



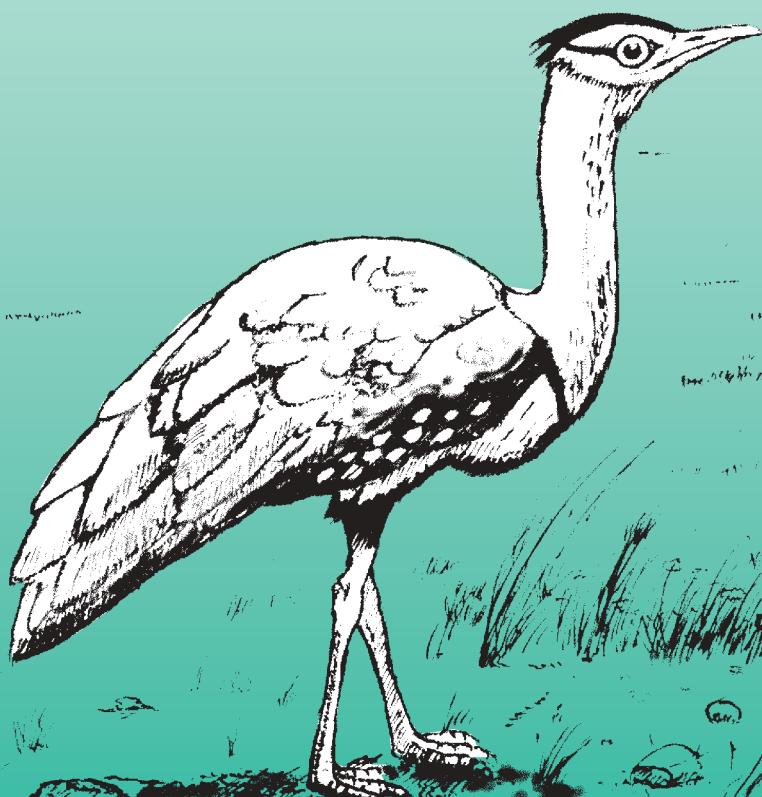
ISSN 1036-966x

Junior Ranger

Review

ISSUE 4, 2003

Special Christmas Edition





Christmas Dinner - a potted history



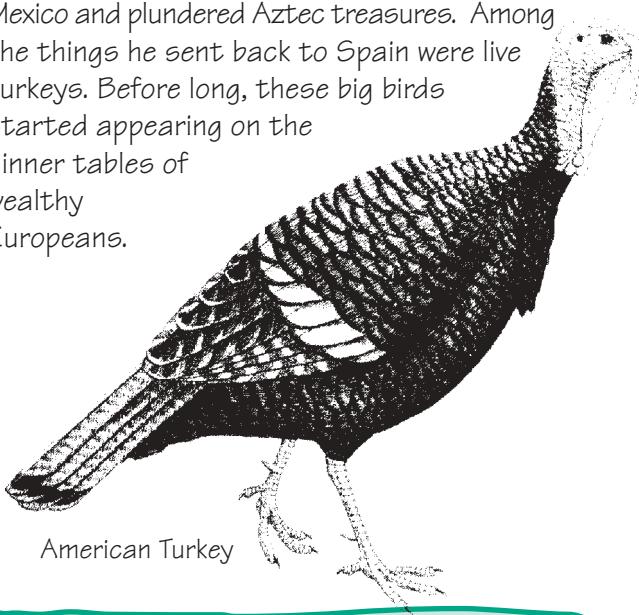
Despite the summer heat, many Australians still prefer to celebrate Christmas with a hot roast dinner in the middle of the day.

American Turkeys

The turkeys we buy in the supermarkets are descendants of birds from North America.

Turkeys still run wild in thickly wooded mountain areas of Mexico and the eastern United States. Mexicans were the first to domesticate them.

In 1519 the Spaniard Hernando Cortez conquered Mexico and plundered Aztec treasures. Among the things he sent back to Spain were live turkeys. Before long, these big birds started appearing on the dinner tables of wealthy Europeans.



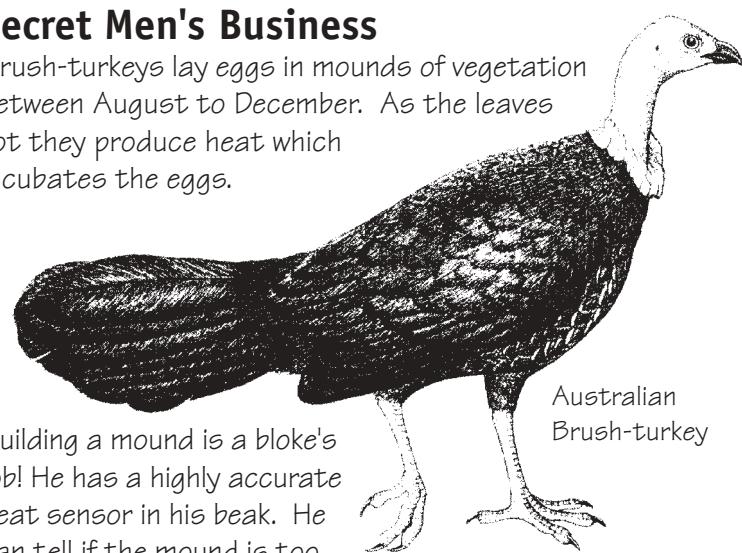
American Turkey

Aussie Turkeys

The Australian Brush-turkey is a bird found in east coast rainforests. Once upon a time the birds' range extended from Cape York to Wollongong but these days they're rarely seen south of Port Macquarie.

