



Junior Ranger *Review*

April - May 1997

FIRESTICK FARMING

LIVING BENEATH THE DESERT SANDS

AUSTRALIA'S DRY HEART

MISSING DESERT ANIMALS

SPIKY SPINIFEX

THE DESERT OAK HOTEL

DESERT SPADEFOOT FROG

**DESERT
WALKABOUT**



Australia's Dry Heart

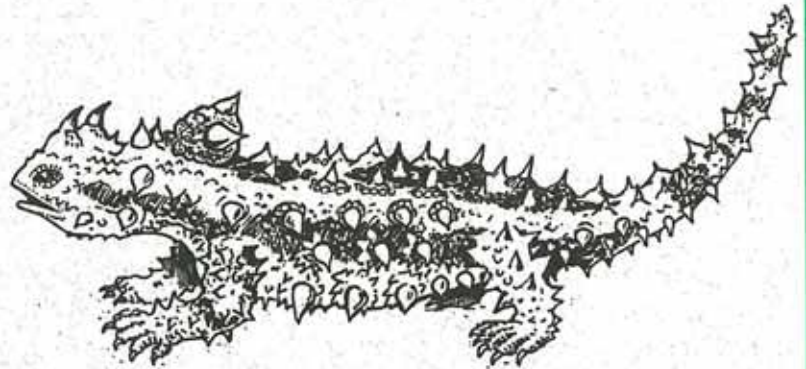
Australia is the driest continent on Earth. There's lots of sunburnt country where not much rain falls. Large chunks of the inland areas are desert but it's not lifeless. Even in the dry red sands of the Simpson and Tanami Deserts there are lots of healthy plants and active animals.

This edition of the Junior Ranger Review is about some of the fascinating animals and plants that live in the dry parts of Australia.

You can meet them at the new Alice Springs Desert Park which opened in March.

Use this code to reveal the names of 2 residents of Australia's Desert Country.

	1	2	3	4	5
●	A	B	C	D	E
▲	F	G	H	I	J
★	K	L	M	N	O
■	P	Q	R	S	T
◆	U	V	W	X	Y



■5 ▲3 ★5 ■3 ★4 ◆5

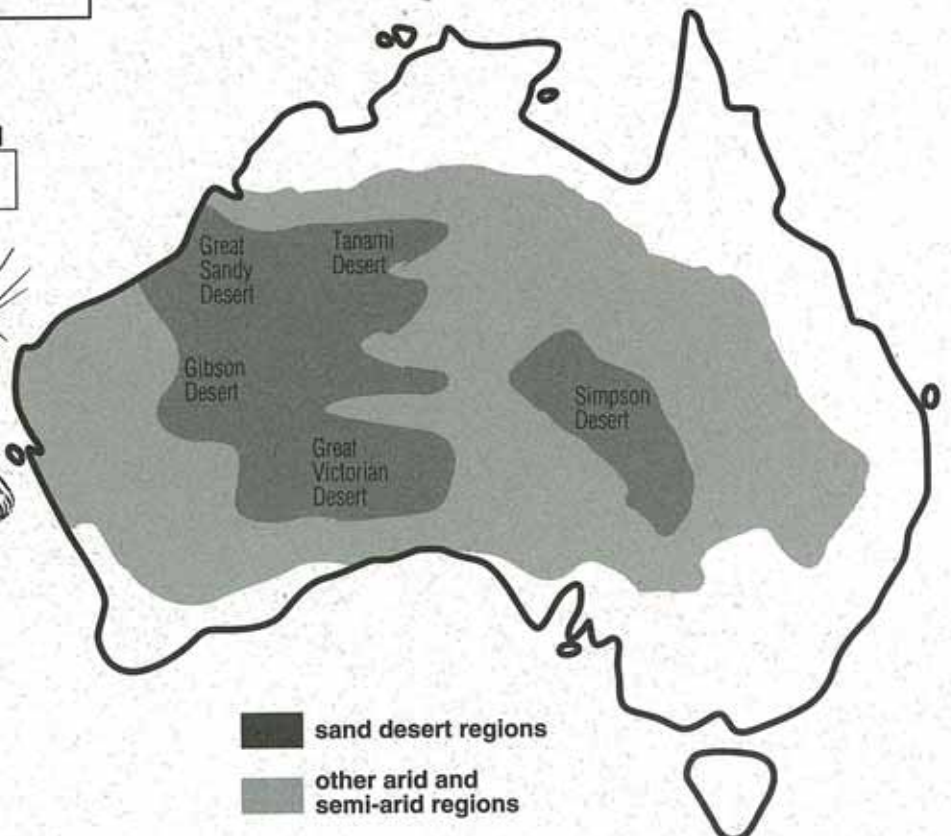
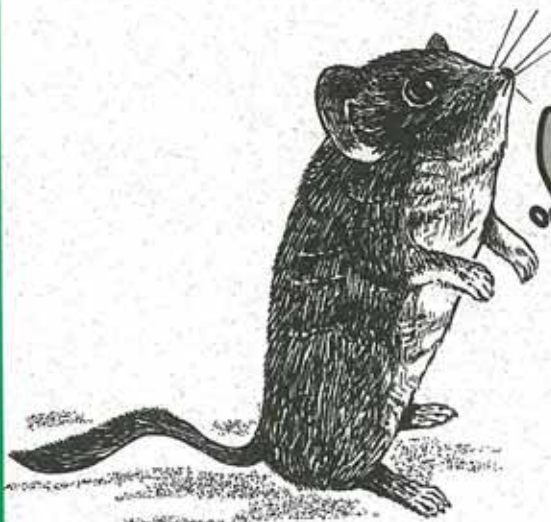
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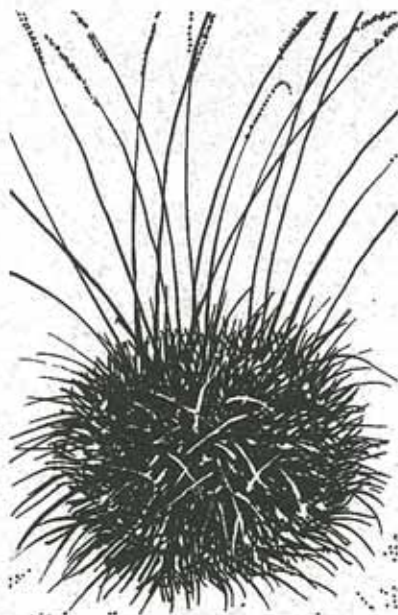
●4 ●5 ◆2 ▲4 ★2

