

Koala

Phascolarctos cinereus (Goldfuss, 1817)

Other common names None

Conservation status

The Koala is listed as a **Vulnerable Species** on Schedule 2 of the New South Wales *Threatened Species Conservation Act, 1995* (TSC Act). The conservation status of this species varies across Australia, from secure in some areas to vulnerable or extinct in others (ANZECC 1998).

Description (summarised from Martin & Handasyde 1995)

Head and body length (range of averages)

705-782mm (males)

687-716mm (females)

Weight (max range)

6.5-12kg (males)

5.1-8.5kg (females)

The Koala is an arboreal marsupial with fur ranging in colour from pale grey in the northern parts of its range to grey-brown in the south. Koalas have large furry ears and no tail. In the south of their range they are significantly larger than in the north (Lee & Martin 1988).



Koala

Distribution

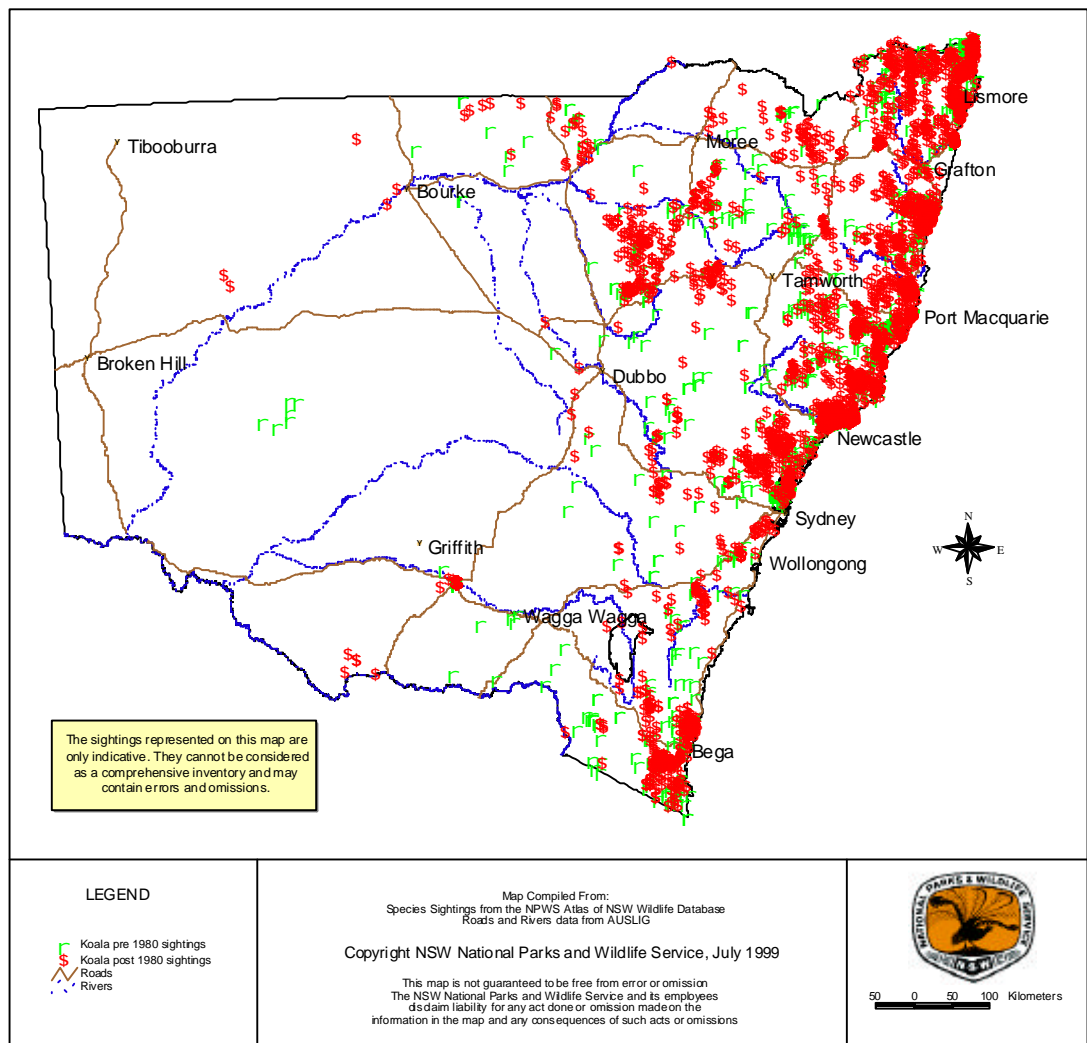
The Koala has a fragmented distribution throughout eastern Australia, from north-east Queensland to the Eyre Peninsula in South Australia (Martin & Handasyde 1995). The distribution of the species also extends west of the Great Dividing Range, where it mostly occurs along inland rivers (Martin & Handasyde 1995).

