

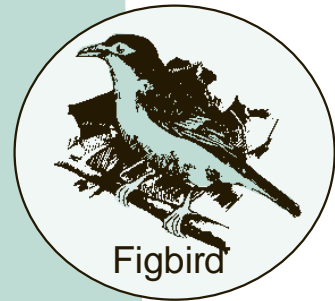
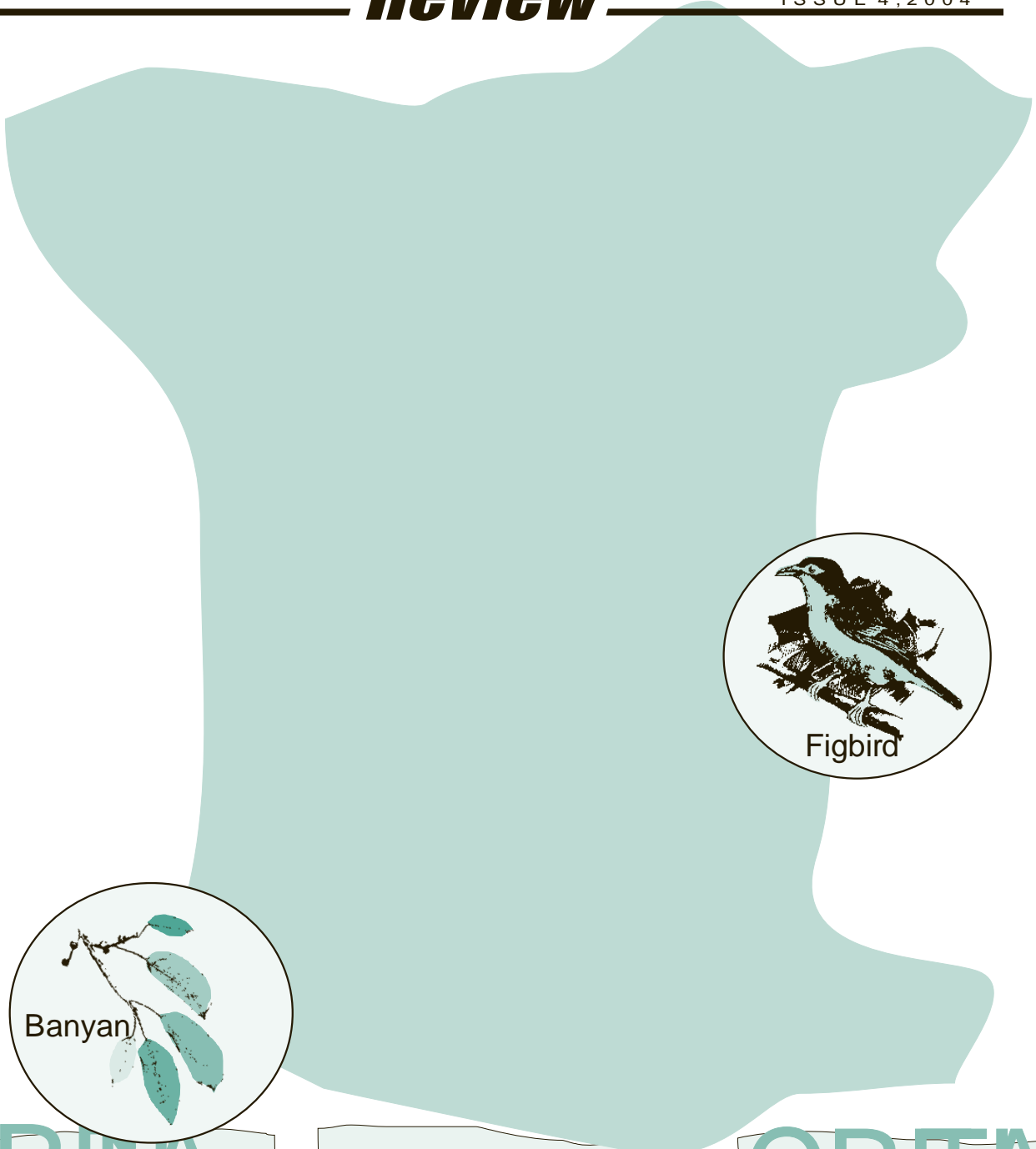
Junior Ranger

