

NATURE

NOTES

Vol.14 No.4

Editorial

I hope that you all had a safe and enjoyable holiday. Many of our readers would no doubt have travelled to various parts of our continent during the vacation. Perhaps you could write to Nature Notes about any highlights of your trip that would interest other readers. However everyone is not able to travel during holiday periods - perhaps you observed unusual happenings in nature where you live. Write to us about them... book - prizes are awarded for articles printed.

In this issue of Nature Notes, St. James School in Vermont has contributed some information about the camp they held at Phillip Island during March. Has your school held a camp or tour recently? Write to us about it.

The drawings on this page depict aboriginal impressions of creatures in nature. The drawings on the left hand side of the page are known as 'X-Ray' drawings. Do you know why? Perhaps you could discuss this aspect of aboriginal art with your teachers.

B. L. Archibald
Editor.



Dinewan... the emu.

WIND

○ Wind is something that most people take for granted, yet wind plays a tremendous part in the daily lives of us all. What is the wind? It is simply, moving air! Warm air is light and tends to rise. Near the coast, when warm air rises, the cooler air from the sea races in to take its place - result a refreshing sea-breeze. At night the sea keeps its warmth much longer than the land so the air movement goes the other way.

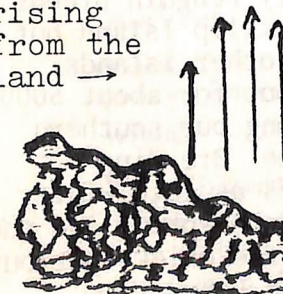
○ Some of the greatwinds follow a fairly regular pattern. These are caused by the earth spinning on its axis, together with the tremendous heat of the sun. The heated air moves upwards, cooler air takes its place and the spinning of the earth drives it sideways or in spirals and so a wind is born.

For You To Discover:

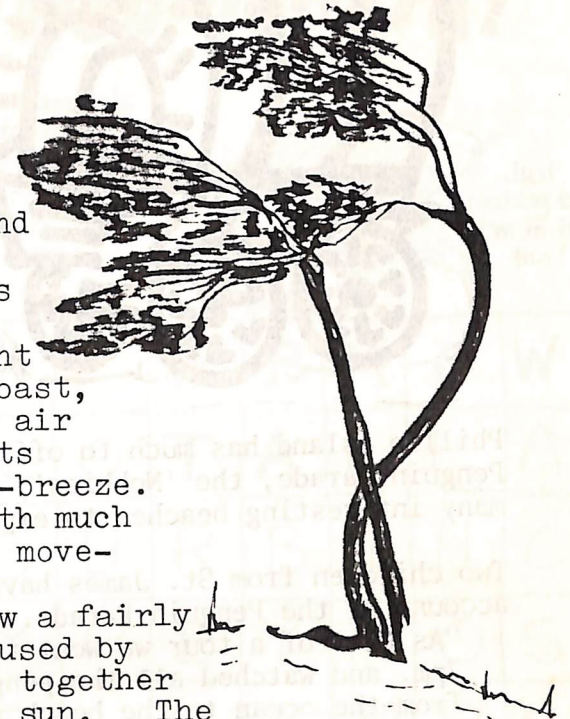
1. What instrument is used to measure (a) wind direction? (b) wind speed?
2. Find out all about the Beaufort Scale.
3. Find the names of the earth's great winds.
4. Name some reasons why wind is important to man and his life on earth.

* * * * *

Warm air rising from the land →



cool replacement air moving in from the sea ↓





Down at the Ranch.

According to Grade 5 and 6 children of St. James School in Vermont, Island Bay Ranch on Phillip Island is a "fantastic" place. At the Ranch you have the choice of sleeping either in covered wagons or log cabins- numerous animals and birds, according to the children are a feature of the Ranch.

Phillip Island has much to offer the visitor- the Penguin Parade, the 'Nobbies', a koala reserve and many interesting beaches to explore.

Two children from St. James have written this account of the Penguin Parade..

