

Monday 6 April 2020

Secret lives of devils revealed

New insight into the behaviour of Tasmanian devils in the wild has been gained using lightweight collars fitted with video cameras to track their movements.

The <u>recently published study</u>, carried out by University of Tasmania's School of Natural Sciences researchers, gives a detailed 'devils'-eye view' of the social and foraging behaviour of Tasmanian devils in the State's Arthur Pieman Conservation Area.

The research found:

- When devils are active, they run at a constant pace and rarely walk;

- Most scavenging occurs in natural vegetation, although devils also scavenge in pasture and along roads and hunt (to a much lesser extent) in both native vegetation and pasture;

- Most detailed social interactions take place when the devil is travelling, and three-quarters of these involve vocalisations only and a brief chase but no physical contact;

- Interactions at dens and around carcasses are much less frequent but also involve a low frequency of physical contact and biting.

The video collars worn by the devils were created by adapting a commercial camera and produced around 144 hours of usable footage.

Researcher Ms Georgina Andersen said the cameras allowed a broad look at all aspects of the devils' lives, including during their travels and in their dens, something past methods of observation had not been able to achieve.

The cameras also enabled a better understanding of the frequency and location of biting episodes, which was essential to the fight against DFTD.

"This information is crucial for interpreting social contact networks relevant to transmission of devil facial tumour disease, to predict long-term epidemic outcome and to inform disease management options," Ms Andersen said.

The collars would also benefit broader wildlife research.

"Combining even small amounts of video collar footage with conventional field methods, such as direct observation, remote cameras, GPS collars and determining diet from scat collection can provide a deeper understanding of ecological aspects, such as foraging, habitat selection and social interactions," Ms Andersen said.

"Most ecological endeavours will benefit from the increased availability of animalborne video collars, and the deeper insights they can provide on animal behaviour."

Footage from the collars can be accessed at <u>https://youtu.be/A9EjwvEHDq8</u>

B-roll footage is also available at https://cloudstor.aarnet.edu.au/plus/s/AE1ETZFiMzGGQsG

Please credit attached photographs to Anne-Mathilde Thierry.

The <u>School of Natural Sciences</u> is part of the University's <u>College of Sciences and</u> <u>Engineering</u>.

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