

Wombats and sarcoptic mange in Tasmania

June 2020

Background

Wombats (*Vombatus ursinus*) in Tasmania are susceptible to sarcoptic mange, which can cause suffering and death. In one documented case at Narawntapu National Park, sarcoptic mange has led to a large decrease in population size.

Sarcoptic mange has been present in Tasmania for over 200 years. Research indicates that it was introduced to Tasmania by European settlers and their domestic animals. Although mange is widespread in wombats in Tasmania, its distribution had not previously been well documented.

Since 2016, DPIPWE has been undertaking research and monitoring to assess the incidence and impact of mange on wombat populations, supporting university research to develop more effective treatments for wombats, and providing guidance and assistance to the community for mange treatment. This has included:

- Collating, collecting and verifying distribution records of wombats and mange-affected wombats from a range of sources and adding these to existing Tasmanian Natural Values Atlas records.
- Updating analyses of over 30 years of population trend data using wombat counts collected during the annual Tasmanian Spotlight Survey program involving 132 ten kilometre long transects.
- Undertaking surveys to assess prevalence of mange in Tasmania and working with the University of Tasmania to determine the factors that lead to increased mange prevalence.
- Funding and partnering with the University to develop new and more effective treatments for wombats in the wild.
- Assisting the public by providing advice on managing care and treatment of affected wombats.

Tasmania is the only state in Australia currently monitoring common wombat population trends and the prevalence of mange. DPIPWE currently provides the most comprehensive information and advice on mange of any jurisdiction in Australia.

Sarcoptic mange distribution and prevalence

Wombats occur widely in Tasmania in all major habitat types from sea level to 1500 m above sea level (Figure 1).

Mange-affected wombats occur throughout large parts Tasmania, particularly on agricultural land. There are currently no confirmed records of mange from remote areas of western Tasmania (Figure 1).

Systematic mange prevalence surveys have been conducted since 2016 at 24 locations in five regions primarily in eastern and central Tasmania (Table 1). Mange was recorded in wombats in all five regions and eight (one third) of the 24 locations, with no mange observed at 16 (two thirds) of the sites. Mange prevalence varied between sites and overall, the average mange prevalence was less than 5%. Mange prevalence estimates will change as more data are gathered because mange prevalence varies in space and time.

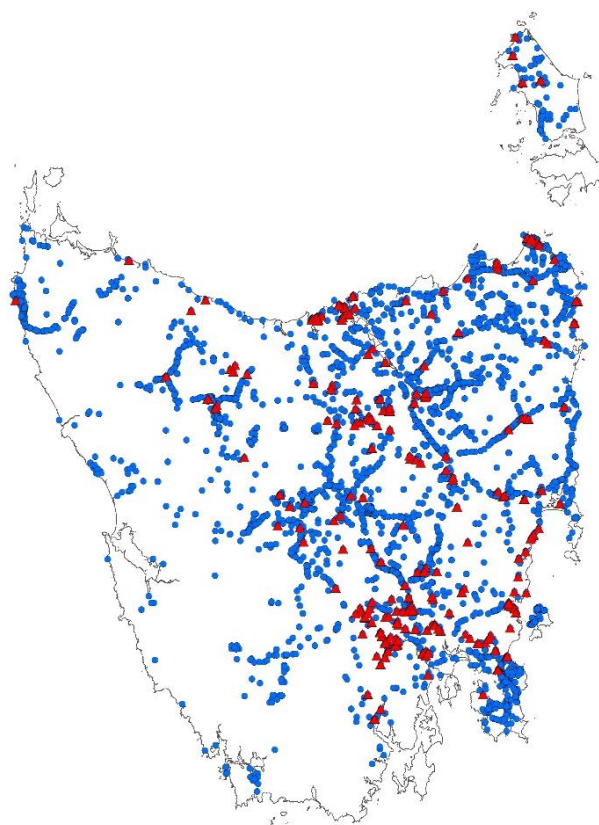


Figure 1: Distribution of wombats (blue circles) and sarcoptic mange (red triangles) in Tasmania based on observation records stored in the Tasmanian Natural Values Atlas.

Wombat population trends

At regional and State-wide scales, population trend data derived from annual Spotlight Surveys indicate that the size of the wombat population has increased over the past 35 years (Figure 2). Only in the West Tamar area, in and around Narawntapu National Park, has a major population decline been detected

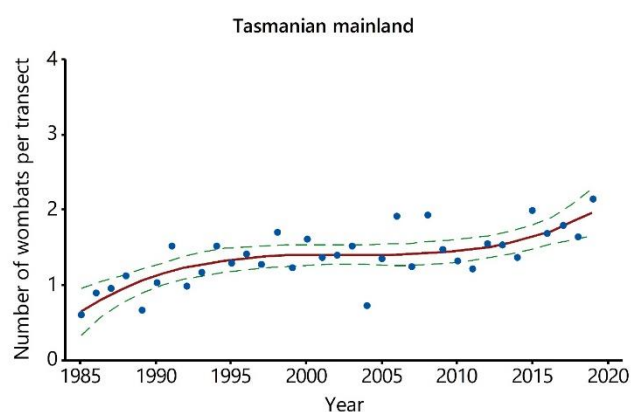


Figure 2: Trend in annual wombat population indices (blue dots) from 1985/86 to 2019/20 for the Tasmanian mainland. Trend line shown in red with 95% confidence limits shown as dashed lines.

Mange treatment research

DPIPWE has been supporting the University of Tasmania's safety and efficacy trials of a systemic insecticide (Bravecto® - fluralaner) to treat wombats with mange. Preliminary results from these trials are promising and further research is underway to determine the best and safest way to treat wombats in the wild.

Bravecto® is currently not licenced for use on wombats in Australia and veterinary authorisation is required to treat wombats with this product. A permit from DPIPWE may also be required depending on the method of administration of the treatment.

Further information

www.dpipwe.tas.gov.au/wombats

Table 1. Mange prevalence estimates by region using direct observation and camera surveys at night

Region	No. of locations	Survey type	No. of wombats*	% with mange
Central North	2	Observation	17	17.6
		Camera	15	6.7
Central Plateau	8	Observation	37	0.0
		Camera	232	1.7
Flinders	3	Observation	175	5.1
		Camera	-	-
East Coast	4	Observation	634	0.2
		Camera	849	0.0
North East	7	Observation	1179	6.5
		Camera	448	0.9
Total	24	Observation	2042	4.4
		Camera	1544	0.6

*Wombat numbers have been totalled across locations and multiple surveys within locations within regions. Number of wombat visits is used for camera data.



Wombat on Maria Island