"As part of a tour we went to a special beach at 7pm. and watched all the penguins make their way from the ocean to the beach and to their burrows. These penguins had been out at sea all day searching for food for themselves and their young. They are strong swimmers and need all their strength to survive. Luckily these Fairy Penguins are protected which helps them live more comfortably. They are the smallest penguins in the world, being only 9" or 22½ cm. in length. They have a black beak, back and wings, and a greyish - white belly."

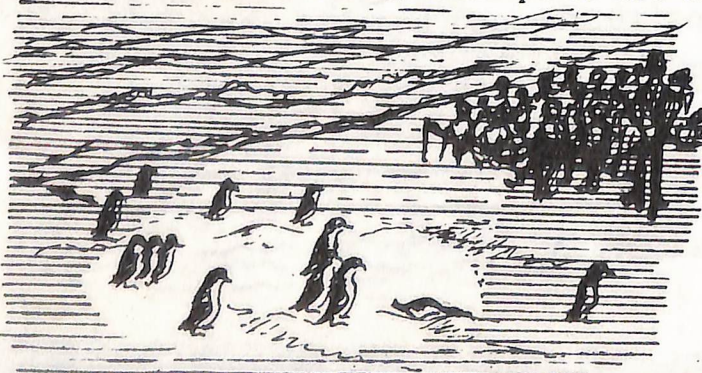


The Fairy Penguin.

Did you know that penguins belong entirely to the Southern Hemisphere? Although there are about 18 species, only the Fairy Penguin breeds in Australia. This breeding takes place not only on Phillip Island but

also on other islands strung out for about 5000 kms. along our southern coastline. Breeding commences as late winter merges into spring and the last of the chicks put out to sea in February.

← The Penguin Parade.



*** Wally's WobbleWord!

Below are listed several groups of mammals and examples of animals that belong to them. SEE IF YOU CAN FIND EVERY WORD (except the ones in brackets) in the wobbleword below. You should have three letters left over which spell what you might say when you finish this puzzle!



Just making sure I'm in it too!

- Monotremes (Egg laying)
platypus
- Marsupials (Young born in pouch)
wallaby
wombat
- Insectivores (Insect-eating)
mole
- Chiroptera (hand-wing)
bat
- Primates (eyes look forward, nails not claws.)
ape
baboon
- Rodents (teeth grow continually)
muskrat
- Cetacea (marine mammals)
whale

Color each word in a different color as you find it. Letters may be used more than once. There are no diagonal words.

M	O	L	E	B	M	O	W
A	N	O	T	A	L	L	A
R	S	U	R	B	I	H	C
H	Y	P	E	Y	R	O	S
E	T	I	M	A	R	P	E
B	A	A	E	S	E	T	R
P	L	L	Y	S	E	V	O
I	N	S	E	C	T	I	R
B	N	E	P	A	A	M	P
A	T	D	O	R	C	U	S
B	S	W	H	A	E	C	K
O	O	N	E	L	T	A	R

Mangroves

After a recent trip to Stony Point, I thought you might be interested in hearing about some of the unusual features of mangroves - a plant which is a pioneer of the tidal mud flats.

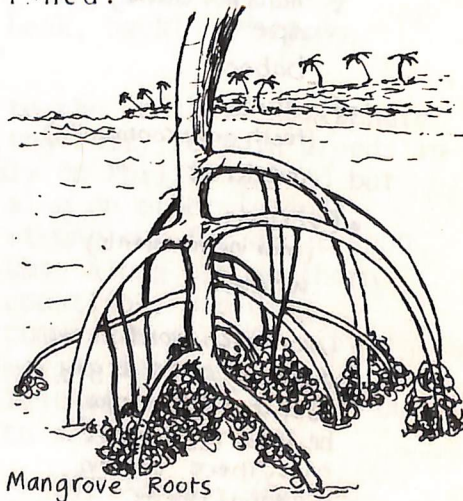
There are about 30 species of mangroves in Australia but the white mangrove - *Avicennia marina varresinifera*, is the only species occurring in Victoria. The areas where it grows in Western Port Bay and at Corner Inlet are the furthest points south where mangroves occur.

