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Living with Koalas

How you can help to save the koala

AUSTRALIAN KOALA FOUNDATION



An internationally recognized symbol of Australia, our koalas are loved around the world. Sadly, they are disappearing. Loss of koala habitat and koala food trees (eucalyptus leaves) is the leading koala threat.

Koalas in the wild face a series of threats to their continued survival. A major threat is the continuing urbanisation of their habitat and associated threats such as cars and dogs. Over 4,000 koalas are killed each year by dogs and cars alone. In addition, stress caused by the loss of their habitat causes symptoms of diseases like chlamydia. Approximately 80% of original koala habitat has already been destroyed. This has forced koalas to live alongside people in urban areas, and means that property owners have a special responsibility to take the particular needs of koalas into consideration in their lifestyle.

Because most Koala habitat is on private land, people living in areas with koalas can have a great influence on whether koala populations in their area survive or become extinct. It is their responsibility, along with government at all levels, to assist in preserving this precious resource. Because much of the koala's habitat is zoned residential, or is in farming areas, their future is largely dependent upon the attitude of property owners.

While landowners have certain rights, the koalas and other wildlife which live there also have rights – the right to live in a safe environment with adequate food and shelter and the right to freedom of movement. Remember, koalas do not live in OUR backyards. We live in THEIRS!

This information is designed to help those who live in koala habitats to understand something of how koalas live and how they can assist in keeping them safe.

Although they are often called a koala bear, koalas are not bears, they are marsupials, which means that their young are born immature and they develop further in the safety of a pouch.

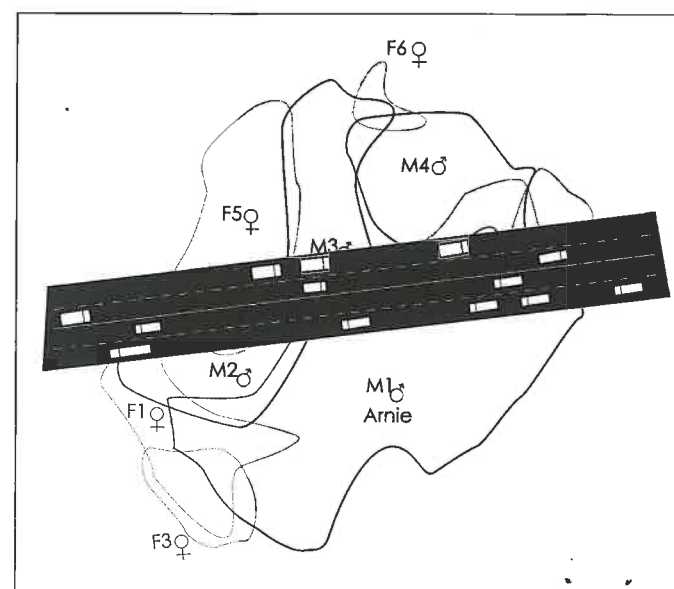


KOALAS LIVE IN SOCIETIES TOO

Wild koalas live in highly defined social groups and each koala in a stable group maintains its own "home range". Each koala's home range is made up of a number of "home range trees". The koala will visit these same trees regularly. Each koala's home range overlaps those of other koalas to



Koalas climb very well with their claws. Image: Wildlife Secrets Pty Ltd



This diagram details the home range of a group of resident koalas. When a road transects through the range of koalas, this will increase their mortality.

allow for social contact and for mating. It is thought that koalas keep the same home range for life unless there is disturbance to their habitat. If the home range trees are removed, the koala loses both food and shelter. Because of the structure of overlapping home ranges, the koala may not be able to just move 'next door' if its trees are destroyed, as 'next door' may already be the home range of another koala. Also, if a road or house is placed between the trees in a koala's home range, the koala cannot get to its trees, or it may need to cross busy roads to get to them. A koala in this situation may wander around trying to access its regular trees or in an attempt to find new ones.

When a road or housing development bisects the habitat of a koala population, the effects can be catastrophic for the koalas.

Koalas move around on the ground for a number of reasons:

- to change trees in their home range
- to find new territory, in the case of destroyed habitat
- to establish a home range when a young koala leave its mother
- to search for a mate in other home ranges during the breeding season.