ISSN 1036-966x

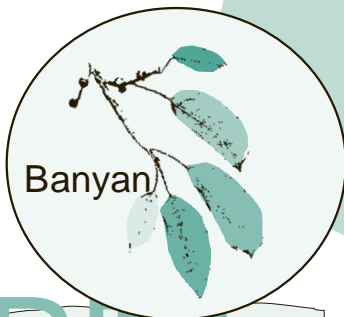


Review

ISSUE 4, 2004

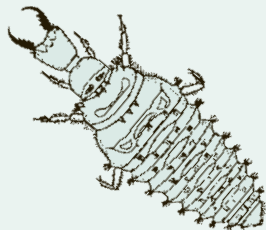


Figbird



Banyan

LIBRARY
encounters



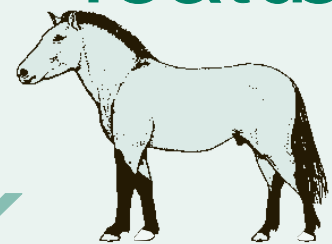
Ant Lions

Northern Bushtailed Phascogale



on the
BRINK

CREATURE
feature



Timor Pony

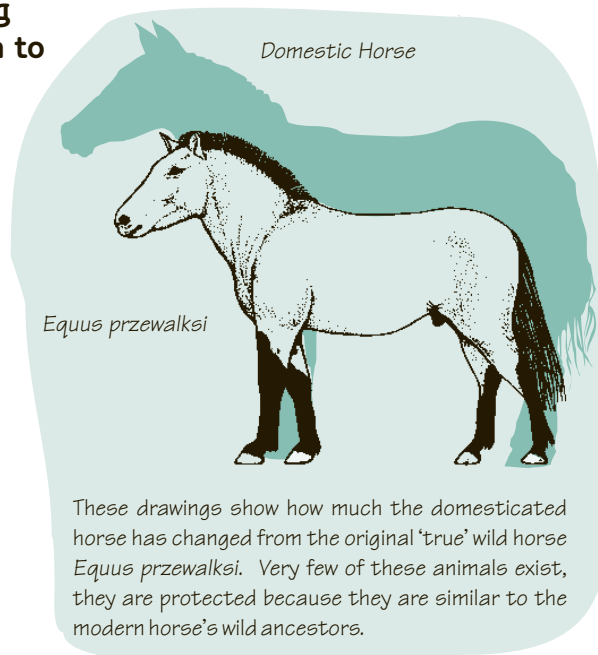
CREATURE feature

Timor Pony

A small herd of Timor Ponies, *Equus caballus* lives on Cobourg Peninsula. The Timor Pony has survived there for over 170 years. This small group of animals may now have some historical significance as a relatively 'pure' race of ancient wild horse. Their long term fate is uncertain, as the area is a National Park called 'Garig Gunak Barlu National Park', where non-native animals are not traditionally tolerated. However, the Timor Pony is unlike the domestic horse that has gone wild or 'feral', breeding in large numbers and causing extensive damage to the land and bush ecology. Read on to find out their amazing story.

Timor ponies were shipped to the Coburg Peninsula in 1838 by the British when they attempted to create a settlement called Port Essington. The colony was abandoned in 1849. The British had hoped to create another Singapore, but were not prepared for the harsh climate and living conditions experienced on Australia's northern coastline.

When the British left Port Essington they abandoned all their livestock leaving it to run free. This included buffalos, pigs, Banteng cattle and Timor Ponies, all of which had been brought to Australia by ship.



G'day from Ranger Bill

Hi everyone. As the Junior Ranger programs across the Territory draw to a close for 2004 I would like to congratulate all staff involved in this popular Parks and Wildlife Service initiative. Many more young people have experienced the amazing beauty of our Parks and learnt about our flora and fauna. They have hopefully graduated from this program with a greater appreciation of the cultural and natural values of the Northern Territory. We thank everyone who contributed to the program, especially all the Junior Rangers and their parents for making 2004 a successful and enjoyable year.

This also means that this is the last issue of the Junior Ranger Review for 2004. We hope you enjoyed the new look and revamped story content and look forward to bringing you many more interesting stories about our unique Territory wildlife next year. Have a great Xmas and holiday season!

Ranger Bill

Famous ancestry

The Timor Pony ancestry has been traced back to the thirteenth century AD. While the British relocated the ponies from Timor in the 1830s, they had originally arrived in Java in 1292, when Kublai Khan (a Mongolian emperor and explorer) sent two fleets of ships carrying Mongolian ponies to the southern seas.

The Mongolian pony is now recognized as being closely related to the true 'wild' horse, which are not domesticated animals and have some distant resemblance to Zebras. They are recognised as the original horse. The domesticated horses family tree dates back 6000 years to the Asiatic wild horse of Mongolia, the Tarpan of eastern Europe and the more heavily-built Diluvial horse of northern Europe.

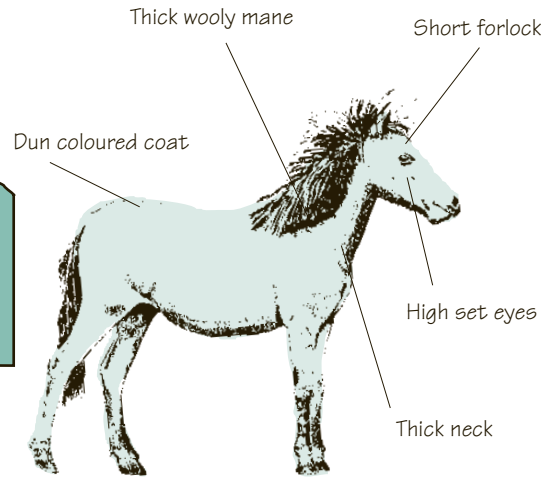
Have they changed the bush?

It is currently believed that the Timor Pony has a minimal impact on the environment. They are very small and exist only in small numbers compared to pigs, buffalo and wild horses. These other animals are well known for causing extensive damage, due to their large size, existence in very large numbers and destructive habits. These animals also compete with the Timor pony for food.

Fence them in?

Prior to the time when Coburg Peninsula was made a National Park, a fence was placed across the 'neck' of the peninsula in order to contain the Timor Pony and the Banteng cattle. The fence line may have stopped the Timor Pony from spreading further and now their population is more controlled. Wild horses ("brumbies") are not controlled, and their numbers have increased to many thousands causing extensive damage to the environment.

Cobourg Peninsula



Natural control.



The Saltwater (Estuarine) Crocodile, *Crocodylus porosus*, often attacks and eats Timor Ponies. Many bear the scars from crocodile attacks. While it may seem cruel, crocodiles may be helping to maintain pony numbers, so they do not overpopulate the limited area of land in which they live.

Did you know?

Why are wild horses in Australia called "Brumbies"?

Australia's brumbies are not a true wild horse. They are descendents of domestic horses that went feral. A Private working for the NSW Army Corps named John Brumby went to Sydney in 1794. Whilst in the area he settled on a free land grant near Windsor. He used the land to breed horses. Later, in 1804, when he went to Tasmania the horses were left to run wild.

In the years that followed, people referred to them as Brumby horses or simply brumbies.

Complete this puzzle to discover further facts about the Timor Pony.

