



# KOALAS for kids

## Did you know?

Fascinating facts about koalas.

## The life of the koala

How a tiny pink jellybean grows into a koala.

## Koala numbers are declining

Find out why.

## What is being done to help koalas?

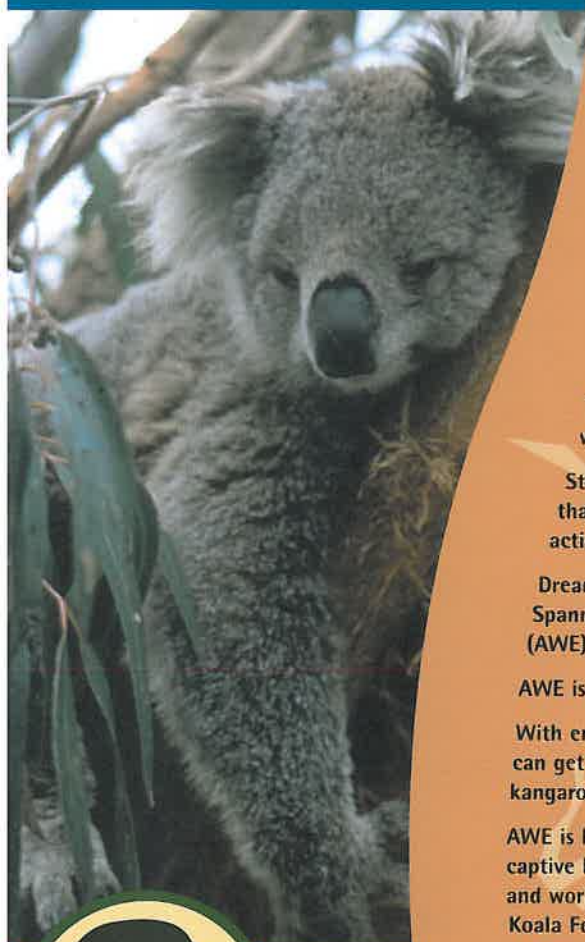
Easy ways for kids to help, too!

**...and much more!**

**No Tree...  
No Me!**



Everyone loves Australia's cute, cuddly koalas, but are they protected? Did you know that koalas are in trouble? The Australian Koala Foundation estimates there are less than 100,000 left in the wild today. There were millions of koalas in Australia 100 years ago. Why have koala numbers fallen and what can you do to help them?



"I am a proud Australian and I care

about our animals, especially koalas. I want to help them live on for our children and our children's children."

Tiffany (12)



This book belongs to \_\_\_\_\_

Koalas are unique animals that mean so much to the world. In conservation terms, the koala is a 'flagship species' for other lesser known parts of the ecosystem.

The koala's struggle tells us that the bush is in trouble. It is important that we all understand the plight of the koala and what we each can do to help them.

This booklet is proudly produced by the Australian Koala Foundation and is sponsored by Dreamworld.

## Worlds of Education at Dreamworld

With a huge range of education programs with tailored options to suit the individual needs of each class, Dreamworld is now Australia's largest interactive class room and the only place where the physics is fast, the biology breathes and the maths adds up to the time of your life.

Dreamworld's Safari Program is an educational and motivational experience to encourage an early appreciation of the needs and unique adaptations of living things.

This innovative and hands on program takes Prep to Year 3 students for a walk on the wild side with up close and personal encounters with Dreamworld's wonderful wildlife.

Students can visit Tiger Island or The Australian Wildlife Experience, or opt for a program that incorporates both with a curriculum-linked workbook containing pre and post visit activities.

Dreamworld is home to one of the largest native wildlife parks in south-east Queensland. Spanning almost 4 hectares of the famous theme park site, the Australian Wildlife Experience (AWE) showcases the very best of the Australian outback all in one great location.

AWE is now a sanctuary for more than 800 native animals including many Australian icons.

