

Mrs. Bull

nature notes



Green and Gold
Bell Frog.

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Editorial



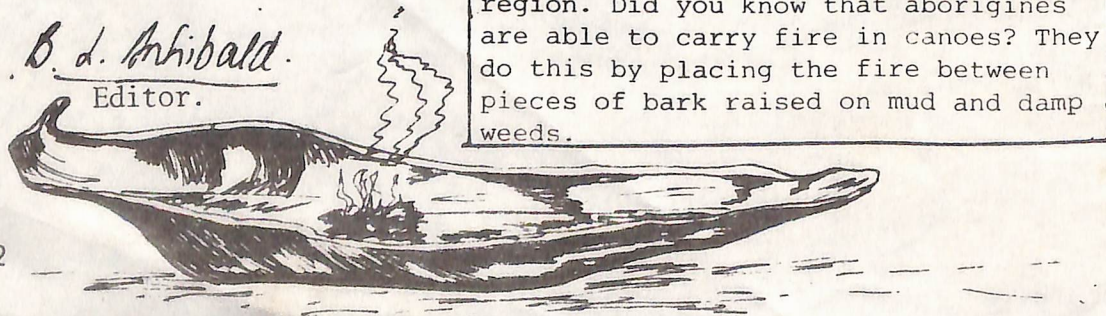
A Paper-bark covered dwelling. Is bark taken indiscriminately from trees by aboriginals to make their homes?

During winter, because of rainfall, many depressions in the ground of varying sizes fill with water and depending on the size of the depression a pond, lake or even a swamp forms or becomes larger as water levels rise.

Over a period of time, Nature works her magic and new life forms begin to inhabit the developing environment.. birds, insects, fish and animals. All these creatures come to rely on the new source of water for their varying needs - drinking water, food supply and as a 'new home.' This month Nature Notes takes a close-up look at pond- lake- swamp life in general to show you something of this unique habitat.

If there is a pond, swamp or lake near your school, perhaps as a class exercise you could make observations and study the various life-cycles of the inhabitants.

B. d. Anibald.
Editor.



A typical bark canoe from the Murray region. Did you know that aborigines are able to carry fire in canoes? They do this by placing the fire between pieces of bark raised on mud and damp weeds.

Acacias.

- D. Dobson.

Acacias form one of the largest genus of Australian plants. Although feather leaved wattles occur in several countries there is only one Australian species of this type that extends beyond our shores while we have a monopoly of those with flattened leaf-stalks instead of leaves.

Wattles vary in height from a few inches to very large trees - 30m., they grow in all environments and will grow in harsher environments than the eucalypts.

As well as being divided, those which have feathery or bipinnate leaves and those which have flattened leaf stalks or phyllodes, they can be divided into those with flowers in the form of fluffy balls and those with spikes or rods of flowers known as catkins. All acacias have feathery leaves in the juvenile stage but as the plant grows, these become smaller and the stalks longer until the true leaves disappear leaving only the phyllodes to do the work of the leaves.

Although the word acacia means plants with thorns, only a minority- including a local one, *Acacia armata* or hedge wattle growing along Canterbury Rd. in Victoria, have thorns. The word wattle came into use because acacia species were used to provide the slender sticks used in the wattle and daub construction of the early days. Some acacias grow very quickly and have short lives. Most acacias have a reasonably long life span. They have in the past been used in a variety of bush medicines and were used extensively for the tannic acid in their bark in leather tanning.

As acacia seeds have a very hard covering they need to be treated prior to planting. This involves pouring boiling water over them and allowing them to soak overnight or filing a nick in the seed coat. If the seeds are planted without any treatment they may still come up but it will take longer.

NATURE NOTES ~ July, 1977



Acacia flexifolia. Has pale yellow flowers during winter. Its foliage is grey-green. This shrub grows to a height of 1 - 1½m.



Acacia-myrtifolia. A small shrub growing to a height of 1 - 2m. Pale to creamy-yellow ball flowers appear during Spring.



Acacia glandulicarpa. A dense shrub which has small phyllodes and golden-yellow ball flowers which appear between 3 August and October.

