NATURE NOTES

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Dear Girls and Boys,

What a wealth of nature surrounds us if only we care to look! Even amid the concrete and asphalt of the city there are so many small creatures to be seen. Most of these are insects. Some are destructive and harmful and many dollars are spent annually trying to eradicate them or keep them in check; whilst others are beneficial to man. Perhaps you would like to find out which are our enemies and which are our friends. You might like to study the life histories of some of these insects.

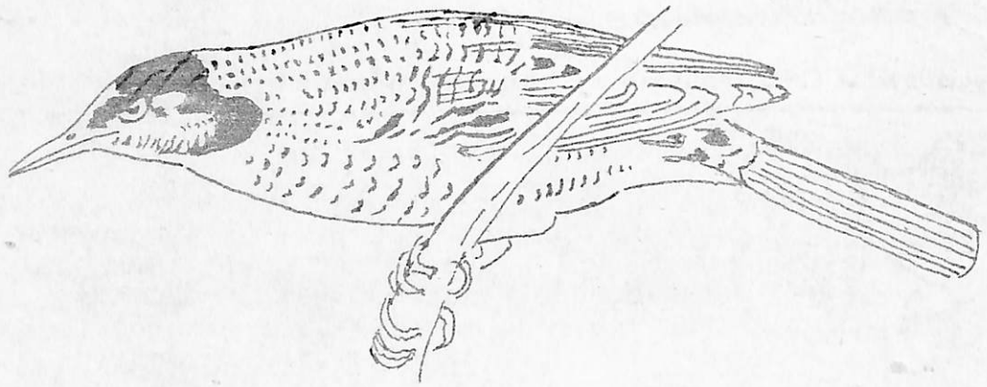
Not all small creatures are insects. Slaters, slugs and snails are not insects. Why? Neither are spiders. I wonder how many poor huntsman spiders (Voconia) have been killed because of people's ignorance of this friend of man. You would be doing yourselves and others a good turn by doing all that you can to prevent the killing of these beneficial creatures.

Write to the editor and tell him about your discoveries.

D.R.ANDERSON.

Name _____ Grade _____

Things to Look for



This is the Noisy Miner. These birds at this time of the year are usually in groups and are very noisy as they move about among the branches of the trees - but what trees do we find them in?

Do we find them here all the year?

Billardiera scandens.

You will not find any flowers of the Common Appleberry (Billardiera scandens) but some of the fruits will still be on the plants. There are many sticky seeds inside.

MAY.

NAME THIS FLOWER

It is almost always in flower and is native to the sandstone area around Sydney.

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WHO OWNS THESE HEADS?

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WHAT ARE THESE?

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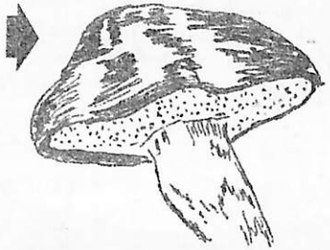

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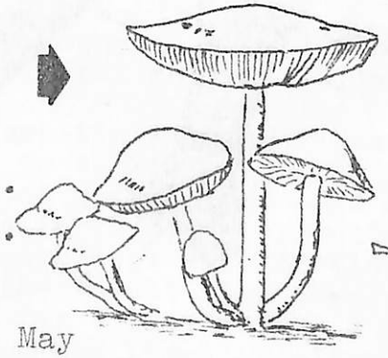

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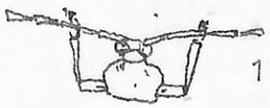

