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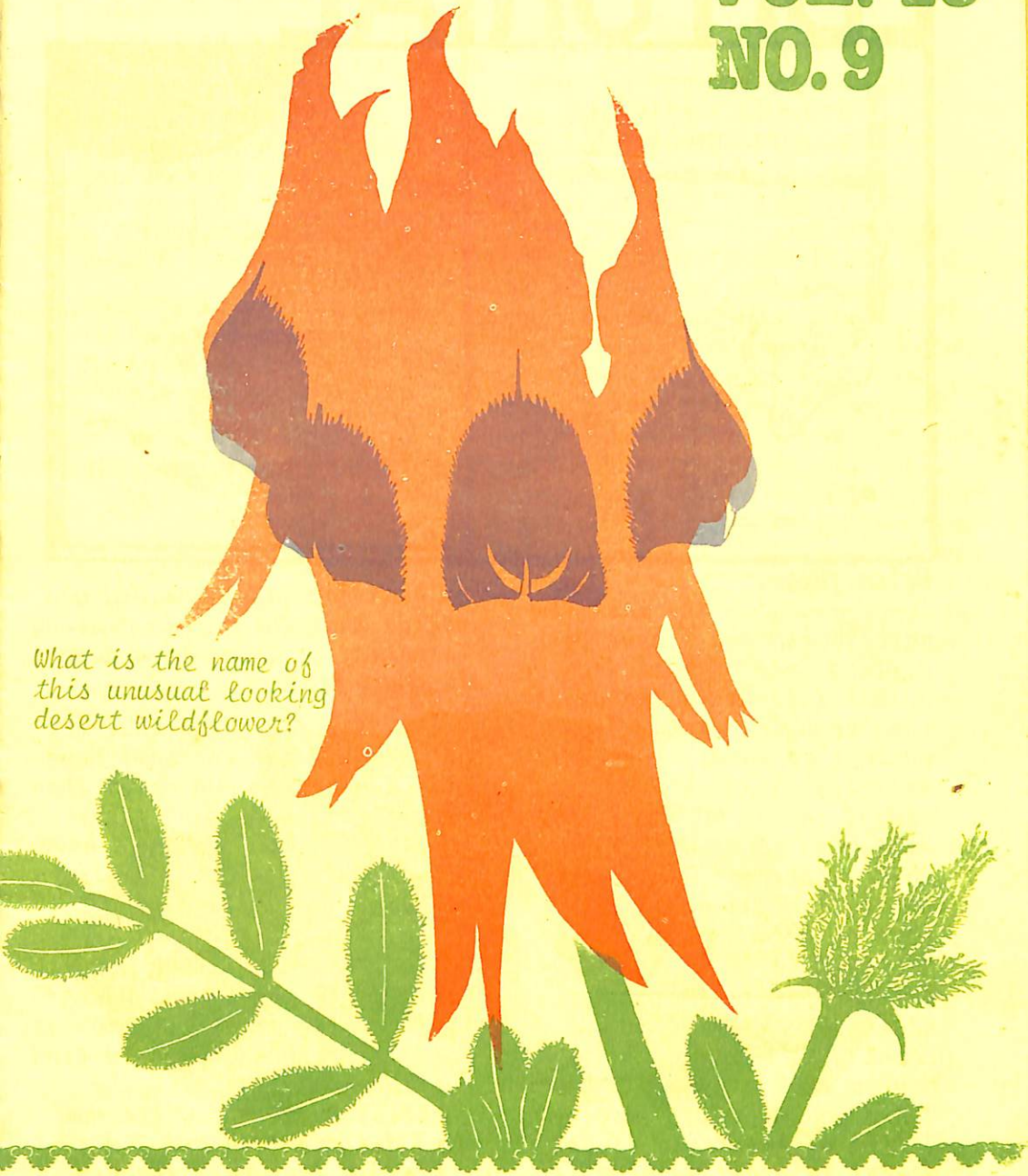
NO. 9



What is the name of this unusual looking desert wildflower?