This 'N' That

The farmers around here would tell you, "it's been a pretty good autumn." Yes the autumn rains in Southern Victoria have been excellent this year, but not just for the farmers. So many feathered friends also enjoy nothing better than a watery walk across the still drenched paddocks. Many of these birds have a few things in common - like long legs. Can you think of any other features? Of course not all wade around the fields, some frequent the swamps, some the margins of dams while others love a stroll along the shallows of the sea-shore.

Yes- let's look this month at some of our waders, and a very good month it is to look. Yesterday near Doreen (a district, not a girl) I saw a huge flock of mainly white, black-necked birds, with long, strong legs, plump bodies and sickle-shaped beaks, all marching with military precision across the paddock - their beaks dipping and diving and intent on filling the stomach of the wearers.

These birds can safely be numbered among the farmer's greatest friends - the Ibis family of which there are three members. The ones you are most likely to see are the Straw-necked and the White Ibis. As they march through the paddocks they stir up hordes of grasshoppers of which they dispose of countless millions every day. This is a good example of nature's balance. You can imagine what would happen to our plant life if the 'hoppers were left uncontrolled as has happened in some overseas countries - not a blade of grass, nor a leaf to be seen after their passing. Is it any wonder the ancient Egyptians looked on the White Ibis with sacred awe, heralding with its arrival the coming of the floodwaters of the Nile



Straw-necked Ibis.



White Ibis.

Goes Wading.

and then disposing of the myriads of grasshoppers which later came to attack the rice crops.

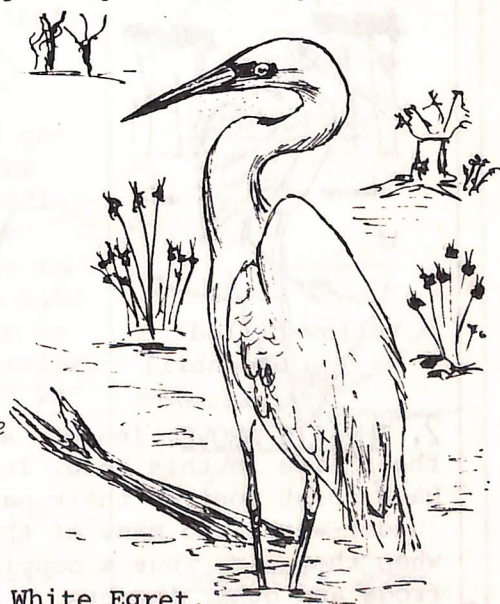
Another local, very common though not in flocks is the White-faced Heron, often wrongly named the Blue Crane. Watch for him on or near water courses or dams in and around Melbourne or further afield. What an attractive study this cloudy, blue bird makes as he thrusts downwards at a l :kless yabby. He's well worth watching in the air too as he seems to glide effortlessly with lazy beat of slate-grey wings, neck neatly folded back, long legs trailing to the rear then the long plane into a perfect landing. The Heron is a particular friend to the irrigation farmer. Why? Remember.. What is his main food? What damage does this 'food' do to the farmer?

If you travel up to the northern swamps and lakes of Victoria - Hattah, Kerang, Barmah, you may see the most beautiful of all of Australia's long legged feathered denizens - the elegant Egret. Would you believe that this exquisite creature was almost wiped out by the cruellest of all destroyers - Man. Man in his greed brought about its death in vast numbers as he sought the beautiful plumes to decorate 'my lady's' hat. Because these plumes were only found on male birds in the breeding season, countless baby birds died from starvation all to satisfy the timeless vanity of man or woman.

Does this wanton killing still happen? If not, why not? See what you can discover about this majestic bird group. We have only looked at three. Perhaps next month we can have another look at some of the smaller members of this family..



White-faced Heron.



White Egret.

L. J. Delacca.

NATURE NOTES ~ July, 1977.

- ZONES

Generally they are as follows:

1. THE AREA SURROUNDING THE POND.
2. THE AIR ABOVE.
3. THE SURFACE FILM - WHERE WATER AND AIR MEET.
4. THE BOTTOM - WHERE SOIL AND WATER MEET.
5. THE SHALLOW WATER - WHERE THE PLANTS GROW NEAR THE EDGE.
6. THE OPEN WATER - BEYOND THE ZONE OF THE WATER PLANTS.