With enclosures specially designed to represent animals in their natural environment, guests can get up close to purebred dingoes, emus, cassowaries, saltwater crocodiles, Tasmanian Devils, kangaroos, wombats and koalas.

AWE is home to the second largest captive koala colony in the world and works closely with the Australian Koala Foundation to save koalas in the wild.

Dreamworld's Education Program runs all year round. Bookings are essential and can be made by phoning 07 5588 1184 or check out [www.dreamworld.com.au](http://www.dreamworld.com.au).



The Australian Koala Foundation gratefully acknowledges the generosity of Dreamworld for providing the funds to produce this valuable education resource.

Very special thanks to:

Julie Pfitzner, Design College Australia, Brisbane

Design, graphics and layout: Claire Allen and Daniel Richards, Design College Australia

Additional graphics: Colin Merrill, Edwina Serisier

Photo credits: Christiane Scheffler, Ann Sharp, Martin Medingdorfer, Georgeanne Irvine, Vicki Pender, Wendy Blanchard, Margherita Dalu, Dave Mitchell, Phillip Wright, John Oxley Library



# When Giant Koalas Roamed the Earth

## A Brief History of Koalas

**K**oalas probably evolved over 25 million years ago in the forests which covered Australia at that time. Fossils of several extinct species of koala have been found. These extinct koalas were much larger than the ones today. They were like giant koalas!

Koalas feature in many legends from the Aboriginal Dreamtime. Some legends say that koalas have power over the rains and that if people treat them with disrespect, there will be a big drought.

In the days before Europeans came to Australia, there were many more koalas than there are now.

Since European settlement in 1788, much of the koala's bushland has been cleared for farms, towns, roads, mines and logging, leaving many koala populations with no homes or food.

From the early 1800's until the 1920's, millions of koalas were hunted and killed for their furs. Many people were outraged, and eventually the koala was made a Protected Species in all states by 1937. This means that no one

is allowed to harm a koala. However, there are no laws to protect the gumtrees which koalas rely on for food and shelter.

The word 'koala' is thought to have come from an Aboriginal word meaning 'no drink' because koalas obtain most of the moisture they need from gumleaves.

John Price, a servant of Governor Hunter, was the first European to record koalas on 26th January (Australia Day!) in 1798 during an expedition to the Blue Mountains.

In 1814, the koala was given the scientific name *phascolarctos cinereus*, meaning 'ash-grey pouched bear', by French and German naturalists. Today we know that the koala is not a bear. It is a marsupial.

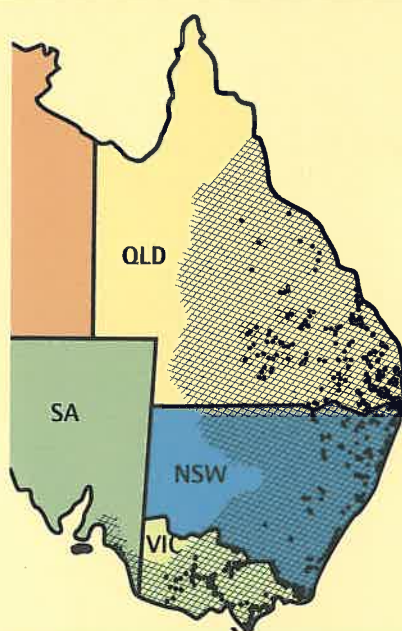


Koala skins on their way to market in the 1920's. Now the koala is a Protected Species, but its gum trees are still not protected by law.

## Where Do Koalas Live?

Australia is the only country in the world where wild koalas are found. They live in the states of Queensland, New South Wales, Victoria and South Australia. The map shows where koalas used to live at the time of European settlement in 1788, and where they are found today.

 1788  
 Today



## Project Hints



- Find an Aboriginal legend about a koala and include it in your project or read it to your class.
- Find out what it means to be a 'Protected Species'. Does it mean the habitat is protected?