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★3 ◆1 ★2 ▲2 ●1 ■3 ●1

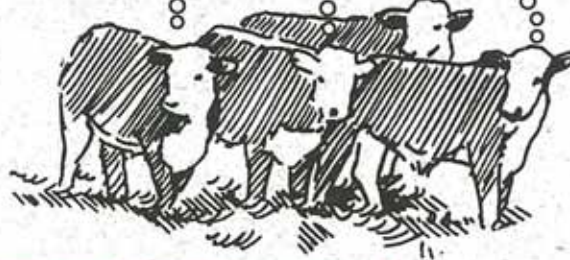
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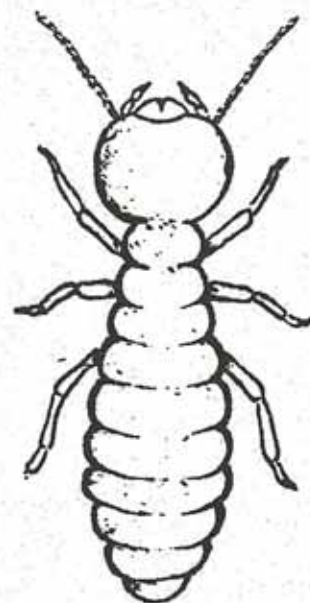
Spiky Spinifex

We're not eating that tough stuff!



More than a fifth of Australia is covered by spinifex. The tough, spiky leaves can cope with the hot desert sun and dry, barren sand.

Hardly anything will eat it. This little nocturnal creature is the exception. Unjumble the letters to spell its name.



M I K R
E T E

Answer:

A lot of small animals use spinifex for shelter. One of them is a brightly coloured lizard about 20cm long. You may spot this little speedster darting from one clump of spinifex to another. Can you unjumble the letters of its family name?



D
N R
A O G

Answer:

MILITARY

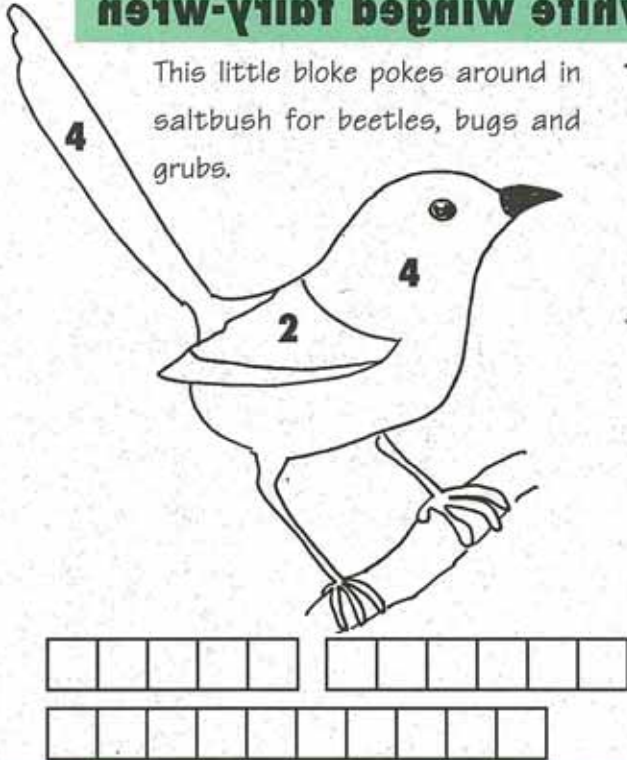
What bird is that?

1 = grey
2 = white
3 = red
4 = blue

Use this number code to colour these two birds of the desert sand country. Can you unravel their names which are written in mirror images?