Timor Ponies were brought to Australia from _____? (13 across)

What do ponies eat? (3 down)

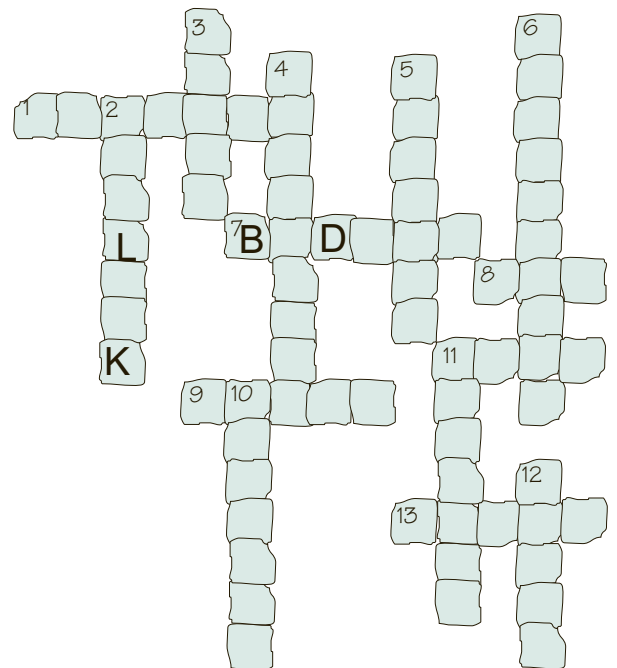
In appearance, Timor Ponies are most similar to what type of animal? (12 down)

Timor Ponies are similar to the original wild horse, in that they have the following characteristics: Their coat is dun-coloured, they have thick necks, with heavy set _____ (7 across). Their _____ (11 across) are set high up on their forehead, and are forward facing. Timor Ponies have thick, woolly manes, but their _____ (2 down) is not big at all. Timor Ponies have not been classified as feral animals, due to their low numbers. They are also being controlled by a _____ (9 across) which has been built across the narrow passage of the Peninsula to prevent them from spreading.

Nature also helps control their numbers. _____ (6 down) now eat them. Many Timor Ponies have scars from narrow escapes from attack. Over the last 170 years of their existence on the Cobourg Peninsula they are becoming part of the local _____ (10 down).

Timor Ponies are descended from the famous _____ (4 down) Pony. Feral animals live alongside the Timor Pony. They are the _____ (8 across) and the _____ (1 across). These animals do a lot of damage to the bush. They cause soil _____ (11 down), and compete with our native animals for food.

What is the name of a rare species of cattle that also live on Cobourg Peninsula? (5 down). They originally came from Bali in Indonesia.

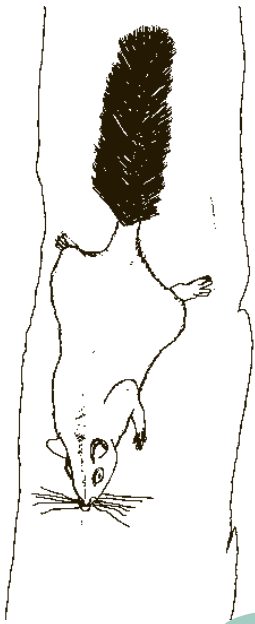


On the BRINK



Northern Brush-tailed Phascogale

The Northern Brush-tailed Phascogale *Phascogale (taoatafa)* is a small carnivorous marsupial. It spends most of its time up in trees (arboreal). We don't really know that much about this little animal although the way they live is likely to be similar to their southern cousins.



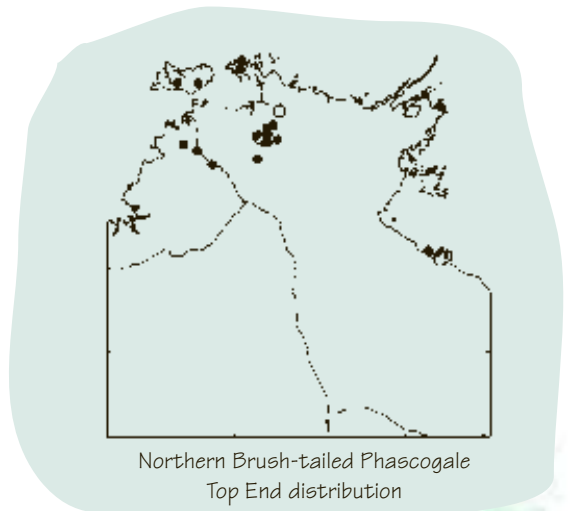
How will I know one if I see one?

The most obvious feature is the long dark black bushy hairs on the tail that form a distinctive brush. When frightened these hairs can stand stiffly upright looking just like a 'bottle-brush'. The rest of the body is coloured dark grey above and pale cream underneath. They have a pointy nose and large eyes and ears. It is smaller than a Northern Quoll, about the size of a large rat.

It is an agile tree climber. The claws are long and sharp, the back feet have special climbing pads and it can turn its hind foot around 180 degrees at the ankle to help in climbing.

Did you know?

This Phascogale is still found in three NT reserves: Kakadu, Litchfield and Garig Gunak Barlu National Parks.



DNA fingerprint evidence

Recently scientists have been looking closely at the genetic fingerprints of phascogales. They have found evidence that there are probably three different species in Australia. The Northern Brush-tailed Phascogale is different to those found in south-eastern and south-western Australia.

Home sweet home

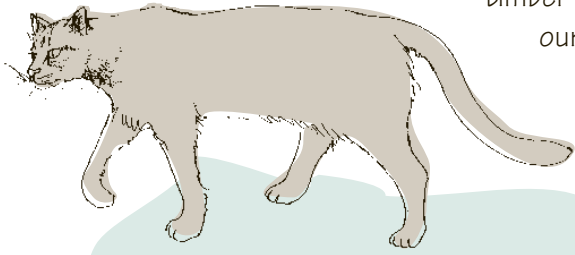
Tall open Stringybark and Woollybutt eucalypt forests are the areas where these little creatures have been seen or caught. This habitat is important as it

provides them with the necessary tree hollows to rest in during the day.

