



Tasmanian Devil

Sarcophilus harrisii

The Tasmanian devil is unlikely to be mistaken for any other animal. Its spine-chilling screeches and black colour led the early European settlers to call it the Devil. Although only the size of a small dog, it can sound and look incredibly fierce. Powerful jaws and teeth enable it to completely devour its prey — bones, fur and all. In prehistoric times, the animal roamed widely over mainland Australia. Today, devils only occur in Tasmania and is our most widely recognised endemic animal. Sadly, a virulent cancer — Devil Facial Tumour Disease has dramatically reduced devil numbers in the wild.



Description

Devils are thick-set and squat in build, with a relatively large, broad head and a short, thick tail. Fur colour is mostly black with unique white flashes usually occurring on the rump, chest or behind the shoulders. Similar markings often occur in litters. About one in five is all black. Adult males are usually larger than adult females. Large males weigh up to 12kg, and stand about 30 cm high at the shoulder. Currently it is the largest remaining carnivorous marsupial in the world.

Habitat

Devils live from the coast to the mountains, from cold wet regions to warm dry areas. They live in coastal heath, open dry sclerophyll forest, and mixed sclerophyll rainforest — in fact, almost anywhere they can shelter by day, and find food at night.

History and distribution

Before European settlement began, the devil was extinct outside Tasmania, most probably as a result of the spread

of dingoes. Fossils have been found all over the Australian mainland. Early settlers of Hobart Town considered devils a nuisance — raiding the poultry yards — and local populations were soon eliminated. In 1830 the Van Diemen's Land Co. introduced a bounty scheme to remove devils, thylacines and wild dogs, from their northwest properties: 2/6 (25 cents) for male devils and 3/6 (35 cents) for females. For over a century they were trapped and poisoned and became very rare. Despite this, the Tasmanian devil was not protected by law until June 1941.

Devil Facial Tumour Disease

Until the late 1990s devils were widespread throughout Tasmania. In 1996 a devil at Mt William National Park in northeast Tasmania was photographed by Christo Baars with massive tumours on its face. In 2003 the Save The Devil Program was established to provide a multifaceted approach to the horrific and always fatal Devil Facial Tumour Disease. In 2006 scientists proposed that the tumours were transmitted by allograft — infectious cancerous cells were passed directly from one devil to another by biting. This is one of only three cancers in the world that can spread like an infectious disease. It is believed that the lack of genetic diversity within devils means that their immune systems do not reject the cancerous cells. By 2006 the disease was widespread, covering 50% of the state and with a 41% decline in devil sightings. By 2010 there was an 80% decline in devil sightings and the disease had spread to more than 60% of the State and was spreading at a rate of 7-20km per year. The disease has not yet reached the west coast



of Tasmania although new cases continue to occur in previously clean areas as the disease moves westwards. Devils are currently listed as Endangered (at risk of extinction).

Lifestyle

Devils are nocturnal. During the day they usually hide in a den, or in dense bush. Active at night, devils roam up to 16 km over their home range, using well-defined trails while searching for food. They usually amble along with a characteristic gait (2 – 1 – 1 – 2 pattern) but can gallop quickly with both hind feet together. Young devils are particularly agile and can climb quite well. Devils are not territorial, except around a breeding den.

Sound and behaviour

The famous gape or yawn of the devil that looks so threatening can be misleading. This display is performed more from uncertainty than aggression. The devil makes a variety of fierce noises, from harsh coughs and snarls to high pitched screeches. Soft grunting snorts are low level threats while a sharp sneeze is used as a challenge to other devils, and frequently comes before a fight. Many of these spectacular behaviours are bluff and part of a ritual to minimise harmful fighting when feeding communally at a large carcass.

Diet

The Tasmanian devil is carnivorous (meat-eating). It is the largest member of the family of carnivorous marsupials, the Dasyuridae. This family includes the eastern quoll (native cat), spotted-tailed quoll (tiger cat) and antechinus (marsupial mice). The devil is mainly a scavenger and feeds on whatever is available. However, devils do hunt and although they mainly catch the sick, injured, old, or young, they can catch healthy prey. Wallabies and various small mammals and birds are eaten. Reptiles, amphibians, insects and even sea squirts have been found in the stomachs of wild devils. Carcasses of sheep and cattle provide food in farming areas.

Breeding

Devils usually mate in Summer or Autumn. Females come into oestrus for about a week and stay in the den with the male guarding and mating. It is not unknown for young to have different sires. If the female does not get pregnant the first time she will come back into oestrus around two months later for a second and even a third time. Both sexes are usually fertile at two years of age although occasionally younger ones do breed. The pea-sized young are born after only 21 days gestation. More young are born than can be accommodated in the mother's rear-opening pouch, which has four teats. The young are carried in the pouch and for the first four

months are firmly attached to the teat. After this time they start venturing out of the pouch and are then left in a den, often a deserted wombat burrow. Young devils stay with their mother until about 9 months of age, learning how to survive and hunt. They behave remarkably like puppies, chewing and chasing after each other and their mother. By late December most young devils have left their mother and are living alone in the bush. Devils rarely breed after six years of age. In the wild six year old devils are reaching the end of their lifespan.

How you can help

Drive more slowly at night, especially where there is bush on both sides of the road. Devils and other animals 'cleaning up' the carcasses of road-killed animals are themselves in danger of being run over. You can help by moving road-killed animals off the road, thereby reducing the risk of further deaths. Make sure you stop your car in a safe and clearly visible place. Never relocate devils you might be moving them into an area of devil disease. Keep dogs contained at night especially over Spring and Summer when juveniles are dispersing and seeking food. Even small dogs can easily kill a young devil. Report all devil sightings to DPIPVV.

Further information

Watts, D. (1993). Tasmanian Mammals — A Field Guide. Peregrine Press, Hobart.

Hawkins et al 2006 'Emerging disease and population decline of an island endemic, the Tasmanian devil *Sarcophilus harrisii*', Biological Conservation, vol. 131, pp. 307-324

Pearce and Swift 2006: Allograft Theory: Transmission of Devil Facial Tumour Disease. Nature 439

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