As all plants take in some air or breathe through their roots, mangroves have to also. This means they have developed special breathing roots or "pneumatophores" and in the white mangrove these roots are upright, peg-like sticks about 10 - 20 cm. high. They poke up above the mud and allow the plant to breathe at low tide.

The way the seeds grow and develop show how these plants have adapted to their environment. The seeds germinate before they fall to the mud. The seedlings are hairy and these hairs help them to grip the mud where they have fallen or where the falling tide has left them. Because the seeds have already germinated it does not take the seedlings long to send down roots and become established.

The mangroves face other problems too. The only water they can get is salt water; too much salt is poisonous and so they have developed salt glands on the underside of their leaves. Through these glands is excreted the excess salt.

Many different kinds of plants grow in the salt marsh on the landward side of the mangroves. They are mainly low shrubs and rushes and they grow, protected from the sea by the mangroves.

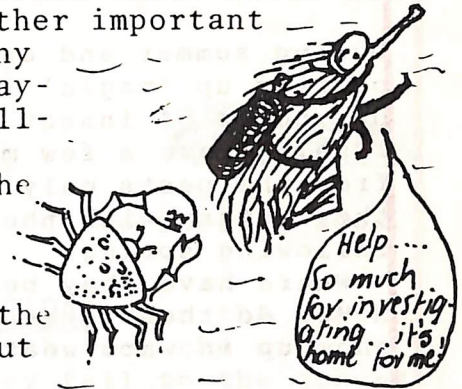


Mangrove Roots

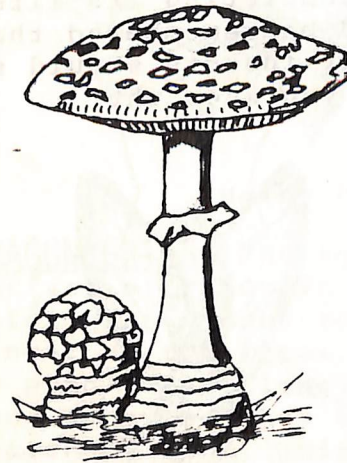
by D. Dobson.

The mangroves are important in many ways. They protect the shore from erosion; they trap silt around their roots and help to build up the soil level. Another important function is that of a nursery for many kinds of fish. There are lots of decaying plant material, small crabs, shellfish and marine worms and these provide food for the growing fish. The tangled roots provide shelter and security from predators.

It seems a shame that we speed past the mangroves without stopping to walk out to them and to investigate this environment. Next time you go down to Western Port Bay take some gumboots and "Aerogard" and have a close look at the mangroves.



More Fungi —



Amanita muscaria
Fly agaric

Have you found this large fungi? It has a fiery red cap with white flecks over it, making it very eye-catching, but a very poisonous species and should not be eaten. It has been introduced into Victoria and is now found growing under pine trees, birches, chesnuts and some other introduced trees.

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.



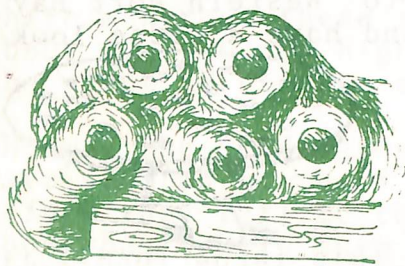
Nature Notes .. June, 1971. 7

Where Do The Insects Go?

During summer and autumn, we spray or hang up 'magic' strips to rid our homes of insect pests. We finally have a few months freedom from the pests only to find that they return with the warm days the following spring.

Where have they been?

How do these creatures, which show up in warm weather survive?



Mud-dauber Wasp Nest.

WASPS. The Australian mud-dauber constructs several mud cells in a row or group. The cells are filled with partially-paralysed caterpillars which remain fresh but inactive. A single egg is laid at the end of each cell. The following season the egg hatches and feeds on the caterpillar before completing its life-cycle. It should be remembered that these particular insects should not be handled. Do you know why?

FLIES. Even today the true story has not been solved. The flies which appear at the start of each summer could be immigrants from the warmer parts of Australia. Although in the summer the fly completes its life-cycle in three weeks, it is possible that a few flies survive the cold winter months as dormant larvae, pupae or imagines - perfect adult insects.