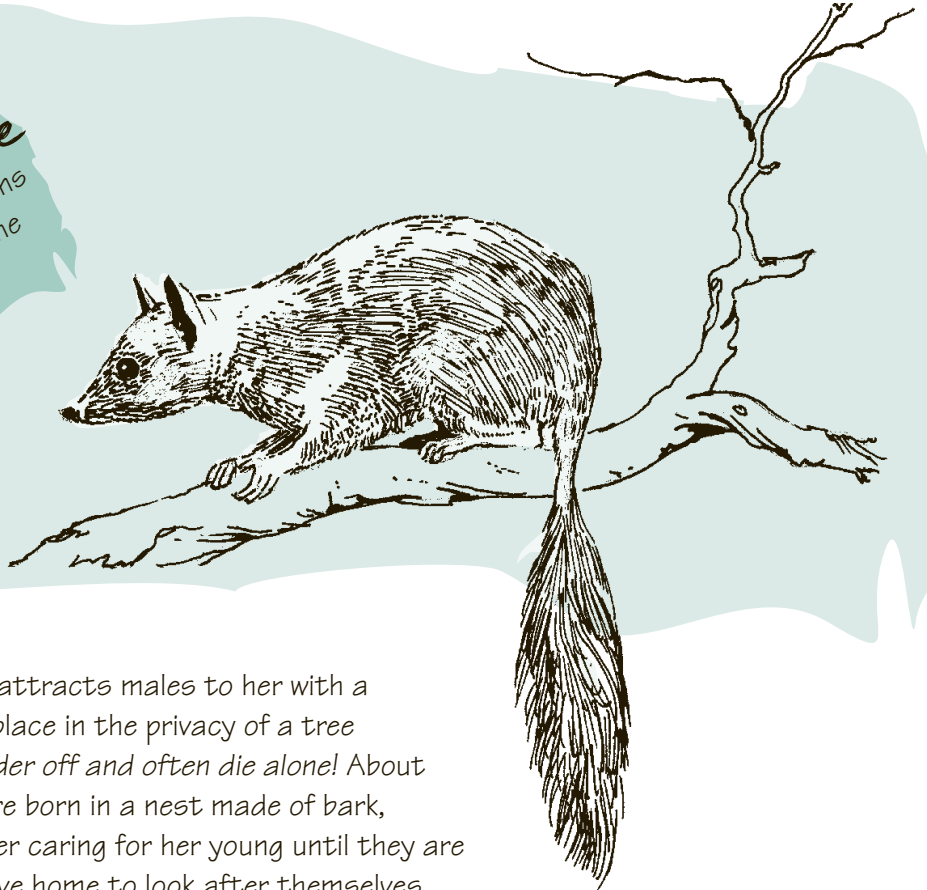
The Northern Brush-tailed Phascogale is most active at night (nocturnal) when it feeds in trees and on the ground. It will use its strong teeth and fingers to tear off bark and find prey underneath. They are also good for reaching for food in cracks and crevices. They love to eat cockroaches, beetles, centipedes, spiders and ants, but may include nectar and small birds and mammals in their diet.

Alarming and harming

Phascogale numbers have dropped and we don't really know why. In fact we know very little at all about this creature. Down south they are disappearing mainly because we are clearing the bush to grow crops, and for timber and mining. In the north it is more likely to be because of changes in our bush caused by cattle and fire. Feral cats are also likely to be eating them. Given that this little animal is a predator there is also some concern that the arrival of the dreaded Cane Toad may further harm their chances of survival. More research must be done!



Phascogale Fact File
 When scared this tiny animal begins to bang its front feet against the bark again and again.



Cute little babies

During the mating season the female attracts males to her with a chirping sound. Mating usually takes place in the privacy of a tree hollow. After mating the male will wander off and often die alone! About 30 days later three to eight babies are born in a nest made of bark, feathers and fur. She is a loving mother caring for her young until they are about twenty weeks old. They then leave home to look after themselves.

Yucky poo!

Mother phascogales are not the most house proud of mums!
 Use the grid to find out why.



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

To stop others from trying to their

they piles of

in their .

URBAN encounters

Backyard Predators - Ant Lions

Imagine walking along in search of food and stumbling across a landscape that looks a bit like the moon with all its craters...

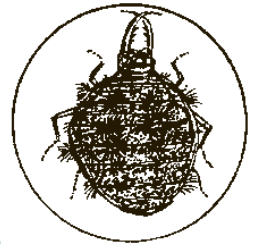
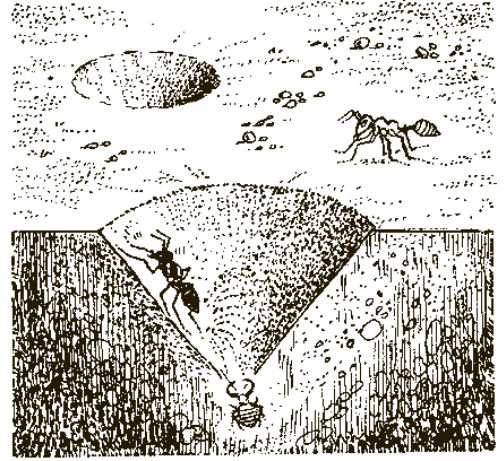
Suddenly you fall into a cone shaped pit and sink towards a creature that looks like it belongs in a science fiction movie. You try to get out but the monster in the pit is flicking a shower of sand towards you which makes you slip further... Scary? Well yes if you're an ant!

A Lion in the sand?

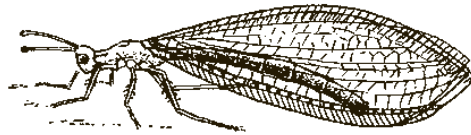
Ant Lions are the larvae of an insect called a Lace Wing. The Ant Lion has a flattened body and head (good for flicking sand), short legs (good for crawling backwards), and big jaws called mandibles (good for grabbing onto prey).