NATURE NOTES

EDITORIAL

Hello there,

In the last few weeks, Wally and I have been getting lots of mail from our animal friends in the desert. They've been complaining again because we hardly ever write articles about them and are always raving on about the Victorian scene. Well, to keep them quiet once and for all, we're devoting nearly every page of this month's issue to desert life. I suppose their complaints are fair enough, really, because 44% of our country is made up of desert. Have a look at the map on page 2 and you will see just how little of Australia is not desert. It's not much is it? Perhaps now you can guess why nearly all of Australia's 14 million people live in coastal or near-coastal areas. Did you notice that the map is missing Tasmania? Is there much desert in that state?

You will notice, also, that not all deserts are the same. Some are much hotter and drier than others. Some have many trees and animals, while others have very few. See if you can find a picture of Sturt's Stony Desert in your library. It certainly doesn't look any--thing like the Sahara Desert that you see in all the movies, does it? Perhaps you could find out the route taken by the luckless Burke and Wills. How many different sorts of des--erts did they pass through? What were the names of these deserts? Don't get too thirsty!

Cheerio for now,

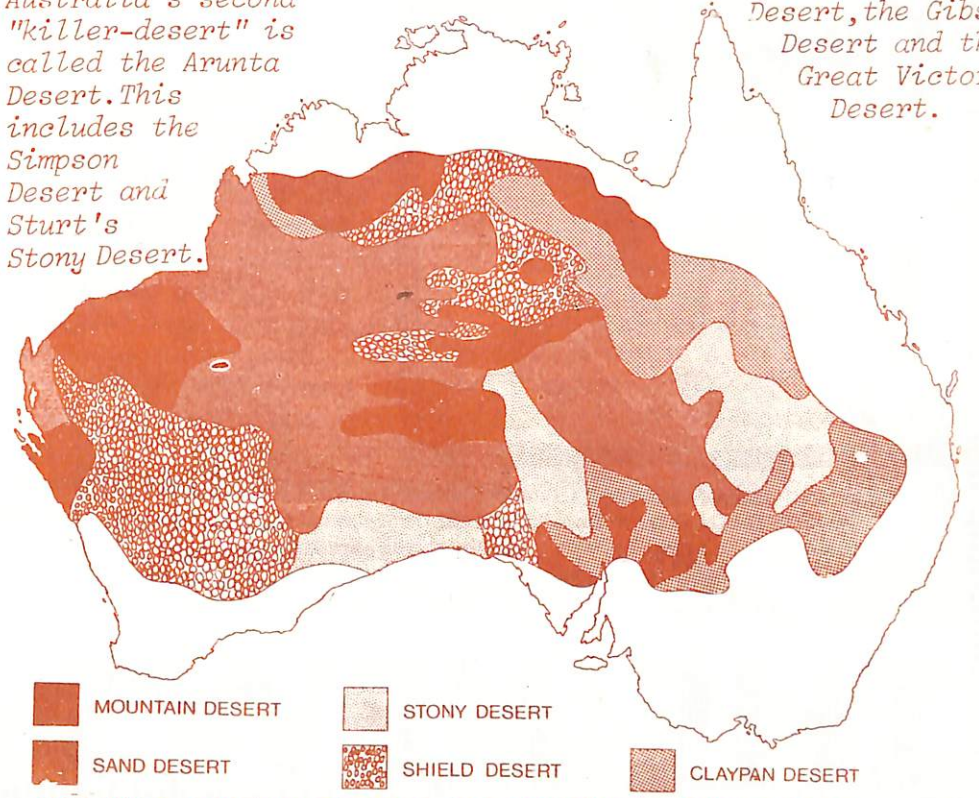
DEBRA BRYDON

THIS MONTH IN NATURE NOTES

KNOW YOUR AUSTRALIAN DESERTS

Although most of central Australia is described as 'desert', there are two parts of it that are especially hot and dry (or arid). Many people have compared these two areas to the Sahara Desert in Africa. The largest of these two "killer-deserts" is called the Western Desert. This covers most of inland Western Australia, from the edge of the Kimberleys in the north to the Nullabor Plain in the south. It is formed mainly of sand hills, sand plains and in places, stony desert with the occasional rocky outcrop. See if you can find the Western Desert in your atlas. It may help you to know that there are 3 mini-deserts in the Western Desert are called the Great Sandy Desert, the Gibson Desert and the Great Victoria Desert.

Australia's second "killer-desert" is called the Arunta Desert. This includes the Simpson Desert and Sturt's Stony Desert.