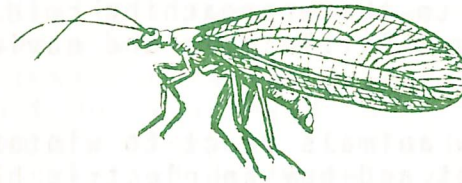
Common House Fly.



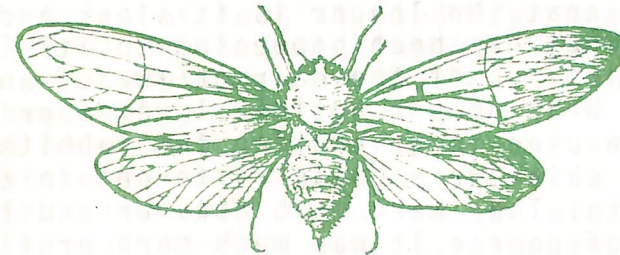
LACEWIGS. The adult female deposits her eggs on the tips of very slender thread-like stalks. Here they stand like pin mould untill the warm weather in spring when they hatch. Where would you the eggs deposited?



Green Lacewig Eggs.



Green Lacewig.



Hairy Cicada

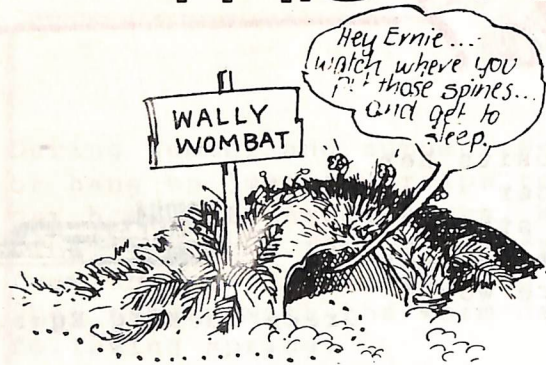
CICADAS. When the nymphs hatch from the eggs, they fall to the ground and immediately begin to burrow beneath the surface. Here they burrow and fed on the root juices of the plants. They remain beneath the soil for anything from 3 to 17 years to emerge in a summer, living as adult cicadas for only a few days. (Further details in Vol.14 No.1.)

DRAGON FLIES. The eggs are laid on the surface of ponds in autumn where they hatch. The nymphs then spend the winter on the floor of the lake, stream or pond. They closely resemble the pond floor as they move around in search of food. This is an excellent camouflage. In the spring each nymph crawls out of the water to split down the back, thus allowing the adult insect to emerge.



Dragon-fly Nymph.9

THIS 'N' THAT, 'N'



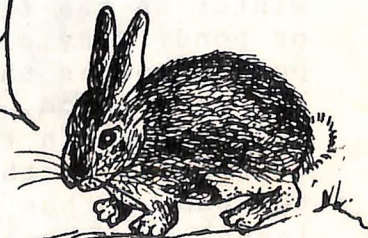
You probably don't need me to tell you that Old Man Winter is on his way. No doubt you have been wearing your jumper a little more often, your underwear is of a warmer quality and I guess Mum has already put that extra blanket on the bed.

This of course is our reaction to the approaching cold. In addition we are probably eating a little more and having more roasts and less salads.

Have you ever thought about how animals react to winter? They cannot trot down the street and buy an electric blanket or a packet of steaming hot chips. We have some horses on our property and during the last month I have noticed a distinct change in their coat. No longer is it sleek and shiny. Can you work out what has been happening to it? If you can, try and get a close up of the hair or fur of any of our domestic animals. What do you notice? I remember when a youngster, I often used to go hunting for rabbits and foxes. I noticed the skins were quite different in the winter to the summer pelts. They were much heavier and the fur was much thicker so of course it was much more profitable to sell the skins of animals trapped in the winter.

