

Tasmanian Pademelon

Thylogale billardierii

Description

Pademelons are small compact macropods. The term macropod is derived from the scientific name *Macropoidea* which means 'large footed'. There are three types of pademelon in Australia, and only one is found in Tasmania. The Tasmanian Pademelon is also commonly known as a Red-bellied Pademelon or Rufous Wallaby. Tasmanian Pademelons are dark brown to dark grey in colour, buff underneath with a rufous tinge. Their tail is about two-thirds the length of their body. Males are much larger than females, averaging 7kg, but can reach 12kg. Females have an average weight of 3.9kg. It is estimated that they live only 5-6 years in the wild.

Distribution

The Pademelon is common over much of Tasmania, and the larger of the Bass Strait Islands. It also occurs on Maria and Bruny Islands.

The Tasmanian Pademelon used to exist in south-eastern South Australia and Victoria. It is now presumed extinct, having not been sighted in SA for over 100 years and in Victoria for over 80 years. The extinction coincided with excessive land clearing for agriculture, and the establishment of the European red fox.

Habitat Requirements

This nocturnal macropod hides in thick bush during the day, resting or browsing amongst protective vegetation, preferring rainforest, water courses and wet forest. They live in bushland adjacent to glades or pastures where they go to graze during the night. It is thought that land clearing in a mosaic pattern (giving them access to more grassed areas whilst retaining shelter areas close by) and the extinction of the Tasmanian Tiger has enabled them to breed higher numbers than before European settlement.

Pademelon

Photo: Karen Bevis



They make 'runways', or paths, beneath dense vegetation, both to move to and from feeding areas, and as an excellent means of escaping predators quickly. They travel nightly along defined paths through bush and pasture made by many such trips by a number of pademelons and other grass-eating wildlife.

Diet

Pademelons are classified as a browser, rather than a grazer (grass eater). Studies have shown that whilst grass makes up a large part of their diet, they eat a variety of other plant types. One study has shown grasses made up 53% of the diet of Pademelons. Broad-leaved plants made up around 38% of their intake.

They will browse seedlings and small shrubs. When food is scarce, particularly in late winter, Pademelons living around human habitation will browse a wide variety of accessible garden plants. Fencing yards or guarding individual plants is the best method to halt them. They are treated as pests by farmers and forestry companies as they eat crops, pasture and newly planted seedlings. See Issues Sheets Numbers 5 & 7 for more information.

In dry seasons and during extended drought periods, the availability of water can cause the pademelons to remain in the moister forest environment. During these times they are also at increased risk of being killed whilst crossing roads that intersect their foraging areas to seek water.

Habits (Family/Social)

Pademelons emerge from their daytime cover at dusk in ones and twos (earlier in summer, later in winter). On dull days and during the short-length days of winter they are sometimes seen at the edges of their forest habitats grazing. In darker canopy forests they are sometimes seen browsing during the daylight hours. Groups of 10-20 or more Pademelons of both genders gather to browse an area together. Although they don't appear as sociable as kangaroos, they graze quite close together. They move about slowly on all fours when grazing pasture. If disturbed, they scatter widely with a burst of speed, using only their hind legs.

They may venture 100 metres or more from the forest fringe to browse, with their home range being anywhere from around 15 hectares, to upwards of 100 hectares, depending on food availability. Females have a smaller home range than males. Individuals have been known to travel more than 2 kilometres from their daytime base to favourite feeding areas.

Carers Story

(East Coast Fires, 2007)

Whilst some humans kill Pademelons in their thousands, others work hard to protect them:

Before the fire, we had the most wonderful group of about 30 or so Pademelons and Bennetts Wallabies who used to come in from the bush and gather around our house. There was Andy and his Mum, Little Man, Old Lady and many others. Of the group, the ones I've named were the only survivors. Others who were badly burned somehow made their way to our lawn and died there. I have tears in my eyes recounting this.

We spent a lot of time every day leaving buckets of water all over our property, as well as distributing pasture replacement pellets from Carers for Wildlife Tasmania.

Before the fire, Andy was growing fast and well out of the pouch. He and his mother were inseparable, and used to nuzzle each other lovingly. If he became separated from her and disoriented, she would face any threat to get to him. She was a small Pademelon but extremely brave.

After the fire, Andy didn't have a scratch on him but his mother was quite burned. She had protected him the whole time, carrying him in her pouch through the fire to safety, despite his size. It must have been extremely hard for her to keep ahead of the fire. Even with her injuries, she continued to protect him.

When he later became trapped behind a pile of debris and couldn't get out, she waited by the pile for days until we discovered him and freed him.



Pademelon Photo: Megan Earl

instead, they use crypsis, their ability to blend into the bush, to escape predation.

Breeding

Approximately 70% of Pademelon births occur around the beginning of winter. The single small un-haired and blind offspring (i.e. new-born joey) is born 30 days after mating, making its way to the pouch and attaching itself to a nipple. It remains in the pouch for 6.5 months. Soon after the birth, the mother mates again, with the new embryo not developing until the previous young Pademelon is nearly ready to leave the pouch. It is possible for the mother to be suckling a new-born pouch young, and a larger joey outside the pouch, whilst carrying a third embryo suspended in its development within her uterus ('diapause'). Amazingly the nipples are able to produce two different types of milk, one for the joey in the pouch, and a milk that is higher in energy, protein and fats for the joey outside of the pouch. Pademelons wean from their mothers at around 7-8 months, and are able to start breeding themselves at 14-15 months of age.

Threats

Tasmanian Pademelons are what is termed 'partly protected'. This is a legal definition meaning that they can be hunted during open seasons, their skins and meat sold commercially. They are also poisoned or shot by farmers and the forestry industry under the authority of 'crop protection' permits. Many thousands of Tasmanian Pademelons are killed every year - see Issues Sheet No. 7 for more on poisoning and shooting of pademelons, and Issues Sheet No. 8 for information about non-lethal methods of control.

Shooting is affecting the average age of Pademelon populations. The selective shooting for larger (and older) animals means that fewer live to old age, and the average age of the population is significantly reduced.

Should foxes establish in Tasmania, pademelons would be under serious threat. Pademelons are bound to become far less common over time if this occurred.

Pademelons are also susceptible to becoming roadkill, being one of the most common species killed on Tasmanian roads.

Usually silent feeders, occasionally a squabble may break out in which case a guttural hiss or growl may be heard. If fighting, the males are particularly strong in the hind legs: they stand and grapple each other and fur may fly. Males may also produce a clucking sound when following a female during breeding time. Mothers use a similar sound when ordering their joey into the pouch.

It seems Pademelons believe in safety in numbers! They have a social strategy to manage the risk of predation. It has been shown that larger groups of Pademelons are able to spend less time as individuals being vigilant for predators, and more time grazing. They also have individual strategies to minimise risk of predation. The further they are from cover, the more they are 'on the lookout'. This is also the reason that they usually only leave cover at dusk, and go home again at dawn. One study showed that Pademelons spend approximately 15% of their time 'on the lookout'.

Pademelons stay closer to cover than larger macropod species, such as the Bennetts Wallaby. Although fast over short distances, they are not able to sustain the speed,