USE YOUR LIBRARY TO FIND OUT HOW THESE DESERTS ARE DIFFERENT FROM EACH OTHER

NATURE IN THE NEWS

Just add water and 'dead' plants come alive

Dr Gaff with two "resurrection" plants: the plant on the right has been rehydrated.

THANKS TO "The Age", August 17, 1981, p.4

Nothing can live without water-or can it? A Melbourne bot--anist, Dr. Don Gaff is studying a special group of plants he calls 'resurrection' plants. Last month, at his laboratory at Monash University, he showed reporters how these plants can sur--vive without water. "This plant is bone dry," he said. "You can crumble it betw--een your fingers into a dry powder," he continued. "Even if it is dried so that there is no water left in it at all, it will revive rapidly with water", he said.

During the past 11 years, Dr. Gaff has discovered nearly half of the 80 diff--erent sorts of 're--surrection' plants now known to exist. Ten of them are Aussie shrubs and grasses, while the rest come from Africa, India, North and South America. In a dry season, the resurrection plants will dry up completely and appear lifeless. Then, when the first rains come down, roots, stems and leaves rehydrate (what do you think this means?) in about 24 hours. Normal plants have to regrow from seed or from small green shoots kept alive in the middle of a dead clump. Resurrection plants just take up growing from where they left off just before the dry season began. What a perfect plant for the desert, don't you think?

Mother mala gives birth!

DARWIN — A rare mala or western hare wallaby has given birth to what is believed to be the first baby mala conceived and born in captivity.

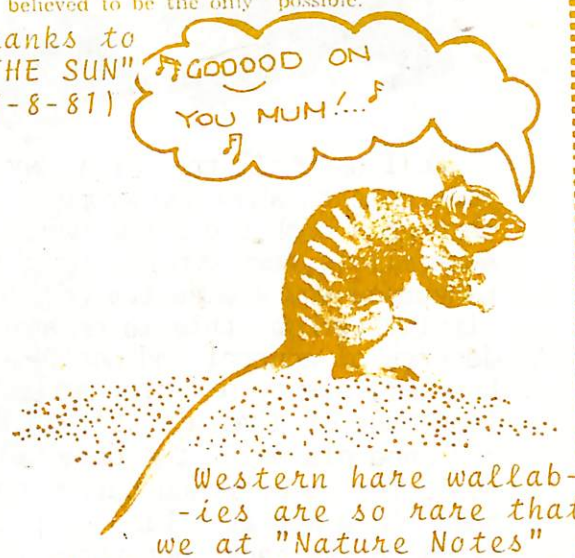
News of the birth was released yesterday by Conservation Commission workers at the Arid Zone Research Station in Alice Springs. They are working with six of the tiny animals on a program to expand their numbers.

Senior wildlife research officer, Dr Ken Johnson, said yesterday the mala, standing 30 cm high, were captured last spring in the Tanami Desert, north-west of Alice Springs.

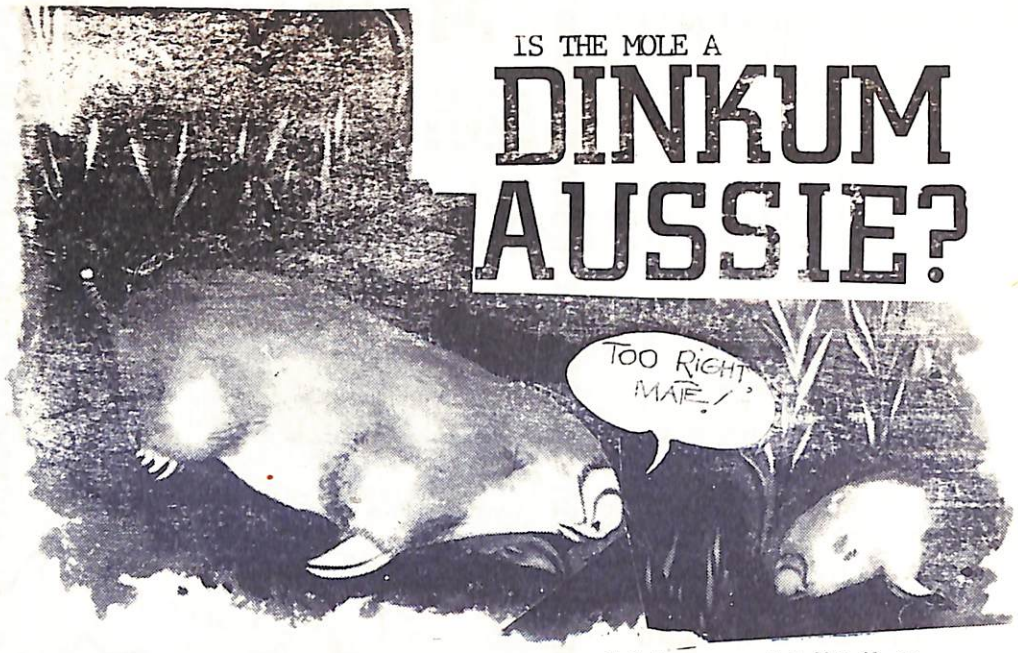
They "came from what is believed to be the only remaining mainland colony. Researchers believe about 100 of the animals inhabit a 12 square kilometre portion of the 37,029 square kilometre Tanami Desert wildlife sanctuary.