Secret Men's Business

Brush-turkeys lay eggs in mounds of vegetation between August to December. As the leaves rot they produce heat which incubates the eggs.



Building a mound is a bloke's job! He has a highly accurate heat sensor in his beak. He can tell if the mound is too hot or too cold by simply grabbing a mouthful.

If the temperature is too high, he will rake the top to allow heat to escape. If it's too cold he'll scrape more material on top.

If a female finds the temperature to her liking she will climb on the mound and mate with its owner. Every few days she will lay a couple of eggs.

How many ladies a bloke can attract to his mound depends on his skill at keeping it at the right temperature.

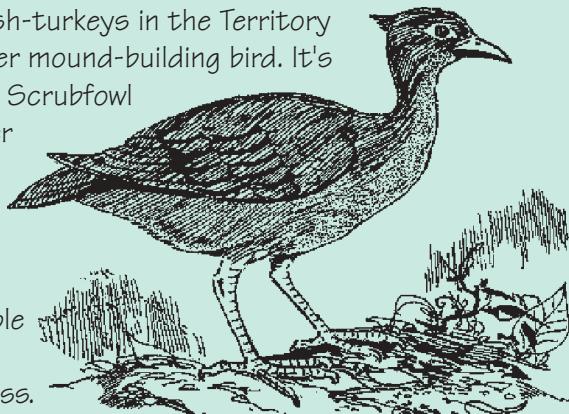
Brush-turkeys are very common in Brisbane parks and gardens, where they're constantly scratching around for insects, fruit and seeds.

(Turkey illustrations by Susan Tingay from *Introduced Birds of the World*, Reed Books 1981.)

Territory Chooks?

We don't have Brush-turkeys in the Territory but we have another mound-building bird. It's the Orange-footed Scrubfowl which is a bit bigger than a domestic chook.

It builds enormous mounds in coastal rainforests: a couple of metres high and several metres across.



Poor Bustard!

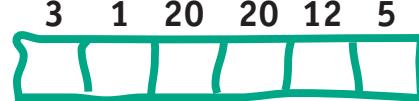
Bustards are commonly called bush turkeys. They're big birds of the outback plains.

Bustards are nomadic creatures that can travel large distances across the country. They chase the rain because they know there will be plenty of food afterwards. (They eat large numbers of crickets and grasshoppers, as well as mice, fruits and seeds).

This unusual bird could once be found almost anywhere there was open country. Now it is only common in the Barkly Tableland, the Gulf Country, the Kimberley and Cape York. However, you occasionally see it on the fringes of Alice Springs and Tennant Creek.

Many a Bustard ended up on the dinner tables of early white settlers. But this isn't the real reason why they've disappeared from many areas. Can you crack this code to reveal the reason.

(Clue: 3 8 18 9 19 20 13 19 is number code for CHRISTMAS.)

Introducing  and  changed the Bustard's . If we want to save our wildlife then we must   .

Did you know...

- The Puritans, who were very stern and conservative Christians, tried to wipe out Christmas festivities in England and America in the 17th century.
- London's Times newspaper did not mention Christmas once between 1790 and 1835.
- Christmas was not an official holiday in Massachusetts (USA) until 1856.
- It was only during Queen Victoria's reign (1837-1901) that some of our most popular Christmas customs became established: Christmas trees, cards and Santa Claus.



Boxing Day

Boxing Day goes back quite a few centuries. It started as a day for giving to the poor.

The name comes from the boxes kept in churches to collect money.

On the day after Christmas the boxes were opened and the contents distributed to the needy of the parish. Food and clothing were also given out.

Lords and ladies in Britain also gave money to their servants on this day. It became an official holiday there in 1871.



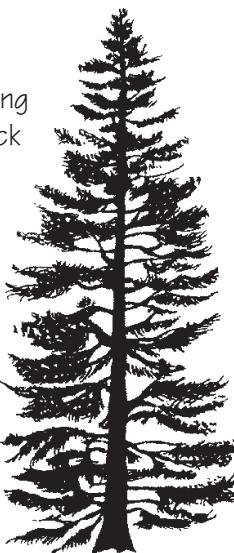
Christmas Trees

For people in the northern hemisphere December means snow, sleighs and roaring log fires. For Australians, it's summer holidays, fun in the water and cricket on TV. But one thing that's the same wherever you live is the *Christmas tree*. How did this custom begin?



The modern Christmas tree started in Germany. However, the tradition of bringing a fir or pine tree indoors dates right back to the Roman times.

They had a 7-day festival called Saturnalia at the end of December to honour Saturn, the god of agriculture. They arranged candles on the tree and decorated their houses with branches from laurel and bay trees.