The boundary between zones is not a sharp one. Some plants will grow outside the shallow zone for instance and some animals are more tolerant of a variety of conditions than others. Some fish live in salt water but would die in fresh water - some fresh water fish would die in the sea, but some are able to live in both fresh and salt water if the changes are gradual. Do you know any of this type of fish?

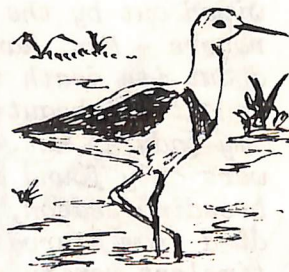
1. THE LAND AROUND. This varies depending on whether the slope of the bottom of the pond is steep or gradual. The edge may be overhanging which provides shelter for frogs, spiders, shade living plants such as mosses and ferns. The edge may be rocky or sandy without rooted plants or it may be a place with rich soil where a vigorous growth of plant-life occurs. Birds such as the Royal and Yellow billed Spoonbills, Curlew Sandpiper, Reed Warbler, Painted Snipe, Spur-winged Plover and Branded Stilt enjoy wading the mud-flats at the waters edge in search of food.



Yellow-billed
Spoonbill



Curlew Sandpiper.



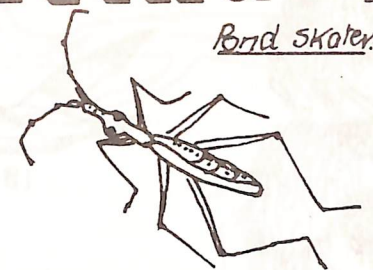
Branded Stilt.

2. THE AIR ABOVE. Insects and bird life spend the greater part of their life in this zone. Insects that fly in this zone will have spent most of their earlier life-cycle under-water. Eggs are laid under-water and many of the adult insects will fall to the water when they die. Thus a continual source of food is provided for fish, frogs and other insects.

OF LIVING



May Fly.



Brind Skater.



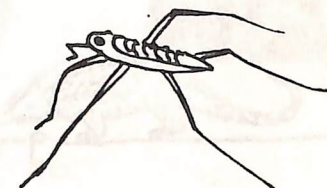
Water Snail.

THE WATER SURFACE. Insects such as the Whirligig, Water Strider, Dolomedes Spider, Mayfly, Mosquito, and aquatic Mites inhabit this zone. Many have adapted their life-cycle to live in water and air. Which of the insects mentioned do you think can live in this manner? Investigate the various ways each of these insects breathe. Why don't the adult species of the insects sink into the water?



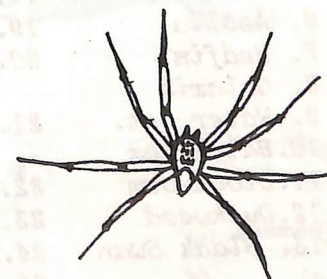
Whirligig.

4. THE WATER PLANT ZONE. Here there is an abundance of food for plant eating animals such as the water snails. Many insects lay their eggs on the stems of plants found in this zone. Among the water plants you will be most likely to find water bugs and beetles, larvae of damselflies, leeches and pond snails.