Koalas are mostly nocturnal. Nocturnal animals are awake at night and asleep during the day. Koalas, however, sleep for part of the night and also sometimes move about in the daytime. They often sleep for up to 18-20 hours each day.

The breeding season runs roughly from August to February, and this is when most activity occurs. Because koalas are mostly nocturnal, nighttime is the most dangerous time for koalas. While on the ground, koalas are most at risk from cars, dogs and other predators.

WAYS TO MAKE YOUR PROPERTY MORE KOALA FRIENDLY

VEGETATION

Keep native vegetation on your block. Don't destroy eucalypts and other native vegetation. As well as being homes for koalas, they are food, shelter and nesting sites for many other native animals and birds. The hollows in older trees are very important to many animals and they may take hundreds of years to develop. If we destroy all the older established trees, where are these animals going to live and nest until new trees mature to this level?

Find out which types of eucalypts the local koalas prefer and plant these. The AKF website (details below) provides a list of preferred trees for sites already mapped by the Koala Habitat Atlas Project. Alternatively, talk to your nursery, or to your local koala group.

Koalas also like to rest in, and sometimes eat, the leaves of other types of native trees. Plant trees along fences and creek lines as linkages to parks and bushland, allowing the koalas more safety from dogs and cars. Do not plant koala trees in places which would encourage koalas into danger, such as on main roads, fenced in with swimming pools or close to power lines. Choose trees to suit the soil type and site.

FENCES

In the main, the presence of dogs and fences does not deter koalas. They are intent upon locating suitable home trees. If koalas already use the trees in your yard, then those are likely to be home trees for the koalas and you should make it as safe as possible for the koalas to enter your yard. You can do this by erecting a fence that is easily scaled by a koala.

Incorporate trees into the fence line or place overlapping trees on each side of the fence to form a bridge. Koalas need to be able to continue to move freely across the ground. If they come across a fence they may continue to walk along it until they find a break. They need to be able to escape quickly if a dog is chasing them or if they feel threatened in any way.

KOALA-FRIENDLY FENCES

- **1st Option:** The best-case scenario is to have no fence at all. If there are no dogs allowed on the property then no fence is required. Native vegetation hedges also makes excellent screening and provide habitat for small birds. They also allow unrestricted fauna movement.

KOALA-SAFE FENCING FOR YOUR YARD



A koala using a lattice fence to move between properties safely. Image: Koala Foundation



This style fencing allows easy access between properties. Image: Courtesy City of Ballarat



Sheet fencing prevents koalas the ability to climb over or escape safely to the next tree. Solution is a movement post. Image: Courtesy City of Ballarat.



Fences that exhibit poor climbing opportunities can be enhanced via placing large posts every ten metres or so, this is especially important for yards with dogs. Image: Courtesy City of Ballarat

- **2nd Option:** At least a 30cm gap should be maintained under the fence. The fence can then be made of any materials as long as the gap allows koalas to move freely underneath it.
- **3rd Option:** Post and bridge system over the fence. The posts allow koalas to escape from dogs and traffic quickly. Ensure that a post exists every 10 to 20 metres along the fence and that there is also a post on the other side to allow the koala to get down the other side.
- **4th Option:** Lattice secured firmly to the fence. Ensure there is a full panel every 10 to 20 metres and that the panel extends from the ground to the top of the fence. Capping on top of the fence may also make it easier for the koalas to move along the top of the fence out of harm's way. Recently, acoustic fences are being installed. These cause a major problem for koala movement. The 3rd or 4th options above would replace the need for an acoustic barrier.

KOALAS AND DOGS

If you have a dog, it is irresponsible to encourage koalas into your yard unless you are prepared to take precautions with your dog. It may be more humane to deter koalas from entering your yard altogether by having a koala-proof fence, with no overhanging trees to allow them access. However, the more trees the koalas have access to, the better. Surely it is worth taking the trouble to be a responsible dog owner to have the privilege and delight of having the koalas visit your garden.

SWIMMING POOLS

Although they can swim, some koalas drown in swimming pools because they often are unable to climb back out after they have fallen in. If you have a swimming pool, securely tie a sturdy rope to a tree or post at the side of the pool and place the end in the pool. Alternatively, you could ensure that your pool fence is koalaproof, as well as childproof.

