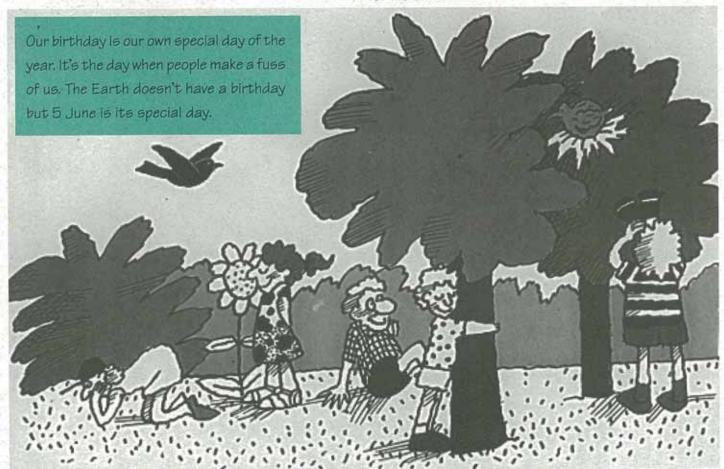


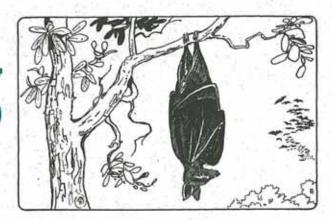
Sowing the seeds for life on Earth

Flowers come in all shapes and sizes but they all have the same job: to make the seeds of new life. Some of the seeds are tiny and scattered by the wind. Some can float and some can fly. Others are spread by animals. Many birds, furry animals, ants and other insects play a part. This edition of the **Junior Ranger Review** is about sowing the seeds for life on Earth. Nature combines to do the job. People need to work together too. That's the message of **World Environment Day**, celebrated each year on 5 June. Conservation is about caring and working together for life on Earth.



World Environment Day: 5 June for life on Earth.

Don't be a joker. Let the bats do their business.



I hate them. They're ugly. They eat my mangoes and poo on the paths.

and

I think they're great and the trees agree.

Fruit bats (or flying foxes) are very common in the Top End. They are very important seed spreaders. They may fly 50 km each night, visiting tree tops in search of fruit. They have a fairly short digestive tract. The fruit passes quickly through their gut. Their droppings are full of seeds. The bats spread them when they poo. So......



What good are fruit bats?

...They're our friendly flying fox farmers.

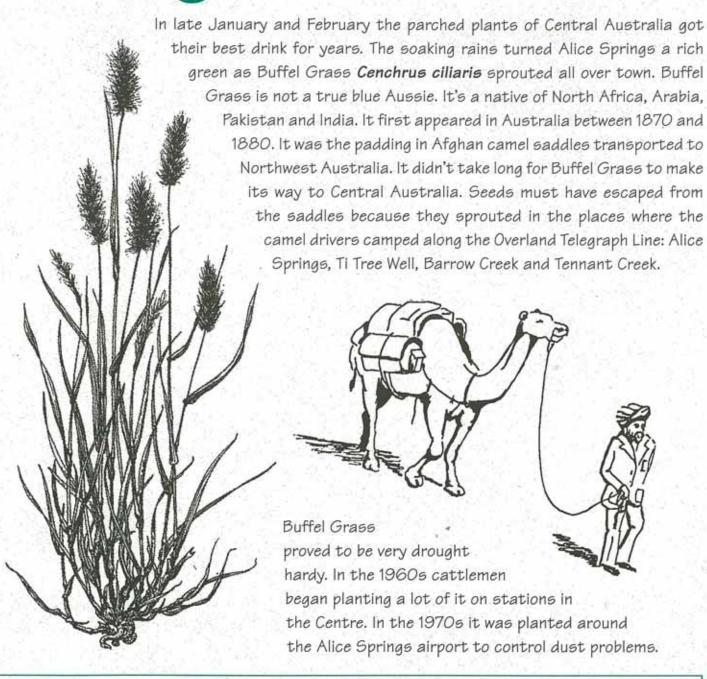
Lyssavirus

In November 1996 a Queensland wildlife carer died in hospital after being bitten & scratched by a sick fruit bat. Since then a lot of people in the Top End have been worried about catching the same disease called Lyssavirus. Fruit bats are not aggressive creatures and don't attack people. The virus is not spread in

urine or droppings. So it's very unlikely that a fruit bat in your trees will spread the disease to you. If you find a sick or injured bat, the best thing to do is call Wildlife Rescue and a ranger will come and collect it. If you need to move the bat, use rubber

gloves or a thick rag to pick it up.