Dr Johnson said he believed the new baby could have been born up to two weeks ago. Mala were nervous and they were left alone as much as possible.

Thanks to "THE SUN" (7-8-81)



Western hare wallab--ies are so rare that we at "Nature Notes" couldn't even find a picture of one. Here's a Banded hare wallaby, instead-a close cousin.



IS THE MOLE A

DINKUM AUSSIE?

Well,up until the other day,I would have said,"No".It just goes to show how wrong you can be,doesn't it. Leafing through a book the other day,I came across a picture of Australia's very own marsupial mole.Unlike the well known kangaroos and koalas,the mole doesn't get very much pub--licity.Perhaps this is because it lives only in the sandy deserts of central and north-western Australia.Although, there are plenty of moles around,they are very difficult to find.Most of a mole's life is spent 'swimming' under the red sand plains of the desert. Its whole body is specially built for underground burrowing.Short and strong arms with huge claws act as a kind of pick and shovel,while the flat claws on its back feet throw the sand behind and out of the way.For extra protection,the mole's snout is covered by a horny shield. But....what about its eyes,you may wonder? Wouldn't they be uncomfortable with so much sand around? The answer to this question is simple.Moles are blind and have their ears on the inside,unlike humans.

In case you ever visit central Australia,you will need to know that marsupial moles are no more than 15 centimetres long and are covered in a fine silky fur.This can be any color ranging from almost white to a rich golden orange.Of,course,you'll have to be extremely lucky to even see one.Even the aborigines,who were experts,hardly ever caught them.It was only after it had rained and the sand formed a crust that they could see a line marking the path of a mole.Maybe,for you,the museum is a safer bet!

This one does not roar ...

The Leopardwood tree is one of the most interesting of our country's desert trees.Have a look at its bark (on the left). Why do you think it was named 'leopardwood'? It may help you to know that the actual colors of the bark are char--coal grey and cream. Botanists were amazed when they found Leopardwoods living in the desert.This is because most of the other members of the tree 'family' it belongs to live in wet places,like tropical rain forests.The Queensland Maple, its 'cousin',lives only in dense forests east of the Great Divide.

Like its relatives in the tropical rainforests,the Leo--pardwood has a thin bark. This makes it easy to munch, especially when the tree is young and its trunk tender.So, to escape being chewed up by kangaroos and other hungry an--imals,the Leopardwood grows in a very cunning way.Instead of shooting upwards as a thin trunk,as most young trees do, the Leopardwood begins its life as a prickly tangle of stiff and spiny sticks about one metre high.Inside this safe tangle of'swords',the baby trunk begins to grow.As it grows taller and stronger, the prickles begin to die away.Finally,when the trunk is 3 or 4 metres high,they die away altogether.Their job in the desert is done.