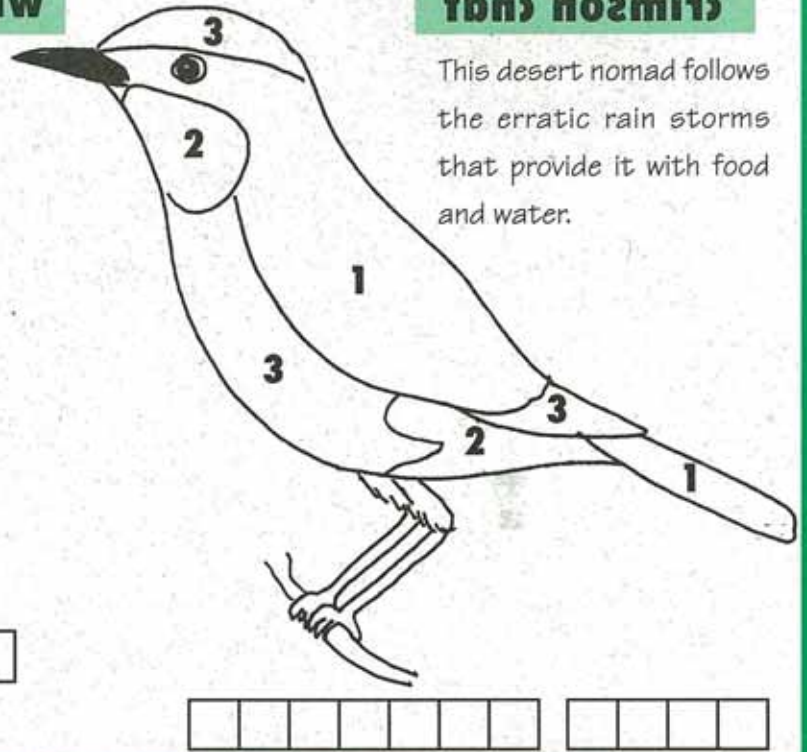
Widitw egnibeg tnatp-w

This little bloke pokes around in saltbush for beetles, bugs and grubs.

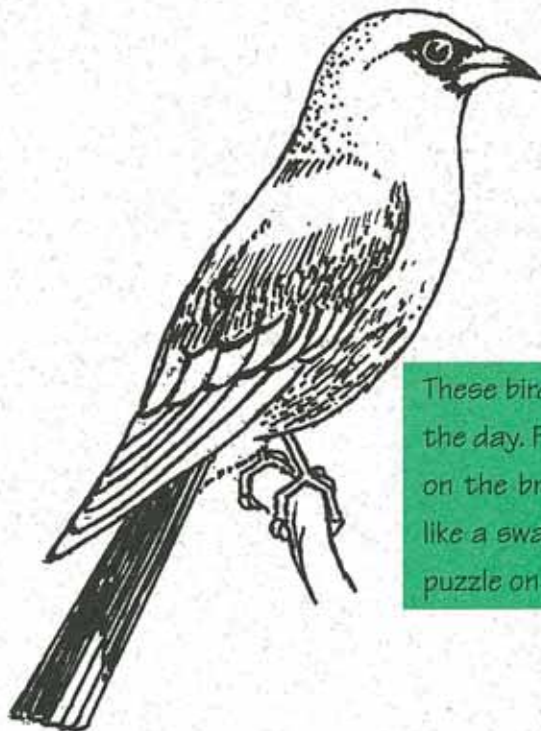


Wimnir dno

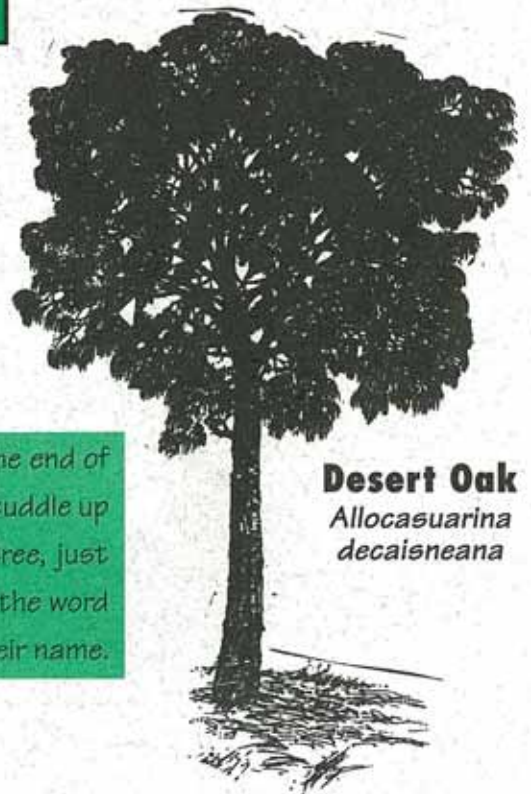
This desert nomad follows the erratic rain storms that provide it with food and water.