MORE WAYS TO KEEP KOALAS AND OTHER WILDLIFE SAFE

- Drive slowly and carefully at night. Koalas are nocturnal. Keep to the speed limits.
- Carry a sack, blanket, towel or box in your car, in case you encounter an injured animal when out driving.
- Carry a copy of this information in your car so that you will know what to do if you come across a sick or injured koala.
- Carry the phone number of your local koala group or rescue service in your car.
- Inform new and established neighbours about koalas in the area and make sure they have a copy of this information.

Koalas have five digits on each front paw, two of which are opposed to the others, much like our thumbs are able to be moved differently from the fingers. This helps them to hold firmly onto the branches and to grip their food. The 2nd and 3rd digits on their hind paws are fused together to form a grooming claw.



Image: Australian Koala Foundation



Image: Wildlife Secrets Pty Ltd

- Inform your neighbours if a koala is in the vicinity and suggest they restrain their dogs until the koala moves off.
- Report any sick, injured or dead koalas to your local wildlife group or National Parks and Wildlife Service.
- Be careful with garden sprays, pesticides and creosote. Koalas sometimes eat soil; and can also absorb these poisons through the pads on their feet or through eating the leaves of trees that have been affected by chemicals.
- In times of drought or in particularly hot weather, place a container of water for the koala at the base of a known home tree. (Note: If the tree is in your yard, keep your dog restrained, even during the day)
- Observe koalas from a distance. Don't throw things at a koala to make it move. Wild koalas become stressed very easily.
- Never try to pat a wild koala – it's not as cuddly as it looks! Those sharp claws and teeth can inflict quite a nasty wound.
- Teach your children to love and appreciate all wildlife. Remember, it is important to tell them about things they can do to help. Children can become quite depressed if they continually hear negative messages about the environment. Empower them by encouraging them to

There is a myth that koalas sleep a lot because they 'get drunk' on gumleaves. Fortunately, this is not correct! Most of their time is spent sleeping because it requires a lot of energy to digest their toxic, fibrous, low-nutrition diet, and sleeping is the best way to conserve energy.

do some of the things suggested in this article, such as responsible dog ownership, planting trees and writing letters to newspapers and politicians.

- Familiarise yourself with your local dog regulations, tree preservation orders, state planning legislation and Endangered Species Act. Adhere to these laws and notify the relevant authority if others contravene them.
- Keep vigilant in your local area regarding habitat destruction and the welfare of koalas. Notify your local wildlife group and the Australian Koala Foundation if you are concerned.
- Write to politicians and newspapers with your concerns. Suggest your council erects signs warning of koalas crossing roads, improves street lighting etc.
- Join your local koala or general wildlife group. Support them in their fundraising ventures and ask them how you can help in other ways. Your local koala group is one of a number of local groups in Australia which are involved in taking care of sick and injured animals and/or being active in keeping an eye on local koala issues. Most groups rely on volunteers and have to raise their own funds. Please get involved and assist them in any way you can.
- Support the work of the Australian Koala Foundation and especially Save the Koala Month in September each year (see details below). The Australian Koala Foundation is the national organisation which funds koala research, provides educational resources, pushes for the implementation of state and federal laws to protect koalas and their habitat and co-ordinates the Koala Habitat Atlas, a vital tool in protecting habitat.

For further information on how you can support the work of the Australian Koala Foundation go to: www.savethekoala.com



Watch out for koalas!

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www.wildlifesecrets.com.au



No trees: no koalas

How YOU can make a difference

The koala *Phascolarctos cinereus* is an animal that feeds primarily, but not exclusively, on the genus *Eucalyptus*. Throughout their range in eastern Australia, koalas have been recorded as using a wide variety of eucalypt species. This information can be misleading because it portrays koalas not as the ecological specialists they are, but as opportunistic feeders who drift aimlessly across the landscape munching on “gum leaves”. In reality, this is not the case and within a particular area only a few species of eucalypt will be preferentially used by koalas. Such species, where they occur, are vitally important to the distribution, abundance and well being of contemporary koala populations.