Sinking into the jaws of death

The Ant Lion digs a pit in the sand by spiraling backwards and then flicking out the sand with its head. Then it waits buried at the bottom of the pit for a small insect - most commonly an ant to come along and fall in. While the ant is struggling to get out the Ant Lion grabs the ant in its jaws, eats it like an ant smoothie and throws the body away like fast food packaging.



Ant Lion



Lace Wing



Did you know?

There are many different kinds of Lace Wings belonging to different families, but they are all part of the Order Neuroptera.

The Lace Wing, that is a grown up Ant Lion, is brown or grey and has short antennae.

Lace Wings

A Lace Wing is an Ant Lion in adult form. The young Ant Lion goes through a complete metamorphosis, or body change and comes out with wings and things!

The life of the Lace Wing is far shorter than its childhood stage and may only last for a couple of weeks. The Lace Wing is mainly active at night and its delicate transparent wings help keep perfect camouflage.

Meat or Vegies?

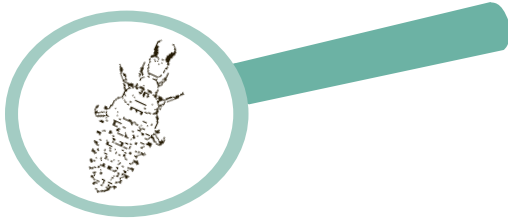
The Lace Wing is less fussy about its diet once it has grown up. Lace Wings are still predators of other insects such as aphids and scale insects, but may also eat sap, nectar and pollen.

Look out for tracks and traces of Ant Lions in your backyard. You might even be lucky enough to see one having an ant snack or doing some pit renovations!

A tell tale sign is the squiggly tracks that are left behind after finding a new home.

Take a closer look

Try gently blowing on an Ant Lion pit with a straw to expose the large mandibles of this tiny predator.



No food? No worries!

Ant Lions can go for up to 2 or 3 months without having a meal! They don't need to drink either because they get all their water from the food they eat. They conserve water in their bodies by moving around and building pits at night.

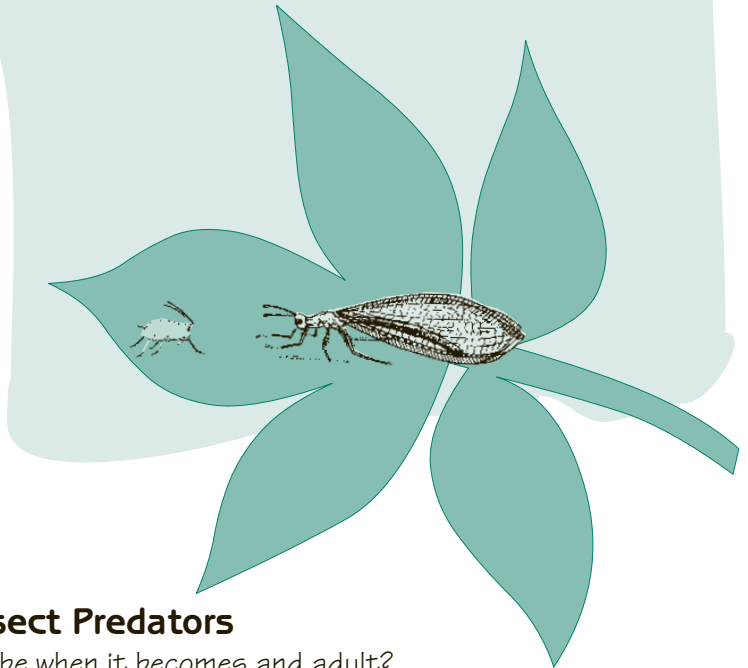
Being hidden under the sand in the day is a good way to escape the harsh sunlight from drying their bodies out.

Helpful hunters

Lace Wings are used all around Australia by scientists and gardeners to control other insects that are sometimes considered to be pests.


The Lace Wings eat plant pests such as aphids, sap suckers and scale insects that might damage commercial and garden plants.


Using an insect such as a Lace Wing to control pests is called Biological Control.





Family Portraits - Insect Predators


What will the young insect be when it becomes an adult?

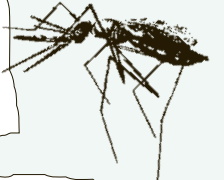
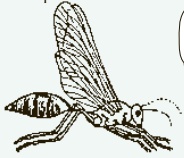
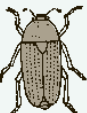
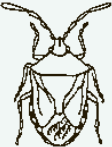
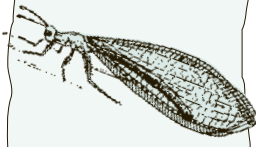
A =  _____

B =  _____

C =  _____

D =  _____

E =  _____

 Mosquito	 Wasp	 Beetle	 True Bug	 Lace Wing
-------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------

PLANT profile

Fabulous NT Figs!

Figs are a fascinating group of plants with over 1000 species throughout the world. Here in the Northern Territory we have about 25 of them. Read on and you'll discover that there is more to a fig than meets the eye!



Ficus racemosa

Have you seen the fancy fig flowers or tasted false fig fruit?

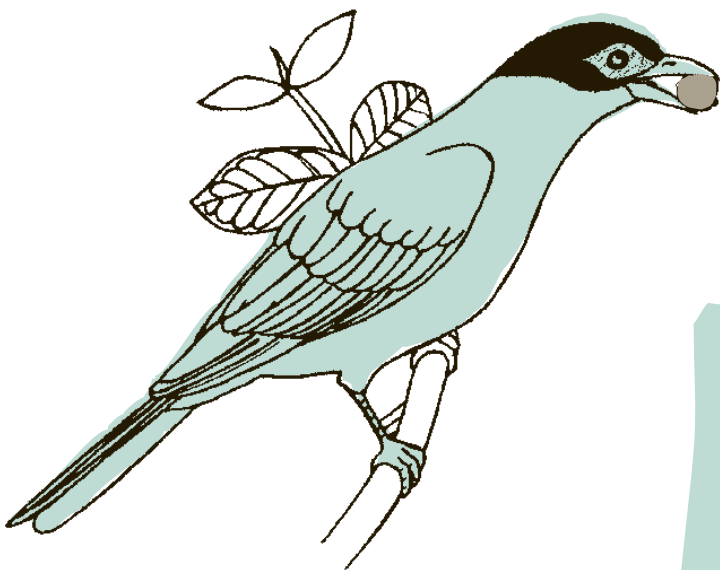
Chances are that you have never noticed fig flowers, but you may have eaten them! That is because their flowers are actually inside the fruit. If you were to carefully cut open the fruit, you would see that it is actually a capsule full of tiny male and female flowers. So this 'fruit' is not a real fruit like an apple or orange; it is a false 'fruit'!

