



Tasmania

DEPARTMENT of
PRIMARY INDUSTRIES,
WATER and ENVIRONMENT

Information on

Devil Facial Tumour Disease

What is Devil Facial Tumour Disease?

Devil Facial Tumour Disease (DFTD) is a term used to describe a fatal condition in Tasmanian devils, which is characterised by the appearance of obvious facial cancers. The tumours or cancers are first noticed in and around the mouth as small lesions or lumps. These develop into large tumours around the face and neck and sometimes even in other parts of the body. Adults appear to be most affected by the disease and badly affected devils have many cancers throughout the body.

How does this disease affect devils?

As the cancers develop in affected Tasmanian devils, they find it hard to ingest food. The animal weakens further making it difficult to compete with other animals for food. Affected animals appear to die within three to five months of the lesions first appearing, from starvation and the breakdown of body functions.



What is being done about the disease?

A major investigation of the disease and its impacts on wild populations is currently underway. In the laboratory, scientists are researching the cancers to determine the type of cancer cells involved. This is very precise and detailed work as it requires analysis of cancer cells, which have changed dramatically, relative to healthy cells. Identifying what part of the body the cancer cells have originated from will allow a true classification of the cancer type. For example, did they come from muscular areas, or lymph areas or skin?

Once the scientists can determine the type of cancer that is causing the problem, this will assist in identifying some of the possible causes for the disease. This work involves a range of techniques from microscopic examination and analysis of cells from tumours, to examining blood and other material from infected and healthy animals. This will assist in building information that will allow us to

This devil appears disease-free



identify healthy and infected animals even before obvious symptoms occur. In essence developing a diagnostic test for the condition before the animals show obvious signs.

At the same time wildlife officers in the field have developed an extensive surveying and monitoring program. This uses a number of methods, including capturing and examining devils before re-releasing them, as well as more simple methods such as automatic cameras. This work will help us learn about things such as how populations are faring, the distribution of the disease, the age and sex of animals being affected as well as recovery rates. All this information will be vital in identifying management strategies to ensure the ongoing survival of the Tasmanian devil.

How long will it take to find these answers?

Already a major research program is underway but finding answers may take time. Similar to research into human cancer, identifying possible causes of the disease and management strategies are sometimes difficult

The most important resource however is information.

The more we learn and understand about the disease, the more this will enable us to identify the best management options available. It is important that we can at least diagnose the disease before any decisions are made to ensure we don't assist its spread by moving animals that may be carrying the disease.



How widespread is the disease?

The most recent investigations indicate the disease is present in devil populations of the north, north-east, east-coast as far south as Lonnvale, the Midlands and as far west as Bronte Park. There has been no confirmation of the disease in north-west or west-coast populations at this stage.

Definitive information on affected and non-affected animals will not be clear until the disease is defined and a test developed that enables diagnosis of animals prior to symptoms appearing.

What effect is it having on Tasmanian devil populations?

In the areas we have already surveyed, the disease has the most dramatic effect in those with high-density populations with adult devils in some of these areas reduced by over 90%. In low-

density areas, impacts have been less severe, with small reductions in adult populations.

What can you do?

Collecting information on devil populations is crucial to our current studies. Reporting Tasmanian devil sightings can assist in this information gathering process.

If photographing dead devils always consider your own safety. Take great care with traffic if checking roadkills. Avoid actually touching devils and follow high standards of hygiene.



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Further information on how you can assist is available from the Department of Primary industries, Water and Environment's website: www.dpiwe.tas.gov.au



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