You are probably all fairly familiar with the behaviour of overseas animals in winter. You have learnt how the bears and the reptiles hibernate during the coldest months...that is, the bear partakes of a very large meal and retires to a cave or similar place to sleep it off. Snakes and lizards of course do likewise and curl up to sleep in a hollow log or rabbit burrow.

I hope I'm
the first
here this year
-- or else...



10 Ringwood East. P.S.

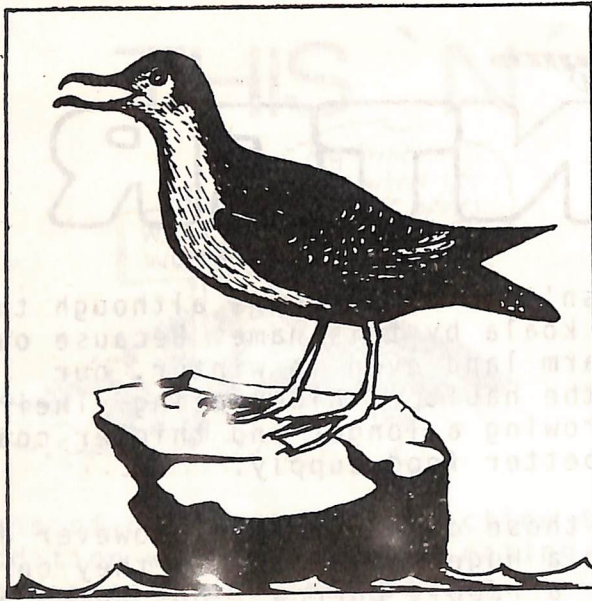
WINTER

Australia, of course, doesn't have any bears although the early settlers called the koala by this name. Because our land is a comparatively warm land even in winter, our mammals haven't acquired the habit of hibernating. Their main changes consist of growing a longer and thicker coat and a possible move to a better food supply.

Australia's reptiles like those of other lands however do have a winter sleep after a huge meal. Usually they curl up inside a fallen tree or a rabbit burrow...but remember don't put your hand in to find out. When the snake awakes from his sleep he is usually very hungry, possibly losing his skin and definitely very bad tempered - a good time to steer well clear of him.

Next let us look at birds for they too form an important part of the animal kingdom. How do they change? If you have a pet budgie or some fowls at home you may have noticed them losing a lot of feathers in late summer. This is called "moulting." Now of course their feathers have really thickened up again. Can you find what else birds - some birds anyway - do during the winter months. Last Sunday when out driving near Strathewan, I noticed a bright splash of red on a fence-wire...my first red robin for 1977. Can you tell me where he's been during the summer? Right; he has returned to the lower country from the hills. We call this migrating. Birds migrate in many ways. Some fly from the high to the low country and vice versa - others fly from north to south while still others migrate to overseas countries.

MAKE A PROJECT: ABOUT THE MIGRATION OF VARIOUS BIRDS FOUND IN AUSTRALIA OR ABOUT HOW VARIOUS AUSTRALIAN REPTILES HIBERNATE. SEND YOUR FINDINGS TO NATURE NOTES AND WE WILL AWARD PRIZES FOR THE MOST INTERESTING PROJECTS RECEIVED.



The Mutton Bird

Mutton Birds (Short-tailed Shearwaters) migrate from the Port Fairy region of Victoria to the Arctic Circle, covering a journey of well over 12,800 kilometres. The birds nest in burrows in the sand dunes and can best be seen in the early morning or evening. Mutton Birds are native Australian birds that spend

eight months of the year on their breeding islands in Victorian and Tasmanian waters. A remarkable fact about these birds is that the young birds of one, two or three years of age live entirely at sea, never touching land. Griffiths Island, at the entrance to the Moyne River at Port Fairy is where one of the Mutton Bird rookeries is to be found. If you visit this area around January 7th. each year you will most probably be able to catch a glimpse of the young birds hatching. The adult birds leave the island on April 18 - the younger birds leaving on May 3. These dates vary just a day or so from year to year as do the arrival dates.

Its History

The early sea-travellers were amazed at the grace and beauty of the great sea-birds. The Albatross amazed these men at its ability to cross the Pacific. They travelled thousands of kilometres and were often found hundreds of kilometres from land.