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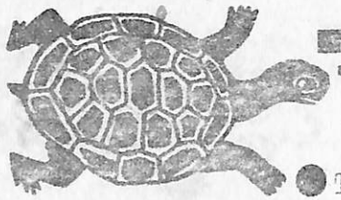
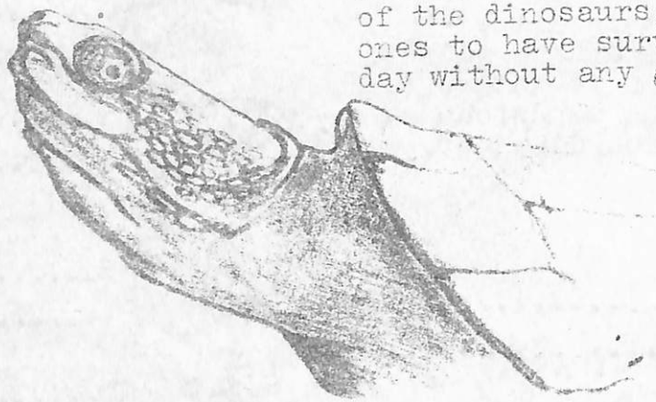


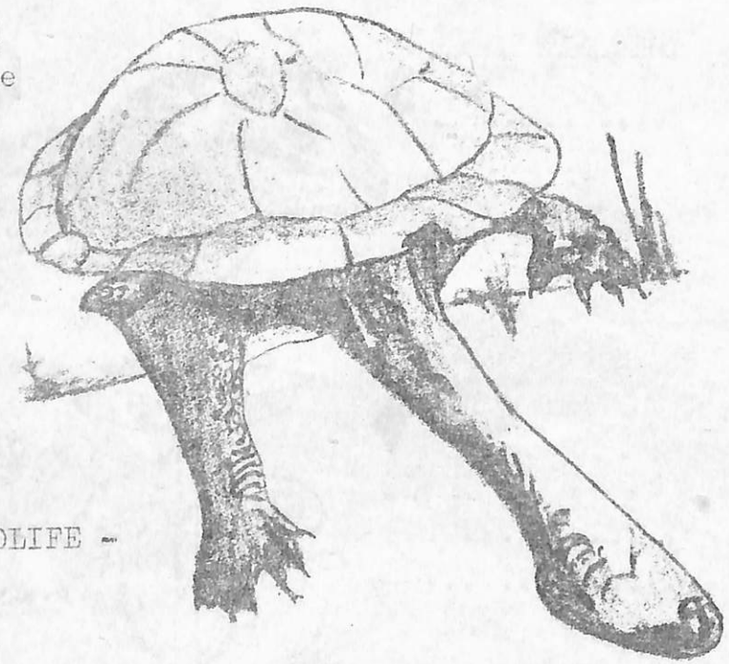
Tortoises as Pets.

● Tortoises and Turtles are reptiles with a very long family tree. Of all the reptiles living in the days of the dinosaurs, they are the only ones to have survived to the present day without any great changes.



● Head of the MURRAY SHORT-NECKED TORTOISE.

● A BROAD-SHELLED TORTOISE on the move.



○ REFERENCES:

▷ WILD LIFE
Vol 3 No. 5
(Dec. 1966)
Vol 5 No. 1
(Mar. 1968)

▷ WALKABOUT
June, 1965.

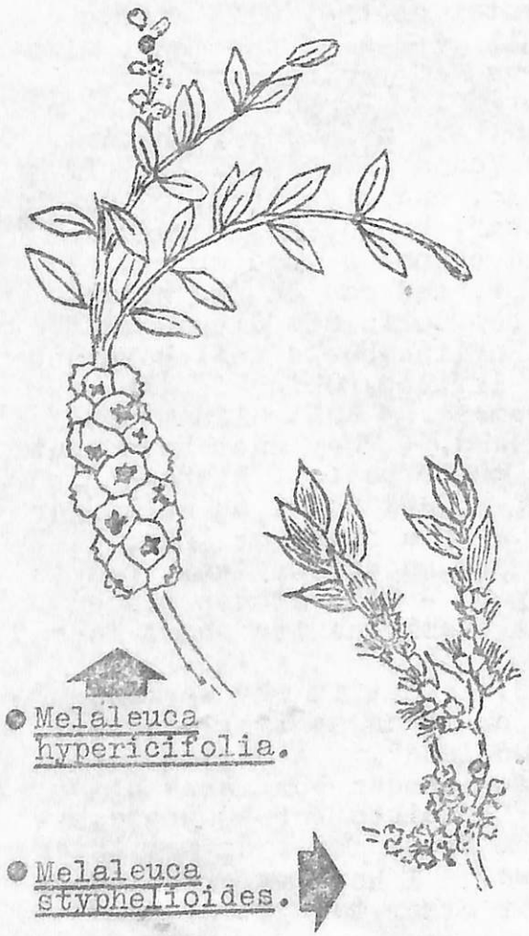
▷ THE BOOK OF AUSTRALIAN WILDLIFE -
Harry Frauca.
Chapter 9.
pp. 66-68.

