

Devil Facial Tumour Disease Update

June 2005

Background

The Devil Facial Tumour Disease project team is continuing to focus on the three key areas of laboratory based disease investigation, field monitoring and surveys and implementation of management options.

Among the key areas of progress in the last month have been the completion of specially constructed quarantine enclosures at Taroona and on Maria Island; the movement of devils to the two pre-export quarantine monitoring sites; and completion of a report on all the field data obtained from the project to support the nomination of the Tasmanian devil for threatened species listing.

Insurance Population

The selection of Tasmanian devils to go into a pre-export quarantine program for monitoring and possible future use in breeding programs on the mainland has been one of the major management responses so far.

The selection of young devils as part of this program has now been completed with 11 juveniles selected from west coast areas and 14 from eastern areas of the State where no evidence of the disease has been recorded.

Devils selected from the west coast area have now moved into the purpose built quarantine enclosures at Taroona.

On May 13 nine young female devils were moved into the purpose-built quarantine compound on Maria Island where they will be captively housed and monitored for the next 12 months to determine if they are free of the disease.

Both groups, if they remain free of the disease, will be considered to go to wildlife institutions on the mainland to assist in maintaining the genetic diversity in breeding programs.

The pre-export quarantine program, that has been developed to monitor the animals before they are considered for possible

inclusion in mainland program, is based on best practice disease management principles and risk minimisation and adopts a precautionary approach to the disease.

The devils included in the program have been individually selected from wild populations where ongoing monitoring has found no record of the disease. In addition, animals less than 14 months of age were selected as it is largely adult animals affected by the disease and young animals have had less exposure to adult behaviour that may play a role in possible transmission of the disease.

Taroona (an urban area) and Maria Island (off the east coast) were chosen on veterinary advice to minimise the risk of transmission of the disease to the quarantined devils.

Although the animals are not being released to the wild and are being housed in secure quarantined pens, it is important that they be housed in areas that are identified as free of the disease.

Over the next 12-month period they will be regularly monitored and assessed to ensure they remain free of the disease prior to their consideration for a role in a national captive management program.

All nine animals transferred to Maria Island were sourced from Narawntapu National Park and Southport where extensive field monitoring has not found any evidence of the disease.

As part of the security measures only females are being housed on Maria Island and they will be maintained in specially constructed enclosures and compound with double secured fencing.

All the devils will be kept off-display in an isolated area and managed under strict biosecurity and quarantine protocols for their health and safety.

The Maria Island aspect of the program is a joint initiative between the Parks and Wildlife Service, who manage the island, and the Department of Primary Industries, Water and Environment.

Threatened Species Nomination

In other news during May 2005, the Tasmanian devil was nominated for listing under the State's Threatened Species Protection Act.

The nomination came after careful and rigorous analysis of the extensive information collected through the work undertaken by the project over the last 18 months.

The nomination was based on the latest and most relevant information obtained from monitoring the distribution and impacts of DFTD in the wild.

The devil was nominated to be considered for Vulnerable status by the Scientific Advisory Committee – an independent committee that makes recommendations as to what should be included on the State's Threatened Species list.

The data obtained and assessed indicated that, as a result of the disease, there was a total population reduction of at least 20 per cent over the last 10 years with a further overall decline of greater than 20 per cent highly probable over the next 10 years.

The nomination also identifies local declines of up to 74 per cent in some areas where the disease has been found.

At its most recent meeting the Scientific Advisory Committee made a preliminary determination to list the Tasmanian devil. A comment period is currently being undertaken before a final recommendation will be made.

Field Program

Field monitoring has also continued to be undertaken. The most recent monitoring work was undertaken at Fentonbury between 18 and 28 April 2005. This is part of an ongoing monitoring program at the site aimed at identifying disease prevalence changes. The site has already been confirmed as a disease area.

Over the 10-day 40-trap monitoring trip a total of 72 animals were trapped. 12 extra traps were set at a nearby site and caught four animals.

A total of three animals captured were suspected of having DFTD although none were sent for veterinary pathology confirmation as the disease is already confirmed in the area.

Although the area is confirmed as having the disease it was noted by staff that there was a low level of diseased animals trapped as part of the program – possible reasons for this are being investigated.

Outside of the monitoring program, a photograph of a roadkilled Tasmanian devil was taken by a Parks and Wildlife Service officer near the Little Navarre River past Derwent Bridge.

Although a sample could not be taken to enable a definite confirmation of the disease, visible symptoms are consistent with the disease but could also be consistent with other illnesses.

The disease has already been confirmed from that general area with the long-term monitoring site at Bronte Park, where the disease has been confirmed for over a year, approximately 20 kilometres away. Although the possible case does not extend the western-most confirmed case of the disease (Cradle Mountain), in that area it would extend the known location of the disease from Bronte Park.

The project team is continuing to focus on strategically significant sites that help in understanding possible perimeters of the disease and disease behaviour as well as monitoring disease-free sites for any changes. However reports, such as this one from the Parks and Wildlife Service, highlight the important role the community can play in adding to the overall understanding.

Anyone making a report however should always put the focus on their own safety first and be aware of guidelines in place for their safety. Further information on this can be obtained by phoning (03)6233 6556.

Diagnostic Investigations

The diagnostic team in the laboratory continues to focus on the key areas identified for investigation and outlined in the progress report.

Progress is continuing in defining the physiological parameters of diseased and non-diseased Tasmanian devils, furthering the case definition of the disease, and exploring possible causes.

Among some areas being studied are Tasmanian devils immunology, characterisation of the tumour and Tasmanian devil chromosomes, looking for possible viral causes and planning for preliminary studies of chemical residue levels in Tasmanian devils.

Work is continuing in each of these areas and at this stage there are no new results to be reported. It is important to recognise that, similar to research into human cancers and other disease research, this work involves extensive study and examination and conclusive results don't occur immediately. However as further results are available they will continue to be reported.