A variety of other trees, including many non-eucalypts, are also used by koalas for feeding and shelter, or other behavioural purposes. On their own, however, these trees are not capable of sustaining koalas long term. They are used primarily because they are growing in association with or in close proximity to the key tree species. Differing soil landscapes, water availability and other edaphic variables are also considered to influence the suitability of several important browse species.

In a socially stable breeding aggregation of koalas, individual animals coexist in a matrix of overlapping home range areas. Within each animal’s home range area are a relatively small number of trees that are visited repeatedly, some of which are shared with other animals in the population. Such trees can be described as “home range” trees and are very important because they enable a population to maintain social cohesion.

The home range areas required by koalas also vary in response to social factors and habitat quality; the latter measurable in terms of the density of preferentially used tree species. The sex of the animal is also important, with male koalas tending to occupy larger home range areas of lower quality habitat than females. While this may be explained by the significantly larger body size of male koalas, it is also typical of a polygynous social structure – a society in which a male mates with a number of females – where the home ranges of dominant, breeding males will overlap those of several adult females. The strong female bias in the breeding aggregations is offset by a higher rate of mortality in males, at least partly associated with stress from competition (with dominant males) for access to females.

In such stable breeding aggregations, koalas can retain the same home range areas for many years. Evidence from



the records of local koala welfare groups suggests that, in the absence of undue disturbance, koalas are likely to maintain their home range areas throughout their lives.

The relatively sedentary and localised movements of koalas in a socially stable breeding aggregation are in stark contrast to the movements of dispersing koalas of both sexes (those leaving their maternal home range to establish a home range of their own) and other transient members of koala society. These animals are capable of extensive movements, often in excess of 40-50km over periods of a few weeks to several months.

Breeding activity on the part of the mother usually initiates the dispersal phase of the young from her previous breeding season. The movements and survivorship of these dispersing animals are significant because they contribute to maintaining recruitment levels and genetic vigour in breeding aggregations that are separate from one another. Indeed, it is not so much the presence of preferred food trees that influences the movements of these animals as it is their need to be with other koalas. In this regard, established aggregations attract dispersing animals from other aggregations.

Koala Habitat Atlas Project

In 1992, the Australian Koala Foundation embarked upon an ambitious project called “The Koala Habitat Atlas” (KHA) which aimed to identify, map and rank all remaining koala habitat across the koala’s geographic range – roughly one million square kilometres.

KHA Projects have been completed or are underway for a number of Local Government Areas in NSW, Queensland and Victoria and eventually we aim for all areas of koala habitat in Australia to be covered.

When conducting bush regeneration programs, it is always important to plant trees that are native to your local area. Information about local species can be obtained from your local National Parks & Wildlife Service, Dept of Conservation & Natural Resources or Forestry offices, and local nurseries.

The work being undertaken by the Australian Koala Foundation with its Koala Habitat Atlas Project is looking very closely at tree use by koalas in specific areas and is confirming that tree species preferences often vary on a local or regional basis.

The following list incorporates the most significant koala use trees from the areas investigated by the AKF to date as well as drawing upon other published species lists.

Image: Wildlife Secrets Pty Ltd

TABLE OF TREES

COMMON NAME	SCIENTIFIC NAME
River Red gum	<i>E. camaldulensis</i>
Yellow Box	<i>E. melliodora</i>
Tallowwood	<i>E. microcorys</i>
Small-leafed peppermint	<i>E. nicholii</i>
Drooping Red gum	<i>E. parramattensis</i>
Poplar Box	<i>E. populnea</i>
Small fruited grey gum	<i>E. propinqua</i>
Grey gum	<i>E. punctata</i>
Swamp Mahogany	<i>E. robusta</i>
Forest Red gum	<i>E. tereticornis</i>
Manna Gum	<i>E. viminalis</i>
Scribbly Gum	<i>E. racemosa</i>
Red Mahogany	<i>E. resinifera</i>
Bancroft’s Red Gum	<i>E. bancroftii</i>
Grey Ironbark	<i>E. siderophloia</i>
Naturally-occurring hybrid	<i>E. tereticornis x E. robusta</i>
Blue-leafed Stringybark	<i>E. agglomerata</i>
Monkey Gum	<i>E. cypellocarpa</i>
Woollybutt	<i>E. longifolia</i>
Yellow Stringybark	<i>E. muelleriana</i>
White Stringybark	<i>E. globoidea</i>
Dirty Red Gum	<i>E. chloroclada</i>
Pilliga Box	<i>E. pilligaensis</i>
White Cypress Pine	<i>Callitris glaucophylla</i>
Messmate Stringybark	<i>E. obliqua</i>
Brown Stringybark	<i>E. baxteri</i>
Snow Gum	<i>E. pauciflora</i>
Bundy	<i>E. goniocalyx s.l.</i>
Brookers Gum	<i>E. brookeriana</i>
Red Box	<i>E. polyanthemos</i>