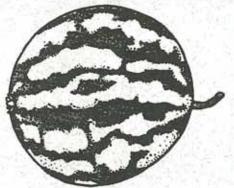
An Afghan hitchhiker



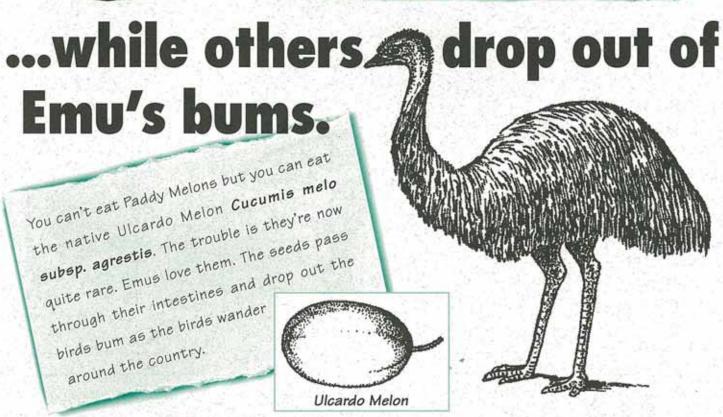
Camel Train?

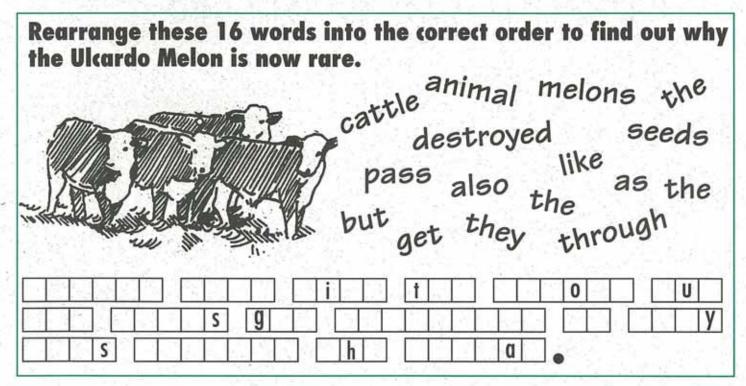
Approximately 2000 camel drivers came to Australia in the nineteenth century. Most came from Afghanistan. Their camels carried goods in every state except Victoria and Tasmania. In 1929 the railway from Adelaide to Alice Springs was completed, replacing the camel service. The train was called the Ghan in honour of the camel drivers.

Some seeds travel by ship...

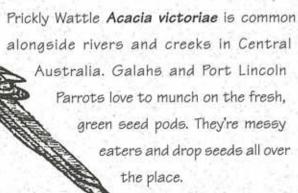


Paddy Melons are common along roadsides and creekbeds in inland Australia. You can't eat them. They're very bitter. Paddy Melons are not Australian. They're feral. We think they came to Australia from the Mediterranean last century, in the days when ships carried rock and soil as ballast.





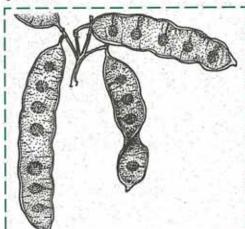
Messy eaters

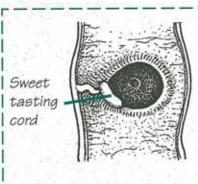




Ants spread the seeds further. They love the sweet tasty cord that connects each seed to the pod. They eat the cord but throw away the tough seed.







