NATURE NOTES

Photo: F.J.C. Rogers

THE ECHIDNA

JUNE 1970

The Echidna

The echidna lays eggs; the echidna's prickly.
Its health is the best - it rarely is sickly,
It frequents bush hollows - a home it has lit on,
Here's one little creature it's unwise to sit on.

- from Peculia Australia by Max Fatchen.

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PRIZELETTER

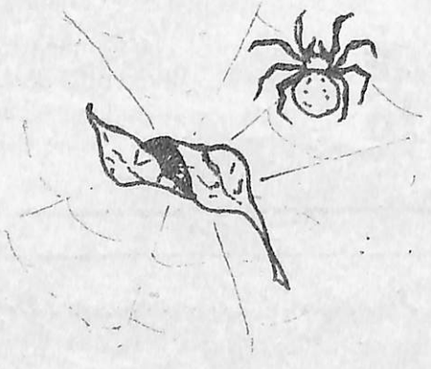
The prize winning letter for June has been written by Miriam Perry, Grade 6 of Surrey Hills Primary School and for her effort she wins a very useful book, John Child's Periwinkle "Collecting Specimens" - 112 pages of interesting information on collection of land and water animals, plants, rocks and minerals, together with many fine colour shots of natural life - a sure aid with the New Science Course.

For next month girls and boys, I would like to receive your thoughts on the two big questions of the moment - "CONSERVATION, POLLUTION". Hope to hear from you.

While picking some flowers for school I noticed a spider's web spun between two rose bushes. It is often said that the spider spins its web not for a home as most people think, but as a means of food. On having a closer examination of the specimen, I found that the web was the usual web spun by spiders, but in its web was an oak leaf, dried by the sun and curled. When I pushed the top of it, an ugly black spider appeared, dotted with vivid sun-coloured spots circling its coal black body. Obviously, the spider had decided that, if he lived anywhere else, it would be too far to come for food, so he lived as part of the web.

'Lazy fellow'.

ED. Leaf curling spiders are very common in the autumn Miriam, but are usually light in colour. Perhaps it looked darker inside its leaf home. See what else you can find out about spiders. They make a fascinating study.



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Produced by the Nature Notes Committee of Ringwood Inspectorate

Observation and the Environment.

Dear Girls and Boys,

I wonder what exciting things you did during your holidays and what new creatures you discovered. Because it was wet I was able to stay indoors for several days and look through a new book "Insects of Australia". One chapter deals with beetles. My class worked out that if we spent 10 minutes on learning about each beetle that is known it would take us nearly 7 years - without eating or sleeping or resting - to do this.

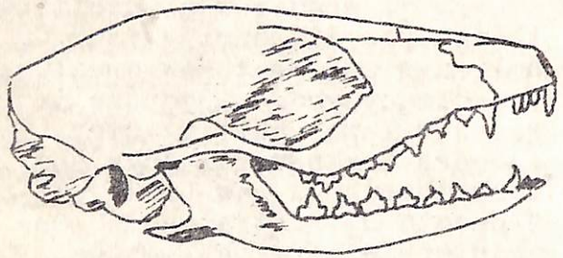
I hope this shows you that there is so much to learn in the field of nature and you with your observations and your reading can see and observe new things that other people haven't discovered.

I hope also that you do observe and that you do ask questions and do do research and don't become like some school children who only live in an artificial world and don't know anything about their environment which includes plants and animals.

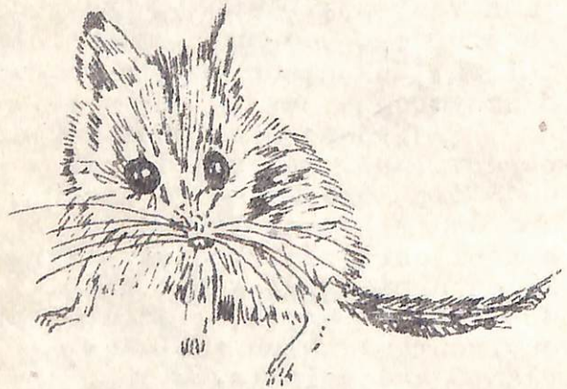
Good observing,

F.J.C.ROGERS.

Things to Look for



Skull of
Fat-Tailed Dunnart
below.
(not to scale)



What skulls have you found lately? Can you identify those you have found? If the skulls have bleached white there will be no odour, but if they have not and there is still flesh on them place the skull in water and boil until the flesh drops off.

