

'Gentler devil' hope for threatened marsupial

September 4 2012



A 14-month-old Tasmanian Devil bites the trouser leg of his keeper at Devil Ark in Australia's New South Wales state, in April 2012. Could the Tasmanian devil, a ferocious marsupial threatened by facial tumours spread by biting, be saved by a change of character? Zoologists think there's a chance.

Could the Tasmanian devil, a ferocious marsupial threatened by facial tumours spread by biting, be saved by a change of character? Zoologists think there's a chance.

The wild population of devils has slumped by more than 90 percent since the [facial cancer](#) first surfaced in 1996, and there is neither a cure nor a vaccine.

But a four-year investigation by a team led by Rodrigo Hamede of the University of Tasmania found something intriguing: the less often an animal was bitten, the likelier it was to become infected.

The finding is "surprising and counter-intuitive," said Hamede.

"In most [infectious diseases](#), there are so-called super-spreaders, a few individuals responsible for the transmission. But we found the more aggressive devils, rather than being super-spreaders, are super-receivers."

The reason, said Hamede: The more aggressive devils are likelier to bite than be bitten. As a result, they bite the mouth tumours of less aggressive devils and thus become infected.

The finding opens up a way of nurturing colonies of devils that favour less aggressive animals, he hoped.

"We need more detailed data on devil behaviour to define 'shy' or 'bold' types," said Hamede.

The Tasmanian Devil

Australian marsupials in a battle for survival against a contagious cancer, which experts fear could see them extinct in the wild in as little as five years

Sarcophilus harrisii

- ▶ Nocturnal meat eater that carries its young in a pouch
- ▶ Roams up to 16 km a day, scavenges on anything available
- ▶ Declared endangered in 2009

Devil facial tumour disease

- ▶ Infectious cancer that mainly affects face
- ▶ Spreads from devil to devil through bites
- ▶ About 91 percent population decrease since disease was first found in 1996

Weight:
up to 5 kg (juvenile)
up to 12 kg (adult male)

Length:
up to 1.1 m

Tasmania

Found in farming areas, coastal heath, mountains, forests

Mainland

Extinct: believed killed off by wild dogs over 600 years ago



AFP Source: Tasmania DPIWE

Graphic on Australia's Tasmanian Devils, rare carnivorous marsupials in a battle for survival against a contagious facial cancer.

"We could use this information to develop a management strategy to reduce the spread of the disease by boosting natural selection of less aggressive, and therefore more resilient, devils."

Monitoring devils will give the key as to which animals are the most promising candidates.

The rat-like carnivores are reclusive but [social creatures](#), which sleep by day and forage by night. They do not live in groups but encounter each other quite often, for mating or feeding around carcasses, and this is when they bite each other.

The disease is transmitted through [cancer cells](#) that break away from the tumour and infect the biter.

Devils once roamed Australia and at one point were considered by colonial farmers to be a pest. Since about 1600 they have been isolated to Tasmania, an island state south of the mainland.

They got their name for guttural cries that prompted early British settlers to call them "devils."

The study appears in the *Journal of Animal Ecology*, published by the British Ecological Society (BES).

More information: Rodrigo K. Hamede, Hamish McCallum and Menna Jones (2012). 'Biting injuries and transmission of Tasmanian devil facial tumour disease', doi: 10.1111/j.1365-2656.2012.02025.x, is published in the *Journal of Animal Ecology* at 21:00 GMT on Monday 3 September 2012.

(c) 2012 AFP

Citation: 'Gentler devil' hope for threatened marsupial (2012, September 4) retrieved 12 May 2024 from <https://phys.org/news/2012-09-gentler-devil-threatened-marsupial.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.