# DISCOVER KOALAS 

## BEFORE YOUR EXCURSION

## Listen to this male koala bellowing. Discuss with your class, what do you think this koala is communicating?

- Why do koalas make sounds?
-Why do people make sounds?
- What other sounds do you predict you'll hear when you visit the bushland habitat at the Koala Conservation Reserve?

Remember to ask a ranger or one of our koala volunteers about koala communications during your visit.

## DURING YOUR EXCURSION

## © LOOK

Look out for these signs on the tree top board walks. They indicate which trees the koalas are currently located in. Stop at the signs and look for a koala.


The Traditional Owners of Millowl (Phillip Island) are the Bunurong. Gurrborra is the Bunurong name for koala and koala itself is an Aboriginal name that most likely comes from the Dharug language, Country near Sydney in NSW. 'Koala' or 'koolah' is a Dharug word which means no water or drink. Koalas don't often drink water they gain water from the eucalyptus leaves they eat.

Listen to the Scientific name (Latin name) for koalas: Phascolarctos cinereus

## TASTE [CA

## SMELL

- Pick up a fresh eucalyptus leaf and crush it between your fingers. How does it smell?
- How do koalas use eucalyptus leaves?


## TEACHER INFO:

There are over 500 eucalyptus trees but koalas only eat around 12 favorite types.
Koalas have a remarkable biology designed to extract nutrients from eucalyptus leaves. Gum trees actually produce a toxin in the eucalyptus leaf to protect them from insects, however, koalas' digestive systems are adapted to detoxify these chemicals from the leaves.
Koalas depend on gum trees for habitat, shelter, and food.
How do humans use eucalyptus leaves?

## TEACHER INFO:

Leaves can be used both fresh and dried as air fresheners and can be processed into oils, ointments and sprays and are often used in cough medicine, dental products and aromatherapy.

If you had to choose only one food to eat forever, what would it be?

> Phillip Island nature PARKS

# AFTER YOUR EXCURSION LEARN MORE ABOUT KOALA'S BIOLOGY AND ADAPTATIONS 

## ACT FOR WILDLIFE



Koalas in NSW and QLD are predicted to become extinct in the wild within 10 years. Victorian koala populations are currently doing ok with an estimated 460,000 individuals in the wild. But, Victorian koalas are also threatened by mass clearing of bushland habitat, a warming climate and bushfires.

## What can we do to help this iconic Australian species?

## STUDENT CHALLENGE:

Use the internet to search for the koala's current status of a species. Are koalas endangered? Threatened? Vulnerable? What do these words mean?

## SUPPORTING RESOURCES:

Threatened Species Lists and Status Resources Threatened species advisory lists
Red List status

## How can recycling help?

Reusing, recycling and reducing our impact on the koala's habitat by cutting down fewer native trees, planting more native habitat and helping fund conservation research are all ways to help.
Paper is made from trees, we can choose recycled paper or paper sourced from sustainably planted trees which are not koala habitat.
Trees are cut and made into a pulp to produce paper. A lot of water, energy and chemicals are used to dye the paper.


Look for the FSC Symbol on the paper products you buy.
Products approved by the FSC (Forest Stewardship Council) come from sustainably managed forests. can help protect Koalas and the bushland habitat they require. *Source: WWF

## Tips

- Look for the FSC and the recycling symbol on the products we buy.
- We can recycle by carefully putting the right things into our recycling bins at home and at school. Paper or cardboard that has no staples and is clean all go in the recycling bin but dirty or greasy paper or cardboard like pizza boxes can go in the green waste bin to break down into soil.
- We can also choose to purchase $100 \%$ recycled paper.


## Student Challenges

- Find out if your school books are made from recycled paper?
- Find out what can you write on instead of paper? E.g. reusable writeable surfaces.
- What are 3 things you can use or turn scrap paper into?
Australians are doing a great job buying and using recycled writing and printing paper but there is another type of paper where we could change our buying habits!


## Student questions

- Does your school use recycled toilet paper?
- Does your family use recycled toilet paper?
A small change can make a big difference, so let's make this change for koalas!



# Suitable for Primary Year Levels 5-6 and Secondary Levels 7-8. BYO Clipboards and Pencils during the excursion! 

## KOALA DISCOVERY

Student-led investigation into koalas and the management strategies used for their conservation.

## WHAT $_{\text {(learning goals) }}$

- Discover and describe some of the features and adaptations that make koalas so well adapted for their bushland environment.
- Discover and describe some of the ways (management strategies) the Nature Parks cares for koalas and minimises the impact of people on the animals in our care.

WHY

- Understanding how animals have evolved and adapted to their environments can help people as we create designs that need to function in different environments.


## - $M_{\text {(before excursion) }}$

Discuss your understanding of these words and phrases with your teacher:
Circle the resources you will use to gather information and answer your question:

| Structural Adaptations (features) B |  | Behavioral Adaptations (behaviours) Evo |  | Evolution | Environment | Conservation |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conservation Management | Tourists | Conservation Ranger | Bushland | Habitat | Native Species | Sustainable |

Class brainstorm: what do you already know about koalas?


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## HOW

## (DURING EXCURSION - you will need a printed copy of this page, a clipboard and pencil)

- Work with a partner to make observations as you explore the koala boardwalks.
- Read and discuss each question with your partner and write down your best answers; remember this is your investigation phase so your answers do not need to be correct.
- At the end of your investigation meet back with your teacher to discuss your observations and thoughts and compare them with information from our expert koala conservation rangers.