"Koalas are our history and heritage. We should make it our business to make them our future"



Crystal (14)



# Did You Know?

## Some Fascinating Facts About Koalas

Koalas have noses which are large and covered with black leathery skin. They are very sensitive to all the smells of the bush. This is important so they can sniff the gumleaves to decide which ones they like and which are safe to eat, to smell the scent warnings put on trees by other koalas, and to sense danger. Male koalas also rely on their sense of smell to know when females are ready to mate.

Koalas communicate with each other by making a range of loud bellowing and snorting sounds, as well as using scent. Mothers and joeys make soft grunts and eelicking, squeaking and humming sounds to talk to each other.

An adult male koala can weigh between 8 and 14 kilograms and a female between 6 and 11 kilograms. The larger animals come from the cooler southern parts of Australia. For extra warmth, southern koalas also have thicker fur than northern koalas.

Koalas are not bears. They are marsupials. This means that their young are born very tiny and then grow bigger in the warmth and safety of a pouch.

Koalas' eyesight is generally poor so they rely on their keen senses of smell and hearing to help them survive in the bush.



### Male or Female. How do you tell?

A mature male is easily recognised by the brown scent gland in the centre of his white chest. he rubs this on the tree in order to mark his 'home trees' to tell other koalas that this is his territory. Females are smaller, have a pouch in the centre of their abdomen and, like young non-breeding males, have a plain white chest.





### Koalas Have Special Raincoats!

Koalas have thick woolly fur which protects them from both the heat and the cold. It acts like a 'raincoat' so they do not get wet when it rains. Their fur varies in colour from light grey to brown, with white patches on the chest and neck and on the insides of the arms, legs and ears. The fur on a koala's bottom is thickly packed to make a 'cushion' for the hard branches. It has a speckled look which makes koalas hard to see from the ground.

Koalas are mostly nocturnal, generally sleeping during the heat of the day and being awake during the night and at dawn and dusk. An average of 18 to 21 hours each day are spent sleeping or resting. This is how koalas save energy.

Koalas sit and sleep in many different positions, sometimes curled up, sometimes dangling. When climbing down a tree, they come down bottom first. Once on the ground, they are in danger from enemies such as foxes, dingoes and domestic dogs, and also from injury or death by cars. They walk with an awkward gait. They can also run, and can swim if necessary.

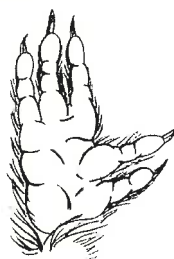


"These beautiful little creatures fascinate me"

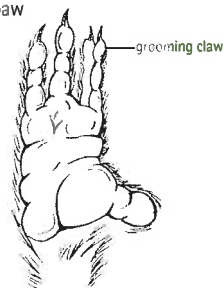
**Sylvia (10)  
Spain**

Koalas are especially adapted for living in trees. They have very strong forelimbs, which are equal in length to their hind limbs, and their body is lean and very muscular. This gives them extra strength for climbing. Despite having no visible tail, they have an excellent sense of balance.

front paw



hind paw



### Project Hints



- Make a mobile by cutting out a koala picture, glueing it to cardboard and hanging from it paper gumleaves with 'koala facts' written on them. Hang it in your classroom.
- What are some other marsupials? Where do most of them live?

### Koalas have Two Thumbs!

Koala paws are well designed for gripping and climbing. Rough pads on their palms and soles, and sharp claws, help the koala to grip branches firmly. There are five fingers on each front paw. Two of these are opposed to the others. This helps them to hold tightly on to the branches and to grip their food. On the hind paw, or foot, there is no claw on the big toe and the second and third toes are joined together to form a 'grooming' claw, which is used for scratching and for removing ticks.





# From Pink Jellybean to King of the Gum Trees.

## The Life of the Koala

**K**oala babies are called 'joeys'. The joey is born about 35 days after the parents have mated. A newborn joey looks just like a pink jellybean! This is because it is about 2 centimetres long, has no fur and its eyes and ears are not yet fully formed.