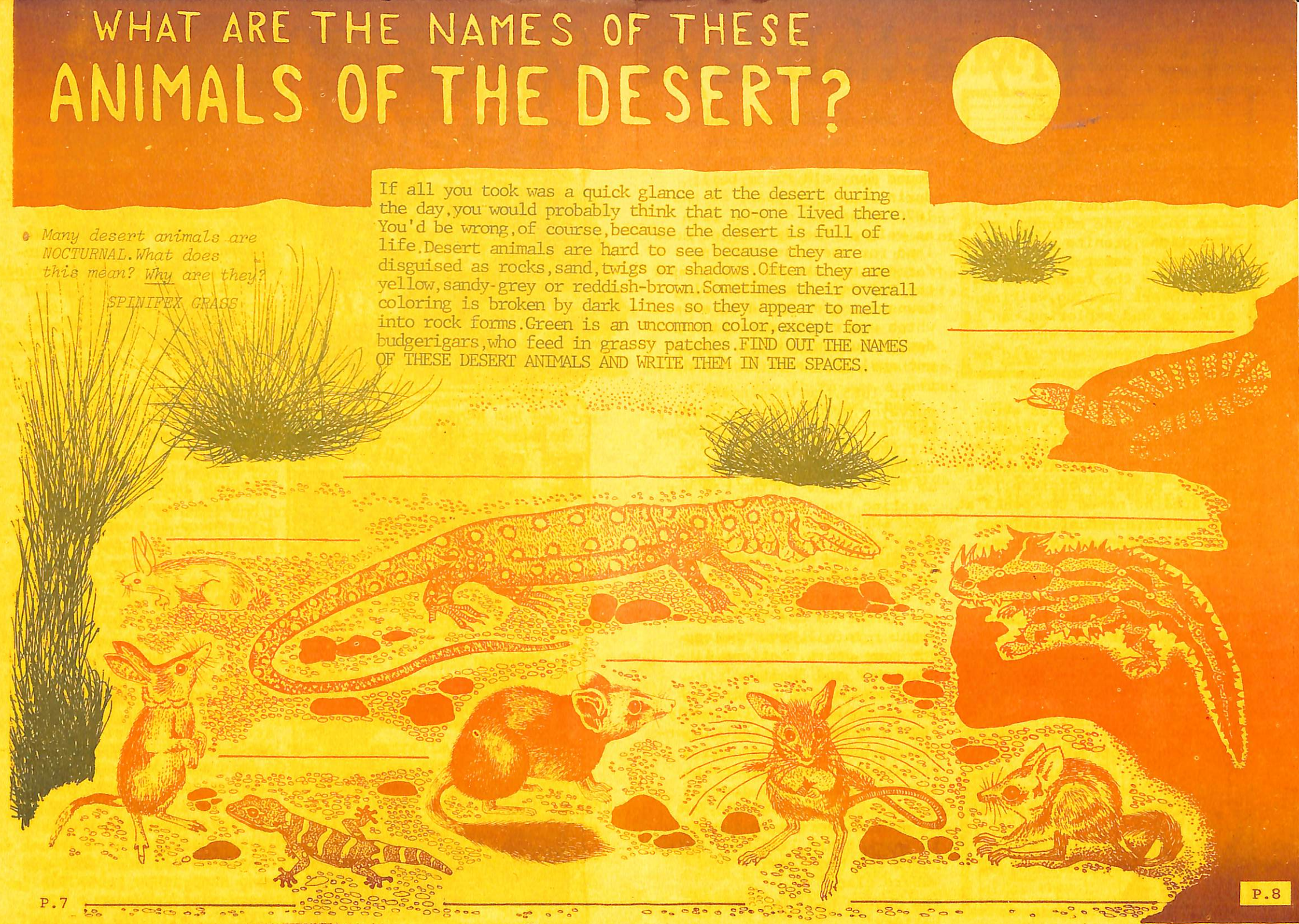
PHOTOS: "Wildlife Heritage", pages 2253-2254

WHAT ARE THE NAMES OF THESE ANIMALS OF THE DESERT?

If all you took was a quick glance at the desert during the day, you would probably think that no-one lived there. You'd be wrong, of course, because the desert is full of life. Desert animals are hard to see because they are disguised as rocks, sand, twigs or shadows. Often they are yellow, sandy-grey or reddish-brown. Sometimes their overall coloring is broken by dark lines so they appear to melt into rock forms. Green is an uncommon color, except for budgerigars, who feed in grassy patches. FIND OUT THE NAMES OF THESE DESERT ANIMALS AND WRITE THEM IN THE SPACES.

• *Many desert animals are NOCTURNAL. What does this mean? Why are they?*

SPINIFEX GRASS



Try a holiday in the desert at...