Fir tree



The Druids of ancient England also brought an evergreen tree inside as part of their winter festival. Many trees lose their leaves in winter in the northern hemisphere. The Druids believed the tree's spirit departed when this happened but pine and fir trees seemed not to die.

In northern Europe the Teutonic (or German) tribes decorated a tree in honour of their chief god Odin (or Woden). The people hung on to the custom after they were converted to Christianity.

The Paradise Tree

For many years German Christians celebrated Adam and Eve Day on 24 December. They decorated a tree, known as the Paradise Tree, with apples. People acted out the story of the Garden of Eden from the Bible.

Martin Luther and Prince Albert

The Paradise Tree has become our modern Christmas tree, covered in shining lights and ornaments.

The German religious reformer Martin Luther (1483-1546) promoted the decorating of Christmas trees as a symbol of 'Jesus Christ bringing new life to the world'. From Germany the custom spread to other parts of Europe.



Queen Victoria, Prince Albert and the royal family around the Christmas tree at Windsor Castle in 1848.
Illustrated London News

Holly

Both the Romans and the Druids also used holly in their winter festivals. They believed that good spirits lived in its branches and it kept away evil spirits.

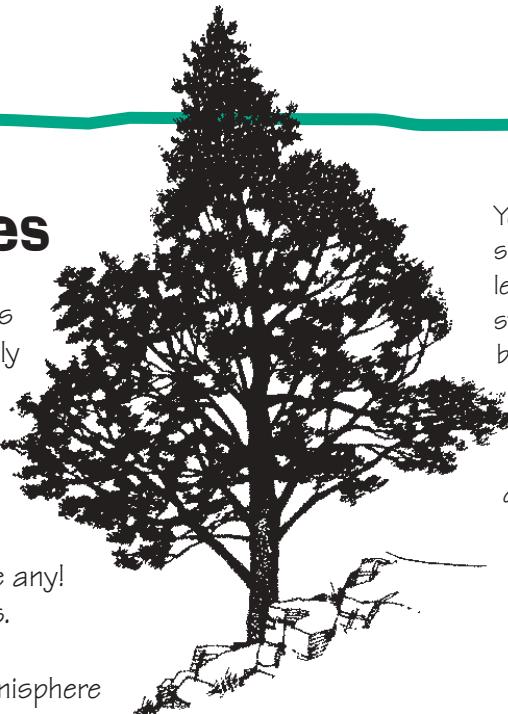
Aussie Christmas Trees

Fir trees are the usual choice for Christmas trees in the northern hemisphere. They don't grow naturally in Australia and so Californian pine trees, grown in timber plantations, are the popular choice for Christmas trees in our country.

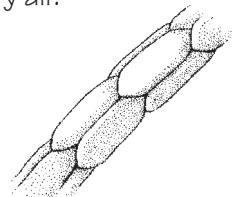
Firs and pines belong to the **conifer** family. You'll never see flowers on these trees. They don't have any! Instead, they produce their seeds in woody cones.

Conifers dominate the forests of the northern hemisphere but they are not so common in Australia. Eucalypts and Acacias dominate our land but we do have a few conifers.

The dry, rocky ranges of central Australian are home to the **White Cypress Pine** *Callitris glauophylla*.



You have to look closely to see the Cypress Pine's leaves. They look like scales, stuck onto the ends of the branches. Having tiny leaves ensures that not much surface area is exposed to the hot, dry air.



Northern Cypress Pine *Callitris intratropica* is a close relative. Extensive stands of the tree grow in coastal regions of western Arnhem Land and Melville Island.

Mistletoe

Mistletoes are parasitic plants that grow on the branches of other trees and shrubs.



How does the mistletoe get there? In Australia, the little Mistletoebird spreads it.

Mistletoe berries are about the size of a pea. They're very tasty but each one contains a very sticky seed.

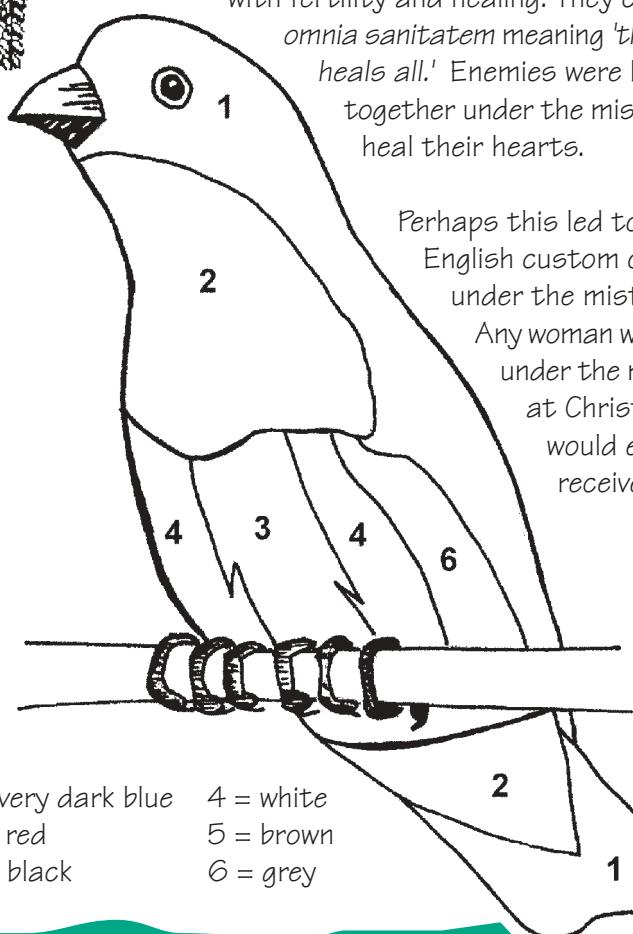
They pass through the bird's stomach quite quickly and are still sticky when they come out the other end.