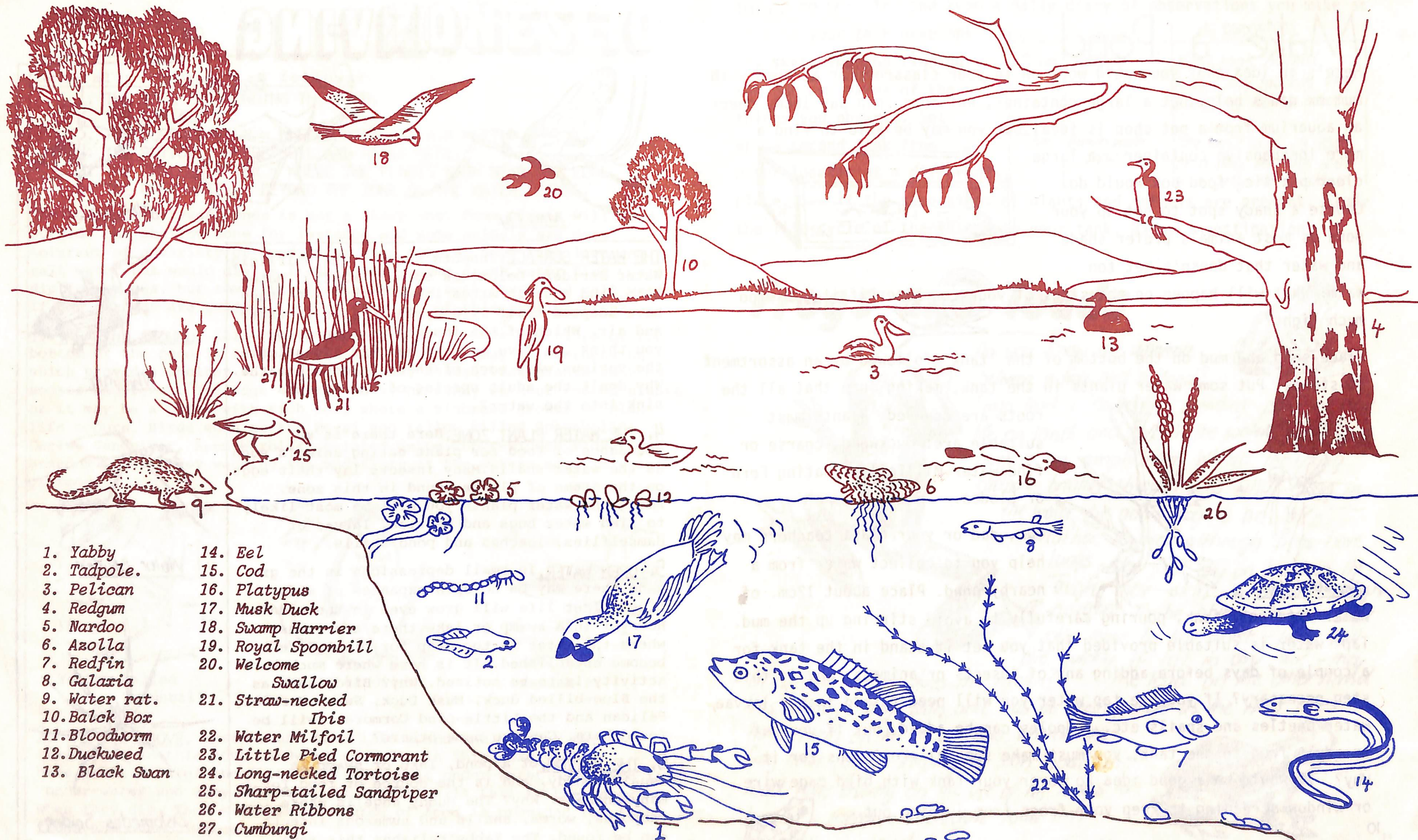
Water Strider.

5. OPEN WATER. In small depressions in the ground there may be no open expanses of water since plant life will grow even in the middle. However in a swamp or lake there are areas where the water is too deep for plant life to become established. It is here where much bird activity is to be noticed. Why? Birds such as the Blue-billed duck, Musk Duck, Swamp Harrier, Pelican and the Little-pied Cormorant will be found here. Can you name others?



Dolomedes Spider.

6. THE BOTTOM. of a pond, lake or swamp is usually muddy, and is the source of food for many animals. Why? The muddy edge is where tadpoles, worms, snails and numerous insects can be found. The Yabby relishes this zone... Why? Can you name others that prefer this zone.



Make a Pond

Here's an idea that you could work on in your classroom or at home with mum or dad's help. Get a large container, not more than say 16cm. deep - an aquarium from a pet shop is ideal but you may be able to find a more inexpensive container.. a large clear plastic food box would do. Choose a shady spot to set up your pond as most animals prefer shade and water that doesn't get too warm. What will happen on the sides of your container if it gets too much light?



