is allowed. Painting and repairs to the exteriors have to be begun too. One spring day, as I, and most everyone else, was working steadily at this or that outside, I had to stop for a while and gape at our neighbour over the way who was photographing one of his blossoms. He was enjoying himself! Unheard of! This man is a bachelor who bought a large house and appreciates the solitude, it would seem. He is a student of psychology with a specialty in worms. He has found that if a trick is taught to

FOUR SEASONS AT ANN ARBOUR (Cont'd.)

one worm, and that worm is cut up and fed to other worms, the newer worms will also know that trick. A very interesting neighbour and no doubt there have been some famous worms recovered by him from our creek.

FAUNA PLENTIFUL

We have to keep our eyes open for poison ivy, a common weed that frequently causes varying degrees of skin rashes. Elderberries grow wild and can be made into a good pie. Also a few blackberries - just enough for a mouthful. Milkweed grows along the channel and on this the wanderer butterfly lives for a time. Would that I could attach a mental note, anyhow, to one of these that will find its way back to Australia!

With snakes, we can adopt a 'live and let live' attitude as all but two rare ones are harmless in Michigan. Moles occasionally play havoc with the lawn with their lengthy burrowings. We can be kindly to the rabbit, even going slowly up the driveway at night to give it time to scamper out of the way. But the garden patch has to be fenced or he will strip it of every green thing! What we call crayfish, of the fresh-water variety, leave their clay chimneys behind along the channel banks as they burrow down to the water. A great blue heron frequents the pond at certain times of the year and is a majestic sight. A leaky rowboat is just **the** thing to explore the water. If we go cautiously enough, we can surprise a family of turtles sunning themselves on a log. It takes but the slightest sound, though, and they will slide off into the water. There are lots of water lilies in one part of the channel, almost blocking the way.

Thunderstorms are frequent. It seems as if there isn't any rain without some thunder and lightning connected with it. The storms can be very violent and noisy, and while it is an awesome sight to see, only their frequency takes away from the fright.

We enjoy summer to the fullest, making the most of the warm three months we can be sure we will have. The temperature is usually in the seventies - with an occasional heat wave into the nineties.

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FOUR SEASONS AT ANN ARBOUR (Cont'd.)

By the first of September, there is already a nip in the air and a few leaves have fallen to forwarn us of what is to come. The chipmunks set to work in earnest storing up their winter supply of acorns. We see them with their cheeks puffed out, holding so much food, we wonder how they can manage. Chipmunks and squirrels do not seem to share the same territory and we have the former, an attractive little animal with a stripe on his face and body. If we had the patience, we could tame them with some corn. A shallow bar' in the middle of the river nearby is the resting place for wild ducks and geese in their seasonal migration. Once one, who was a bit late maybe and got left behind, joined our domestic ones that were safely penned in. Pheasants occasionally walk across the lawn.

The colours of autumn leaves are a great sight, but especially out farther in the country where they can be seen in larger masses. But then all those trees that we have begin to lose their leaves and the ground gets thick. For a while, it is fun to swish through them, but eventually the job of clearing the lawn has to begin. They are thrown in a hollow beside the sycamore and with a rope swing above, the job serves a double purpose. After the first frost, we get 'Indian Summer', a period of balmy days which by legend was a sort of reprieve for people who hadn's done all that was needed to do to get ready for winter.

And with that, there is nothing left but winter, more winter, and more winter. Ho hum!

PALLID CUCKOO
By Joyce Hunt

During September we have had four sightings of the Pallid cuckoo, but absolutely no sound. Until four years ago their monotonous, plaintive call could be heard very frequently throughout the Spring. But of recent years only an odd one or two have been seen in the district, and even these have been strangely silent.

Can anyone offer any explanation? Could it have any connection with spraying for pest control, perhaps.

POMMIES WALKABOUTBy R. Memmott.

"It's a holiday next Monday" I told my wife when I arrived home from work "It will give us a long weekend".

"Oh good, we will be able to go for a walkabout".

"Of course".

"Where shall we go?" Lilian asked.

There were so many places we wanted to see, the Grampians, Wilson's Promontory, the Dandenongs, Gippsland. Out came all the maps and any books that might help. We made a list of them and a rough check on the mileage. That one was a day trip, that a weekend, that for Easter and those long weekend walkabouts.

"I rather fancy going to Phillip Island to see the penguins" I announced when we had finished.

"Suits me".

A week of bustle, deciding what we would need for the trip. As our car has layback seats we studied the R.A.C.V. book on caravan sites. Saturday morning all was loaded up about 11.00a.m. and we set out in glorious sunshine. Traffic was rather heavy and we wondered if they were all heading for the same destination as ourselves. San Remo, we were nearly there. As soon as we reached Cowes we booked in at a caravan site, had our tea then set off for Summerland Beach to see the penguins.