To get rid of them, the bird twists sideways and wipes its back-side on the branch of a tree or shrub. The seed sticks there and grows into a new clump of mistletoe.

Use the number code to colour this male mistletoebird so you can recognize him in the bush.

Kissing under the Mistletoe

The Druids of ancient England associated **mistletoe** with fertility and healing. They called it *omnia sanitatem* meaning 'that which heals all.' Enemies were brought together under the mistletoe to heal their hearts.



Perhaps this led to the English custom of kissing under the mistletoe. Any woman who stood under the mistletoe at Christmas would expect to receive a kiss.



An Incredible Journey for Christmas in Oz

An amazing thing happens every year in September. About 2 million shorebirds from Siberia, Mongolia, northern China, Japan and Alaska fly to Australia for the summer.

They're called **shorebirds** (or **waders**) because they poke around the edges of bays, estuaries and swamps.

There are over 50 species of them. Some are so small, they could fit inside a wine glass.

In April they return to the Arctic Circle to breed. By the time they get there, the winter snows will be melting and there will be lots of insects for them to feed on.

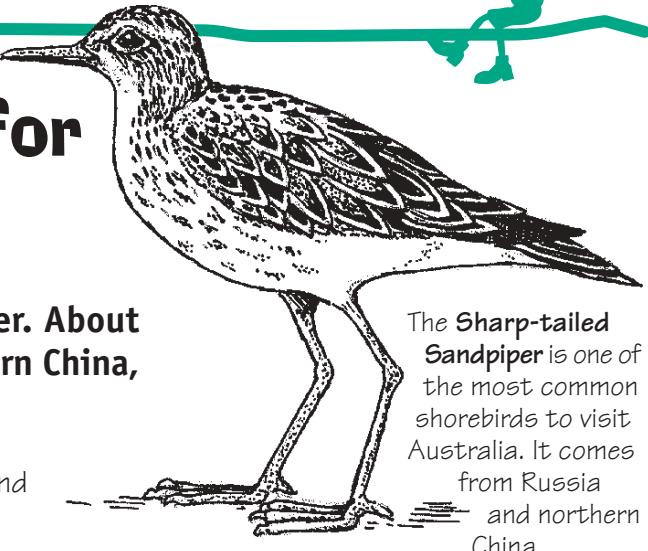
Flying 12 000 kilometres, twice a year

How do these birds manage to fly such enormous distances from the top of the globe to Australia and back again each year?

They may be small but they have long wings and strong muscles, and are very energy-efficient. They are also very skilful at navigating by the stars and hitching a ride on the prevailing winds.

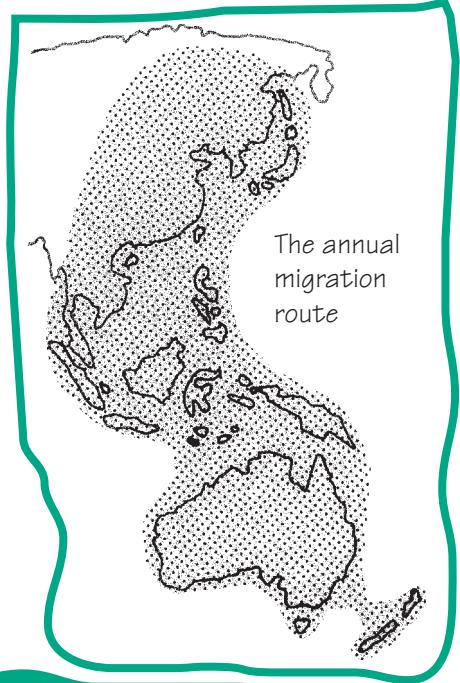
Before taking off, they feed almost continuously on insects, crustaceans and worms to build up the fat supplies in their bodies.

Scientists and birdwatchers who have studied them say these birds stop off at exactly the same places each year. Unfortunately many of these wetlands in Asia are under threat as the countries of the region undergo rapid growth and development.

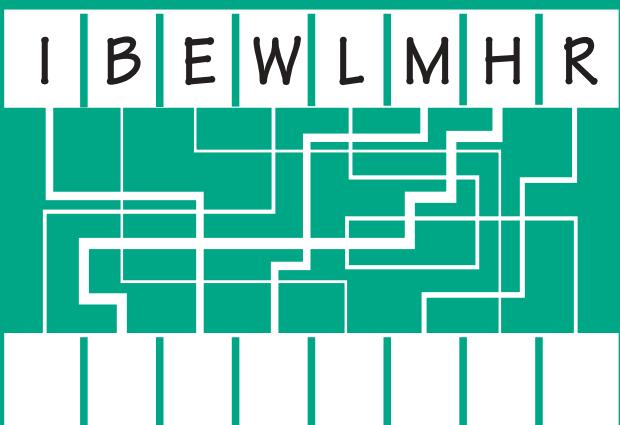


The Sharp-tailed Sandpiper is one of the most common shorebirds to visit Australia. It comes from Russia and northern China.