The skull that is drawn is that of the Fat-Tailed Marsupial Mouse (Sminthopsis crassicaudata), or sometimes called Fat-Tailed Dunnart. This is possibly a better name for although it may superficially look like a mouse if we examine the skull closely we find that the two prominent incisors of rodents is missing. Dunnart is a name more common in use in Western Australia. Dunnarts are friends of man because they eat beetles, cockroaches, small lizards, centipedes and lots and lots of grasshoppers and caterpillars.

Usually the only time we see these small animals is when a cat brings them indoors. When next your cat catches a mouse, just check to see that it isn't a fat-tailed Dunnart, and if it is I would be pleased to know where you found it.

in JUNE!

Brown Hawk

How many hawks do you know? Write them down on a piece of paper.

Diurnal birds of prey are all useful birds as they help keep down many enemies of the farmer's pastures, and stored grain and crops. It is a great pity that many are shot on sight before any thought is given to the good that they may do.

Have you watched them catch their prey? What was it? How can some hawks and eagles rise high in the sky without apparently flapping their wings?

Is "A Guide to the Hawks of Australia" published by Bird Observers' Club in your school library? You will find this very helpful in your study.

Fishbone
Fern
Blechnum nudum

Maiden-hair Fern

Autumn and Winter are good times for looking for ferns.

"Ferns of Victoria and Tasmania" by N.A.Wakefield and published by Field Naturalists' Club of Victoria will help you to know the names of the fern you have found and other things about ferns.

Why are there two kinds of fronds on some ferns? How do ferns start new plants?

THERE'S A **STORY** IN A **STAMP**

This stamp was presented as part of a series which was issued between 1959 and 1962. Other animals included: Banded Anteater, Tiger Cat (see next page), Rabbit Bandicoot, Platypus and Tasmanian Tiger.

This ½d. orange stamp was issued in 1938.

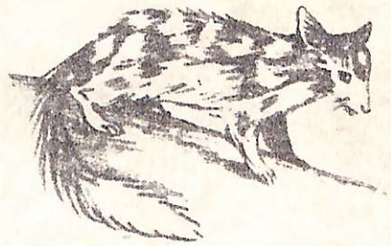
"KANGURU"

"An animal as large as a grey hound, of a mouse colour and very swift . . . making vast bounds on two legs", commented Captain James Cook in his journal.

This animal was called by the natives, "Kangooroo" or "Kanguru".

Three skins were taken back to England where they were stuffed. The drawing shown here is taken from the first known painting of a kangaroo.

TIGER CAT



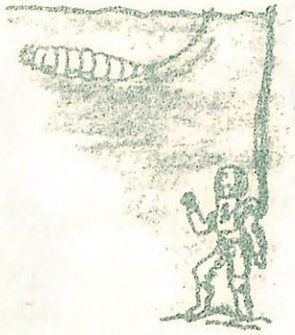
Captain Arthur Phillip (illustrated) was the first white man to record the sighting of a Tiger Cat. He named it the "Spotted Martin" and said it was not only ferocious but exceedingly stubborn. This animal is rarely seen because it spends much of its time skulking in the dark haunts of the forest. It kills many birds, rabbits and reptiles. A Tiger Cat once killed twenty-two guinea fowls in one night's work. It can cleverly climb trees.

A fully grown Tiger Cat measures about two feet in length and nineteen inches in length of tail. The female, a little smaller in size, has four to six young in May.

NATURE'S ENGINEERS

YES ! MAN HAS COPIED FROM NATURE

In these pages we show you some of the many inventions man has copied from nature. These similarities between nature's creatures and the works of man are amazing. Can you think of some more? All of these were practised in nature long before man learned to use them.



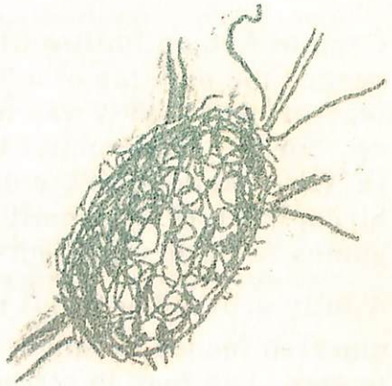
Breathing tube for a diver

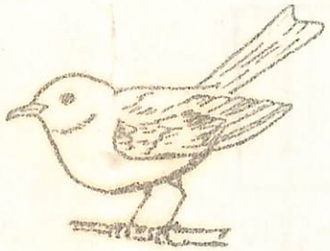
The larva of the DRONE FLY has a telescopic breathing tube, the end of which must remain on the surface of the water.

