How you can help koalas on private land.

Land for Wildlife Note No. 7 *January 1990*

LAND FOR WILDLIFE

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In the past

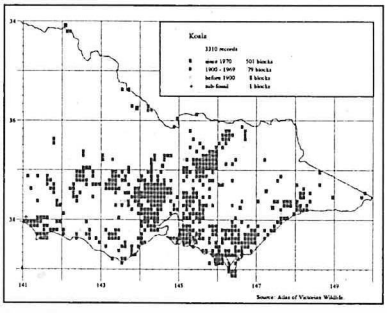
Before European settlement, koalas (*Phascolarctos cinereus*) were widespread but probably uncommon throughout the forests of eastern Australia, ranging from north Queensland to South Australia. Hunting by aborigines, dingoes, owls and Wedge-tailed Eagles, along with bushfires, controlled population numbers. Disease, as a factor controlling Koala numbers, may have increased in significance with the decline of aboriginal populations.

Upon the arrival of European settlers, vast areas of forest were cleared for grazing, crop cultivation and urban development. Unfortunately, much of this land contained koala habitat. The uncontrolled hunting of koalas for their fur also compounded this problem by reducing koala numbers.

This trailer load of 3600 Queensland koala skins is from the 1927 open season. With the passage of time our views have changed and koalas are now fully protected.

Koalas today

By the early 1900s, in Victoria, it was feared that koalas were endangered in the State (In 1934 Lewis estimated that only 1000 remained wild in Victoria). Translocations of koalas were carried out from French Island and Phillip Island where over-population had become a problem. Following successful translocation programs, koalas are now considered to be well re-established in Victoria and occur over much of their former range.



The distribution of koalas in Victoria. Source: Atlas of Vic. Wildlife, DCE.

Although koalas occur in many parts of Victoria, their numbers in many areas remain low, mainly due to the **lack of suitable habitat**. The clearing of vast areas of forest has meant that koalas are often restricted to thin strips of remnant vegetation, such as along rivers and roadsides, or in single isolated trees. These are not ideal areas for koalas as it is difficult for them to find food and mates.

Koalas living in such small patches of bush can cause severe defoliation of trees and may eventually die of starvation. If they are forced to travel between areas, they face the risk of predation by dogs or of being hit by vehicles.

About Koalas

Koalas live a largely solitary life although males seek out females during the breeding season. Healthy females are able to breed each year and commonly a single young is born during the warmer months of summer. Young are weaned by twelve months although they will stay near the mother for a further year.

Female young often establish a home range near the mother whereas males are evicted from the mother's home range when about two years old and then are nomadic for three years or so or until they are big enough to establish their own home range. Home ranges are usually less than three hectares although this varies with koala densities and food availability. Adults weigh between 4 and 14 kg, with males weighing up to 50% heavier than females. Koalas can live to 18-19 years of age.

The koala, 'the little Australians we'd hate to lose'. Loss of habitat is the main problem facing koalas.

Many koala populations are affected by *Chlamydia psittaci*, a bacterium that is sexually transmitted. This natural pathogen can damage the reproductive tract causing urinary infections and infertility. Although it appears that *Chlamydia* occurs in koalas over much of their range, *Chlamydia* does not appear to be a threat to koala populations in which it has been present for some years. Some Koala populations are much more seriously affected by the organism than others. Stress resulting from over-population or habitat destruction is thought to be a factor. Humans cannot be infected by the Koala *Chlamydia*.

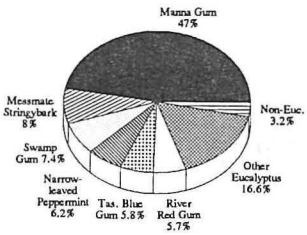
Where do koalas live ?

Koalas prefer **open forests and woodlands** to forests with closed canopies. They live in areas without extremely cold weather and so are more common in **coastal lowlands** than forests at higher altitudes. They favour the eucalypts growing in the more fertile soils of **alluvial flats and gullies** and so are frequently found in trees **close to watercourses**, but will range and feed widely up the **surrounding drier slopes** also.

Although koalas are renowned for their preference for the leaves of only a few eucalypt species, they occasionally eat non-eucalypt species including tea trees and wattles.

Feeding preferences can vary between individuals, seasons and areas and can depend on what tree species are available and how many other koalas live in an area.

In Victoria, koalas show a particular liking for the following eucalypt species: Manna Gum (*Eucalyptus viminalis*), Swamp Gum (*E. ovata*), Blue Gum (*E. globulus*), River Red Gum (*E. camaldulensis*) and Long-leafed Box *(E. goniocalyx)*.

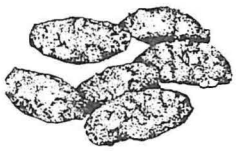


These species are often found along watercourses where soils are deep and fertile. (refer to Costermans, 1983 for distribution and identification of these species).

Koalas on private land

It is estimated that about half the koalas in Victoria live on private land. The retention and restoration of koala habitat and creation of habitat corridors for wildlife species on private land plays an important role in the koala's continued survival.

Locating koalas



Although difficult to glimpse in the tree top, koalas can be identified from their droppings (Triggs, 1984), the grunting and snoring-like calls made by males, the high-pitched wailing cries of females, and from scratch marks left on tree trunks.