BRISBANE, REDLAND, LOGAN

COMMON NAME	SCIENTIFIC NAME
Forest Red Gum	<i>E. tereticornis</i>
Swamp Mahogany	<i>E. robusta</i>
Tallowwood	<i>E. microcorys</i>
Small-fruited Grey Gum	<i>E. propinqua</i>
Scribbly Gum	<i>E. racemosa</i>

NOOSA

COMMON NAME	SCIENTIFIC NAME
Forest Red Gum	<i>E. tereticornis</i>
Swamp Mahogany	<i>E. robusta</i>
Tallowwood	<i>E. microcorys</i>
Grey Gum	<i>E. propinqua</i>
Red Mahogany	<i>E. resinifera</i>
Bancroft’s Red Gum	<i>E. bancroftii</i>
Grey Ironbark	<i>E. siderophloia</i>

LISMORE

COMMON NAME	SCIENTIFIC NAME
Forest Red Gum	<i>E. tereticornis</i>
Tallowwood	<i>E. microcorys</i>

TWEED	
COMMON NAME	SCIENTIFIC NAME
Forest Red Gum	<i>E. tereticornis</i>
Swamp Mahogany	<i>E. robusta</i>
Naturally-occurring hybrid	<i>E. tereticornis</i> x <i>E. robusta</i>
Tallowwood	<i>E. microcorys</i>
Small-fruited Grey Gum	<i>E. propinqua</i>

PORT STEPHENS

COMMON NAME	SCIENTIFIC NAME
Drooping Red gum	<i>E. parramattensis</i>
Swamp Mahogany	<i>E. robusta</i>
Forest Red Gum	<i>E. tereticornis</i>

CAMPBELLTOWN

COMMON NAME	SCIENTIFIC NAME
Grey Gum	<i>E. punctata</i>
Blue-leafed Stringybark	<i>E. agglomerata</i>

BEGA VALLEY

COMMON NAME	SCIENTIFIC NAME
Monkey Gum	<i>E. cypellocarpa</i>
Woollybutt	<i>E. longifolia</i>
Yellow Stringybark	<i>E. muelleriana</i>
White Stringybark	<i>E. globoidea</i>

WESTERN SLOPES & PLAINS (NSW)

COMMON NAME	SCIENTIFIC NAME
River Red Gum	<i>E. camaldulensis</i>
Dirty Red Gum	<i>E. chloroclada</i>
Bimble Box (Poplar Box)	<i>E. populnea</i>
Pilliga Box	<i>E. pilligaensis</i>
Shelter Tree	
White Cypress Pine	<i>Callitris glaucophylla</i>

BALLARAT

COMMON NAME	SCIENTIFIC NAME
Manna Gum	<i>E. viminalis</i>
Messmate Stringybark	<i>E. obliqua</i>
Brown Stringybark	<i>E. baxteri</i>

CENTRAL VICTORIA

COMMON NAME	SCIENTIFIC NAME
Monkey Gum	<i>E. cypellocarpa</i>
Manna Gum	<i>E. viminalis</i>
River Red Gum	<i>E. camaldulensis</i>
Snow Gum	<i>E. pauciflora</i>
Bundy	<i>E. goniocalyx s.l.</i>
Yellow Box	<i>E. melliodora</i>
Messmate	<i>E. obliqua</i>
Brown Stringybark	<i>E. baxteri</i>
Brookers Gum	<i>E. brookeriana</i>
Bundy	<i>E. nortonii</i>
Red Box	<i>E. polyanthemos</i>