

Eastern Quoll

Dasyurus viverrinus (Shaw, 1800)

Other common name Eastern Native Cat

Conservation status

The Eastern Quoll is listed as an **Endangered Species** on Schedule 1 of the New South Wales *Threatened Species Conservation Act, 1995* (TSC Act). This species is also listed as a **Vulnerable Species** on Schedule 1 of the Commonwealth *Endangered Species Protection Act, 1992*. The Eastern Quoll is possibly extinct on the Australian mainland (Godsell 1995).

Description (as summarised by Godsell 1995)

Head and Body Length

320-450 (370)mm (males)

280-400 (340)mm (females)

Tail Length

200-280 (240)mm (males)

170-240 (220)mm (females)

Weight

900-2000 (1300)g (males)

700-1100 (880)g (females)

This slightly built species occurs in two colour phases (black or fawn), both with white-spots. It is distinguishable from the larger Spotted-tailed Quoll by the absence

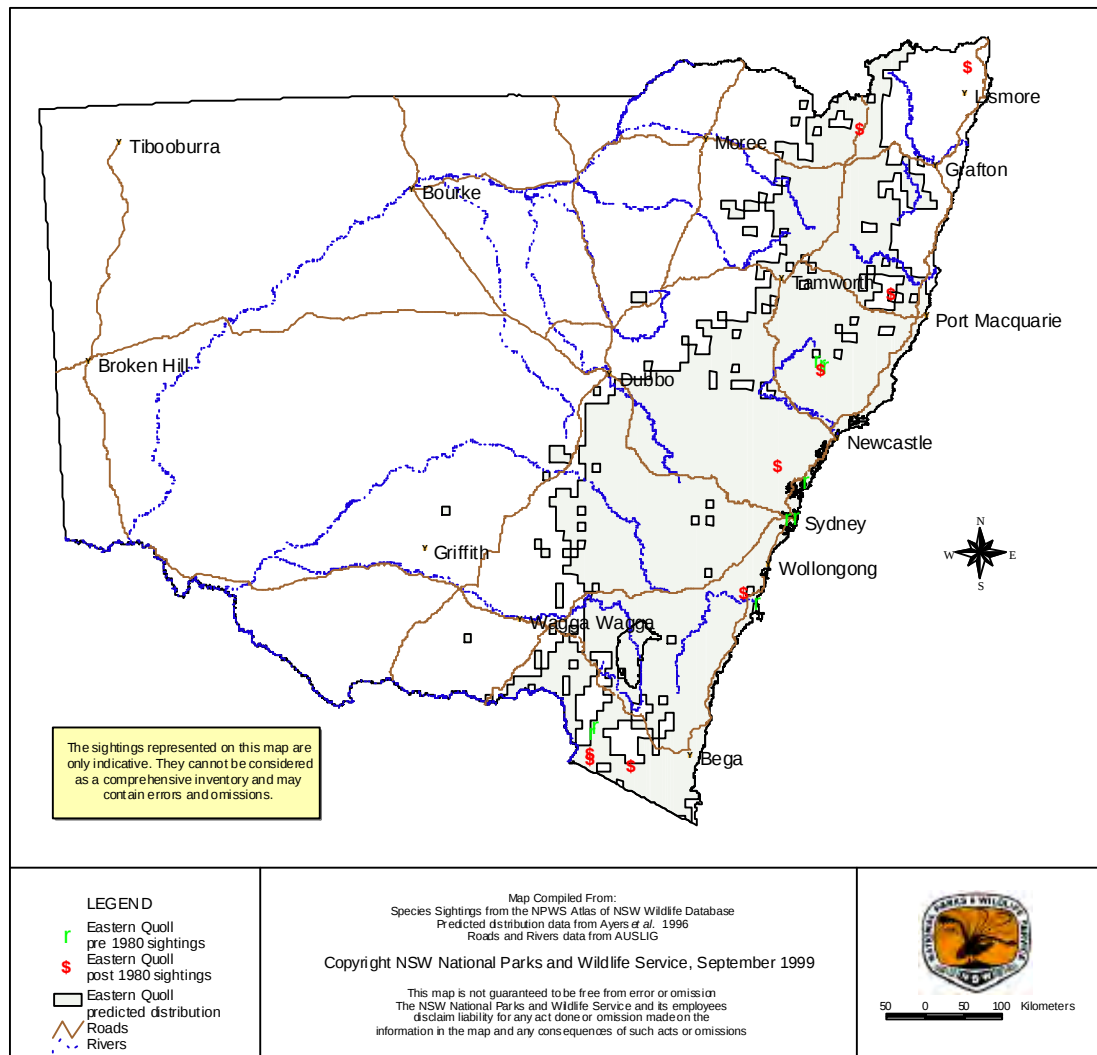
of spots on its tail. Individuals with either black or fawn coat colour occur in the same litter, independent of their sex or the colour of the parents.