"In the beginning consider the end" is good advice especially to boys and girls who would like to keep a tortoise. Tortoises live long lives. In fact, if you have a tortoise now, you should still have it when you are grown up - will you want it then? Tortoises do not play, so it is unkind tp try to play with them. They sleep through the cold weather. This long winter sleep is important. It is cruel and harmful to disturb them. They need cold winter quarters. Cold temperatures send them to sleep, and they sleep on until the weather warms. When a tortoise wakes from this winter sleep it is hungry and needs a pool to soak in. The species of tortoise usually kept as pets in Victoria must be fed in water or they will starve and die. They eat very small pieces of raw meat, also insects, chopped-up earthworms (if you cannot find something else) and "meal worms". If you keep a tortoise, try to have a colony of "meal worms" handy. They are shiny brown grubs found in wheatmeal. If you keep them in a box of bran, and give them, occasionally, pieces of lettuce leaf, bread, and torn up paper, they will multiply and become a good source of healthy food for your tortoise, and can be fed alive and whole. One reason why pet tortoises die is that they are fed incorrectly. English books tell boys and girls to give them grass and lettuce, which is the right diet for European tortoises. Australian tortoises, however, cannot eat grass. They must have meat and insects given to them in their pool. Although tortoises bask in the sun, they need shade as well, for their natural home is the bank of a river or lake. Make sure that your tortoise has an earthy leafy bed to sleep in, and, of course, a pool - with stones placed so that it can clamber out as easily as its short legs will allow.

Tortoises are travellers. That is why so many disappear, some to be killed on roads as they plod along in search of a "promised land". A wired off yard or an extra large open-top wooden box makes a good home. I have kept two tortoises for 30 years, and would not like to set them free, for I do not think they could fend for themselves. I hope my experiences will help to save the lives of other tortoises.

Melaleucas

Don't be frightened by the name we have used because it is made from two words which simply mean "black and white". This is because of the dark foliage and white paper-bark of some species. Some of the larger plants of Melaleucas are called paper-barks while the smaller ones are usually referred to as honey myrtles.
There are about 150 species of melaleucas in Australia, rangine from small shrubs to tall trees. One of the commonest, found in many schoolgrounds, is the Hillock Bush (Melaleuca hypericifolia). It is a shrub from 6 to 8 feet high, which blooms rusty brown or dull red flowers from Christmas till well into the new year.
Many streets are now planted with species of paper-bark. Those we are likely to find are Melaleuca linariifolia which has earned itself the name "Snow in Summer" because the white flowers seem to cover the bush in December like snow; Melaleuca styphelioides has been given the name "Prickly Paper-bark", but it isn't really prickly although the leaves are small and stiff; Melaleuca armillaris (Bracelet Honey myrtle) a dense bush, has fine foliage and pale-cream flowers in spring.



Melaleuca hypericifolia.

Melaleuca styphelioides.

If we look at a single flower of melaleuca under a hand lens, we can see that the stamens are joined together into five bundles. It is important that we learn to look closely at the things we see. We can then understand why we do not call these plants "bottlebrush". In the callistemons, or bottlebrushes, all the stamens are free, they are not joined together.