The inside story

So if these flowers are hidden away inside the fruit, how do they get pollinated? It's all done by tiny wasps, often no larger than a pinhead! And each different species of fig has its very own species of pollinating wasp.

Did you know?

At this time of year in the Top End, Figbirds, *Sphecotheres viridis* are gathering in large flocks to feast on the bounty of fruit that some of our fig trees are producing. They use their beak to mash the larger figs into a sausage shape, then throwing their head back, they swallow it whole.

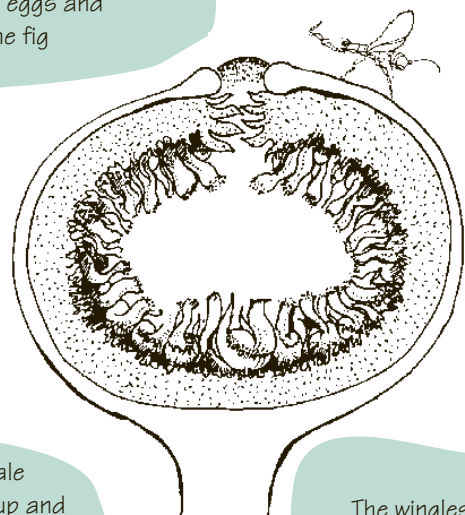


1

The pollen dusted female wasp finds an immature fruit. She pushes her way in, pollinating the female flowers that then develop into seeds. She then lays her eggs and dies within the fig.

2

The wasp eggs hatch in the fig and the tiny larvae feed on infertile female flowers.



4

The tiny female wasps grow up and become dusted with pollen when they escape the fig by a tiny hole in the top. They then fly off to find an immature fig, starting the cycle again.

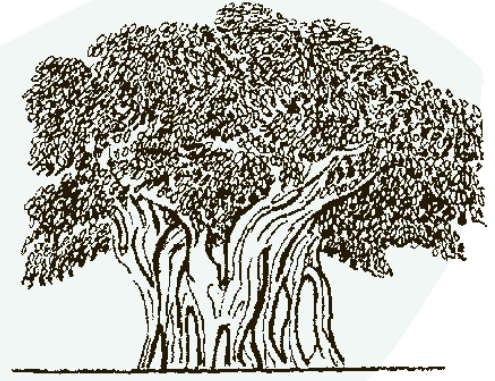
3

The wingless male wasps then mate with the females. After mating they die without ever seeing the outside world!

Fellowship of the Figs!

The mighty Banyan- the Lord of the Figs

Banyans, *Ficus virens* can start life in strange places. Birds, bats and possums often poo seeds on top of rocks, other tree branches, or even roofs. If it manages to grow it will send down aerial roots from its branches. Once these establish, they thicken up and become supports. Eventually they will join with the main trunk, often 'strangling' other plants or objects. Aboriginal people eat the fruit and use the bark from the aerial roots to make string.



The rugged Rock Fig

There are several species of Rock Fig in the Territory, and as the name suggests, they grow in amongst rocks! Even in dry central Australia, they find enough water deep in the rocky cliffs and gorges to show off their bright green, tropical looking leaves. Their fruits are important sources of food for both animals and humans. In parts of central Australia some very rare native snails are only found in the figs' leaf litter.



The rough and ready Sandpaper Fig

There are two species of Sandpaper Fig in the Top End, *Ficus opposita* (pictured) and the similar *Ficus scobina*. Their rough abrasive leaves are their most obvious feature. Aboriginal people eat the fruits and use the other parts of the plant for bush medicines. These include treatments for colds, diarrhoea, eye problems, muscular aches, and sores. And of course the leaves make great sandpaper for sanding spears!



The friendly fruit shop Fig

The big edible fig that you buy at the shops is not a native. Its scientific name is *Ficus carica* and people have been growing them for around 5000 years! It is leaves from this plant that Adam and Eve used to cover their nakedness in the Biblical story of the Garden of Eden.



Fruity Fact Finder

Answer these questions to reveal the scientific name for a figs false fruit.

1. The insect that pollinates a fig.
2. The common name of *Ficus virens*.
3. A type of mollusc that lives in the leaf litter of Rock Figs in central Australia.
4. The scientific name of the edible fig you buy at the shops is *Ficus* _____?
5. Banyan trees develop large aerial _____ that help support the tree.
6. Female wasps get dusted in this as they leave the fig in search of a new immature fruit.
7. These feathered animals often eat figs and help spread the seeds.
8. All figs are in this genus.
9. Which sex of wasp dies in the fig without ever seeing the outside world.