Place sand and mud on the bottom of the 'tank' followed by an assortment of stones. Put some water plants in the tank, making sure that all the

roots are covered. Plants most suitable are: duckweed, coarse or fine water Millfoil, floating Fern or Elodea.

Mum, dad or your class teachers may help you to collect water from a nearby pond. Place about 12cm. of water into your tank, pouring carefully to avoid stirring up the mud. Tap water is suitable provided that you let it stand in the tank for a couple of days before adding any of insects or animals. Why is this step necessary? If you use tap water you will need to add insect larvae, water beetles and snails etc. Tadpoles can be added, but if you put an adult frog in the tank, you must make special provisions for it. Why? It would be a good idea to cover your tank with bird cage wire or window screening to keep your frogs from jumping out.



THINGS TO DO: Try and keep a daily diary of observations you make as life in your tank develops.

Try sketching and finding the correct names of the things you observe. Set up a second tank from water located at a different place. See if the same kinds of plants and animals are present. Study the life-cycle of the things in your tank. Happy Investigations! !

Date	Name	My Observations
10 th June	Tadpoles.	Frog's eggs hatched today. Tiny tadpoles about 2mm. long moving about.
11 th June	Brown water Snail.	The snail laid its eggs on a stem. The eggs were in a jelly-like substance.

Frogs and Toads



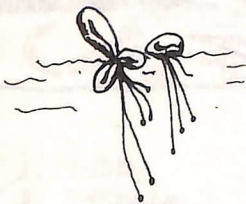
Do you know the difference between a frog and a toad?

Frogs lead a 'double-life', spending part of their life on land and part in the water. The frog is therefore an 'amphibian'. Whilst the young tadpole breathes through gills while living in the water, the adult frog is an 'air-breather'. However although frogs have lungs, they still rely on breathing through their skin to absorb enough oxygen. To be able to do this their skin must be kept moist - frogs will die quickly if left in dry air - they dehydrate. What does this mean?

The toad on the other hand has a rough dry skin and has no teeth, whereas the frog has teeth on the upper jaw. Whereas the frog must rely on keeping his skin moist, the toad relies entirely on the use of his lungs to breathe - therefore the adult toad lives essentially on land.



Duckweed ↓



Fine water Millfoil. →





this Month's Letters....

Lisa Bamford and Deanna Evans, both of Eastmont Primary School have sent their account of two aboriginal legends. If you have read any of the legends of the Dream-time write to Nature Notes about them. Lisa and Deanna have won book prizes.

HOW THE KOALA GOT A BLACK, FLAT NOSE

Long ago the Koalas used to have long, pink noses. One day the Kangaroo asked the Koala if he could have a branch of his tree to make a hut for her children. The Koala said, "No. Of course not." They started to fight and the Kangaroo punched the Koala on the nose so his nose was black and flat. Since that day, Koala has had a black, flat nose.

You needn't laugh Ernie... I'd hate to say what your nose would look like if I punched it!

Deanna.

Ha, Ha!

While those two are quarrelling I'll just thank these girls & boys for their great letters. Karen O'Reilly, Bradley Reeves, Michele Penn, Paul Floody, Stephanie Brewer, Linda Smith, Scott Battersby, Dianna Johns, Stuart Robertson, Joanne Hafez, Larissa Shatin

HOW THE TURTLE GOT HIS SHELL.

Long long ago on Dreamtime the turtle didn't have a shell. The turtle was walking along when he saw some men. The men couldn't find any food.. they saw the turtle, caught him and took him back to the tribe. They told the people that the turtle was all they could find. They didn't know how to cook him so they made a wild guess. They made a fire out of rocks and wood. They put the turtle on the hot rocks and so he wouldn't burn they covered him with a shell carved from the rock. The shell stuck to the turtle's back and could not be shifted. Since then the turtle has always had a shell. Whenever a turtle sees a man, he always hides in his shell.

- Lisa.

Typical Melbourne weather! It's rained so much I've been flooded out of my hole!

Hey! You water watch where you put your big feet!



Who was that that spoke? This is not a fitting place to make a silly joke!