Enlarged flower.

Collect some of the seed capsules from a melaleuca bush, and place them in an envelope, or on a tray. After a few days hundreds of small seeds will drop out of the capsules. In the spring-time you may like to grow some new plants.

Besides sowing the seed in a pot as we would any seed, an interesting way is to take a plastic dish, put some holes in the bottom and almost fill with good sandy soil. Sow the fine seed sparsely on top - from the point of a knife, and very lightly cover with sand. This dish now needs to be placed in a larger plastic dish. We pour water, into the space between the dishes, until the surface of our soil is moist, but not flooded. Tins are not very suitable for this because rust is poisonous to seedlings. This method of growing seed is known as the "bog-method".

I can recommend the following melaleucas for you to plant in your school garden - or at home. If there are some outside classroom windows the pupils will be able to see the birds around the flowers.

Melaleuca pulchella and Melaleuca thymifolia are about 3 feet high with mauve flowers. Melaleuca incana and Melaleuca polygaloides have grey foliage with yellow brushes and are 6 to 8 feet high. Melaleuca lateritia (Robin Red-breast) Melaleuca elliptica, Mel.longicoma, Mel.fulgens, Mel.steedmannii are all from about 4 to 6 feet high. Melaleuca nesophila grows over 10 feet high and has mauve "pom-pom" flowers over Christmas. Have you some books in your school library that will tell you more about these plants?

The Origin of Birds...

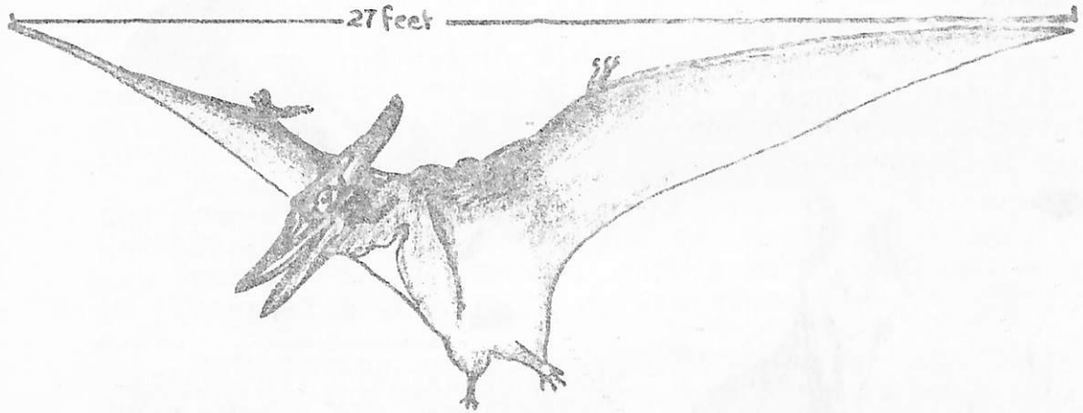
A great scientist once described birds as "reptiles with feathers" and this is a good definition because, though there are many differences apart from the possession of feathers or scales between the two groups there are very many likenesses.

Usually we are able to trace the way in which groups of animals evolved from simpler and earlier groups because quite good series of fossils have been found linking the two groups. However in the change-over from reptiles to birds only three fossils have been found which are part-way between reptiles and birds and these are all fossils of the one kind of creature. This has been named Archaeopteryx (the ancient winged creature) and although this creature, whose fossils were found in a fine-grained stone in quarries in Germany, stone which was formed about 170 million years ago, had feathers and could glide even if it could not fly well, it had a skeleton which is quite like that of a reptile and unlike that of a modern bird.

So we have had to use the methods that detectives use and compare birds with the extinct reptiles to find what we believe happened in the change from reptile to bird. We now believe that the latest reptile ancestors of birds lived about 225 million years ago and were Pseudosuchians, small creatures which ran on their hind legs and had skulls which are very much like those of modern birds.