Incredibly, the joey makes its way from the birth canal to the pouch without any help from its mother, climbing up through the fur on the mother's abdomen to the pouch opening. Once inside, it attaches itself to one of the two milk teats which swells to fill its mouth.



Koala joeys are born without fur, and with their eyes and ears not yet fully developed. This joey is about 2 to 3 months old.

The joey stays inside the pouch for the first few months of its life and drinks only mother's milk. Slowly it grows, developing eyes, ears and fur.

From about 5 or 6 months, the joey pops its head outside the pouch and feeds upon a special food called 'pap'. Pap is a soft and runny form of the mother's droppings which allows the mother to pass on to the joey special micro-organisms which are necessary for the digestion of gumleaves.

By about 7 months of age, the joey will be leaving the pouch for longer and longer periods of time, and it

rides on its mother's tummy or back, gradually getting used to the diet of gumleaves, although it still returns to the pouch to drink milk until it is too big to fit inside.

The young koala leaves home to take care of itself sometime between 1 and 3 years of age, when the mother's next joey comes out of the pouch. Koalas are fully grown by their third or fourth year.

The breeding season runs from about September to March, and this is a time when koalas are very active. Females start breeding at about 3 or 4 years of age. They can have one joey each year, but not all females breed each year. Some produce joeys only every two or three years.

In good habitat in the wild, male koalas live for about 10 years, while females may live a few years longer. However, koalas in suburban areas might only survive for a few weeks, months or years, because of the dangers of having to contend with cars and dogs, and of having to live in damaged habitat.



"I love koalas because they are cuddly and they are cute."

Meriya (8)



## Project Hint



When presenting your project to your class, dress up as a koala. Make a black nose from an egg carton, and some koala ears, or make a cardboard or papier mache koala mask.

"Baby koalas like to sleep in gum trees. Stop cutting down the trees because the baby koalas like playing in them."

Agatha (4)





# Do Koalas Really Get Drunk on Gumleaves?

## The Koala's Diet and Habitat

**S**ome people think that koalas sleep a lot because they get drunk on the eucalyptus oil in gumleaves! That's not true. Koalas sleep or rest for up to 21 hours each day because their bodies need a lot of energy to digest the tough fibrous gumleaves, and when they are sleeping they save energy.

An adult koala eats between 200 to 500 grams of leaves each day. Koalas eat mainly eucalyptus leaves (gumleaves). Occasionally they will eat the leaves from some other native Australian trees, and they also use certain trees just for resting in.

Very few animals can survive on a diet of gumleaves. They are very fibrous and low in nutrition, and this is why they take a lot of energy to digest. As well, to almost all other animals they are poisonous.

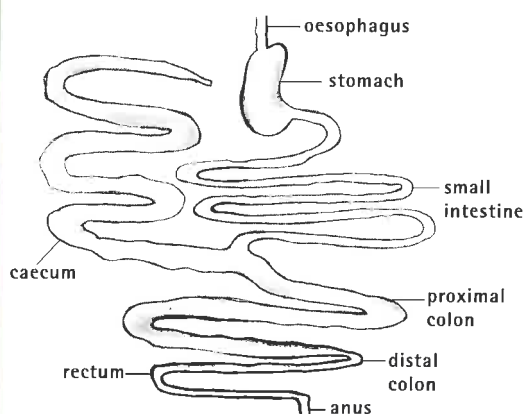
However, koalas are especially adapted to eat this diet. They have a special part in their intestine, called a caecum (pronounced see-kum), which is very long and broader than the rest of the intestine and which contains millions of micro-organisms (tiny organisms) that break down the gum leaves so they are easier to absorb. There is water in the gumleaves, too, so that koalas rarely need to drink.

Koala teeth are especially adapted for their gumleaf diet. Their sharp front teeth nip the leaves from the tree and their back teeth are shaped for cutting and grinding the leaves to extract the most nourishment.

Koalas live in tall open eucalypt (gum tree) forests. The areas of bushland where they like to live are called their HABITATS.

Koalas can only live in bushland where their favourite trees are growing, and they will only eat a few of the hundreds of species of eucalypts which grow in Australia.

A Koala's Digestive System

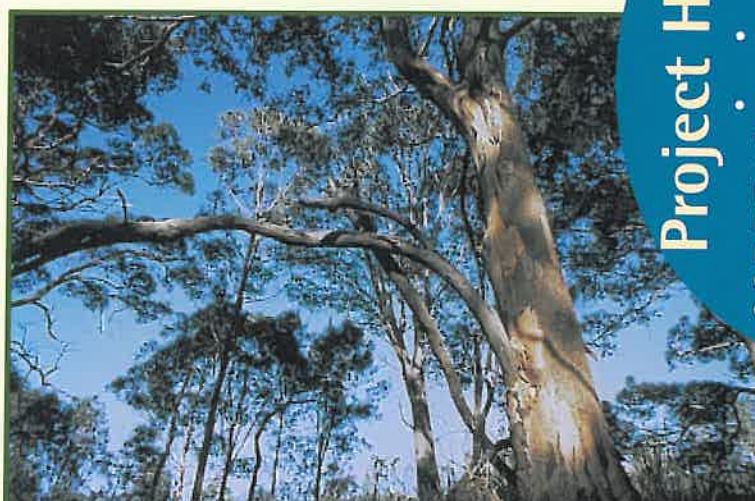


Just as people in different countries like the kinds of foods they are used to eating, koalas in different areas of Australia like to eat the leaves from different types of gumtrees. For instance, koalas in Victoria eat the leaves of different gum trees from those eaten by koalas in Queensland.

Like pasture for sheep, a forest can only support a limited number of koalas because the available gumleaves

can only feed a certain number of koalas. If there are too many koalas in an area of bushland, they may eat more leaves than the trees can regenerate and the trees may die. Then the koalas may die, too.

When the forest is in balance, this does not happen, but when the forest and the surrounding land has been damaged by clearing, logging or pollution, the animals which live in that forest will suffer, too. In most cases, we humans are responsible for damaging and changing many fragile ecosystems on earth, some of which support koalas.



## Project Hints

- Find out more information about 'ecosystems'.
- Find out what 'micro-organisms' are.
- If you live in a koala area, find out what type of eucalypts the koalas in your area like to eat. Bring a potted seedling of one of them to show your class.



"Our beautiful koalas can't live without their gumtrees."

Samantha (7)







## Koalas Live in Families, Too!

### How Koalas use the Bushland

**M**ost of us like to live together in a house with other members of our family. Koalas live in families too, but instead of living in one house, koala families live in an area of forest.

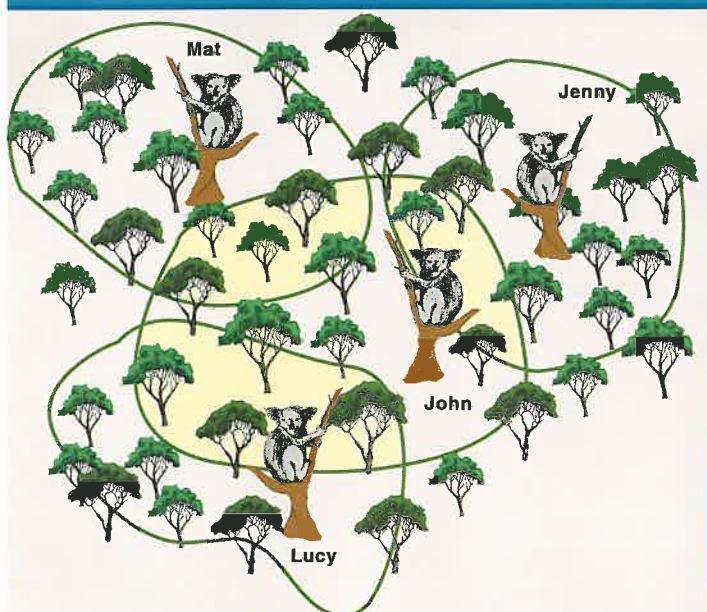
The trees are the koalas bedrooms, kitchens, dining rooms, bathrooms, living rooms and back yards. Each koala has its own private territory called a home range. Apart from mothers with joeys, they prefer to spend most of their time alone, although they do like to have other koalas living nearby.

Each koala's home range is made up of quite a number of different trees called home trees. They visit these same trees regularly. The area covered by these trees is the koala's home range. Each koala's home range overlaps the home ranges of other koalas.

The male koala rubs his scent gland on his home trees to mark them so that other koalas know that this is his territory. Although she doesn't have a scent gland, it is thought that females also scent mark their trees in some way.

If the home range trees are removed, the koalas lose both food and shelter and a place to breed. Because other koalas live in the trees next door, a koala cannot just move next door if its trees are destroyed, as next door may already belong to another koala.

Also if a road or house is placed between the trees in a koala's home range, the koala may not be able to get to its trees, or it may get run over on the road. It may also be at risk of attack from dogs. Thousands of koalas are killed each year on our roads and by dogs.



# Why are there less

## The Threats Faced by Koalas

**S**ince Europeans first settled in Australia in 1788, Australia's eucalyptus forests have been vanishing at an alarming rate. More than four fifths of original koala habitat has been destroyed. This makes it very important that we save what is left.

The main causes for the loss of habitat are:

"Australia's wildlife is unique. That's why we have to make every effort to protect it."

Csilla(14)  
Hungary

**CLEARING OF THE LAND** for farms, houses, shops, factories, roads, logging and mining. While we humans need modern conveniences, we should plan for the future to use our resources more efficiently and agree to set aside adequate areas for wildlife. We should also plan for other solutions to problems such as transportation. For example, instead of building more roads

The Australian Koala Foundation estimates that there are less than 100,000 koalas left in the wild today. This is a lot less than the millions which were shot in the 1920's for their furs. Action is needed now to halt this alarming decline in koala numbers.

Over 4000 koalas are killed each year by cars and dogs!



"How would you feel if your home was knocked down like koalas' homes are? You wouldn't like it very much."

Adam (10)





# koalas today than there used to be?

and buying more and more cars, we should use public transport like buses and trains that use less resources per person. **Clearing of the forests means that all wildlife, including koalas, will suffer** from loss of their homes and food. This results in many koalas experiencing stress, and then becoming sick and dying. They are also more likely to suffer injury or death from dogs and cars. Because **most koalas live on land which is privately owned**, it is very important that landowners are



encouraged to protect and regenerate koala habitat.

**BUSHFIRES:** Koalas are at great risk from bushfires. If a koala population is living in an area of bushland which is surrounded by development, the whole colony could be wiped out in a single fire.

**DIEBACK:** Dieback is the gradual dying of gumtrees. Scientists think that it may result from damage to the land by man. Large areas of eucalypt forests have been destroyed because of dieback.

**OTHER THREATS:** The natural enemies of the koala include dingoes, goannas, powerful owls, wedgetailed eagles and pythons, which are mostly a threat to young koalas. Some animals which are not native to Australia,

called feral animals, have become a problem for koalas since they were brought here from other countries. These include dogs and foxes. Koalas can also suffer from not having enough food in times of drought.



"If koalas ever face the threat of extinction, it will be because of the human race and how many trees we've cut down in the last 200 years."

Jay (12)



## How would you like a highway through your living room?

### What happens to koalas when their habitat is damaged?

**I** imagine coming home to find that a bulldozer had knocked your house down, as well as most of the houses in your neighbourhood. How would you feel when you arrived home to find your house was gone and you didn't recognise anything in your street any more? You would feel upset, angry, worried, confused and depressed. Then imagine how you would feel if you couldn't get to a shop to buy any food. You would begin to get very hungry. What if you couldn't find somewhere to sleep and rest? Before long you would be tired as well as hungry, and you might also get sick. How long do you think you could survive without food or shelter?

Koalas experience feelings like these when their trees are cleared to make way for a new road or housing estate, for example. If they do manage to survive the clearing, finding somewhere new to live has its problems too.

While koalas are on the ground, they are at great risk from cars and dogs. They may need to cross busy roads to find food trees, and they may get hit by cars. They may also fall into swimming pools and drown because they are unable to climb out.

Unless they have a safe area of undisturbed habitat where they can move to and where there aren't already any koalas living, they are very likely to be killed or get sick and die.



Project Hint



Think of some other ideas which could help in reducing the amount of bushland which is cut down.

## Disease in Koalas

**T**he main disease koalas suffer from is chlamydia. Chlamydia is an organism which lives in the bodies of most healthy koalas.

Chlamydia does not usually make the koalas sick until they get stressed. Then they may get sore eyes and go blind, or get an infection in their chests, or they may get a sore throat, which makes it very difficult for them to eat. The females may not be able to have babies when they are sick. Koalas also suffer from other diseases like leukaemia and other cancers.



# There's Some Good News

What is being done to help?



## Who cares for sick, injured and orphaned koalas?

Remember, koalas do not live in our backyards. We have moved into theirs!

**F**ortunately for koalas, there are many caring people around Australia who donate their time to help the thousands of koalas which become sick, injured or orphaned each year. We call these people 'koala carers'. Some veterinarians also donate their time and skills to treat sick koalas and other native wildlife. In some places there are special koala hospitals to treat the large numbers of sick, injured and orphaned koalas which are constantly coming into their care.



### Project Hint



Make a model of a koala habitat. Cut down the sides of a cardboard box to about 15cm from the base. Put some sand in the bottom of the box. Use twigs and leaves for trees, or Lego trees. Cut koalas from cardboard and paint each one a different colour. Staple or stick them to trees. Tie pieces of coloured wool or thread on some of the trees to show each koala's home trees, using the same coloured thread as each koala.

Koala carers play an important part in the koala's conservation but the koala's habitat **MUST** be protected if it is going to survive in the future.

When koalas that have been cared for are released back into their home territories, they usually face the same threats which made them sick in the first place, and they may become sick or injured again or they may even die.

Saving habitat is the only way to ensure the survival of the koala.



I hope we don't lose the koalas like we lost the Tasmanian Tigers, because they are so special.

Emily (12)





# For Koalas Too!

"If it were not for people like the Australian Koala Foundation there would be no koalas."

Melanie (12)



## How does the Australian Koala Foundation help koalas?

**T**he Australian Koala Foundation (AKF, for short), is an international conservation organisation dedicated to saving koalas and their habitat. These are some of the ways that the AKF helps koalas:

- We work to protect the wild koala and its habitat in the whole of Australia.
- We work on the KOALA HABITAT ATLAS to map koala habitat, so that we can use the information to protect the koala and its habitat.
- We teach people about koalas and their problems. We have a web site so that people all around the world can learn more about the koala's problems and what they can do to help.
- We talk to governments to ask them to pass stronger laws, such as the National Koala Act, to protect koalas and their habitats in the WHOLE of Australia.
- We raise money to fund scientists, so they can find out more about koalas and how to solve the problems they face.
- We organise a conference each year where everyone concerned with koala conservation gets together to share their ideas on ways to save koalas.
- We organise SAVE THE KOALA MONTH each year to make people more aware of the koala's problems and to raise money to help with our work in saving koalas.
- We advise developers on how to build koala-friendly housing estates in areas where koalas are living.

### Project Hints



- Find out what a Town Planner is.
- Think about who could use the Koala Habitat Atlas to save koalas and their habitat.

## How maps can help save koalas. The Koala Habitat Atlas

**M**ore than four fifths of koala habitat has already been destroyed since the beginning of European settlement in 1788. This makes it very important to find out where the best koala habitat is, and to save what is left.