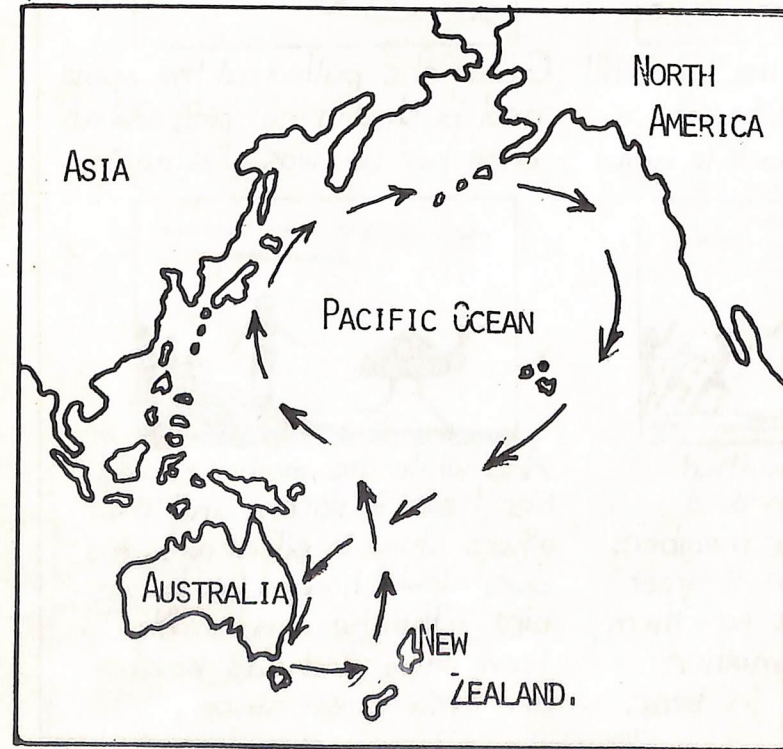
Captain Cook was one of many sailors who noticed the great, graceful birds, and the not so big and graceful bird, the Mutton Bird.

First observations of this bird were made in 1755 in the Aleutians. (Find the Aleutians on a map of the world.) In 1778, on Captain Cook's third expedition in the Resolution,

a member of his party, William Ellis - an artist, drew a series of natural history subjects, one being a bird found at latitude 70 N, in the ice flows between America and Asia. Also from this area, a skin found near Okhotsk, Russia (1787-91) found its way to the British Museum where it was preserved. It was the skin of one of the Shearwaters.

But what has this to do with a small bird, a little larger than a seagull? People of the Northern Hemisphere were confused as they could find no breeding colonies of the unusual bird. It was not until 1835 that these birds were given a name by a Dutch ornithologist, Conraad Jacob Temminck: "Puffinus tenuirostris" - short-tailed Shearwater or Tasmanian Mutton Bird. The aboriginals called it "Yolla" while the white traders called it "Yowler."

At this time it was probably the most common bird in Australia. But as the seals and whales of Bass Strait were killed out, a new source of oil was required and it was to be this defenseless little bird that was to be exploited. Literally millions were killed for oil, nearly to the point of extermination, but petroleum was discovered and this saved them from utter destruction.



Look up the short tailed Shearwater in an encyclopedia and find out some more information. Where do they breed in Victoria? Where in Australia are the Mutton Birds still hunted commercially?

A follow-up article will appear in Nature Notes later in the year. Watch for it!

~ C. Bull.

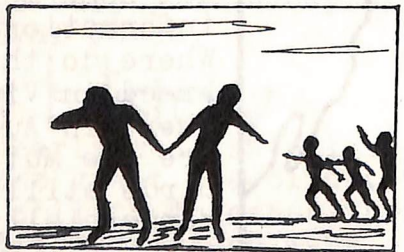
A Legend of the Emu



One day a young man was struck by a spear during a fight, and he died on the field of battle.



So she searched all the lands till she found the spirit of her son and she brought it back to him.



Then the mother laughed happily with her son and took him to the other members of the tribe, who ran to greet him. But when he saw them the son left his mother and shrank away in fear.