BY A. GIBSON

THE FLINDERS RANGES

During autumn,winter and spring,the Flinders Ranges in South Australia are a popular place for holidays.Tourists come to see the colorful rock formations,granite peaks,steep gorges and razor-backed ridges as well as the famous spring wildflowers.Camping,walking, climbing and exploring can be enjoyed in an area which becomes increasingly arid as the traveller progresses north

The Flinders Ranges were named after Matthew Flinders, who was the first European to sight them in 1802.Although he did not actually visit all of the area,he named two peaks at the southern end of it.These were Mt. Arden and Mt.Brown.

There is much to see and do in the Flinders Ranges.One of the most interesting things to do is to visit the ruins of old homesteads and townships. Between Port Augusta and Wilpena Pound,there can be found many old ruins built during the lush years of the 1870's.Seasons of good rain as well as the demand for more land for wheat growing led farmers to take up land around the Flinders Ranges.Thriving townships grew up in an area which was really more like a desert-but enjoying a 'freak' wet spell for several decades.

In 1865,the government surveyor,Mr.Goyder,had drawn a map of South Australia,showing all the places where he thought wheat could be grown. He drew a line on the map sep--arating the 'safe' area to grow wheat in and the 'unsafe' area.Inside the line,Goyder claimed that wheat could be grown even in drought years. To grow it outside the line was dangerous due to insuffic--ient rainfall.Nevertheless, for some years,stations like "Kanyaka" and "Beltana" prospered,making Goyder look like a fool.Then,in the early 1880's,drought hit South Aust--ralia.Just as Goyder had predicted,areas outside his line were unable to grow wheat at all.The unlucky but hopeful farmers were forced to leave their land and their homes to begin again some--where else.

The desert had finished its holiday!

BY [illegible] DOBSON

WYPERFELD NATIONAL PARK

Wyperfeld is a great place for birds,animals,sand dunes,kites, bikes and dive-bombing magpies (the last time we were there). It is one of the three nation--al parks in the north-west of Victoria and is one of the largest parks in the state.The park is divided into two ports by the Outlet Creek.The creek is dry except in times of heavy flood down the Wimmera River.Within walking distance of the camp,there are a number of dry lake beds and these form part of the system,only filling in times of flood.The system is closed and water from it does not flow towards the ocean.

The vegetation in the park can be divided into three types:

a) Mallee eucalypt forest
b) Dried lake beds and creek flood plain
c) Desert heathlands

The Mallee forest forms the eastern part of the park,the multi-stemmed gums reaching 3 to 5 metres high.There is little plant life beneath the trees as they take all the available moisture.Wyperfeld is the home of the Mallee fowl,a strange bird that incubates its eggs in a large mound of sand and leaf litter.

The floodplains of Outlet Creek and the dry lake bed surrounds support an open wood land of Blackbox and River Red gums.There is also a beautiful display of wild flowers in this area during spring.This is the area where we met the magpies who took exception to us just walking through their territory.

The heathlands form the western section of the park and stretch across the sand plains to the South Australian border.The vegetation is low and a varied group of Sheoaks,Teatrees,Wattles, Banksias,Orchids and many other species.None of them are much over 2 metres high.

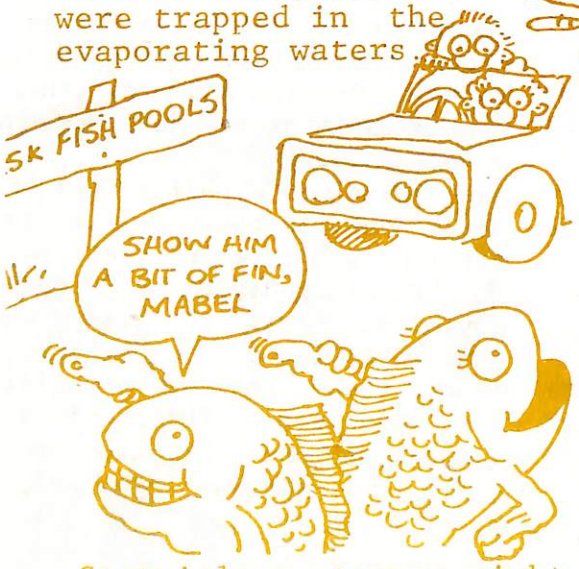
Many years ago,Wyperfeld was under the sea and as the sea withdrew, the sand was left and the dunes were formed.Today,these dunes are moving,destroying the plants and animals living on them.Rangers hav fenced these areas off and visit--ors must keep to the provided tracksThese national parks are for everyone,remember-so please look after them.