Koala scats are dry green-brown pellets of vegetable matter usually found at the base of trees and, when fresh, smelling strongly of eucalyptus.

What YOU can do for koalas

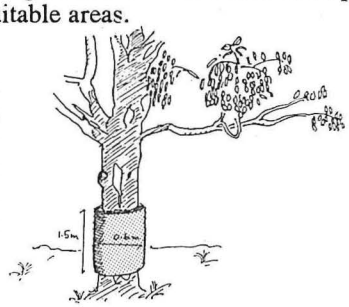
Habitat loss poses the greatest threat to koalas in Australia today. **Retaining or restoring koala habitat is the most beneficial step you can take and there are many additional benefits for your property (see below).** Shelterbelts and habitat corridors can be created by planting and/or seeding strips of land. For koalas, it is best to use a range of local native species, including eucalypts that are known to be preferred dietary items. Try to avoid planting "koala species" which would not occur naturally in your local area, or seed/seedling stock originating from outside the general locality. Pest animal and weed control programs may need to be organised to help establish these habitat corridors. Fencing-off remnant stands of trees will protect them from damage caused by stock and will also encourage regeneration. Koalas obtain their food from the eucalypt species already mentioned. They would benefit from an area of habitat **large enough** to support a breeding group. A **diverse shrub and ground layer** will support insect-eating birds thus reducing the effect of foliage-eating insects competing with koalas for food. Fencing a wide buffer along a stream frontage would potentially offer habitat for koalas whilst also protecting other river values. Revegetation of rivers and streams is discussed in other Notes in this series (refer to Note No. 8). The understorey also provides cover from predators of koalas whilst travelling on the ground. **Controlling your pets**, particularly dogs, and especially at night when koalas are likely to be on the ground, will help. It is preferable that pets are always kept out of wildlife habitats as they may also chase or harass kangaroos, wallabies, lyre-birds, and other larger fauna and may disturb ground-roosting or nesting species such as quail, quail-thrushes, nightjars, etc. **Retaining large habitat trees** will assist koalas (they show a preference for larger trees). **Linking habitat areas with corridors** (see LFW Note No. 3) of vegetation will assist koala movement. A "neighbourhood" approach to the establishment of koala habitat/corridors can build upon individual contributions. Finally, you can **exercise caution when driving vehicles**, particularly where bushland abuts the road.

How to prevent koalas defoliating trees!

If you already have koalas on your land that are restricted to isolated patches of vegetation, they may begin to defoliate your trees. The long term solution is to plant more local native trees, shrubs and ground cover on your property which can be linked up with patches on adjoining properties and to larger areas of habitat (State Parks, etc). However, there are several ways to tackle this problem in the short term:

1) While the offenders are not in the tree, metal guards made of flat galvanized iron (at least 1.5m high) can be placed around the tree trunk or branches. This will stop koalas reaching the leaves.

2) Koalas can be captured and moved to other areas with enough forest to let them survive and disperse. Staff of the Department of Conservation and Environment are required to approve and undertake the capture and relocation of koalas. This is because these creatures can be difficult and dangerous to handle and it is important to release them in suitable areas.



A cylindrical metal guard around a tree can deny koalas access where defoliation is a problem.

Wildlife habitat can be a valuable asset

Provision of koala habitat provides many opportunities to enhance the economic, social and recreational values of a property. The retention and restoration of habitat can provide shelter for stock, windbreaks, a wood supply, natural insect control with less pesticides, improved fish habitat, scenic picnic spots, wildlife sights and sounds, improved property resale potential and can help combat erosion and salinity.

"The species which make up the world of koalas are many and varied. The possums and gliders and many insectivorous bats seek refuge in and feed from and around the eucalypts preferred by koalas. Owls and parrots and a host of tiny insect-eating birds are also concentrated in these areas. Many migrating honeyeaters move along rivers and streams, feeding and resting in the trees of the banks and adjoining woodlands. Lyre-birds, bowerbirds and echidnas scurry amongst the leaf litter on the forest floor and platypus burrow into the banks secured by the roots of river red gums. Snakes, goannas and water dragons bask in the sun as wombats snooze in their burrows and wallabies cautiously graze on grass-shoots. This, but superficial, look at the complex ecosystem which koalas sit quietly representing, should serve to remind us that conservation needs to be about habitats and not just individual species. If habitats are protected so too will be their occupants." (Phillips, 1990)

References:

Koalas-The little Australians we'd hate to lose. Phillips, B., (1990), Aust. Nat. Parks and Wildlife Service. AGPS Press.
The koala-A natural history. Lee, A. and Martin, R., (1988), NSW University Press.
Draft management plan for the conservation of the koala (Phascolarctos cinereus) in Victoria. Martin, R., (1989), Department of Conservation, Forests and Lands, Victoria.
What mammal is that? Strahan, R., (1987), Angus and Robertson Publ.
The koala in Victoria. Lewis, F., (1934), The Victorian Naturalist, Vol. LI, July 1934, pp 73-77.
Land for Wildlife Notes No.s 3. Creating habitat corridors for wildlife; 8. River and stream improvement for wildlife.

Further reading:

Native Trees and Shrubs of South-eastern Australia. Costerman's, L., (1983), 2nd ed., Rigby publ.
Mammal Tracks and Signs: a field guide for south-eastern Australia. Triggs, B., (1984), Oxford Uni. Press.

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