Close up of a seed pod

Did you know....

Australia is the kingdom of the ant.

There are more than 4000 species in

Australia. We've got more ants than

any other place on Earth.

There are more than 700 different kinds of wattle in Australia.

Ants are the weightlifting champs of the insect world.

Carrying big wattle seeds is no problem for them.

Ants are the main dispersers of wattle seeds.

Ants have an excellent sense of direction but don't rely on memory when they travel.

They leave scents on their path to mark the way home.

Acacias that spring to life

Acacia gonocarpa grows along the Katherine River. As its seed pods dry out, they suddenly burst open with a force that catapults the seeds several metres from the bush.

Ranger Sharon Bone writes....

At the end of the wet my 3 year old daughter Jessie and I collected some seed pods that hadn't opened yet.

We put them in a brown paper bag on the front seat of the troopie.

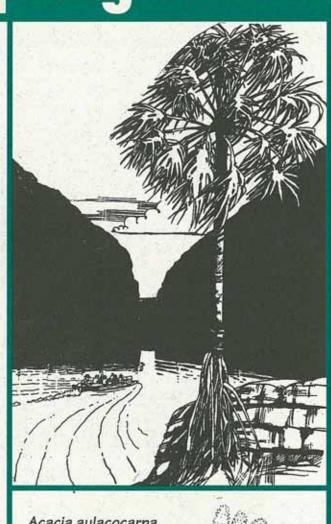
As we were driving home we could hear a popping sound coming from the bag.

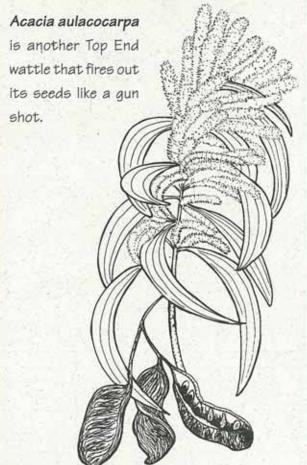
The pods were bursting and firing out seeds in all directions.

It was like popcorn in a frypan. Jess thought it was pretty funny.

The colours of Australia

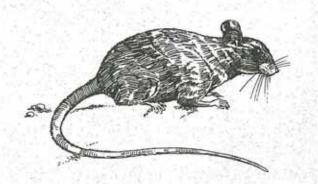
When Australian sportsmen and women compete for their country, they wear gold and green. Our national colours are the colours of the wattle. Wattle has been regarded as our national flower since the 1890s when the wattle blossom league was formed.

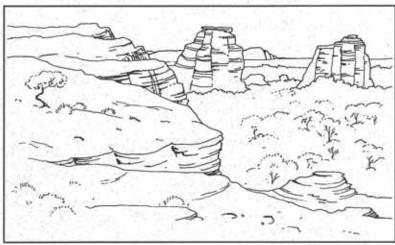




Takeaway Tucker

The Large Rock-rat Zyzomys maini lives in the sandstone country of Arnhem Land.



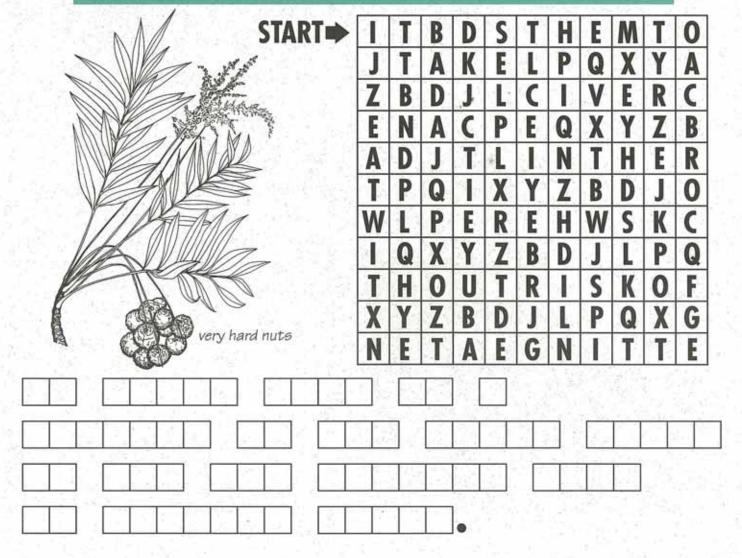


The hard nuts of the Emu Apple **Owenia vernicose** are its favourite tucker. Work through this puzzle to find out what the rat does with them.