Look for plastic rings on the gum trees.
What are these rings for?
Why are they only on some gum trees?

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Look for koala scat (poo) on the ground below or maybe on a handrail.

How would you identify which scat belongs to a koala?


Look for scratch marks on trees and branches.
What causes these marks and why do koalas have such strong and sharp claws?


Gurrborra is a Bunurong name for koala. The word 'koala' is also an Aboriginal name meaning 'no drinking'.

While koalas occasionally do drink fresh water, where do they get most of their water needs from?

Look closely at the features of a koala's face.
What are the structural adaptations (features) which give koalas these amazing senses? Can you describe these features?

At the Nature Parks our Research team shares information with our conservation rangers who look after the koalas day-to-day aiming to keep them healthy and safe in their semi-wild enclosures.

Look for any classmates who might need some help and share some of your information.

## HOW

## (AFTER EXCURSION - Teacher information to enable a whole class discussion to compare information and clarify understandings)

Look for plastic rings on the gum trees.
What are these rings for?
Why are they only on some gum trees?
A: Plastic rings deter koalas and possums from climbing and accessing food (leaves) from that tree. If we want to give a tree a break and ensure its health, we will install a ring.

Look for koala scat (poo) on the ground below or maybe on a handrail.

How would you identify which scat belongs to a koala?
A: Students might consider: the scent of the scat. Koalas primarily eat eucalyptus leaves so scat will smell strongly of eucalyptus. Koala poo is about the shape and size of an olive. Koalas produce a lot of scat - up to 360 pellets in 24hrs!

Look for scratch marks on trees and branches.
What causes these marks and why do koalas have such strong and sharp claws?

A: Koalas have very strong and sharp claws which enable them to grip firmly onto tree branches. The marks are from koalas moving around the enclosure. On the front paw koalas have a double 'thumb' which also helps a firm grip. Koalas use their sharp claws for grooming and even have a special rounded digit on their hind paw to scratch their face to avoid scratching their eyes.


Gurrborra is a Bunurong name for koala. The word 'koala' is also an Aboriginal name meaning 'no drinking'.

While koalas occasionally do drink fresh water, where do they get most of their water needs from?

A: Koalas will sip fresh water in very hot and dry conditions. They get most of their water from the eucalyptus leaves they eat.

Look closely at the features of a koala's face.
What are the structural adaptations (features) which give koalas these amazing senses? Can you describe these features?

A: Koalas have large ears and can detect other koalas from long distances. Both males and females have large noses, males have a flatter, broader nose than females. This gives koalas an acute sense of smell which helps detect other koalas and locate fresh eucalyptus.

## THE KOALA CONSERVATION RESERVE \& THE KOALAS ON PHILLIP ISLAND

## The Traditional Owners of Phillip Island (Millowl) are the Bunurong.

## We recommend that teachers acknowledge Country, by paying their respect to Bunurong Elders past, present and emerging, at the start of all self-guided excursions on Phillip Island.

## The Koala Conservation Reserve and koalas on Phillip Island have an interesting history and an evolving identity.

Koalas are not native to Phillip Island; they were introduced from mainland populations in the 1800's as orphans from logging and survivors from hunting for the fur trade. In the early 1900's millions of koala furs were exported to America. This changed after a massive public backlash in what is thought of as Australia's first large movement of citizens for a conservation issue.

By 1940, when the first bridge was built from the mainland to Phillip Island, there were too many koalas, up to 8000 living on the island, and trees being overbrowsed.
With a growing population of people on Phillip Island since then, coupled with the clearing of bushland for the building of houses and the construction of roads, as well as the impacts of roadkill and our pets, the koala population has steadily declined. From over 1, 000 individuals in the 1970's to an estimated handful of wild koalas in 2023. A population of approximately 3000 koalas remain on French Island. Which may be around 1000 too many for that island's forests to sustain.

The Koala Conservation Centre was once part of a sheep farm run by the Oswin family. Some of the family's land was presented to the Crown as a Koala Reserve in the 1950's. The Oswin family continued to be proactive for wildlife and saved many mature gum trees as well as revegetated areas with suitable eucalyptus trees for koalas, planting manna gums, swamp gums and blue gums.

In 1992 the Koala Conservation Centre opened with the Nature Parks coming to manage the land and the Centre from 1996. The site included safe enclosures for koalas and a dedicated space for a feeder tree plantation. The Nature Parks has continued to work closely with the local community, council, land care groups, school students and volunteers to further revegetate the area.

While tourists from all over the world visit to experience koalas, the site has also become critical for the study and conservation of koalas and other threatened species.
In 2019, with funding from the WWF several critical care pens were constructed and a major study of the recovery of bushfire impacted koalas undertaken. Since 2019 many bushfire surviving kolas have been cared for and eventually re-released into the bushland where they were recovered from.

Today, in 2023, the Koala Conservation Reserve and the Oswin Roberts Reserve, is home to approximately 17 koalas with 3 semi-wild enclosed viewing areas. The koalas here have recently been involved in a study for the treatment of mange, a disease which effects the fur. They play an important role in the benefit of Victoria's mainland koala populations.

Koalas are protected by law in Australia under the Wildlife Act 1975.
For more information about koalas use our Nature Notes.


For more information or to make a booking please contact us on: T (03) 59512835 E bookings@penguins.org.au penguins.org.au
We acknowledge the Traditional Owners of the land on which we live, work and learn, the Bunurong. We pay our respects to their Elders past and present.


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