

Tassie Devil Cancer



DEVIL FACIAL TUMOUR DISEASE : FACT SHEET

ABOUT DEVIL FACIAL TUMOUR DISEASE (DFTD):

- ❖ The first signs of Tasmanian Devil Facial Tumour Disease (DFTD) were observed in 1996. It's a fatal condition in Tasmanian devils, characterised by cancers around the mouth and head.
- ❖ Tasmanian devils with the disease usually die within 3-8 months of the lesions first appearing.
- ❖ DFTD is one of only three recorded cancers that spread like a contagious disease.
- ❖ As at November 2007, DFTD had been confirmed at 60 different locations across 59% of Tasmania's mainland.
- ❖ It is believed DFTD is transmitted by allograft, which is fairly rare. Allograft occurs when diseased cells are passed physically from one individual to another. In the case of DFTD, it is thought that the cells are passed between individuals during their frequent scuffles, or mating which often involves biting the necks of their partners.
- ❖ Researchers believe that nothing humans have done led to the disease - it appears to have started from one rogue cell in a male in the North East of the State which then spread rapidly. Because of the lack of genetic diversity in devils (ie - they're all related) a DFTD cell being passed from one devil to another as a result of a bite or during mating is not recognised by the devil's immune system as a foreign cell and as such is taken in by it as one of its own.
- ❖ However, researchers believe that humans have had a direct impact on this lack of genetic diversity because of the unrestrained culling of devils in the early 20th Century. Poisoned sheep carcasses were left overnight and in the morning farmers would find up to 20 devils dead around one carcass to every Tasmanian Tiger (Thylacine).
- ❖ In addition, the building of roads and tracks enables devils to cross the state through habitats they would never normally be in which is having a direct impact on the spread of the disease.
- ❖ Devils are now regarded as critically endangered.



What's Being Done



Rodrigo explains tracking collars

- ✦ Scientists are investigating the tumour looking for clues to resistance.
 - ✦ Tracking collars are used to provide information on devil relationships, movements and interactions.
 - ✦ Developing a diagnostic test and vaccine against the disease.
 - ✦ Trying to keep areas of Tasmania free from the disease.
 - ✦ Maintaining a backup healthy captive population in Tasmania.
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- ✦ Australian airlines are flying healthy devils to the mainland - as part of the Ark Project. They're hoping to be able to reintroduce healthy devils once the disease has been eliminated.
 - ✦ Fundraising activities are held around the country to help raise funds for the scientists to continue their important work.

Why all the fuss?

- ✦ Tasmanian devils are an important part of Tasmania's ecosystem. Because they are scavengers, they eat sick and dead animals on farms and on roadsides.
- ✦ They also probably help to control feral cats and other introduced animals and as a result, help Australia's other native animals such as birds and small mammals.
- ✦ They may also help keep the number of red foxes down - another introduced species. A red fox den is very smelly and a devil can sniff it out quite quickly.
- ✦ They are found nowhere else in the world (unique to Australia) and so are important contributors to tourism. Lots of people travel to Tasmania (and consequently Australia) just to see them.
- ✦ Research into the disease might help unlock some of the secrets of human cancers because of the unique way it is transferred.
- ✦ The more different types of animals the world has the healthier the planet is. As we lose plants and animals the planet becomes sicker. We can't afford to lose any more.
- ✦ Tasmania is part of Australia so we should help them.