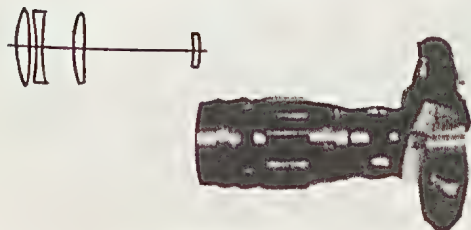
It was still light when we arrived so we joined the crowd and waited. Heavy clouds on the horizon made us rather apprehensive, then vivid flashes of lightening zig-zagged across the sky and we had left our macks in the car. We wondered which would come first, the penguins of the storm. Gradually the sky darkened and a voice over the loud-speaker announced the penguins were expected about ten minutes past eight. A glance at our watches showed it was nearly that, so we strained our eyes to catch the first glimpse of the penguins

"There they are" somebody shouted.

PHOTOGRAPHERS!

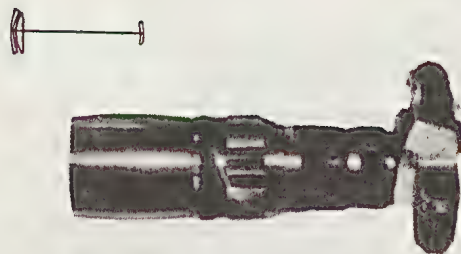


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POMMIES WALKABOUT (Cont'd.)

I could just see faint splotches of white at the sea's edge, presently we could see seven little figures walking stiffly up the beach, just like the dwarfs in Snow White. The spotlight was turned on and at last we could see the penguins. So full of fish they could hardly walk. Before they reached the grass covering their burrows a larger group could be seen just beyond the light. There were about twenty this time, one could hardly walk. He fell behind the others and fell a few times. One of the wardens picked him up and carried him to the grass.

They came in quickly after that, singly or in groups. One hesitated at the edge of the lighted area, turned back and made for the sea again. Once more he hesitated, turned again and started walking along the beach. Our attention was taken off him by more arrivals, when we saw him again he was waddling in still another direction. Then sighting another lone figure it hastened to join the new arrival.

"He's alright now" I said to Lilian.

But I was wrong. Once more at the lighted area he hesitated, then turned back while his companion plodded resolutely on. I began to wonder whether he was ever going to make it, I wanted to pick him up and carry him to the grass. Eventually he joined a group and followed them. By this time between two and three hundred must have waddled up the beach and they began to thin out. An odd one or a small bunch now and then. The show was over and the spectators began to drift away. We decided to follow. Up on the top a crowd was clustered against a netting fence. We went to see what was happening.

"That one is taking his time about going into his burrow" a man informed us.

Following his finger we saw a penguin preening himself.

"There is a baby one over there" the man went on "He goes for every penguin that comes up but they won't have anything to do with him".

As we watched a chick hurried over to a new arrival and disappeared behind a clump of grass. The first penguin, having completed his

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POMMIES WALKABOUT (Cont'd.)

toilet, decided to go to bed. Down the hole he popped, next minute earth came flying out of the burrow. We watched the chick for a few moments, then decided we too had better go home.

The next morning we took the road again. The Noddies and the Seal Rocks seemed very interesting. How like Land's End in the Old Country they were, even a cafe near the edge. We climbed down to see the Blowhole and found it disappointing. The look at the seals through the telescope had more attraction. On the way back to Newhaven we stopped at the Koala Sanctuary. People were gazing up into the trees on all sides. It was dinner time, so duty before pleasure. Feeling more comfortable we walked over to see if we could see some koalas. We saw them alright, there was a koala up nearly every other gum tree. The first was a big fellow, sound asleep with his chin resting on a paw. Another was obviously fed up with being stared at or was bashful. He presented the least attractive part of his anatomy for our inspection. Up one tree an untidy bundle of fur made us wonder if it was a mother with a baby on her back. If not it was deformed, it was hard to find out.

We had seen all Phillip Island had to show and we still had a day to go. Where to go now? Out came the maps again and we ran through a list of places we had not yet visited. Wilson's Promontory, too far. The Grampians, right out of the question. Sherbrook Forest, just the spot, we might even see some Lyrebirds. So the car was turned North and we camped that night at Emerald. Next day we made Sherbrook Forest and went looking for the Lyrebirds. Walking very quietly we peered into the undergrowth, suddenly there was a yell and three children raced down the track.