But when his mother heard this she ran and nursed his body, and would not believe he was dead.



Gently she pulled out the spear and pushed in the spirit, and at once her son was alive again.



And while the mother bowed her head in sorrow and the others stood in silent awe, his body slowly changed into a huge bird. Then he ran swiftly from them and has been an emu ever since.

LETTERS



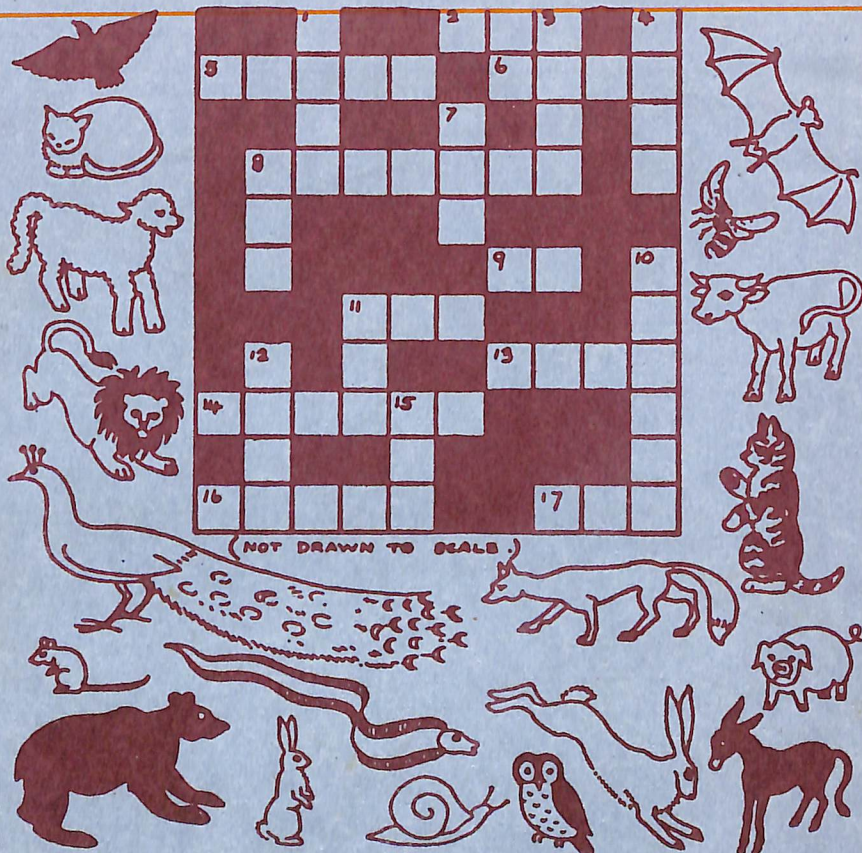
This interesting letter was sent to Nature Notes by Wayne Bradford, Heathmont Primary School. He writes about 'lerps'. Perhaps you could investigate these unusual insects further. Wayne wins this month's book prize.



"A girl brought a leaf to school. It was a very unusual leaf because on its under-side was a mixture of colours...purple, green, red, orange and a light brown which is most unusual for a gum-leaf. A careful look showed about 20 shell-like things on the leaf. On the end were 10 or so tentacles.

We looked at a book called, Australian Nature Study to help identify the creatures. They were 'lerps'. Lerp insects are related forms of froghoppers. The active larvae live under large scales - shells, and are very common in many places. Some of these scales are very beautiful."

P U Z Z L E S



ACROSS

2. As wise as an _____
5. As quiet as a _____
6. As fast as a _____
8. As proud as a _____
9. As strong as an _____
11. As busy as a _____
13. As gentle as a _____
14. As playful as a _____
16. As slow as a _____
17. As agile as a _____

DOWN

1. As stubborn as a _____
3. As happy as a _____
4. As cross as a _____
7. As wily as a _____
8. As greedy as a _____
10. As scared as a _____
11. As blind as a _____
12. As brave as a _____
15. As slippery as an _____

Name the birds:

