



Spotted-tailed Quoll

Dasyurus maculatus (Kerr 1792)

Other common names Tiger Cat, Tiger Quoll, Spotted-tiled Native Cat, Spotted-tail Dasyure.

Conservation Status

The Spotted-tailed Quoll is listed as a **Vulnerable Species** on Schedule 2 of the New South Wales *Threatened Species Conservation Act, 1995* (TSC Act).

Description (summarised from Edgar & Belcher 1995)

Head and Body Length

380-759 mm (males)
350-450 mm (females)

Tail Length

370-550 mm (males)
340-420 mm (females)

Weight

up to 7 kg (males)
up to 4 kg (females)

The robust Spotted-tailed Quoll has rich rufous brown to dark brown fur above covered by white spots of varying size. The fur underneath is a pale brown to cream. This species is considerably larger than other quolls and has characteristic spots on its tail.

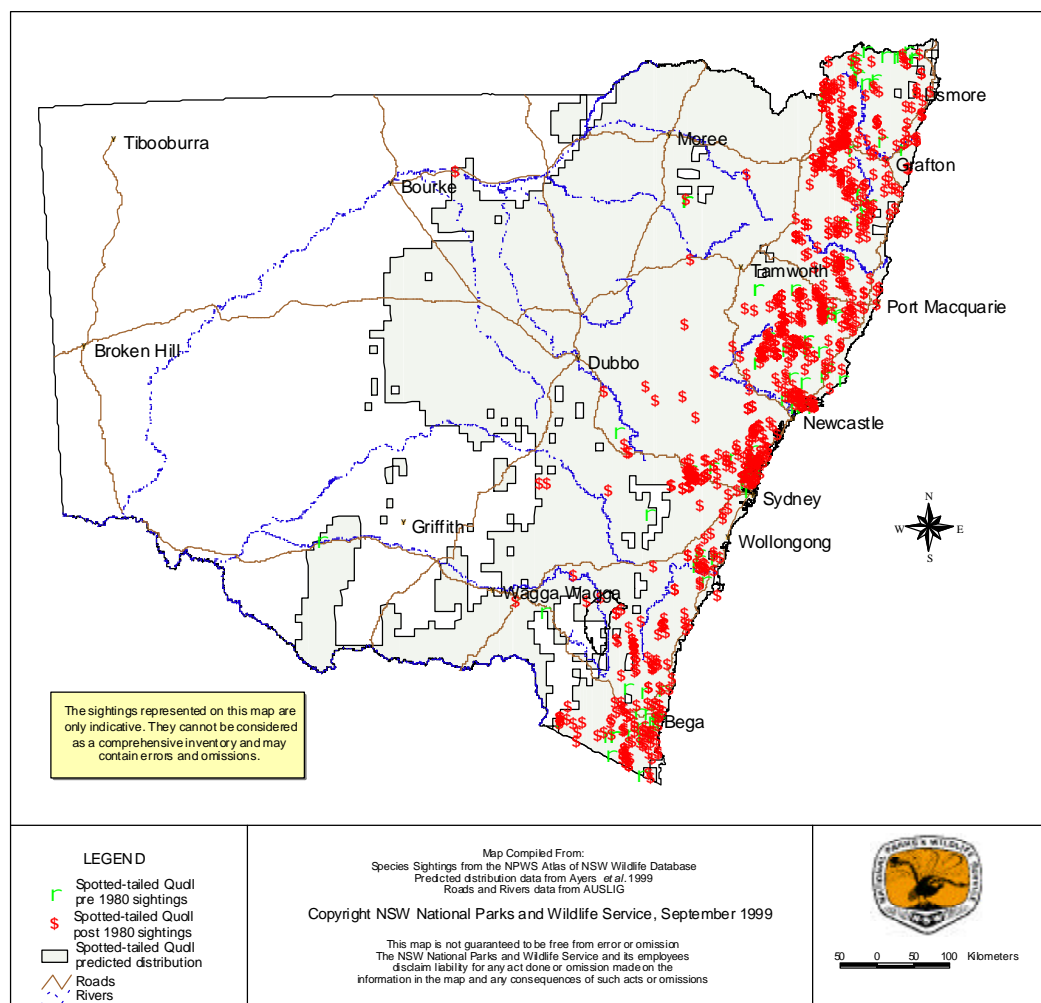
Distribution

There are two subspecies of the Spotted-tailed Quoll: *Dasyurus maculatus gracilis* occurs in a small isolated population in north Queensland, while *D. m. maculatus* occurs along the remainder of the east coast (NPWS in prep.) from south-east Queensland to Tasmania. This subspecies previously ranged over both sides of the Great Dividing Range from Queensland to South Australia and Tasmania (Edgar & Belcher 1995). However, following a dramatic decline in range and numbers, it is now distributed over a restricted range in isolated areas that may be too small to support long-term viable populations (Edgar & Belcher 1995). The species is probably extinct in South Australia and uncommon to rare in Queensland, NSW and Victoria, but numbers appear to have increased in Tasmania (Edgar & Belcher 1995).