The Koala Habitat Atlas has been developed by the Australian Koala Foundation to find out where koala habitat is located and to show town planners, and people who own koala habitats, where koalas live and which areas of bushland to protect for them.

Usually, an atlas is a book of maps, but the Koala Habitat Atlas maps are on a computer. With the Koala Habitat Atlas, we are making maps which show the type of koala habitat area by area, just like a jigsaw puzzle. Eventually, all the pieces of the jigsaw will come together to give us a picture of the state of koala habitat remaining in Australia.

To stay healthy, koalas need healthy habitats.



Maps like this from the Koala Habitat Atlas can help save koalas.







# Even Kids Can Help Koalas!

## What Can YOU Do?

**S**aving the koala, or any animal or ecosystem begins with each individual person. Everyone, no matter how small, can do something to help. If each person did even one little thing, like encouraging their family to recycle or to save water or electricity, it would add up to a lot of help for the environment. And saving koalas begins with simple actions like these.

Here are some other ways you can help koalas:

### If you live in a koala area:

- Support community koala groups in your area.
- Plant koala food trees. Don't forget to find out which kinds of gum trees are the favourites of koalas in your area.
- When out driving, ask your parents and friends to be very careful not to hit wildlife crossing roads, especially at night. Remember, koalas are most active at night.
- Tie up your dogs and keep your cats inside at night, to protect all wildlife.
- If you have a swimming pool, place a sturdy rope into the pool attached to a tree or post at the edge, so that if koalas fall into your pool, they are able to climb out safely.

### Ways for everyone to help:

- **Learn more about koalas and their problems.** If you do this you will be better equipped to know how to help, and you can teach your friends and family about it, too.
- **Write to newspapers with your concerns.** By doing this you are letting others know that koalas need help. Then THEY may want to help, too.
- **Encourage friends and family to recycle,** use public transport instead of cars, try not to use chemicals in your house and garden, use less water, and take reusable cloth bags when out shopping instead of accepting plastic bags.
- **Write to politicians** to tell them of your concerns about destruction of koala habitat. Politicians represent the people and have the final say about issues affecting koalas. Remember, governments, like children, are learning all the time. They must also be reminded about the koala's needs and be persuaded that these needs are important.



"Saving the koala is a lot of fun!"

Clark (7) USA

### Support the work of the Australian Koala Foundation:

- Become an Australian Koala Foundation supporter or a foster parent to a cute koala. Your money goes towards the AKF's work to save koalas. You can become a Kid's Koala Club supporter if you are aged up to 12 years.
- Raise money to help us plant trees to give koalas more food and shelter.
- Support Save the Koala Month each year. Get your school, scout or guide group involved too. However, koalas need help all year round so if you would like to help, please contact us at any time of the year.
- Visit the Koala Gift Shop on our website for gorgeous koala items to buy.

### REMEMBER...



The AUSTRALIAN KOALA FOUNDATION relies on your support to help save koalas.



"Because I am only 9 years old, I thought I couldn't do

anything to help the koalas, but now I have the Australian Koala Foundation's address."

Ryan (9)

SEPTEMBER IS  
"SAVE THE KOALA MONTH"  
EVERY YEAR.



For more information about koalas and how you can help, please contact:

AUSTRALIAN KOALA FOUNDATION  
GPO BOX 2659  
BRISBANE QLD 4001  
PH: 07-3229 7233  
FAX: 07-3221 0337  
E-MAIL: akf@savethekoala.com

...or check out the "Koalas for Kids" section of our website for more information, and cute koala pictures just for kids!

[www.savethekoala.com](http://www.savethekoala.com)

### Project Hints



- Write a letter outlining your concerns about destruction of koala habitat. Have your classmates sign it and send a copy to a politician and a newspaper.
- Think of some more ways children can help save the environment.

The Koala's Survival is Everyone's Responsibility!