HERE'S MUD IN YOUR EYE - a fishy tale

Some of Australia's fish and frogs have adapted to their dry desert conditions in a strange way. They can live in the dried mud of their water pools for quite a long time. These fish and frogs seem to then magically appear in the filled pools when the rain begins.

There are many interesting stories about the survival of fish and frogs in the desert. One day, a Mr. Shipway was near some dried up pools of water near the Gascoyne River in W.A. They were very full of fish, which were trapped in the evaporating waters.

The fish are said to AESTIVATE during the dry weather, waiting for the arrival of more water.

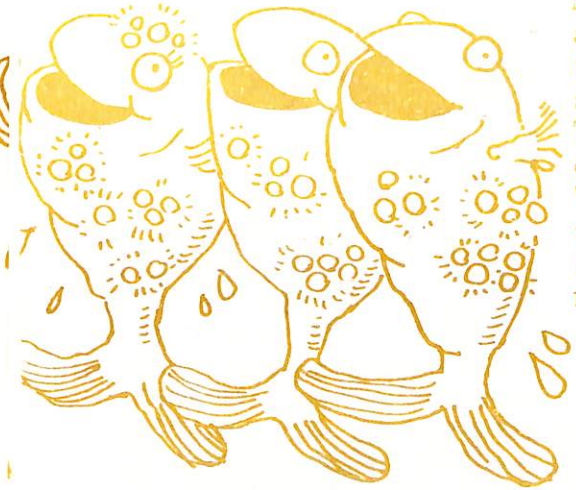


A great downpour of rain hit the area, and some of the water filled the wheel ruts in the desert tracks. They eventually joined up with the river's pools. Then some of the smaller fish began to swim down the wheel ruts; some were recorded as swimming as far as 25km. in 6hrs! When the rain dried up, these fish were left high and dry in the middle of the desert.

Certainly a strange sight for any traveller!

This sort of occurrence could explain how fish spread throughout the desert's rivers and water pools. Or how they end up in weird places - like in wheel ruts.

Frogs are known to be able to live underground for a long time in a very dry season. They burrow deep into the earth or mud, and can even live off the water they store in their bodies. The frogs then appear when the rain comes.



The adult Shield Shrimp can be found in many places in dry areas of Australia. Their eggs are thought to be light enough to be carried on the breeze, to hatch in such out of the way places as the top of Ayers Rock! They can hatch in nearly any freshwater pool.

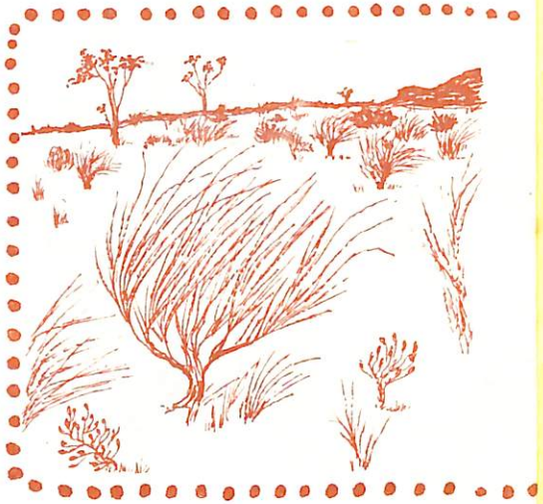
Many different sorts of fish and frogs can aestivate, but there has only been one study to prove which ones do. The Spangled Perch is the only fish that has been "documented" so far, but there are theories that many fish can aestivate when they need to.

THIS 'N' THAT

by D.Brydon

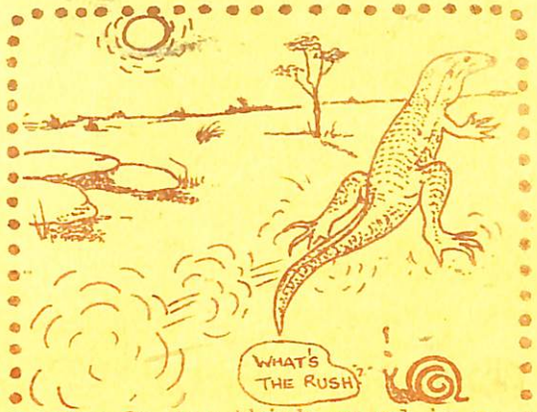
WHY BLACK?