In NSW, the Spotted-tailed Quoll occurs on both sides of the Great Dividing Range. The north-east of the state represents a stronghold for the species, as numbers in



N Fenton/NPWS



NPWS records of the Spotted-tailed Quoll in NSW

the south-east of the state have dramatically declined (NPWS in prep.). The western division of NSW has a number of scattered but unconfirmed records (Ayers *et al.* 1996).

Recorded occurrences in conservation reserves

Numerous conservation reserves throughout eastern NSW (NPWS 1999).

Habitat

The Spotted-tailed Quoll utilises a variety of habitats including sclerophyll forest and woodlands, coastal heathlands and rainforests (Dickman & Read 1992; Edgar & Belcher 1995; NPWS in prep.). Occasional sightings have been made in open country, grazing lands, rocky outcrops and other treeless areas.

This species' habitat requirements include suitable den sites (such as hollow logs, tree hollows, rock outcrops or caves) and an abundance of food (such as birds and small mammals). Individuals also require large areas of relatively intact vegetation through which to forage.

Ecology

The Spotted-tailed Quoll is primarily solitary and nocturnal, although some diurnal activity does occur (Dickman & Read 1992). This species is primarily terrestrial, although it is an agile climber, using trees as vantage points from which to hunt (Dickman & Read 1992). It is an opportunistic carnivore which preys on birds, reptiles, small mammals (including gliders, possums, rats and small macropods) and invertebrates (Ayers *et al.* 1996). This species also scavenges carrion

and steals domestic poultry, and as a result is often persecuted (Edgar & Belcher 1995).

The Spotted-tailed Quoll nests in rock shelters, small caves, hollow logs or tree hollows (Ayers *et al.* 1996) and utilises numerous dens within its home range (NPWS in prep.). The home-range of this species is unknown, but estimates are between 800ha and 20km² (NPWS in prep.). It is a highly mobile species and there are numerous records of overnight movements of several kilometres (Edgar & Belcher 1995). Within its home range, this species has 'latrines' where it defecates, which are likely to define territories (Edgar & Belcher 1995).

The breeding period of the Spotted-tailed Quoll is from April to July with an average litter size of five (Edgar & Belcher 1995). The gestation period is 3 weeks and juveniles remain in the pouch for approximately 7 weeks (Dickman & Read 1992; Edgar & Belcher 1995). After leaving the pouch, social play is well developed by 13 weeks, and juveniles become independent at 18 weeks (Dickman & Read 1992). Maturity is attained at the age of one year (Edgar & Belcher 1995).

Threats

- Loss, fragmentation and degradation of habitat through clearing of native vegetation and subsequent development, logging and frequent fire (Edgar & Belcher 1995; Dickman & Read 1992; NPWS in prep.)
- Loss of large hollow logs and other potential den sites (Scotts 1992)
- Competition for food and predation by foxes and cats (Edgar & Belcher 1995; Dickman & Read 1992)
- Spread of epidemics, such as a parasitic protozoan, by cats to the Quolls (Edgar & Belcher 1995; Dickman & Read 1992)
- Historically (and currently) this species was extensively persecuted by humans following perceived predation on stock and poultry (Edgar & Belcher 1995; Dickman & Read 1992)

- Baiting of dingoes results in direct poisoning of Spotted-tailed Quolls and changes the composition of predators: reduced dingo numbers favours foxes which compete with quolls (Edgar & Belcher 1995; Dickman & Read 1992)

Management

- Protection and maintenance of known or potential habitat, including the implementation of protection zones around known den and latrine sites
- Retention of old growth elements, in particular tree hollow and fallen hollow logs
- Appropriate pest control programs which are targeted towards reducing fox and feral cat numbers without adversely affecting native species
- Education of landholders to prevent persecution of the Spotted-tailed Quoll
- 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.



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References

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- NPWS 1999. Atlas of NSW Wildlife. NPWS, Hurstville.
- NPWS in prep. Threatened Species Management Manual, Forest Conservation Unit. NPWS, Hurstville.
- Scotts D. 1992. A preliminary survey for the Eastern Quoll, *Dasyurus viverrinus*, and other rare or endangered vertebrates, in Carrai State Forest, NSW. Unpublished report for the NPWS.

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