AIR PRESSURE KEEPS WATER OUT

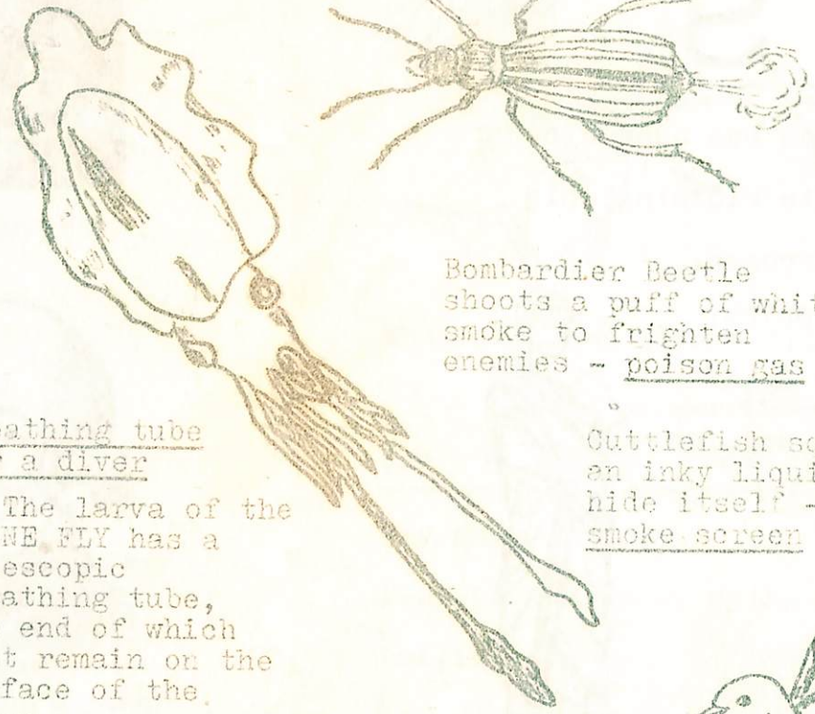
The amazing WATER SPIDER of Britain stores air in a bell-shaped net so it can breathe under water.

Nature was spinning long before man learnt, as shown in this Gum Emperor Moth cocoon.