The Desert Oak Hotel

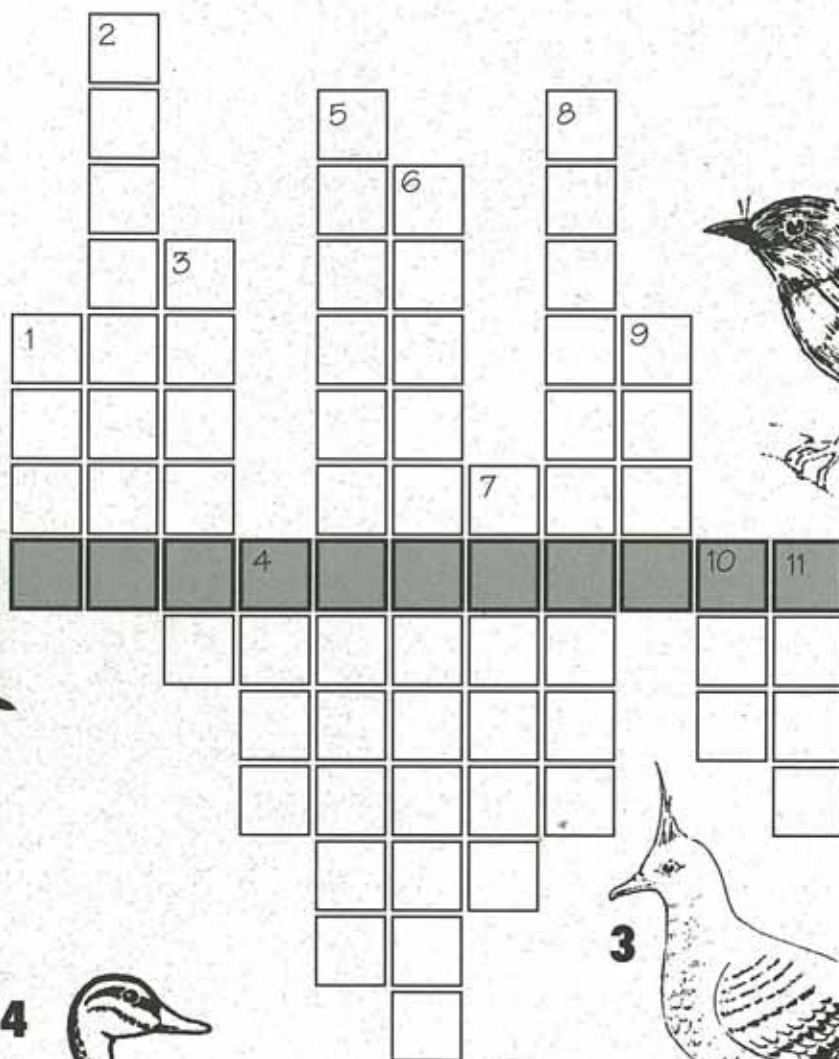
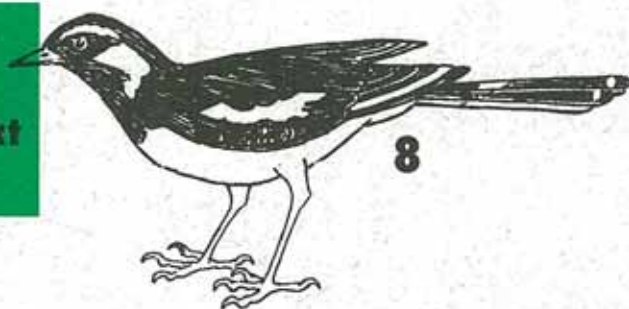


These birds have a funny habit at the end of the day. Fifty or more of them may cuddle up on the branches of a Desert Oak tree, just like a swarm of bees. Work through the word puzzle on the next page to reveal their name.

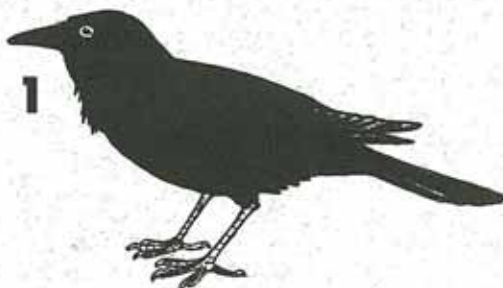
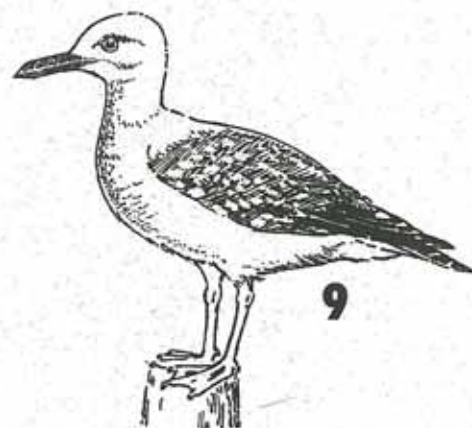
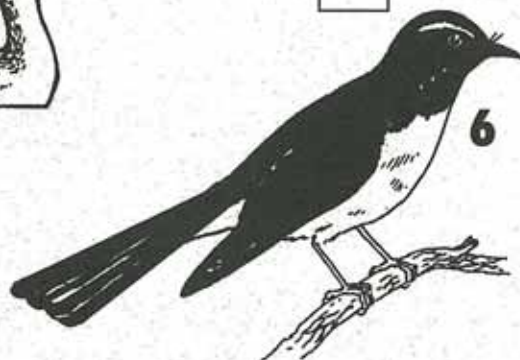
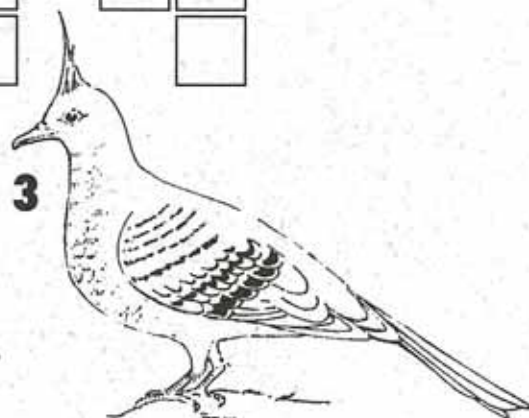
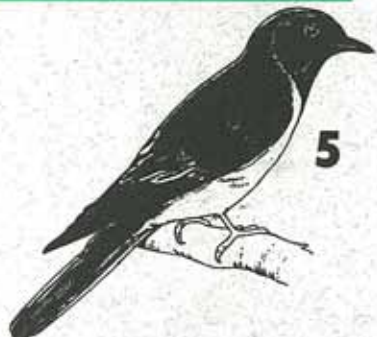


Desert Oak
Alcornoque
decaisneana

Do you know these territory birds? Write their names in the correct columns.