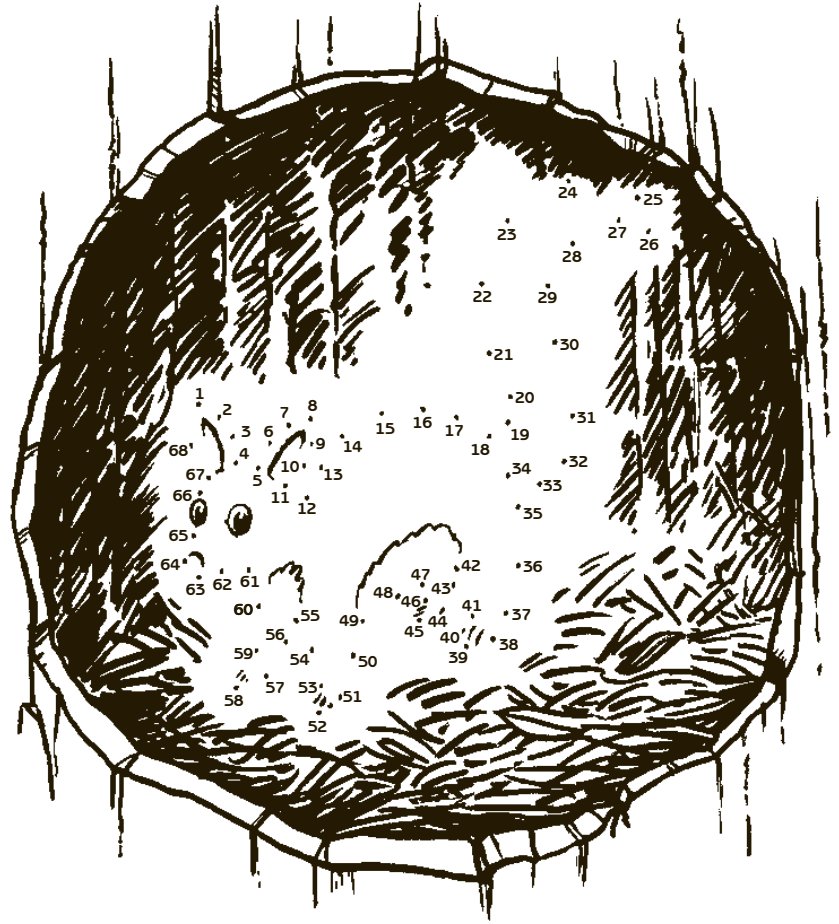
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	2	_____	<input type="text"/>	_____
	3	_____	<input type="text"/>	_____
	4	_____	<input type="text"/>	_____
	5	_____	<input type="text"/>	_____
6	P	_____	<input type="text"/>	_____
	7	_____	<input type="text"/>	_____
8	F I	_____	<input type="text"/>	_____
	9	_____	<input type="text"/>	_____

NATURE quiz

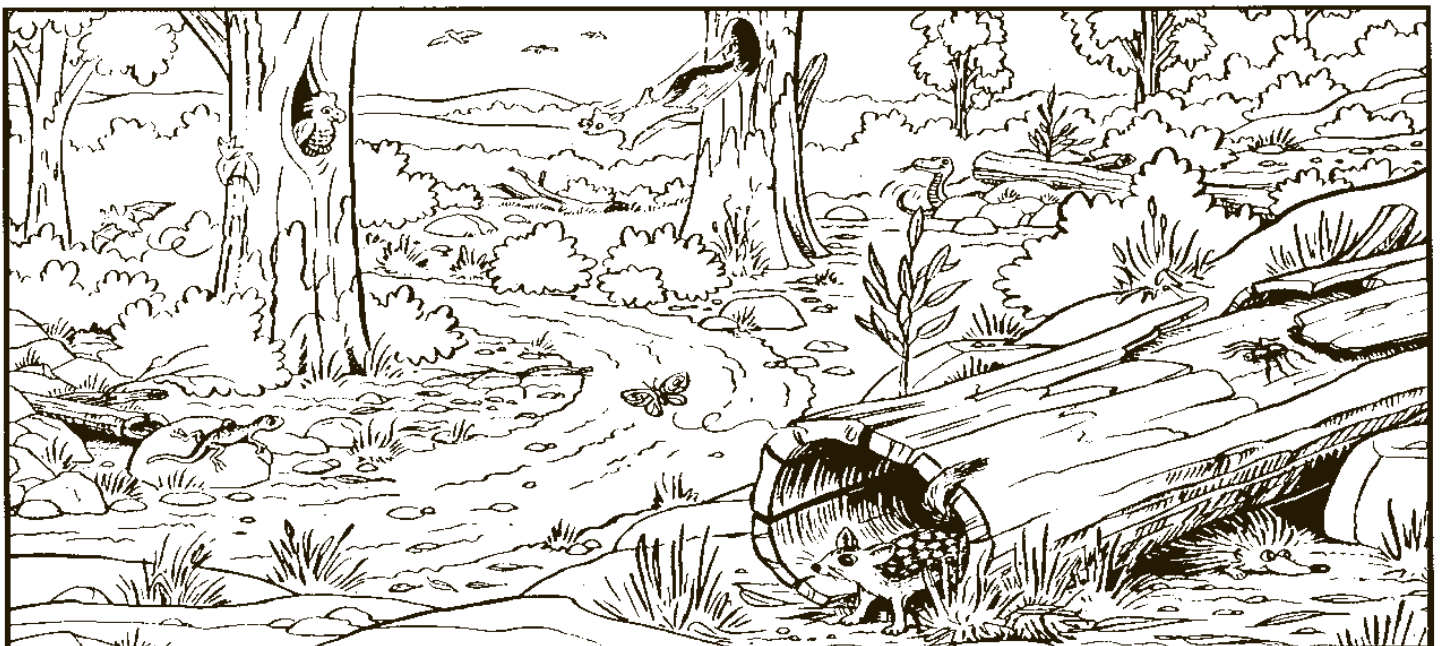
Help protect habitat!

There are 8 native animals living in this typical woodland scene (below). Find them in the picture and draw a line between their name and their habitat (home). One has already been done for you. Once you're done, you could colour it in.

- | | |
|----------------------|----------------|
| Cockatoo | Rocks & logs |
| Spider | Tree hollows |
| Carpet Python | Hollow logs |
| Quoll | Tree bark |
| Echidna | Tree hollows |
| Northern Blossom-bat | Rocks and logs |
| Sugar Glider | Tree bark |
| Gecko | Hollow logs |



Puzzles adapted from Hands on for Habitat by DEH.