Just recently two bird feathers have been found as fossils in mudstone at Koonwarra in Victoria. These are about 140 million years old. We may still find the missing links between reptile and bird.

Archaeopteryx was probably a very poor flier.



The Pteranodon was a reptile with a 27 foot wing spread.

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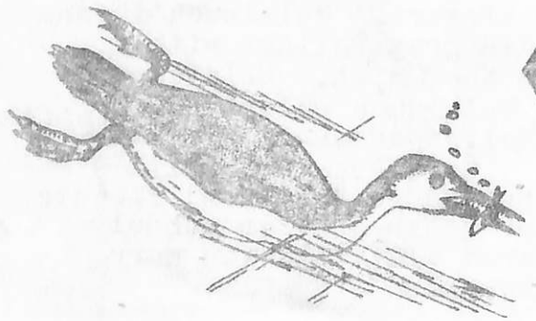


Hesperornis lived about 100 million years ago on America's inland seas. Its beak was lined with sharp reptilian teeth.

Some books for reference: "The Birds" "The Reptiles" "Evolution"

All these books belong to the LIFE NATURE LIBRARY.

ED. Use your atlas to find Koonwarra in Victoria. Visit the National Museum in Swanston Street, City, to see for yourself the "skeletons" of these prehistoric animals.

Tie Me Kangaroo Down!

That's what you'll have to do soon if you want to see a member of the Kangaroo family in its native habitat.

When the white people first settled in Victoria there were 14 or 15 species of the Kangaroo family native to Victoria. Today, evidence shows that only 6 or 7 of these still survive.

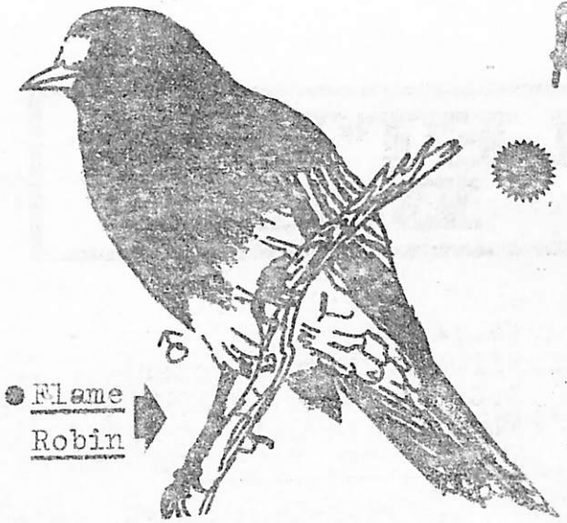
The Red-bellied Pademelon (Thylogale billardierii) once a Victorian, now survives only in Tasmania.

Red-bellied Pademelon

Rock Wallaby

The Rock Wallaby (Petrogale penicillata) has become very rare. Only a few hundred now survive in Victoria. Which one will be next to go? How can we protect these and other native animals from extinction?

Red Robins!



Flame Robin

There are five red Robins in Australia. Most of you will know two of these quite well. The Scarlet Robin appears on the Gould League badge. Have you noticed that it has a black throat and a white patch above the bill? The Flame Robin does not have the black bib because the flame red colour goes right up to the bill. Also the white patch on the forehead is much smaller than the Scarlet Robin's. The Scarlet Robin female and young are paler editions of the male, but the Flame Robin female and young are quite different to the male. They do not have any red colour underneath and are about the same size and colour as a sparrow. They have a white wing bar, white outer tail feathers and a small white patch above the bill.

These two Robins are often to be seen feeding in the same open fields in the winter, sitting on fences and hopping down to the ground for grubs and worms. The Scarlets are in twos or threes but the Flames are in flocks of about 10 birds, sometimes fewer or many more.