Did you know that the color black absorbs more heat than any other color? What does this mean? Well,it means that on a hot day it is much cooler to wear white or light colored clothing than it is to wear black or dark colors. What color would you expect desert animals to be,then? If you chose white or a light color as the answer to this question, then you're wrong! Many desert animals are black all over or just black underneath.The ear-ly morning sun can be very cold in the desert,in summer and in winter. Black helps the animals absorb more heat from the sun at this time of day, when they are busy searching for food. Because of the black coloring,not so much food has to be used to warm up the an-imal's body.Why would this be useful? Black is also a surprisingly good camouflage color in the desert.This was discovered by armies fighting in desert country in World War 2. Deserts are famous for their deep black shadows.Can you guess why this should be so? Anyway,because of all these shadows,black is the third most common desert color,after grey and red.So a bird with black feathers, providing that it kept still , could easily trick a larger, hungry bird into thinking that all he saw was a shadow-and not a meal!



A MEAL FIT FOR NOBODY

One of the most common plants of the Australian desert is called Spinifex grass.Its stiff needle-shaped blades are so tough and prickly that animals have to be absolutely desperate before they would even think of eating them. They don't look very tasty in our picture,do they? I suppose that in a drought, desert animals have the nasty choice of eating spinifex or dying.Spinifex itself is one the the world's most drought resistant plants and will continue to live after many other plants have frizzled up.What's more,Spinifex does-n't need very good soil to grow in.It is usually found in deep sand or on rocky ground with little or no soil on it.How tough can you get? In fact,one of the few things that could actually 'beat' Spinifex grass was the desert aborigine.A sticky gum,or resin was extracted from the plant after it had been beat-en between two rocks for several hours.When it had cooled down,Spinifex gum set hard,like sealing wax.The aborigines used it to stick sharp stones to the ends of their spear throwers.They also made stabbing knives by setting a flint blade into a lump of gum. What a clever way of making weapons in the desert!



Why do you think speed is so important in the desert?

SUCH BIG EARS

Most desert animals are nocturnal. What does this mean?Because there are not many trees and shrubs to hide under in the desert,any animal moving around during the day would be an easy target for larger,hungry animals.It is much safer to feed at night but not so easy to see.If you look at the bodies of many desert animals,you will see that they have fairly large ears.They also have extra good 'night' eyes and an excellent sense of smell.

...AND SO FAST

Desert animals are speed fiends and that's no joke.Many desert living birds are fast runners, like the emu.When in a special hurry,the Sand Goanna just gets up on his two hinds legs and runs like fury.

ABOUT DESERTS

Teachers/Parents!

*DO YOU HAVE SOME SPARE TIME?'

*ARE YOU INTERESTED IN NATURE AND ITS CONSERVATION?

*ARE 'NATURE' ACTIVITIES PART OF YOUR CURRICULUM? WHAT ARE THEY?

If so, then you're the person we're looking for. "Nature Notes" and "Probe" are interested in hearing from people who are willing to contribute articles to either of the magazines in 1982. These will be based on themes to be worked out in December of this year. Write to D. Bryden at the address below for more info!

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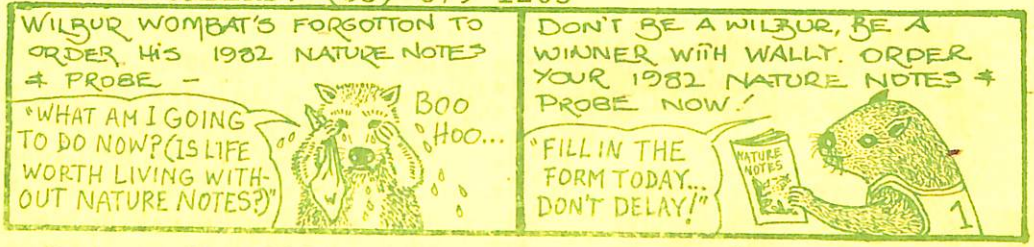

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