Then we heard the Lyrebird calling and moved hopefully in that direction. Everywhere seemed nice and quiet until we overtook a man with a transistor set going full blast with the cricket match. Hopefully we moved off in another direction, then we met two youths with their girls. They were not looking for Lyrebirds. So we gave it away and returned to the car.

TRIP TO HATTAH NATIONAL PARK SEPT. 6-7-8th., 1967By Marjorie & Fred James

In September we decided to have a couple of days at Hattah National Park before the lakes dried up completely, due to the severe drought which has had Victoria in its grip for some time.

Not being campers we booked ahead at Ouyen Motel for three nights, heading north on Wednesday morning in beautiful weather arriving at our destination very late in the day, due to a number of stops for meals and sightseeing.

After a frosty night we were astir early and heading for Hattah, first to find Mr Ben Eggleton who was able to tell us quite a lot of the local history as he was the first ranger of the Park. Just outside the rear fence of his property we were able to watch and photograph a pair of Striated Pardalotes feeding young.

After a very interesting couple of hours there we moved on in to the Park where we had lunch and met the assistant ranger. He proved to be most helpful and after identifying ourselves as members of the Geelong Field Nats. and the Birdo's we were able to get a lot of information which would not normally be available.

We were delighted with the number of birds which came to the small pool in the ranger's garden, and later in the day, I set up my camera with a 400 mm tele lens and was able to get some shots of birds I had not been able to get previously.

Whilst driving along a sandy track a couple of miles from the camping area, we came on a man down on his knees with a camera to his eye, very intent on the job of getting a photo of a very small spider. He introduced himself as the Editor of the Victorian Naturalist, and, we had an interesting chat after I had lent him my 135 mm tele to enable a shot of the spider to be taken from a bit further away, as the spider was very shy about the whole business of close up photography. A little further along the track we disturbed a large Goanna (4 ft 6 ins) who went for the nearest tree and in a matter of seconds was well up in the top branches. A pair of Mallee Ring Necks were very upset and raised their voices in protest without any result.

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TRIP TO HATTAH NATIONAL PARK (Cont'd.)

Whistling Eagles were nesting high up in the Gums and showed their dislike for me by diving on an unsuspecting Raven which happened to be minding his own business and just going past the eagle's nest.

Feeding in the lakes were numerous Spoonbills, Straw-necked Ibis, Black Swans, Little Pied Cormorants, Mountain Duck, White-necked Herons and one lone Pelican.

We spent many hours roaming in the Mallee scrub watching for and seeing many birds which we had never seen before. The Purple-backed and Black-backed Wrens were a delight to see, the colors being so vivid against the harsh background of the red sandy landscape. My efforts to photograph these little birds were a complete failure but that mattered not at all as the sight of the birds was reward enough.

The next morning we were away early again and spent the whole day wandering around the reserve, taking a photo here and there as the opportunity arose, and thoroughly enjoying ourselves watching the birds moving around, a lot of them looking for nesting sites.

On Saturday morning we visited a Mr Dart at Lascelles who has bred a lot of the rarer parrots and shows them to anyone who cares to call in. He kindly put us on the right track to get information about the Lowan by giving us directions to find Mr Angus Torpey at Turriff, who has successfully bred the Lowan in captivity. Mr Torpey spent a couple of hours with us and took us out in his Land Rover to see some mounds that were being prepared for egg laying. He has a great number of mounds under observation for the Fisheries & Wildlife Dept. and has done a lot of work voluntarily for the Department.

We left for home on Saturday afternoon and after a good run arrived in Belmont very tired but very pleased with our visit to Hattah.

Altogether, we were able to list sixty seven species of birds, the following being of particular interest:

Crested pigeon, Bluebonnet parrot, Yellow rosella, Regent parrot, Little Friar-bird, Blue-faced honeyeater, Chestnut quail-thrush, Chestnut-crowned Babbler, and Emu with five chicks.

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PROGRESS?

From "Wildlife Review", publication of the British Columbia Fish and Game Branch -

"The Superhighway is made for a nation of by-passers.
When the Federal Interstate Highway System is complete,
it will be possible to bypass the whole of America.
Progress?"

Could it be that with our own advances in engineering knowledge we are heading the same way?

Mr Max Downes, in a lecture to the G.F.N.C., said that in his opinion the development of a great road system in northern Australia will bring about an extinction of the Bustard by bringing in more motorists and tourists - and shooters. Again - Progress?

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THOSE FRIENDLY NATURALISTS

By J.H. Whitmore

Our last holiday in April was spent in the Bairnsdale and Lakes Entrance districts.

On reaching Bairnsdale, I contacted the Secretary of the local Field Naturalists Club, and asked if they would be having a meeting during the ensuing fortnight. Mr Barton told me that the next meeting was to be held the following night, and we would be most welcome.