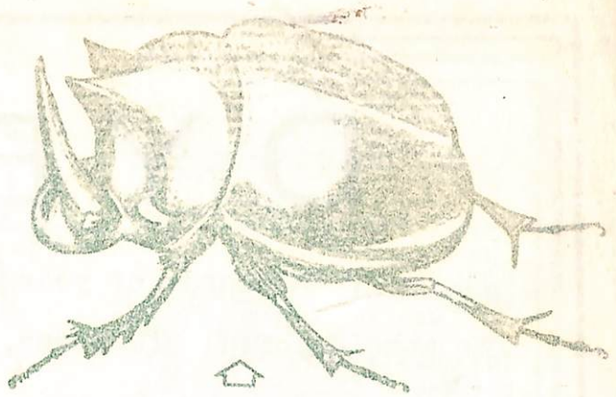


WARFARE

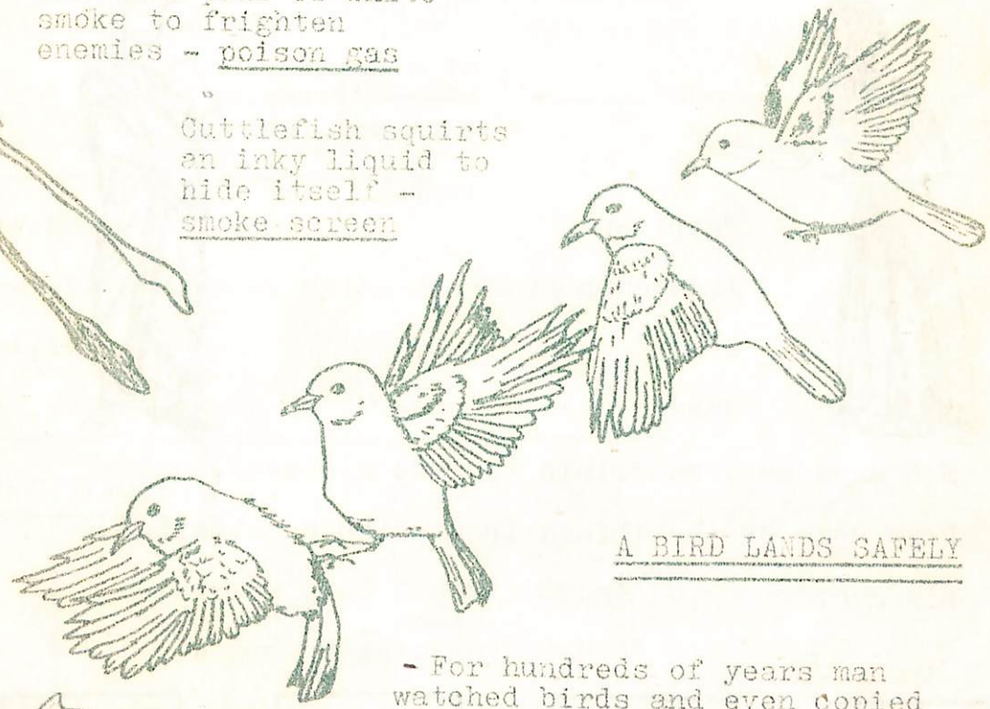


Bombardier Beetle shoots a puff of white smoke to frighten enemies - poison gas

Cuttlefish squirts an inky liquid to hide itself - smoke screen



Rhinoceros Beetle - armour

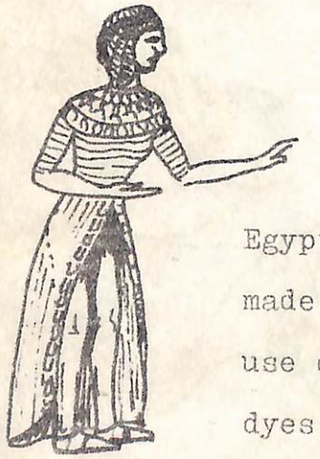


A BIRD LANDS SAFELY

- For hundreds of years man watched birds and even copied them in an effort to fly. By close study of their flight man has learnt to put 'heavier-than-air' machines into the sky.

DYES

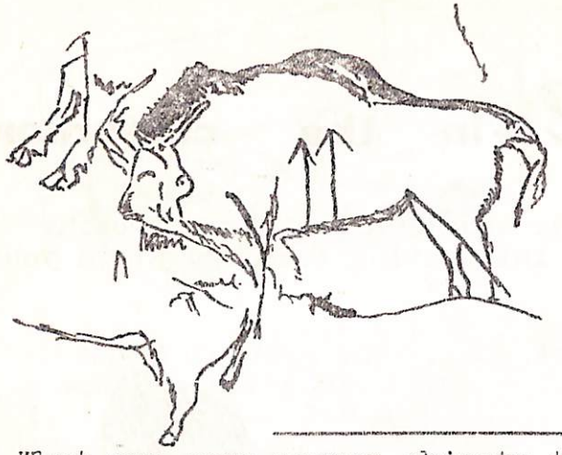
For many thousands of years Man has used dyes to make colorful his homes, his clothing, his pottery and for many other purposes.



Egyptians made much use of dyes.

The colour of a Roman toga denoted rank.

Man used many materials to make his dyes.
Draw some of the things from which he obtained his dye.



Early man used dyes to decorate his home.

What are some common objects that we use dye on today?

1._____ 2._____ 3._____ 4._____ 5._____ 6._____

Can you make your own dye?

Try many sources.

Test your dyes by dying cloth and then boiling it.

Can you think of other ways of testing your dyes?

Are your dyes fast? (That is, do the dyes remain well coloured?)

Which colours keep their brightness the best?

REMEMBER GIRLS - BOYS - TRY FOR YOURSELF!

Pond Life – in the classroom!

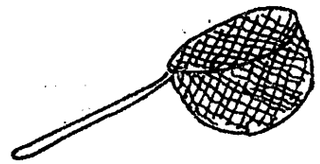
Have you a fish-tank or aquarium that is not being used? It can be a very interesting focal point in your classroom.

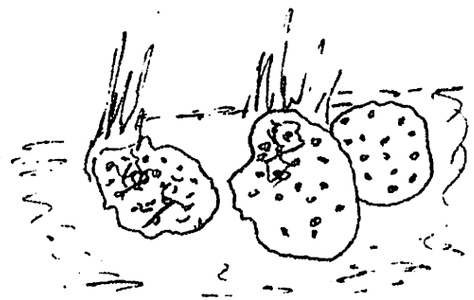
Take a kitchen strainer or a net to your nearest pond and catch as many kinds of creatures as you can. Don't go to a deep pond and always ask Mum or Dad before you go. Put these creatures in your aquarium and watch them closely.