Distribution

Historically, the Eastern Quoll was widely distributed throughout south-eastern Australia, from south-east South Australia, throughout Victoria and Tasmania to eastern NSW (Caughley 1980). This species experienced a dramatic decline and is now considered extinct throughout most of its former range (Scotts 1992; Godsell 1995). However, it is still relatively common in Tasmania.

In NSW, Eastern Quoll populations once occurred from the mid-north coast to the Victorian border. There have been recent unconfirmed sightings in the Wyong and Cessnock districts on the central coast (Godsell 1983) and inland of Kempsey (Scotts 1992), however extensive surveys have not found any evidence of the species and its current distribution in NSW remains uncertain (Maxwell *et al.* 1996).





NPWS records of the Eastern Quoll in NSW

Recorded occurrences in conservation reserves

Comerong Island NR, Barrington Tops NP, Ku-ring-gai Chase NP, Kosciusko NP (NPWS 1999).

Habitat

The Eastern Quoll utilises a variety of habitats including dry sclerophyll forest, shrub, heathland and agricultural land (Godsell 1995). In Tasmania individuals occur most commonly where there are ecotones between cleared pastures and eucalypt forest (Maxwell *et al.* 1996), reflecting the availability of prey along forest edges (Scotts 1992).

Riparian forests are also frequently used, particularly where a movement path is provided through cleared landscapes (Scotts 1992). The Eastern Quoll requires hollow logs, rock piles and even haystacks in which to den (Godsell 1995).

Ecology

The Eastern Quoll is nocturnal, feeding at night and sheltering in dens by day. Insects and grubs, small terrestrial mammals and birds, form much of an individuals diet. However, as an opportunistic carnivore, they may scavenge on carcasses of large animals (Gilmore and Parnaby 1994). Grasses are often eaten and berries also form part of the species' diet (Godsell 1995).

The breeding period is from May to August with females producing up to thirty young after 3 weeks gestation (Godsell 1995). However, mortality is high and the first six young to attach themselves to the six teats of the female are the only survivors (Godsell 1995). Young are carried in the pouch for six to eight weeks, after which they are deposited in a den or carried on the mother's back (Scotts 1992). Weaning takes five months after which time the young become independent (Gilmore & Parnaby 1994). Of the young that enter the den, mortality is low, so large numbers of juveniles enter the population around November (Godsell 1995). Juveniles disperse over summer, reducing the local population size.

Home-ranges are relatively small, with females remaining within a few hundred metres from their den. Males travel larger distances, but are thought to restrict their movements to 1km from the den (Godsell 1995). Dens are made in hollow logs, underground burrows or amongst rock piles (Godsell 1995). Males may have numerous dens within their home-range (Godsell 1995).

Threats

- Loss and degradation of habitat through clearing of native vegetation and subsequent development (Caughley 1980)
- Loss of large hollow logs suitable for den sites (Scotts 1992)
- Competition for food and predation by foxes and cats (Caughley 1980)

- Spread of epidemics, such as a parasitic protozoan, by cats to quolls (Caughley 1980)
- Historically this species was persecuted by humans
- Road mortality (Jones 1993)
- Baiting of dingoes results in direct poisoning (Belcher 1998) and changes the composition of predators, reduced dingo numbers favours foxes which compete with quolls (Gilmore & Parnaby 1994)

Management

- Protection and maintenance of known or potential habitat, including the implementation of protection zones around recent records (particularly known or potential den sites).
- Appropriate pest control programs which are targeted towards reducing fox and feral cat numbers without affecting native species.
- Alteration of prescribed fires and grazing regimes to ensure the enhancement and maintenance of known or potential habitats and the reduction of habitat fragmentation.

Recovery plans

A recovery plan has not been prepared for this species.

References

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