As we intended staying at Lakes Entrance and visit places of interest from there, I was told to get in touch with Miss Ruth Clarke, a member of the Bairnsdale Club, living at Lakes Entrance.

Shortly after arriving in Lakes Entrance we made ourselves known to Miss Clarke, who made arrangements to get us transport with herself and a friend, to the meeting in Bairnsdale the following night, for which we were very thankful, as rain was falling and the road was strange to us.

The meeting took the form of a lecture, and a farewell to a family in the Club.

Mr Prendergast, who is an officer in the Department of Agriculture in New Guinea, gave an interesting lecture, illustrated with some magnificent slides, on the work being carried out in teaching the natives how to cultivate the land by more modern methods, so they can produce bigger and better crops.

The slides showed some wonderful mountain scenery, and neat native villages, the houses built of saplings and kuni grass. Some of the crops being grown were also shown.

Mr Bowden and his family, who were moving to Melbourne, were given a farewell. Mr Bowden was the Editor of the Bairnsdale Field Naturalists Club magazine "Clematis", of which we have some issues in our library.

The Bairnsdale Club were holding their monthly outing the following Sunday, and we were invited to join this outing, which was to Mt. William, a few miles east of Orbost. The object of this trip was to look for Autumn greenhoods, but owing to the very dry conditions only three specimens were found. It was on this outing that we met Mr & Mrs Pitt, who several years ago lived in East Geelong.

Our stay in the Lakes Entrance district was made much more enjoyable due to the friendliness of the members of the Bairnsdale Field Naturalists Club.

AT RANDOM.

TRAFFIC HAZARDS: by Joyce Hunt.

Birds caused us to stop the car three times on the last September excursion. We had just left home when we found the creek crossing barred by a water-logged black cormorant. After flapping for some seconds he was able to fly away and we proceeded, but had to stop a few miles further on to remove a very young magpie out of harm's way. The nest had obviously been blown down in the gale two days earlier, and the two young ones (delightfully wistful and appealing) were sitting near it - one perilously close to the road.

The biggest surprise came as we rounded the curve leading to the steep descent to the creek crossing, on the way home. Here we were brought to a sudden stop by the most unusual traffic cop we've ever seen - a black swan, sitting right in the middle of the road! Probably he was bewildered by the car lights, as it was some time before he could be moved; and we imagine that he may have hit the power lines above and been slightly injured. Having shepherded him safely off the road we were trying to decide how to get him home and care for him, when he settled the question himself by flying off into the darkness. We hope he recovered and found his mates, but it was a queer experience to meet a swan on a steep curve on a dark night!

ON HEAD BOBBING: by Alan Sonsee.

A question often asked is - "Why do some birds, most noticeably domestic fowls, move their heads back and forth as they walk?"

Pigeons walk with a distinct jerking movement of their heads. I note that the painted quail, which at times I see in my own paddock, have a somewhat similar head movement when walking.

Can you think of other examples, and then try to reach a conclusion?

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AT RANDOM (Cont'd.)

I wonder if birds, grain eating ones that store food in a "crop", illustrate this movement. Then is it something to do with this factor in their physiology? The crop, when full, must be a heavy awkward bag to carry. Perhaps to aid balance the head is thrown backwards, as the leg moves forward. This is merely supposition.

Does anyone know why the Eastern Swamp Hen, and other semi aquatic birds, have a jerking tail movement?

It is very noticeable in the Swamp Hen because the tail beneath is white. White is an accepted danger warning. When swans fly the white patches on wings show. In the wild this is readily noticed by other swans and accepted as a warning sign of danger - or this is the theory.

Rabbits and deer have white beneath the tail for a similar reason.

The white beneath the body of many animals is known as counter shading, an aid to camouflage. The penguin has it somewhat for the same reason. An enemy looking up at a penguin, through the water, could miss the penguin, because the silver white fits in well with the light on the water surface.

Now to return to your original question. Try to build a group of birds that have the head jerk. Have they anything in common? You can then form what scientists call a hypothesis - that is a probable but unproved theory. A hypothesis needs proof, but it is a beginning.

PILOT BIRD FOUND NESTING: by John Jaffe at Timbertop.

I thought members might be interested to know of my finding a nest of the Pilot Bird (*Pycnoptilus floccosus*), in very heavily timbered country of mountain ash and dense undergrowth. The nest was situated approximately six inches from the ground, and contained three chocolate coloured eggs with a single hairline marking on the larger end. The nest was a dome shaped structure of interwoven strips of bark and leaves, with a side entrance consisting of a platform measuring about five inches. Both birds became excited when I examined the nest and came within a few feet of me, and uttered a weird cry. Both birds were

AT RANDOM (Cont'd.)

of a rich dark brown plumage and no difference could be noticed between the sexes..