It's me! Terri Tadpole. Why are you grumbling about the weather? It's fantastic!



You ought to join up with "A.A."* and learn how to live in the wet

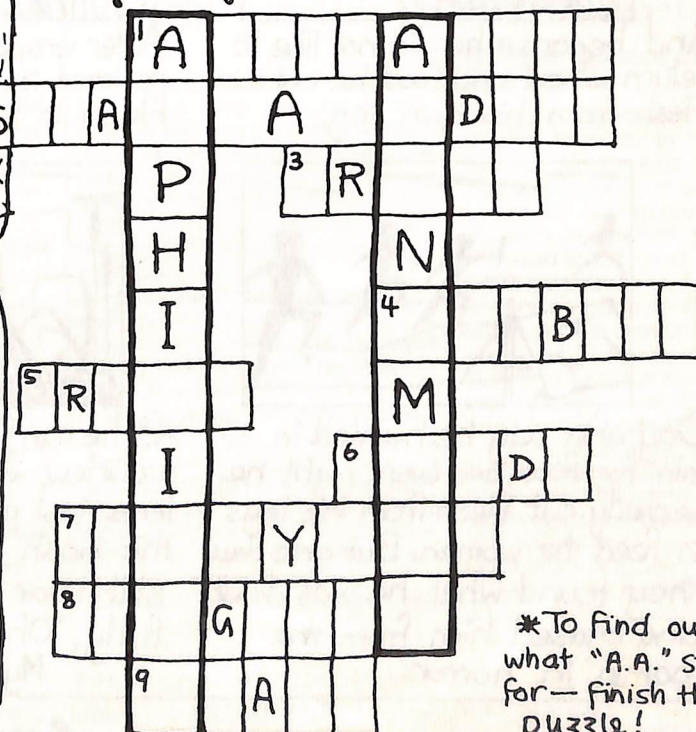
...just like these friends of mine here!

CLUES:

1. Like crocodiles!
2. Similar to lizards.
3. What Terri will become (pl.)
4. Little Aussie nippers!
5. They walk sideways.
6. Like frogs but warty.
7. 'Freak' Australian marsupial.
8. Underwater birds of the Southern Hemisphere.
9. Fur, flippers, whiskers.

WALLY

IN THE WET.



*To find out what "A.A." stands for— finish this puzzle!

↳ What does this word really mean? 13

A legend of the Curlew



There once lived a youth who was too lazy to hunt for food and people said he was useless.

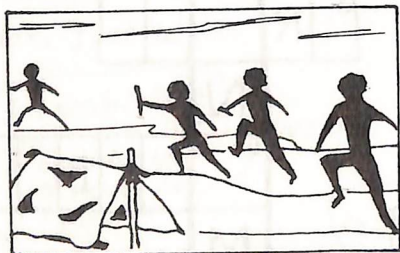
At last he became ashamed and went to hunt kangaroos, but try as he would he could find none.



And because he did not like to return without any food he cut some flesh from his own leg.



After wrapping his leg in skins, he returned to camp and gave the flesh to the women to eat.



Day after day he hunted in vain for food, and every night he secretly cut flesh from his legs to feed the women. But one day they found what he was doing and chased him from the camp in horror.



As he ran from them, he became a curlew, with long red fleshless legs, just as he is today. And in the bush at night you can still hear him waiting mournfully, "Oh! my poor legs! My poor legs!"

Ringwood East. P.S.

Will the Whales Survive?



'AGAINST' - Conservationist Viewpoint.

Every 18 minutes another whale dies, its back blown open by a grenade-tipped harpoon.

This year, 32,000 of these highly-intelligent marine mammals will die — more than 75% at the hands of Japanese and Soviet whalers, whose vast whaling fleets go into the farthest corners of Antarctica to chase down the last of the whales. Sadly, the whalers have driven most of the ten species of great whales to the point of commercial extinction... one short step from biological extinction.

For some species of whales, it may already be too late. The largest creature ever to inhabit the Earth, the 100-foot blue whale, appears to be past the point of saving. In one year alone, more than 30,000 blue whales were harpooned. And Japan only agreed to stop the slaughter of the giant blues after the Japanese whaling fleet could not find a single blue whale to kill.