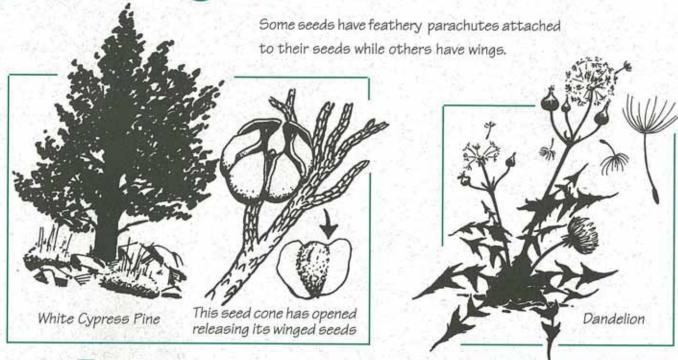
Step 1 Colour every box that contains one of these 9 letters: B D J L P Q X Y Z

Step 2 Track the answer through the letter maze starting from the arrow.

Step 3 Write the answer in the boxes at the bottom of the page.



Stattered by the wind



What's-my-name?

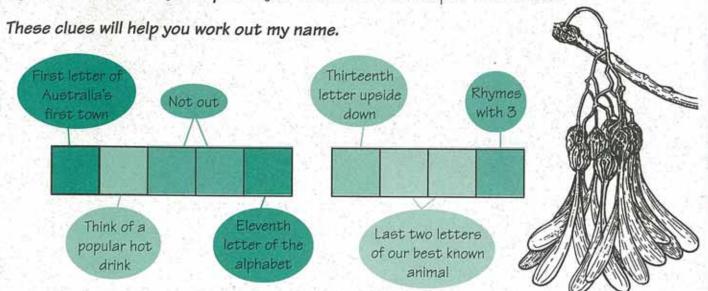
I'm a tropical tree with unusual bark, shiny and smooth like silver.

My seeds have two wings and twirl like a helicopter when they fall off the tree.

My leaves fall off in the dry season.

You might regret it if you throw me in the camp fire.

My scientific name is Gyrocarpus. "Gyro" means whirl and "carpus" means seed.



floating down the river

Use this grid to work out the names of two Top End trees whose fruit can float.

	1	2	3		5
A	A	B	C	D	E
B	F	G	H	1	J
C	K	L	M	N	0
D	P	Q	R	5	T
E	U	٧	W	X	Y

I am a large spreading tree with flaky, reddish bark. My thick, leathery leaves are attached to the stem in opposite pairs. My edible fruit are about 3 cm wide and have white skin when they ripen during the wet season. I am very common along the banks of the Katherine Gorge. My scientific name is Syzygium forte. My common name is:

E3 B3 B4 D5 A5

A1 D1 D1 C2 A5

I have special roots to prop me up and stop me falling in the water. My big leaves have prickles along their edges. Aboriginal women use the leaves for basket weaving. I have hard round fruit that look a bit like pineapples. My scientific name is *Pandanus aquaticus*. My common name is:

D3 B4 E2 A5 D3

DI	A1	C4	A4	A1	C4	El	D4
FAI 1	1.4	Lag.					3.8



A plant that gives birth to live young?

Have you noticed these unusual things washed up on Top End beaches?