These letters spell the name of the mystery bird.



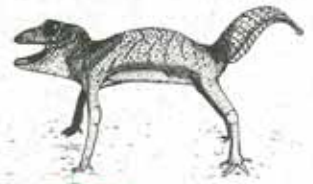
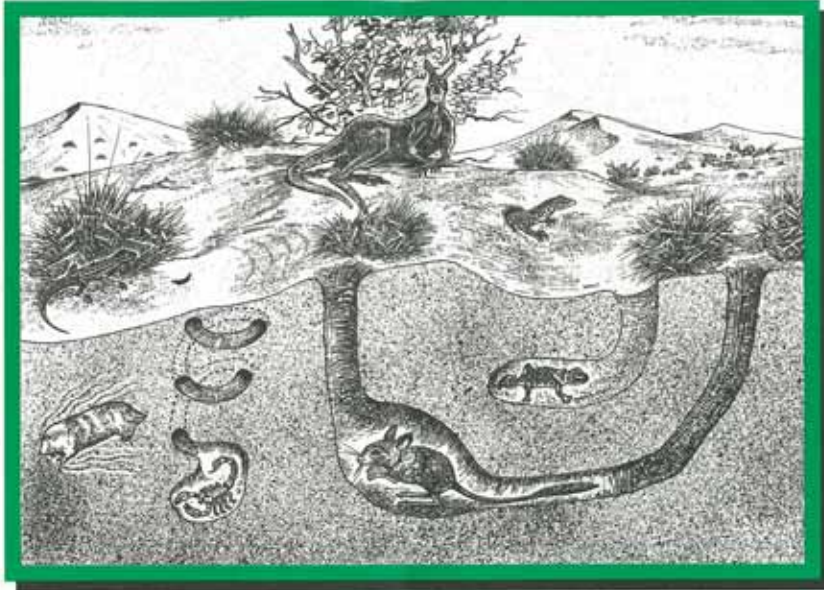
Living beneath the desert sands



The Blind Marsupial Mouse *Notoryctes typhlops* isn't rare but it's rarely seen. It doesn't dig a burrow. Instead, it swims through the sand like a diver underwater.



Australian scorpions aren't deadly but they have dreadful table manners. They tear up their prey but don't eat straight away, they drool saliva over it so it's partly digested before being swallowed.



Digging a burrow is hard work. Sometimes the Knob-Tailed Gecko *Nephurus sp.* doesn't bother. It's easier to take over a dragon's den. Knob-Tailed geckos come out at night to hunt insects. They lift their bodies high off the ground to stalk their prey on tippy toes.



It can be a long time between drinks for a Spinifex Hopping Mouse *Notomys alexis*, so it squeezes every drop of water from its droppings and has the world's most concentrated urine.

Reading the signs in the sand

A scorpion's burrow has a crescent-shaped entrance with a lip over the top while a lizard's hole is the reverse shape.



Scorpion



Lizard

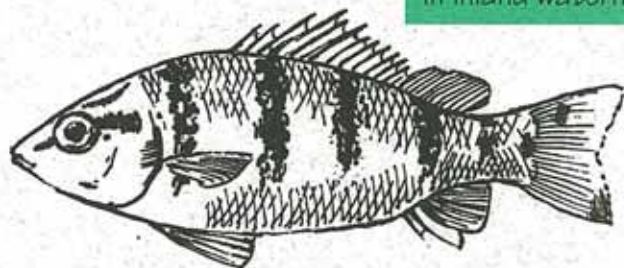


It's easy to tell when a hopping mouse has been across the desert sand.

It never rains but it pours. ...FISH!



Grunters are very common in inland waterholes.



LANDCARE AUSTRALIA AWARDS 1997

**TELL US HOW YOU CARE FOR
THE LAND AND WIN!!**

Entries for the 1997 Landcare Awards are now being accepted in the following categories:

- Education,
- Local Government,
- Primary Producer,
- Community Group,
- Media,
- Business,
- Research,
- Nature Conservation,
- Individual,
- Catchment, and
- Fire management.

The winners of each category will win \$1,000, a trophy, plus an all expenses paid trip to the NT Landcare Award presentation in Katherine. Winners of the national categories will also receive an all expenses trip to Canberra for the National Landcare Award presentation.

The awards recognise significant contribution to Landcare through the protection and management of our natural resources.

For further information, contact your local Landcare Officer:

Darwin - Ph 89 99 4456
Katherine - Ph 89 73 8819
Tennant Creek - Ph 89 62 4494
Alice Springs - Ph 89 51 8261



Have you heard stories of fish falling from the sky when it rains heavy in the desert country? It sounds far fetched but it has happened. For example, a lot of grunthers about 5cm long dropped out of the sky onto Hughenden airstrip during a storm in 1971. There are also stories of small fish getting sucked out of waterholes by willy-willies and dumped in odd spots.