Most of the birds spend their time in Australia along the coast but some prefer inland lakes and sewerage ponds.



A Rushin' Russian



This bird from Siberia can cover the distance in just two hops. It's called the Little Curlew but Darwin people know it by another name.

Rearrange the letters to reveal the answer.

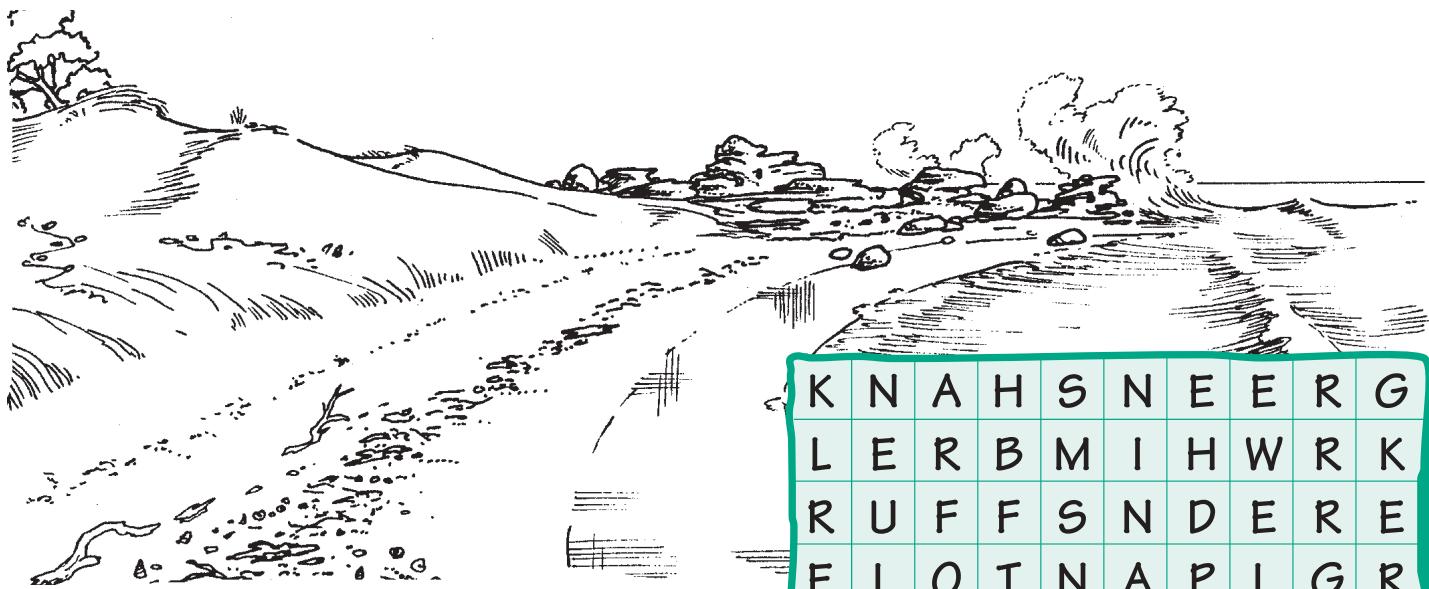
You see this bird on school ovals in Darwin in October and November. It moves to the grassy plains of the Gulf Country when the big rains come in December.



Wader words

Can you find the names of these 18 waders in the grid?

You should have 7 letters left over. String them together to spell out the best time to look for waders along the Top End coast.



ASIAN DOWITCHER
BAR-TAILED GODWIT
DUNLIN
GREAT KNOT
GREENSHANK
GREY PHALAROPE
GREY-TAILED TATTLER
JAPANESE SNIPE
LESSER YELLOWLEGS
LITTLE CURLEW

LITTLE STINT
RED KNOT
RED-NECKED STINT
RUDDY TURNSTONE
RUFF
SHARP-TAILED SANDPIPER
TEREK SANDPIPER
WHIMBREL

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

Another Arctic Migrant

The Arctic tundra is a vast treeless area at the top of the world. This is where many of the sandpipers and other shorebirds head, after spending Christmas in Australia. They're joined in June-July by vast herds of caribou (or reindeer).

The caribou walk over a thousand kilometres to give birth in this land of the midnight sun. In August they trudge south again.

Reindeer facts

- Caribou are the only deer in which both sexes have antlers.
- They have broad, expandable hooves that make travelling over snow easier.
- They don't have red noses.

Rudolph the Red-nosed Reindeer

In 1939 Robert May, who worked in the advertising department of Montgomery Ward department store in Chicago, wrote a poem about a reindeer who helped Santa. It was printed as a small booklet and given to every child who visited the store's Santa.