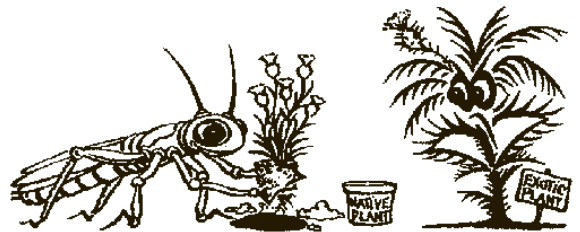
PROJECT *page*

Green kids can make a difference!



There is widespread community concern about environmental issues. Over the year you have read about several threatened species and the problems they face. But don't despair! Here are 6 simple things that you can do to help the environment.

1 Reduce, reuse and recycle! Try to reduce the amount of plastics that you buy. Reuse things when you can (for example, reuse plastic drink bottles). And recycle things like glass, aluminium and paper.



3 Be water and energy wise. Turn off the tap when you are brushing your teeth, as every drop is precious. And turn off the lights when you are not using them!



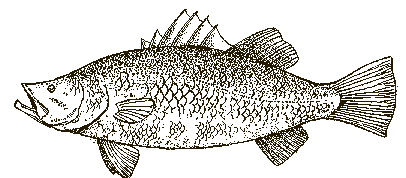
2 Ask your parents if you can plant local native trees instead of non-native ones in your garden. This will not only provide food and shelter for native animals, but it will help stop introduced garden plants spreading into the bush and becoming weeds.

4 Make compost. Refer to issue 2 on how to make your own worm composter, or simply make a compost pile out of food scraps. This will be great for your garden and reduce landfill.

5 Keep your cat and dog under control. Did you know that the average family cat kills 8 birds, 16 mammals and 8 reptiles each year? Keeping them in at night will help. And dogs can kill or stress native animals, so when you go out bush, leave them at home.

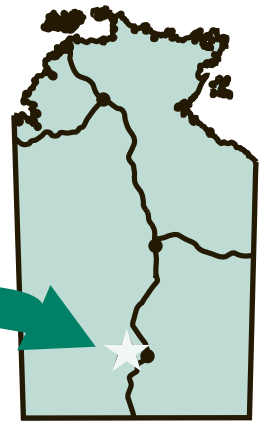


6 Be a responsible fisherman. Throw back fish that are too small. Be careful not to lose your nets, lines, hooks, and sinkers in the water. All sorts of animals can get caught in these.



DISCOVER a territory park

The Larapinta Trail



Where is it?

The Larapinta Trail is an exciting long distance walking track through the spectacular West MacDonnell and Chewings Ranges in Central Australia. The trail starts at the Alice Springs Telegraph Station and finishes approximately 250km West at Mt Sonder. The walk is made up of 12 sections with varying degrees of difficulty.

When is the best time to walk?

It is strongly advised that the walk should only be attempted between April and October. Outside these dates temperatures in Central Australia are very high. Walking in these warmer months should only be done in early mornings or late afternoons.

Do I need to be an experienced bushwalker?

The walk is intended to appeal to 'trekkers' - people who are not necessarily wilderness or map and compass bushwalkers, but are still capable walkers that are prepared to carry reasonable loads and camp out.

Some sections are designed to cater for people with less bushwalking experience and have additional facilities.

How long does it take?

To walk the whole trail you'll need about two weeks. However, walkers can join or leave the trail at a number of 2 or 4WD



The trail is signposted with direction markers

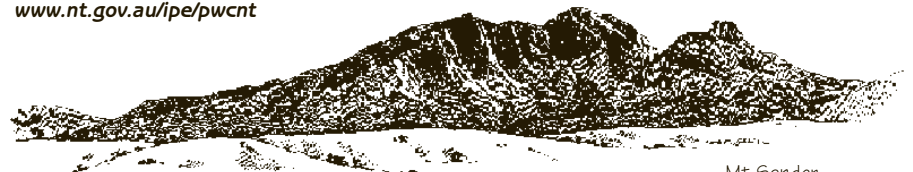
vehicle access points. Each section is usually a one or two day walk.

What's the attraction?

Walkers from all over Australia and the world are coming to Alice Springs to walk the Larapinta Trail. Aside from the rewarding and at times challenging walk experience, the scenery is unique and absolutely breathtaking.

The walk is set in the diverse, rugged landscape of the West

For more info on the trail, maps and the Walker Registration Scheme ph: (08) 8951 8250 or go to: www.nt.gov.au/ipe/pwcnt



Mt Sonder

Puzzle Answers

Plant Profile:

Wasp, Banyan, snail, carica, roots, pollen, birds, Ficus, male - **Synconium**.

Urban Encounter:

A - Beetle, B - Lace wing, C - Mosquito, D - Wasp, E - True Bug.

Creature Feature:

Across: 1 - buffalo, 7 - bodies, 8 - pig, 9 - fence, 11 - eyes, 13 - Timor. **Down:** 2 - forlock, 3 - grass, 4 - Mongolian, 5 - Banteng, 6 - crocodiles, 10 - ecology, 11 - erosion, 12 - horse.

On the Brink:

To stop others from trying to steal their homes they store piles of smelly black poo in their nests.

MacDonnell National Park and scenery ranges from mountain peaks to gorges & dry river valleys.



Keep your eye out for the beautiful plants & animals that call the Ranges home.

The Junior Ranger Review is published four times a year by the Parks and Wildlife Service of the Northern Territory. This edition was written by Dean McAdam, Andrew Pickering, Dave Rochford and Kylie Green. Design and layout by Nanet Pagsanjan. The front cover by A. Pickering. Illustrations by A. Dunlop, A. Pickering, A. Taylor, K. Kessing, M. Andrews, K. Kerr, B. Whiteford and D. McAdam.

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