These cases are pretty unusual. There's a simpler explanation of why you may see big fish in a new waterhole after a desert storm.

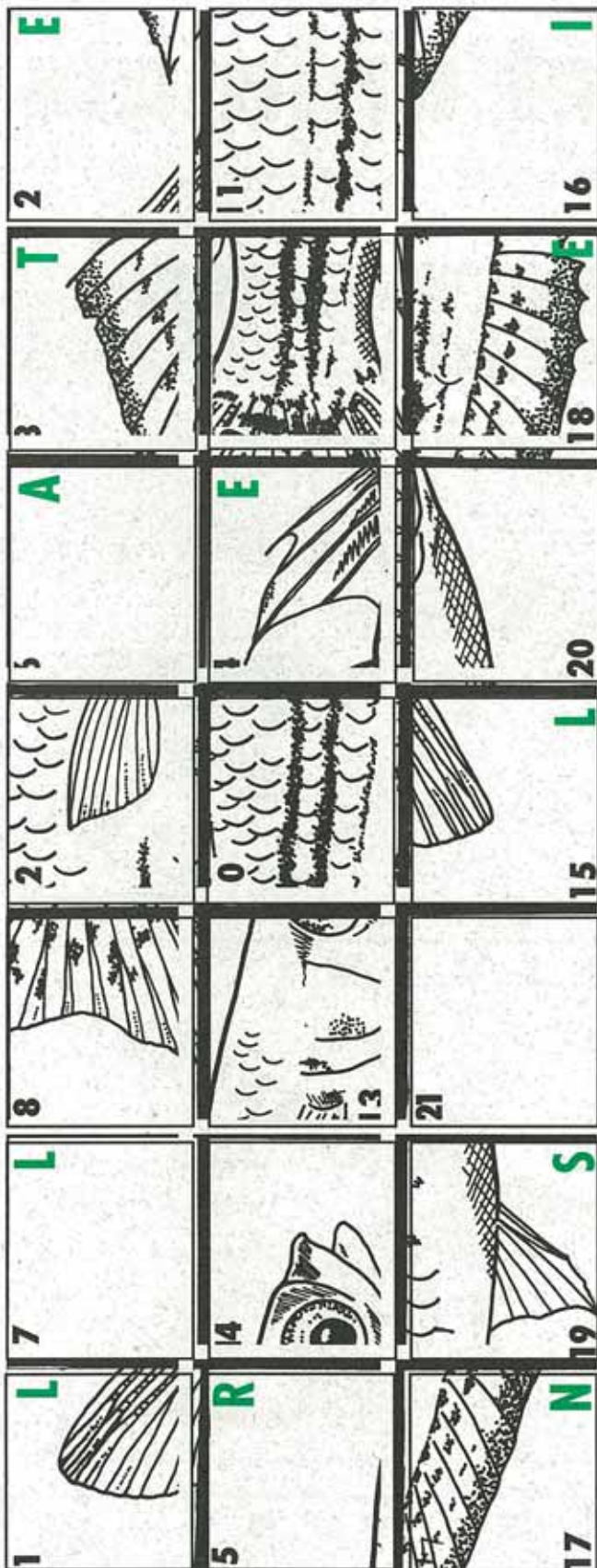
When rain falls in Central Australia it usually buckets down. The dry soil doesn't always absorb the rain quickly and the countryside can become covered in a sheet of water. Our desert fish quickly take advantage of this water. They emerge from the waterholes and swim along this film. Unfortunately once the rain stops and the water seeps away into the soil, fish are left flapping around on the ground. Some are lucky enough to find a permanent source of water but many die. This would explain why fish appear in springs, bores and waterholes that don't connect up with creeks. **Fish don't fly!**

When water holes dry up

When water holes dry up the fish die, but their eggs may survive in the mud that's left behind. Herons tread in this mud which sticks to their feet. The eggs get carried to a waterhole where they may hatch.



**White-faced
Heron**

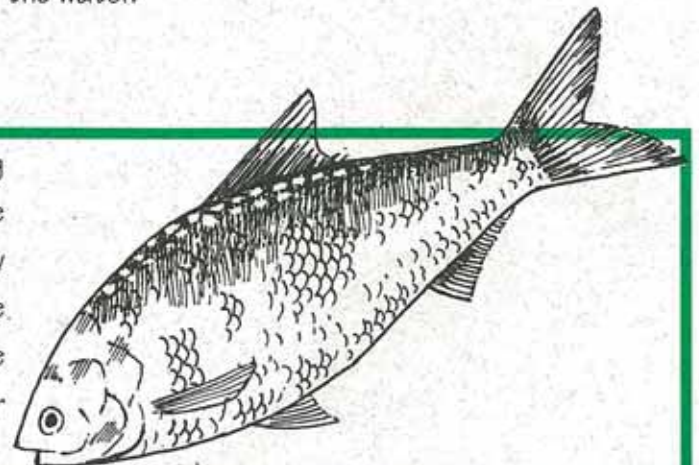


Have you ever tried to catch a small fish with your hands? It's very difficult! Fish have special tubes of fluid that run along each side of their body, just under the skin. You can find out what they're called by cutting up these 21 squares and putting the rainbow fish back together. (The numbers on the squares will help you do it.)