At first he was going to call the reindeer Rollo and then thought of Reginald, before finally settling on Rudolph.

His friend Johnny Marks set the poem to music in 1949. It was recorded by western singer and film star Gene Autry and quickly shot to the top of the best-selling list.



Christmas is stinger season in the north!

For many Australians, Christmas is a time for lazing on the beach. But that's not a good idea in the Northern Territory, north Queensland or the top of WA.

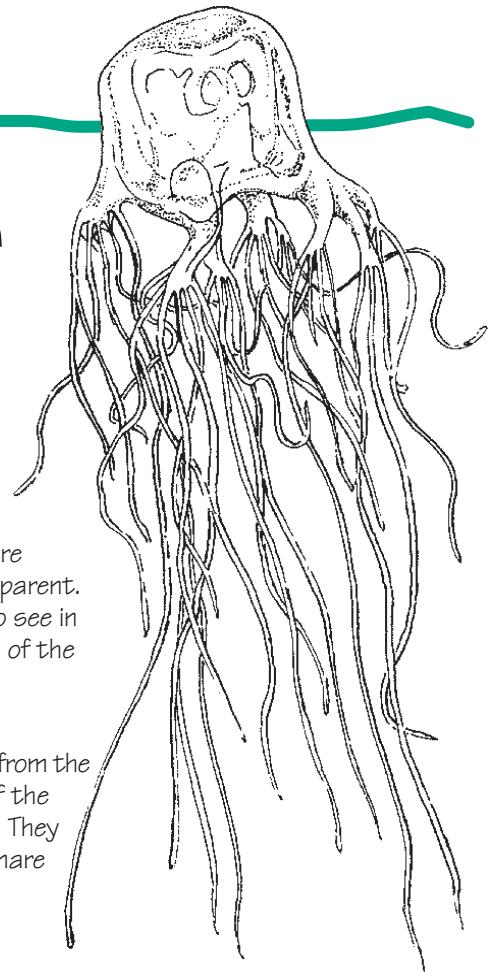
Deadly Box Jellyfish (*Chironex fleckeri*) inhabit the warm coastal waters of northern Australia from October to March.

They don't like heavy surf and rocky areas. (They prefer quieter beaches near creeks and estuaries.) However, it's best not to swim in the sea anywhere in the Top End at this time of year.

Box Jellyfish don't attack people. When people get stung, it's usually because they have accidentally walked or swum into the jellyfish's tentacles before it has had time to get out of the way.

Box Jellyfish are virtually transparent. They're hard to see in muddy waters of the wet season.

Long, stinging tentacles trail from the four corners of the jellyfish's body. They use them to snare small fish and prawns.



Where do the stingers go in the dry season?

At the end of the wet season, adult jellyfish move from the sea into coastal estuaries to lay eggs and die. The eggs settle on the bottom of the estuary and grow into minute, slug-like polyps. These tiny creatures feed on plankton.

They stay in the estuaries until late in the dry season. By that time they have grown into jellyfish. They swim towards the sea where they'll spend the wet season catching small fish and prawns. By Christmas time they've grown quite big and are a threat to swimmers.

CRACK THE CODE

Stinger First Aid

Can you crack the code? A = 10, B = 11, Z = 9

Pour	21	24	3	2	24	15	5	18	23	14	16	10	1
	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
	1	4	11		2	10	23	13					
Don't	[]	[]	[]		[]	[]	[]	[]					

on the wound.

on it. That will make things worse.

Don't take risks. Wear long clothing to cover your arms and legs if you must go in the water during the wet season. (e.g. when getting in and out of a boat.)



Christmas Quiz

How many of these questions can you answer?
You'll find the answers on page 11 but don't peek!

1. Santa Claus doesn't really live at the North Pole.
He lives in
 - a. Holland.
 - b. Finland.
 - c. Siberia.
2. Can you name the 8 reindeer who normally pull Santa's sleigh on Christmas Eve?
3. Dutch children receive presents on St Nicholas' Day which is
 - a. 6 December.
 - b. 25 December.
 - c. 6 January.
4. St Nicholas lived at the end of the third century in
 - a. Holland.
 - b. Russia.
 - c. Turkey.
5. When should you take down your Christmas Tree?
 - a. Boxing Day (26 December).
 - b. New Years Day (1 January).
 - c. On the twelfth day of Christmas (5 January).
6. The most popular way to cook a Christmas turkey in America in the early days was to
 - a. boil it.
 - b. roast it.
 - c. make a stew with vegetables.
7. In 1843 Charles Dickens wrote a bestselling book featuring the characters Scrooge, the Cratchits and Tiny Tim. What was it called?
8. What does the French word Noel mean?
9. What famous Christmas carol did Austrian Joseph Mohr write on Christmas Eve 1818?
 - a. The First Noel.
 - b. Silent Night.
 - c. Hark the Herald Angels Sing.
10. In which state of Australia is Boxing Day not a public holiday?
 - a. South Australia.
 - b. Queensland.
 - c. Tasmania.

Brain Teaser

Who am I?