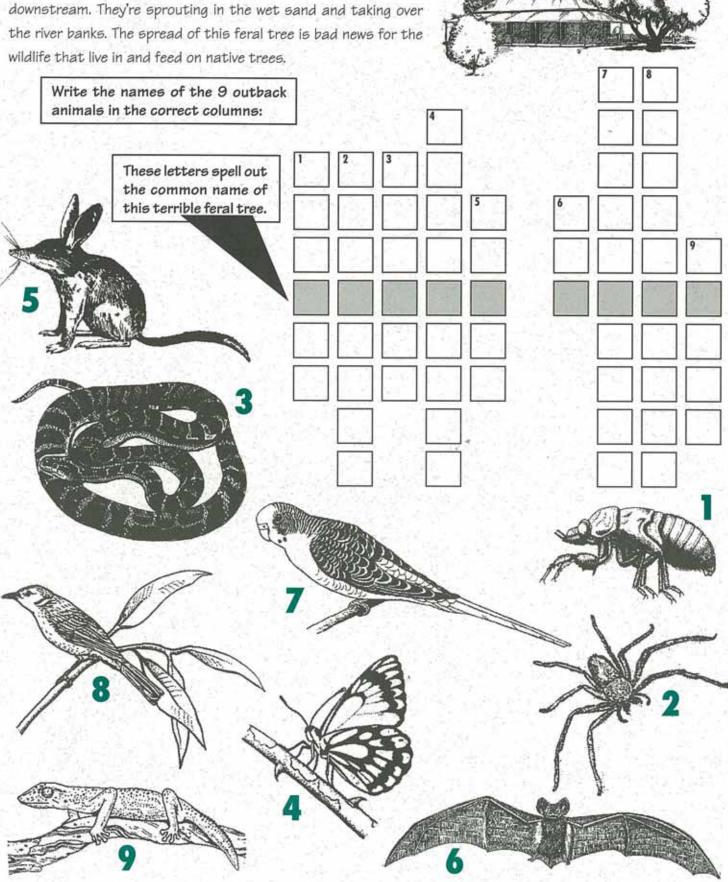


Rhizophora stylosa is a very unusual plant.

Most seeds germinate after they've fallen to the ground, but not those of the Spider Mangrove. They sprout while they're still attached to the tree. When they eventually drop off, the long root sticks in the mud like a spear. If the tide washes the seedling away then it can float for days without suffering any problems.

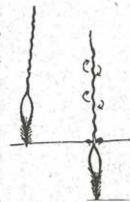
Feral tree on the loose

Tamarix aphylla is a tree from India and North Africa. Once it was a popular shade tree in Central Australia. Now it's a major problem in the Finke River. Every time the river floods, its seeds get washed downstream. They're sprouting in the wet sand and taking over the river banks. The spread of this feral tree is bad news for the wildlife that live in and feed on native trees.



Spear-Grass

During the wet season, tall stands of Spear Grass grow in the Top End. If you collect some seeds you'll see why it's called Spear Grass. One end of the seed is very sharp. Attached to the other end is a long stalk, called the awn. When the seeds are ripe they



fall to the ground and stick in like tiny spears. As the awn dries out, it twists like a corkscrew and pushes the seed further into the ground. Decode the following message to learn how this helps the seed.



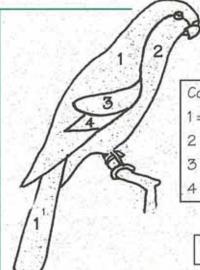
(Code: 1=A, 2=B, 3=C, etc.)

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

2 21 18 9 5 4 2 5 14 5 1 20 8 20 8 5 19 21 18 6 1 3 5

20 8 5 19 5 5 4 19 3 1 14 19 21 18 22 9 22 5 20 8 5

4 18 25 19 5 1 19 15 14 6 9 18 5 19



What's my name?

Colours

1 = dark green

2 = light green

3 = red

4 = black

I'm a common Top End bird.

You usually see me in pairs or family groups, not big flocks.

I spend a lot of time in the tree tops.

You may spot me by the roadside in March or April eating

Spear Grass seeds.

R	-	W	200	17	E	EA.
	100					

P	-		> .

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. Design and layout are by Big Picture Graphic Art. Illustrations in this edition are mostly by Bob Whiteford. The cover was designed by Emily Ward.

Contributions are welcome and should be sent to:

The Editor, Junior Ranger Review PO Box 496

Palmerston NT 0831