(Ed. note. This is an interesting find of John's and one not many naturalists have seen. The Pilot Birds are confined to the thick forests of south-east New South Wales and south-eastern Victoria. One can usually find them by identifying their 'guinea-a-week' call. The birds are a little smaller than grey-thrush size. Campbell in his book 'Nests and Eggs of Australian Birds', has this to say - "There was some mystery about the habitat of this bird when it was first revealed to science by Gould. It was supposed to come from the interior of New South Wales. It is true that the Pilot Bird is found in New South Wales, but in the forested tracts near the coast, and not further inland than the Blue Mountains".)

NOTES ON THE SMALL DUCK ORCHID: by Trevor Pescott.

On December 12th last year, I visited an area near Steiglitz where the Duck minors grew; several plants were in flower, but as I did not have a camera, I decided to return several days later after work. I was unable to reach the spot before 7.30p.m., and I found all the flowers had closed, so no photographs were obtained. I thought that the wind, or even a bird or insect, had triggered the flowers, as they snap closed if touched, so two days later, again after 7.00p.m. I returned, but again found the flowers closed. It seemed too much of a coincidence for them to have been touched by anything, and wondered if the flowers are sensitive to sun or at least strong daylight.

Mr Geoff Carr, who has several C. minors in cultivation was asked, and after checking the plants on several evenings confirmed my original observation - the flowers do close up in the evening.

I wonder just how light sensitive they are - a problem which could be solved by several simple experiments.

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JUNIOR PAGES.

The Editor has two letters for "Junior Pages", the first being from Dianne Dixon, who writes - "Last Sunday we were enjoying ourselves at barbecue at the You Yangs. The littlies were admiring an old kookaburra sitting, proudly up in the tree. Dad was standing over the smoking fire watching the remaining sausages. He came over to the table to join us where we were all having our lunch. No sooner had he done this, when the kookaburra swooped down and took in his beak the longest sausage. He sat up in the tree shaking it vigorously to cool it down. It happened so quickly that we were all startled. After eating the sausage he flew away, we presume to find some other unsuspected picnicians."

Dianne's letter came in October, just a few days too late for printing in the last issue - and at a time when it was still safe to light barbecue fires! Kookaburras become very cheeky at places where people regularly picnic, for they seem to know that no matter what they steal their jovial laughing call compensates for their thieving.

Incidentally, Dianne did not write her address on her letter, so the Editor could not write to thank her for her contribution - Juniors who write to the Editor with notes should include their own address so he can reply.

The second letter is from Garry Dodson of Mannerim, who found a plover's nest. "Last Friday (early September '67) I went down the paddock to get the calves, and on the way back I saw a nest. It was on the ground in some long grass, and there were three dark green eggs, smaller than a hen's egg, with black spots over them. Dad told me it was a plover's nest. As soon as I left a plover came down near it."

And we do need your letters too, to fill these pages set aside for Junior members; please send your contributions to the Editor,
4 Victoria Terrace, Belmont, 3216.

JUNIOR PAGES (Cont'd.)YELLOW-FACED HONEYEATER:

The bird shown on page 64 of the July issue was identified as the Yellow-faced honeyeater, and as promised, here are a few notes about the bird.

The Yellow-faced honeyeaters are one of our smaller honey-eating birds, being about the size of sparrows; they are brown in general colouring, with a line of yellow from the beak below and behind the eye. This gives the bird its common name. Even the name used by scientists describes this - it is *Meliphaga chrysops* - and the word *chrysops* is Latin for "yellow faced".

The nest is beautifully cup-shaped, made mainly of roots or fine bark strips bound together with cobwebs; the outside is usually covered with green moss. In our district we find the nests in the spring, in bushland such as we have at Anakie, particularly in the gullies like the Gorge, and at Bannockburn.

Generally there are three eggs laid, these being pink with brown, or purplish colored, spots at the larger end; they are typical of honey-eaters, and they are very pretty.

In the autumn and winter, the Yellow-faced honeyeater visits the gardens in our city and suburbs, and it generally tells us of its arrival with its cheerful call sounding like "Chick-up, chick-up". Once identified, you will realise that you have heard it often before, probably without realising which bird has made the call.

In the next issue, a simply built feeder for honeyeaters will be illustrated, and if one of these is made and set up in the garden, many birds will flock in to feed. A few cents of your pocket money will be needed to buy sugar to attract the birds, but it will be money well spent.

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