Can you put the boxes together in the correct order to spell the names of 3 Territorians?

per

I am a plant that grows in an unusual place.

toe

dpi

I am a bird that visits at Christmas.

ish

tle

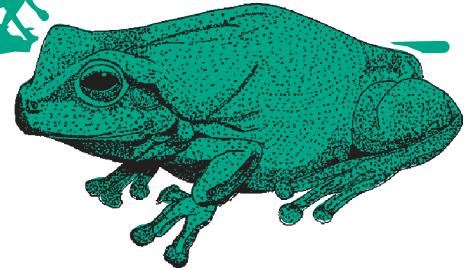
I am a dangerous sea creature.

lyf

mis

san

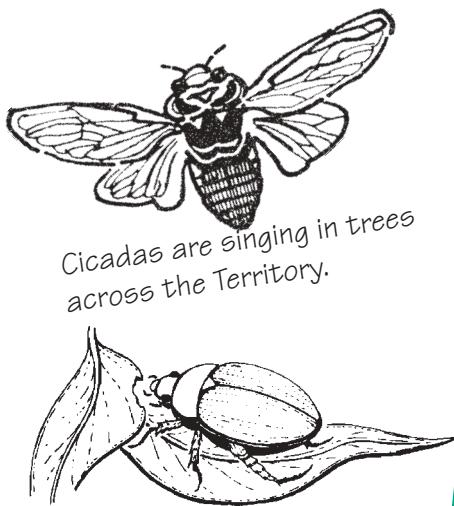
jel



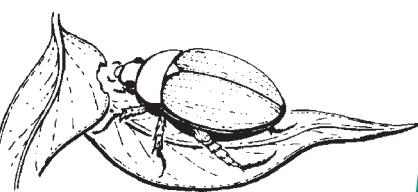
Nature Diary

Keeping a diary is a good way of tuning in to nature.

There's lots of things happening this time of year.



Cicadas are singing in trees across the Territory.



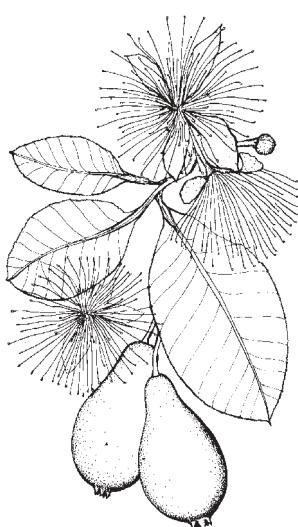
Christmas beetles are busy.

Plants are growing everywhere.

There's fruit on the Leichhardt Trees along the Katherine River.

River Red Gums, Ghost Gums and Coolibahs are flowering in Central Australia.

Cocky Apples are ripe in the north.



Torres Strait Pigeons, Dollarbirds, Channel-billed Cuckoos and Koels have flown to the Top End from New Guinea and Indonesia.



Saltwater crocs are moving upstream to breed on the floodplains of the Top End.

Nature Diary
Record your own Christmas observations here.

All kinds of reptiles are active. Geckoes are busy.

Did you know.....

Christmas Cards

The custom of sending printed cards was started in England by businessman Sir Henry Cole in 1843. He asked artist John Calcott Horsley to design a card for him and had a thousand printed. It showed a happy family eating and drinking and the words A MERRY CHRISTMAS AND A HAPPY NEW YEAR TO YOU.



The introduction of the penny post by Sir Rowland Hill in the 1840s made cards popular. (Previously mail was much more expensive and the price depended on how far the letter was going). Around the same time, colour printing was invented.

In 1862 Charles Goodall & Sons in London became the first to start printing and selling cards on a large scale.

Christmas Bonbons

This is also a British tradition started by lolly manufacturer Tom Smith in the 1840s. He was inspired by some sweets, called bonbons, that he saw in France, wrapped in brightly coloured paper.

Tom decided to wrap his sugared almonds in similar paper. They sold well and became a popular gift for a man to buy for his sweetheart. So he added little slips of paper with 'love mottoes'.

In 1846 he had another idea. He decided to make special Christmas bonbons with paper hats and small toys inside instead of sweets.

Later still he came up with the idea of including a cracker strip. The story goes that he was inspired by the crackling sound of a log burning on a fire.

PUZZLE ANSWERS

On the Brink (page 3)
Introducing sheep and cattle changed the Bustard's natural habitat. If we want to save our wildlife then we must save the bush.

Creature Feature (pages 6 & 7)
Whimbrel
low tide

Urban Encounters (page 8)
Pour lots of vinegar on the wound.
Don't rub sand on it.

Christmas Quiz (page 9)

1. b
2. Dasher, Dancer, Prancer, Vixen, Comet, Cupid, Donner and Blitzen
3. a
4. c
5. c
6. c
7. A Christmas Carol
8. Christmas
9. b
10. a

Project Page (page 10)
jellyfish
mistletoe
sandpiper

Around the traps



G'day from Ranger Bill

G'day again and welcome to this special Christmas edition of the Junior Ranger Review for 2003. You will see that it is jam packed with festive articles that highlights things happening in the bush this holiday season. This issue is also special as it marks the 50th edition from its humble beginnings in 1991. A big pat on the back for all the Community Education staff for the great work they have done in developing and publishing such a useful environmental source of knowledge. Special thanks must go to Stuart Traynor who has steadfastly continued to write the Review for all these years. Great job Stuart! Thanks also to all the artists whose images come to life in the Review.