Both Robins go into timbered areas to make their nests in spring but the Flames prefer to go up into the high mountains which are covered with snow in winter. Some of them nest in the mountains near Healesville and up into the ranges.

The Flame Robin is being studied by a group of people in Melbourne who would be glad to hear from you if you know where there are flocks during winter or nests during summer.

LETTER BOX

Send your letters to :-
Editor, 'Nature Notes',
S.S. No. 4860, BLACKBURN LAKE,
Florence Street,
NUNAWADING. 3131.

Zebra Finches.

Our first letter for this issue comes from Rosemary Munro, Grade 5B, Fawkner North.

▷ When I went up under our pine trees on the day that was 110°I found a baby zebra finch that had fallen out of its nest. He was very thirsty so I put a couple of drops of water on his beak and he swallowed them. He had his feathers but couldn't fly. I left him alone hoping his mother would come. He was still there at tea time, so we mashed up some canary seed and fed it to him on a spoon, he was perched on my left finger while he was eating it. We couldn't reach his nest which was on a high thin branch, so we put an old thin nest in the budgies cage and hung it in the tree so that the cats couldn't get him. The next morning when I went up to see how he was, he was chirping and his mother was answering him, so I lifted him out and put him on a high branch and

Contn.

.....he hopped up to his mother. The zebra finches come to our garden every year to eat the cosmos seeds. The blackbirds and thrushes live in our pine trees as well.

* ED: Good work Rosemary! It might be an idea to try some feeding trays on which you could leave some seeds for the finches, after the seeds have been eaten from the cosmos, also a water tray. These need not be elaborate structures but sufficient to serve the purpose.

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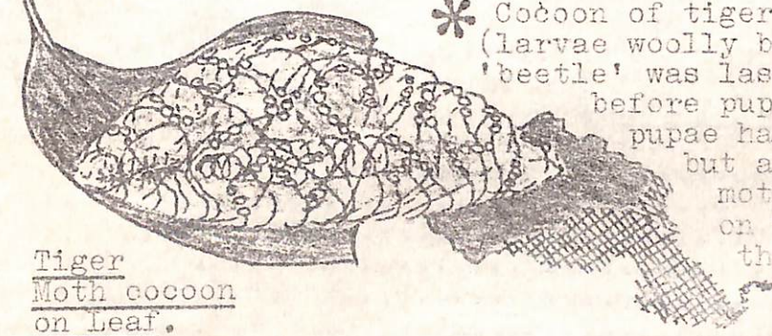
▷ Heather Cribbes sends us this "puzzle" from Grade 6 at Ringwood East.

o o I found the enclosed fungus type of thing on a tree in our yard at home. There seems to be a beetle or something inside it and a small beetle on it. Could you please give me some information on it?



Tiger Moth cocoon on Leaf.

* Cocoon of tiger moth family (larvae woolly bear). Small 'beetle' was last shell of grub before pupation. The pupae had left cocoon but another tiger moth had laid eggs on the coccon and these had hatched. This was pure coincidence.

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▷ Jeanne DeZilwa, who forgot to mention the name of her school writes:

o o Every morning I feed the magpies. One day, one magpie came right up to me and hopped on to my arm, and then he called the other magpies to come. Mum says that if I keep on feeding them they will like me a lot.

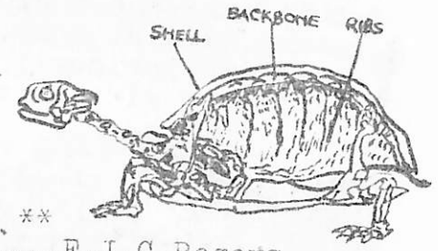
* ED: Write and tell me which food the magpies prefer.

From Natalie Jurkow, Form 2D at Norwood High School comes this letter.