These sensitive tubes of fluid are called:

They can detect the slightest vibrations in the water. The fish know there is danger the moment you put your hand in the water.

Junior Rangers visiting Central Australian waterholes during the winter months may come across dead fish lying on the banks. These are Bony Bream *Nematalosa erebi* and they are usually about 20cm long. The annual winter die off is due to a protozoan called *Chilodonella sp* which feeds on the outer layers of the fish's gills. The parasites love cold water and reduce the Bony Bream's ability to extract oxygen.



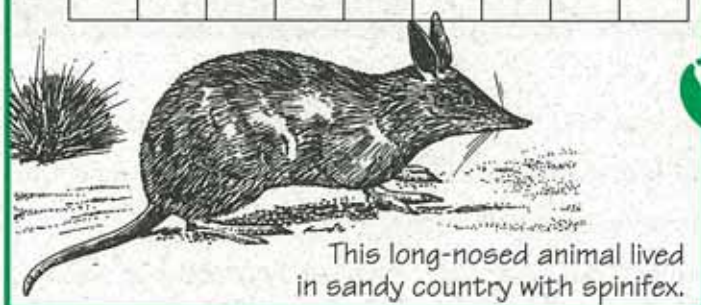
Missing desert animals

Many of the native animals that lived in Central Australia last century have now disappeared. Can you decode the names of these animals? (Code: 1=A, 2=B, 3=C, etc.)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z

GONE

4	5	19	5	18	20			
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>			
2	1	14	4	9	3	15	15	20
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>



This long-nosed animal lived in sandy country with spinifex.

GONE

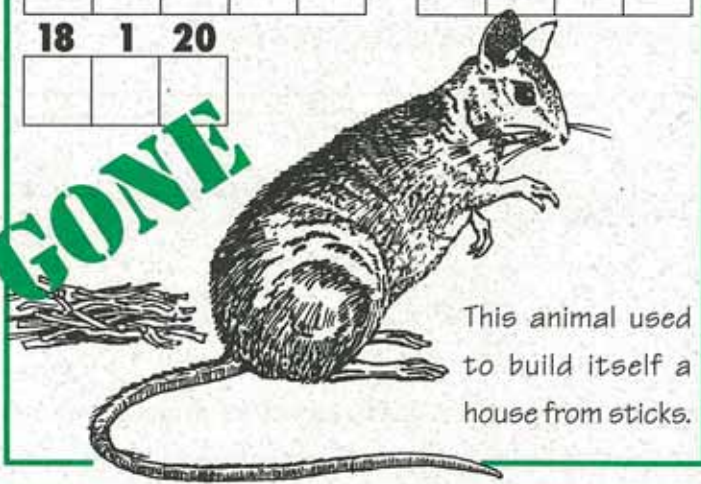
2	21	18	18	15	23	9	14	7
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2	5	20	20	15	14	7		
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>		



It was a great digger. Rabbits have now taken its place.

GONE

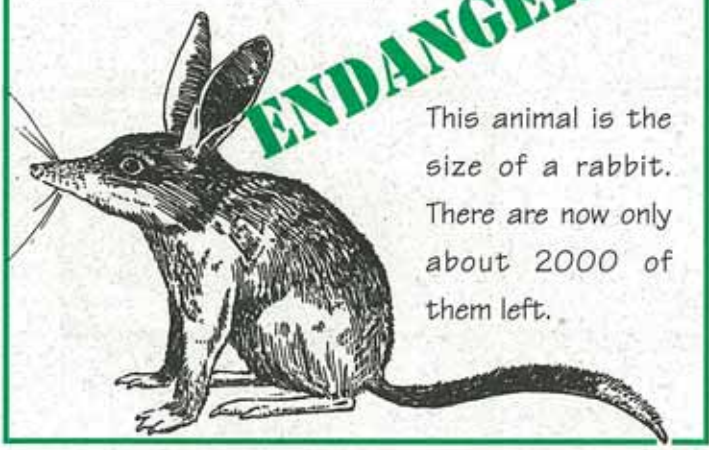
19	20	9	3	11
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
14	5	19	20	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
18	1	20		
<input type="text"/>	<input type="text"/>	<input type="text"/>		



This animal used to build itself a house from sticks.

ENDANGERED

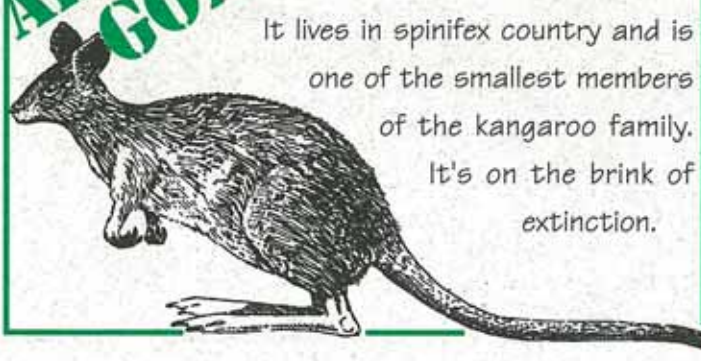
2	9	12	2	25
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>



This animal is the size of a rabbit. There are now only about 2000 of them left.