During this year's Junior Ranger Program it has been encouraging to see so many young people commit themselves to learning and appreciating the Northern Territory's natural and cultural environment. Many thanks must go to the many parents and guardians who have played such a large role in supporting their children's involvement in this program. Planning is already underway for the 2004 program and we look forward to continuing our service to you.

All of us here at the Parks & Wildlife Service wish you all a very merry Christmas and a fantastic New Year. Keep safe and we look forward to bringing you more environmental stories from around the Territory in 2004.

Darwin

The onset of another wet season also marks the end of another fantastic Junior Ranger Program. I was lucky enough to meet most of you in the last activities of the year as I filled in for Ranger Vanda. This included a Mangrove Meander, learning about crocodiles, and spot lighting at Holmes Jungle.

Another highlight for me was the end of year celebrations for both programs. For the 9-11 year olds, over 100 Junior Rangers and family members enjoyed an activity trail, BBQ and certificate presentation with the Honourable Kon Vatskalis at the George Brown Darwin Botanic Gardens. The 12-14 year olds planned and ran a camp at the Litchfield

National Park Education Campground. I was really impressed with the way the Junior Rangers cooked and cleaned up for all of the adults. Both activities were great fun and the food was delicious!

As we start to get the first storms of the wet season, it is amazing the way the bush around Darwin is being transformed. All the plants are looking fantastically green with their fresh flush of new leaves. Many plants are starting to flower and even the tiny spear grass seedlings have sprouted, giving the brown and blackened ground a green tinge.

The Top End's animals are becoming more active as well. More flocks of the magnificent

Red-tailed Black Cockatoo's are on the move, and lizards and snakes are also out and more active. Take this opportunity to make the most of the wonderful chorus of frog calls at night. When Cane Toads arrive here in the near future, things will sound very different!

We would like to take this opportunity to thank all members of this year's program for their support and attendance. This also applies to their parents/guardians for providing transport and help at the various activities. Have a safe and happy Christmas and New Year, and we hope to see you again in 2004.

Catch you out and about
Ranger Dave and Ranger Dean

Alice Springs

It has been another busy year for the Junior Rangers in Alice Springs and Tennant Creek. Members have been involved in bird watching at the sewerage ponds, nocturnal mammal spotting, small mammal trapping, learning about the importance of biodiversity, testing water quality, identifying insects, stargazing, bush navigation and reptile identification, just to name a few.

Our most recent activities were The Great Marsupial Night Stalk in Alice Springs in September, a quiz night in Tennant Creek for Threatened Species Month and parties for family and friends at both the Alice Springs and Tennant Creek telegraph stations

The Junior Ranger Program will take a break over summer and kick off again after Easter with a heap of new activities that I hope you'll find lots of fun.

Have an enjoyable and safe Christmas. I look forward to seeing you all again out in the bush in 2004!

Ranger Emily.

Katherine

Ranger Andrew has had a nice break recently, due to the arrival of a baby boy in his family named Angus. Just before Ranger Andrew went on leave Junior Rangers participated in many activities and experienced just how wonderful our bush is. One activity included another visit to our Junior Ranger pond where we witnessed first hand the impact of noxious weeds on our environment. Cumbungi or bulrush has been trying to take over our pond and our beautiful lilies were being smothered. We needed to carry out some serious hand weeding to control the outbreak

and save our native pond ecology. Junior Rangers also had fun taking part in the following activities: spotlighting wildlife by foot; making habitat boxes; recording migratory birdcalls; examining termites and ants by carefully dissecting a few mounds and we also visited Cutta Cutta Caves Nature Reserve for a wildlife tour. We went: spotlighting along the roads of Katherine by bus; learnt about earthworms and how to care for them in earthworm farms (which Junior Rangers got to take home) and lastly we all went on a crocodile spotlighting cruise on the Katherine River. And the

Program hasn't finished yet! Junior Rangers are also busy taking part in Frog Watch. Around Katherine a huge frog chorus has started up at night and Junior Rangers are recording the calls of different species to make locating and identifying them easier. These recordings are important because they are a record of native frog species in this area prior to the arrival of Cane Toads. Over the last two years we have noticed that the Giant Frog, *Cyclorana australis* has disappeared from our records. We need to make a determined effort

this year to see if any of them have survived the effects of the Cane Toad invasion.

This is a great time of the year to experience our bush environment because with the first rains our bush bursts into life and colour after the long dry season. Electrical thunderstorms are also a spectacular feature of nature to watch at this time of year.

We have had a great year and I hope to see you all again next year.

Have a Merry Christmas everyone and a Happy New Year.

Contributions are welcome and should be sent to:
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PO Box 496
Palmerston NT 0831

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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 Stuart Traynor. Design and layout are by Action Print. The front cover was designed by Andrew Pickering. Illustrations in this edition are mostly by Bob Whiteford with extras by Adi Dunlop, Sharon Hillen, Kaye Kessing, Susan Tingay and Robert Walter.