For the last year I have been watching a tortoise in a nearby pond. I believe he ran away from somebody and made a home in the reeds. The water is rather clear and it is easy to see him. Sometimes he crawls up onto an old car tyre and basks in the sun. I cannot come too close because he is very shy and dives back into the water. He can easily camouflage himself by just lying still on the bottom of the pond, the slime on his back makes him look like a smooth rock.

I would like to know how a tortoise grows its shell, how long would he live, how big would he grow and about how old is he if he is about seven inches wide and ten inches long?

* ED: See Mrs.Coleman's article Réf. p. 4. The tortoise's shell is fused to its backbone and grows with it. (Life Nature Library - "Reptiles" pp.10-11.



********** *Tortoise
ARTICLES IN THIS ISSUE *Structure. **

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Answers to Questions Page 3.

1. Grevillea Buxifolia or Grey Spider Flower, 2. Boletus, 3. Fairy Ring Toadstools, 4. Honeyeater, 5. Gecko, 6. Kangaroo, 7. Lyrebird, 8. Duck, 9. Goanna, 10. Snake, 11. Longicorn Beetle.

Answers: Vol. 5 No. 2. Cover. (from top to bottom)
A. Albatross; Ant Lion (larva of lacewing); Acacia; Aphis; Avocet; Ark Shell.
(Score: 5 Excellent, 4 Very Good).

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NEXT ISSUE is due at Depots on Wednesday, 5th June.

Men in Nature

MATTHEW FLINDERS.

ROBERT BROWN.

★★Two great names were associated in a notable voyage of discovery in Australia. They were Robert Brown, botanist and surgeon, and Captain Matthew Flinders, navigator and explorer.

Their ship, H.M.S. "Investigator" left England in July 1801. They sailed through Bass Strait, thoroughly mapping the coastline. Brown recorded and collected the vegetation. Flinders named many of the features of the land, such as, Kangaroo Island, Mt. Lofty (near Adelaide) and Encounter Bay after meeting a French explorer named Baudin. On 26th April, 1802, they sailed into Port Phillip Bay. Thinking they were the first to survey this area, they were disappointed to find that another explorer, Murray, had been there only ten weeks earlier. Flinder's Peak in the You Yangs is named after Flinders who later circumnavigated the continent. It was Flinders who suggested the name AUSTRALIA.

Robert Brown was one of the greatest botanists to work in Australia. When he returned to England with about 4,000 species of plants, he publis[illegible]me describing 2,000 species of which ove[illegible]ree-quarters were new to the world. He made ma[illegible]mportant contributions to the knowledge of Aus[illegible]lian botany. His name is remembered in the genus of plants called BRUNONIA.

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FOR YOU TO DO ● ● ● ● ●

Find the places mentioned on this page on the map of Australia.
Find other features named after Flinders, e.g. a mountain range and a town.
Discover some plants in the genus BRUNONIA.
Read about Flinders' other discoveries and his imprisonment on the island of Mauritius.
Find all you can about Baudin.

Nature News

NATIVE FAUNA CONSERVATION SOCIETY

will sponsor a Special Natural History Film Night at Wilson Hall, University of Melbourne on Friday, 31st May, 1968 at 8 p.m.

Unique films in sound and colour produced by Mr. Harold Pollock, internationally renowned photographer and lecturer including:-

"KOALA" ☆ First viewing of life history of the Koala, including birth of baby, and a Koala drinking and swimming.

"MENURA" ☆ The Lyrebird.

"WHERE THE PELICAN BUILDS HER NEST". ☆

"BIRDS THAT NEVER FLY". ☆ (more time permitting).

RESERVED SEATS		UNRESERVED SEATS	
at Allans (12 days previously)			
Adults	$1.00	Adults	70c.
Children under 14 years	40c.	Children	20c.

A Good Book for the School Library.

WINDOW TO BUSHLAND

A guide to the Animals of Australia

by Dr. Allan Keast.

Published by the Educational Press.

Well Illustrated. ● ● ● ● ● ● ● Price $2.50.