



# Quolls

Tasmania is home to two species of quoll which are threatened on mainland Australia.

The spotted-tail quoll *Dasyurus maculatus* (or tiger cat) and eastern quoll *Dasyurus viverrinus* (or native cat) are marsupial carnivores. Like all marsupials they rear their young in a pouch. They are also efficient predators.

Male eastern quolls are about the size of a small domestic cat averaging 60 cm in length and 1.3 kg in weight; females are slightly smaller. They have thick soft fawn or black fur. Small white spots cover the body but not the bushy tail which may have a white tip. The spotted-tail quoll is considerably larger than the eastern quoll with males measuring up to 130 cm long and 6 kg in weight. Fur colour is reddish brown with white spots covering the body and tail. Adult females are significantly smaller than males.

The eyes and ears of the spotted-tail quoll are comparatively smaller than those of the eastern quoll. Also, the spotted-tail quoll is stocky, with a thick snout and wide gape. In comparison, the eastern quoll is slightly built with a pointed muzzle. However, both have very sharp teeth!

The footprints of the two species are distinct. The spotted-tail quoll, being an accomplished climber, has ridges for climbing on the pads of all feet and a short opposable thumb on the inside of each hind foot.

## Distribution

Two forms of spotted-tail quoll exist — a small one in northern Queensland and a large one found from Queensland to Tasmania. The spotted-tailed quoll is now threatened throughout its mainland range.

The eastern quoll was widespread in southeastern mainland Australia but is now thought to be extinct there. Loss of habitat and competition from feral predators are the main problems for these species on mainland Australia.

## Habitat

Spotted-tail quolls favour thickly vegetated country in high rainfall areas. They are found in rainforests, wet eucalypt forests and coastal heath in the north, west and



*Spotted-tail quoll*

far-south of the state, although they occasionally venture into drier regions. The eastern quoll is found in a variety of habitats including rainforest, heathland, alpine areas and scrub. However, it seems to prefer dry grassland/forest mosaics which are bounded by agricultural land. Both quolls may live near towns and farms.

## Lifestyle

Quolls are nocturnal and only occasionally forage or bask during daylight; the spotted-tail quoll more often than the eastern quoll. During the day they sleep in nests made under rocks, in burrows or in fallen logs. Eastern quolls live on the ground but spotted-tail quolls spend a tenth of their time moving above the forest floor on logs or in trees. Both quolls are fierce hunters and the spotted tail quoll is capable of killing prey larger than itself. They can also be quite bold when competing with the larger Tasmanian devil for food. Eastern quolls sometimes scavenge morsels of food from around feeding devils while a hungry female spotted-tailed quoll has been seen to chase a devil away from a carcass!

## Breeding

The reproductive cycle of both quolls is similar. Females breed only once a year unless they lose their litter early, at which time they will try to breed again. Breeding occurs in early winter with females giving birth to up to six young about three weeks after mating. At about 10 weeks old, the young are left in grass-lined dens located in burrows or hollow logs, leaving the female free to hunt and forage.

If the female needs to move to a different den she carries the young along on her back. Towards the end of November, when the young are 18 to 20 weeks old, they are weaned. At this time the young become independent of the female.

Within the first year or two they have reached sexual maturity themselves and begin breeding. The death rate of juveniles is low while they are in the care of their mother. However, after weaning they tend to move away and their death rate greatly increases.

## Diet

Quolls are opportunistic carnivores that both hunt and scavenge. They kill large prey by biting on or behind the head. Prey taken by the spotted-tail quoll include rats, gliding possums, small or injured wallabies, reptiles and insects. Birds and eggs are also taken from time to time. Carrion is frequently eaten by spotted-tail quolls and even tip scavenging and beachcombing occur. Large spotted-tail quolls compete directly with Tasmanian devils for food. While the smaller eastern quoll does eat small mammals such as rabbits, mice and rats, it mainly eats invertebrates especially agricultural pests such as the cockchafer beetle and corbie grub. Carrion and some berries are also eaten.

## Status and conservation

Both species are listed nationally as *vulnerable* and in Tasmania require monitoring. They have suffered from persecution and direct competition with feral cats for food. Feral cats are one of the most efficient hunters and can be devastating to wild populations of mammals and birds. Their retractable claws allow them to climb swiftly — even upside-down. Because of this they are unlike any other predator in Tasmania and can take tree dwelling animals, birds and eggs with relative ease. This, together with their size and stealth, makes them well suited to taking prey that quolls eat.

Dogs, roadkills from collision with vehicles, and illegal poisoning or trapping by owners of poorly protected poultry are also causing quoll numbers to decline in some areas. Should the fox become established in Tasmania, these species will be under threat. Importantly, the loss of suitable forest habitat through land clearance, particularly in the case of the spotted-tail quoll, threatens quoll populations. Both species are wholly protected by law.

## Where to see quolls

Especially good places to see spotted-tailed are Cradle Mt. National Park and the Arthur River area. Eastern quolls can often be seen at Mt Field National Park. Going for a quiet walk after dark is a good way to see quolls. Take a bright torch with you.

## How you can help

- Desex pet cats, attach a bell to their collar and keep them inside at night. Do not dump unwanted cats as they hunt native birds and mammals, and in doing so may out-compete or prey upon marsupial carnivores.
- Control your dogs and prevent them from roaming at night. It is illegal to set a dog on protected wildlife.
- Pen your poultry well to protect them from quolls and other predators like Tasmanian devils and birds of prey. A roofed pen is necessary to stop quolls from entering. If poultry roost in trees make sure branches are 1.5 m above the ground and put a metal collar around the trunk at this height. For more information see Parks and Wildlife Service notesheet *Living With Wildlife - Tasmanian devil and quolls*.
- Drive slowly in bush areas to prevent road kills.
- If safe to do so, move road kills off the road so marsupial carnivores don't feed in the direct path of traffic.

## Further information

Green, R. H. (1993). *The Mammals of Tasmania*. Potoroo Publishing, Launceston.

Jones, M. E. (1996). *Clash of the carnivores*. Nature Australia. 25(5): 46-55.

Strahan, R. (ed). (1995). *The Mammals of Australia*. Reed Books, NSW.

Watts, D. (1993). *Tasmanian Mammals — A field guide*. Peregrine Press, Tasmania.

## Contact

Biodiversity Conservation Branch: DPIPW  
134 Macquarie Street, Hobart. 7000  
Phone: (03) 6233 6556  
Fax: (03) 6233 3477