ALMOST GONE

13	1	12	1
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>



It lives in spinifex country and is one of the smallest members of the kangaroo family. It's on the brink of extinction.

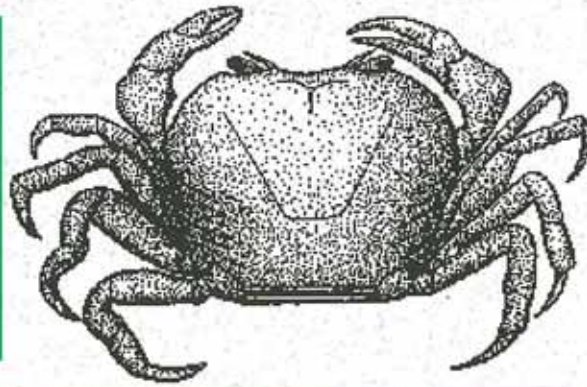
RARE

16	15	19	19	21	13
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It is common in other parts of Australia but is now very rare in the centre.

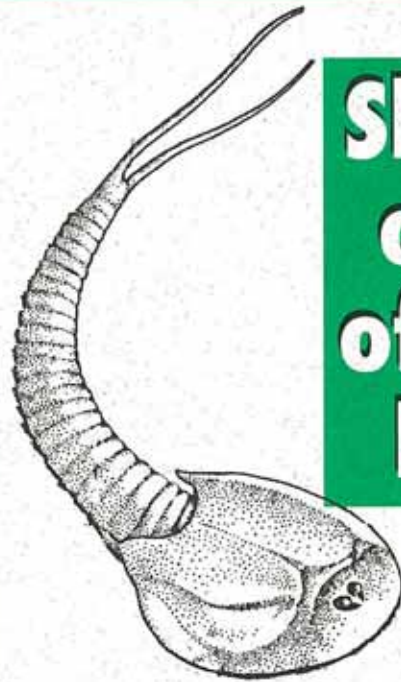
Crabs in Tennant Creek?



Strange as it sounds, there are crabs in the middle of Australia. These crafty crustaceans survive in creeks that only flow after heavy rain. They burrow down in the mud when the water dries up.

Did
you
know
there
are...

Shrimps on top of Ayers Rock?



Shield Shrimps *Triops australiensis* look a bit like tadpoles. They appear in muddy outback pools after heavy rain. The shrimps die when the water dries up but their eggs are preserved in the mud. Next time it rains, they hatch.

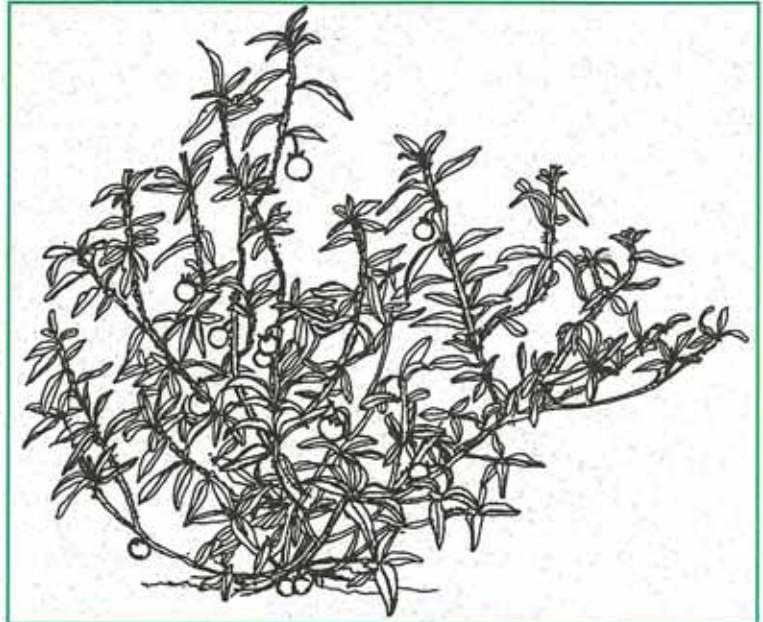
Frogs in the Tanami Desert?



The Desert Spadefoot Frog *Notaden nicholli* is a fat little creature that lives in a most unlikely place. It sleeps in the desert sand during the dry times and emerges after rain to eat and breed. It doesn't hop like a frog should, instead it waddles slowly on all fours.

Firestick Farming

Bush Tomatoes *Solanum chippendalei* grow on small bushes in the red sand of Central Australia. The plants grow among the spinifex clumps but do best when they have got a bit of room. Aboriginal people have learned how to use fire to produce a good crop.



They set fire to the spinifex to clear some space. The stems and leaves of the Bush Tomato also get burnt but the roots survive under the sand. New branches shoot up after the rain and bear lots of fruit.

Only one letter is shared by all 3 words on each line. Write down the correct letters to learn when Aboriginal people burnt the spinifex.

1. crow

2. poison

3. gone

4. termite

5. seat

6. grass

claw

faint

nine

pants

eagle

fire

follow

bite

plain

with

flower

grow

The Junior Ranger Review is produced 4 times a year by the Parks and Wildlife Commission of the Northern Territory. This edition was written by Stuart Traynor and Krissy Ward. Design and layout are by Big Picture Graphic Art. The cover was designed by Emily Ward. Illustrations in this edition are mostly by Bob Whiteford.

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