Australia, too, has played a role in whale killing through the operations of the Cheynes Beach Whaling Co. near Albany, West Australia, where more than 500 sperm whales were killed last summer. Spotter planes fly out from Albany and direct high-speed catcher boats to the panic-stricken sperm whales, which are then tracked underwater by sonar. With deadly precision, each whale is chased until it surfaces out of breath. Then, a 200-lb. harpoon is fired and explodes into it, bringing agonizing death and turning the sea red.

Why are these gentle animals being killed? To make mink food, fertilizer, cosmetics, margarine and lubricating oil. Although there are cheap alternative sources for all these products, the slaughter continues relentlessly.

You may remember in the first issue of Nature Notes for 1977, an article entitled, "A Whale of a Tale," attempted to show the plight of whales at the hands of their hunters, Man.

The International Whaling Commission, a body of 16 member countries involved in whaling, who come together to decide quotas for each year's 'kill' on the whales, is meeting in Canberra from June 20 - June 24. (By the time you read this article the conference will have ended.) The debate for and against whaling has been given wide Press coverage prior to this meeting. How do you see the outcome of the respective viewpoints? (ARTICLES PRINTED HERE COME FROM THE MELBOURNE "AGE" - JUNE, 18th, 1977)

'FOR' - Whaling Industry Viewpoint.

A Major Source of Protein and Oil:

The sperm whale is a most useful animal to man. In fact, virtually 100% of the entire animal is used. The most important product is sperm oil, used in medicine and industry as a valuable additive to oils used in high heat and pressure situations. At present there is no commercially viable alternative to sperm oil for these purposes. The protein meal obtained from the sperm whale is also extremely valuable as a stock and poultry feed supplement. Although fish meal could be substituted, it is considered that fish protein can be better used as a food supplement for man in a world that is rapidly becoming starved for sufficient protein.

So it will be readily seen that the whale is a most valuable natural resource which must be farmed to the benefit of mankind.

A far more realistic approach than with such a resource. Australia and the IWC is taking every possible step to ensure that the population of whales do not diminish.

More is known about the whole population than any other form of marine life. Statistics and research information have been kept since the 1930s from which we have learned a great deal about this most valuable source of protein and specialised oils for science and industry.

Today, cetologists (biologists that specialise in the study of whales) agree that, through bans on catching of certain species (Blue, Bowhead, Right, Grey and Humpback) and strict quotas on all other commercial species there is no species of whale that is in danger of extinction. Overall, whales have become regarded as a species to be farmed — to serve the needs of man and to restore the world whale populations to their respective percentage levels of population.

Shortage of space has not enabled full coverage of the viewpoints. Ed.

Puzzles...

C.C. Crow Reporting..
This month's fantastic
drawings were done by..
Mrs. Wilma Prohasky,
Mrs. Rosalyn Cassidy
And Jamie Richardson.



Well.. I've
done my bit.
Now it's your
turn.

Wally's Nature Puzzle!!

(Young Animals.. etc)

Rules:-

1. Each letter can be used more than once, but not consecutively unless they appear consecutively.
2. Letters must be in adjoining squares. (eg. Gosling)

THERE ARE 15 ANSWERS.

Good luck!!

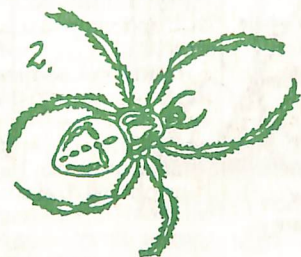
Hm... It's
clear as mud.



R	V	L	W	O
A	E	T	S	G
W	G	L	C	S
A	N	I	K	U
F	U	P	D	B



GREEN BOTTLE FLY



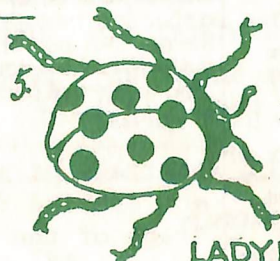
SPIDER



STAG BEETLE



GRASSHOPPER



LADYBIRD

There is a mistake in
the drawing of each insect.
What is it?