Don't forget to have plenty of weeds in the aquarium and sand on the bottom. There also needs to be some rock that rises out of the water.

From your observations can you see which creatures change their shape and which remain the same or just grow larger. Do some begin to grow less in number?

Why is this? Is it because they are dying or is it because they are the food of other creatures in your miniature pond?

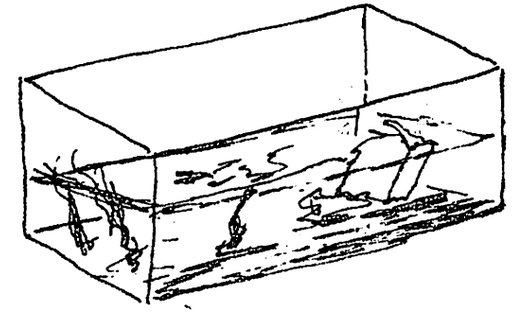




Can you find some frog's eggs and put them in your tank?

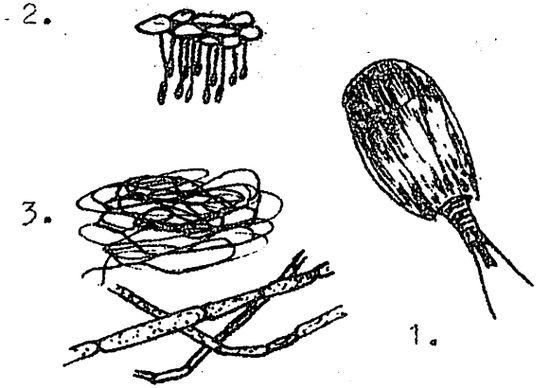
Why are they so slippery?

Put some water under a microscope - not too high a magnification.



How long does your aquarium function? For it to function for a long time there must be a balance between the animal and vegetable life that you have.

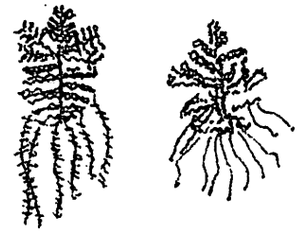
What can you find out about the "Balance of Nature".



1. "Toe-biter" or "scale-tail".
2. Duckweed
3. Frog's Blanket (Spirogyra).

One of the many kinds of pond weed is a tiny fern called azolla. This floats on the water.

The green plants are necessary to remove the waste products from the animals and to provide oxygen.



Azolla

Here are some more pond dwellers. Frog's blanket is really made up of innumerable green threads called Spirogyra. Why is there such a large root cap on the duck weed?

What can you discover about the "scale-tail"?

If you haven't an aquarium a large jar can still give you a great deal of pleasure, but don't forget the sand and the weeds.

Drop a Line

Editor, 'Nature Notes',
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NUNAWADING. 3131.

Joanna Balabanski, Grade 6 of Blackburn Lake opens "Drop a Line" this month. She writes.....

Three weeks ago we drove up to the large property some friends of ours have in Mount Macedon. We observed many Fairy Toadstools (fly agaric). They are very poisonous. This well know toadstool is particularly common in birch and coniferous woods. The orange-red or scarlet cap is up to seven inches across when expanded. It bears a number of conspicuous white scales. The white tapering stem, which is up to ten inches long, has a large ring near the top.

Joanna says, it is rather common, very attractive, but also very poisonous. It is easily distinguished by its fiery red cap with white flecks on it.

Fly agaric

ED. The white "scales" or flecks are the remnants of the veil which enveloped the toadstool as it pushed through the ground. Be very wary of this introduced toadstool girls and boys. As

From Susan Gebert and Tracey Wells, Grade 6E Mitcham Primary School.

In the first week of March, Susan and I found a Painted Apple Moth Cocoon on a pine tree. The female was on the outside of the cocoon and the male was inside the cocoon. The outside of the cocoon was laden with tiny eggs. Then a week after we had found it, the wingless female disappeared. Soon the eggs began to hatch. Next morning we found tiny caterpillars crawling around the nature bench. We studied them for a week then disposed of them.

ED. This, girls, is a good example of a native moth's larvae changing its food source from a native plant - the acacia, to that of an introduced plant - the apple. Quite often it is the reverse. Can you give some examples.

* * * * * *

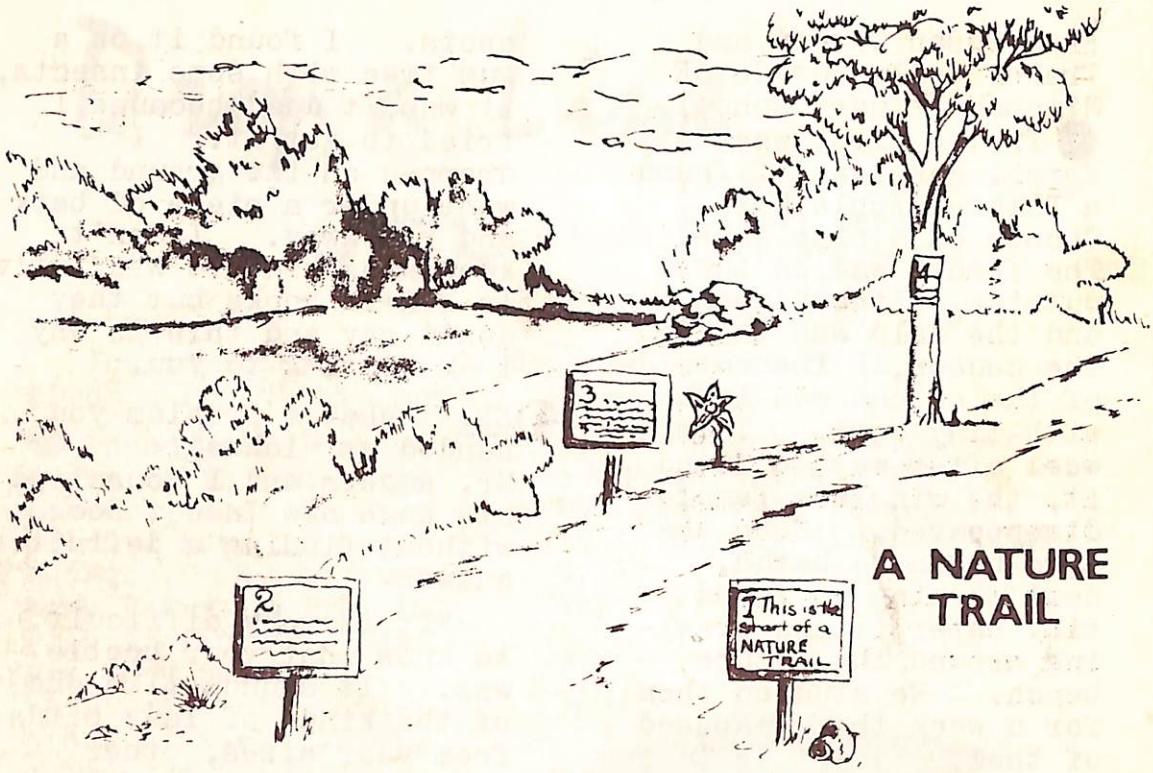
Michael Molinaro of Lower Plenty writes....

I was looking at some insects when I saw a beetle. It wasn't a normal beetle, it was 15 mm long and 7 mm wide. Its colour was a dark black with bright yellow spots. I found it on a gum tree with some insects, it wasn't dead because I tried to get it. It dropped on the ground and went under a piece of bark and ran away. I don't know what kind it was. I've looked in books but they don't say and this is why I am writing to you.

ED. What a problem you handed us Michael! Mr. Rogers and I consulted his huge new Insect Book without finding a definite answer.

"It is very difficult to know what your beetle was. It sounds like one of the kinds of lady birds from your sizes, other possibilities are Dascillidae, Jewel, Fiddler or Banksia beetles. You may care to look up the books "Aust. Insects" by C.S.I.R.O., Aust. Insects by Keith McKeown for your self." F.L.C.Rogers

The Fiddler.



A NATURE TRAIL

What is a Nature Trail? Who prepares it? Where can we make a nature trail?

In every school ground there are many interesting animals and plants waiting to be discovered. Some schools are more fortunate than others in having an environment which is most suitable for the study of outdoor life. Some have nearby bushland which of course attracts many exciting things.

To set up your nature trail choose about 12 to 15 items of interest. Search for information about these things. The name of the item and information may be placed on a permanent board on the trail with space for further information as your knowledge grows. Or you may find it easier to store your information in a notebook and use a number code to identify the items on the trail or you may be able to find a better method of your own. Whichever you choose, you will be sure to make many fascinating discoveries as the seasons go past bringing changes to your trail.

NEXT ISSUE will be at Depots on WEDNESDAY JULY 1st.