In NSW, the Koala mainly occurs on the central and north coasts (Reed & Lunney 1990), although some populations occur in the western region (such as in the Pilliga region, to the west of Gunnedah), and an individual was recorded north of Wilcannia in 1994 (Ellis *et al.* 1997).

The species was historically abundant on the south coast of NSW (Lunney & Leary 1988), but now occurs in sparse and possibly disjunct populations (Reed *et al.* 1990) primarily in the Eden-Narooma area. Koalas are also known from a number of sites on the Southern Tablelands.

Recorded occurrences in conservation reserves

In NSW, Koalas have been recorded in numerous conservation reserves along the east coast and the slopes and tablelands of the Great Dividing Range (NPWS 1999).



NPWS records of the Koala in NSW

Habitat

The Koala inhabits eucalypt forest and woodland. The suitability of forest and woodland communities as habitat for Koalas is influenced by the size and species of trees present, soil nutrients, climate, rainfall and the size and disturbance history of the habitat patches (Reed *et al.* 1990).

Ecology

Koalas spend the majority of their time resting in the forks of trees and are generally most active in the first few hours following sunset (Mitchell 1990).

Throughout NSW, Koalas have been observed to feed on the leaves of approximately 70 species of eucalypt and 30 non-eucalypt

species (Phillips 1990). However, in any one area, Koalas will feed almost exclusively on a small number of preferred species. The preferred tree species vary widely on a regional and local basis (Hindell & Lee 1990).

Some preferred species in NSW include Forest Red Gum *Eucalyptus tereticornis*, Grey Gum *E. punctata*, Monkey Gum *E. cypellocarpa* and Ribbon Gum *E. viminalis*. In coastal areas, Tallowwood *E. microcorys* and Swamp Mahogany *E. robusta* are important food species, while in inland areas White Box *E. albens*, Bimble Box *E. populnea* and River Red Gum *E. camaldulensis* are favoured (Smith 1992).

The Koala's diet of eucalypt leaves is low in nutrients and difficult to digest. Koalas are able to deal with this diet because they have a

lower metabolic rate than most other mammals, low nutrient requirements and a complicated digestive tract that selectively keeps the nutritional parts of the diet and excretes the indigestible parts (Cork & Sanson 1990). Koalas also save energy by remaining relatively inactive.

Although Koalas are often regarded as solitary, they actually live in complex groups and individual animals have overlapping home range areas (Martin & Handasyde 1995). Young males reach sexual maturity at approximately two years, although they are generally excluded from mating by the dominant male (Martin & Handasyde 1990; Martin & Handasyde 1995).

Females reach sexual maturity at approximately two years and can produce one offspring each year, generally in summer (Martin & Handasyde 1990). Following birth, the young lives in the pouch for 6 months and on leaving the pouch it remains dependent on its mother, riding on her back. Young reach independence at about 12 months, although they can remain in the mother's home range for a further 2-3 years. After this period, young animals disperse to establish their own home range. Dispersal distances generally range from 1-11 km (Gall 1980; Mitchell & Martin 1990), although movements in excess of 50 km have been recorded (Steve Phillips unpublished data).

Threats

- Destruction of habitat by clearing for urban development, agriculture and mining, particularly on high nutrient content soils
- Fragmentation of habitat by roads, urban development and agriculture, which creates barriers to movement, isolates individuals and populations, alters population dynamics and prevents gene flow and the ability to maintain recruitment levels
- Mortality from attacks by dogs, road fatalities, fires, drought or other natural disasters, particularly in fragmented landscapes without suitable refuge areas

- Degradation of habitat by fire, weed invasion, removal of important habitat trees and climate change
- In stressed populations, infection by *Chlamydia*, causing cystitis, keratoconjunctivitis, infertility and other symptoms

Management

- Survey and research to assess and map Koala populations and habitat
- Identification, protection and management of habitat, incorporating buffer or protection zones around prime habitat and the use of habitat links
- Habitat restoration and re-establishment of Koala feed trees in protection zones and in areas where clearing threatens the long-term persistence of local populations
- Research to determine the impact of fire, weed invasion and logging regimes
- Control of predators, in particular wild and domestic dogs
- Design of roads to incorporate movement structures and exclusion fencing and the setting of appropriate speed zones to allow for Koala movements and to reduce Koala deaths on roads
- Implementation of appropriate burning, logging, water-flow (particularly in arid areas) and grazing regimes to ensure the maintenance of known or potential habitat
- Education of residents, landholders, community groups and relevant authorities about threats to and management of Koalas
- Continuing involvement of the community in the survey, care and management of Koalas

Recovery plans

A recovery plan for the Koala is in preparation.

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