

Mammals of the Peter Murrell Reserves

Native species

Platypus *Ornithorhynchus anatinus*

Short-beaked echidna *Tachyglossus aculeatus*

Eastern quoll *Dasyurus viverrinus*

Southern brown bandicoot *Isoodon obesulus*

Eastern barred bandicoot *Perameles gunnii*

Common ringtail possum *Pseudocheirus peregrinus*

Sugar glider *Petaurus breviceps*

Common brushtail possum *Trichosurus vulpecula*

Long-nosed potoroo *Potorous tridactylus*

Tasmanian bettong *Bettongia gaimardi*

Tasmanian pademelon *Thylogale billardierii*

Bennett's wallaby *Macropus rufogriseus*

Gould's wattled bat *Chalinolobus gouldii*

Chocolate wattled bat *Chalinolobus morio*

Lesser long-eared bat *Nyctophilus geoffroyi*

Southern forest bat *Vespadelus regulus*

Little forest bat *Vespadelus vulturinus*

Water rat *Hydromys chrysogaster*

Swamp rat *Rattus lutreolus*

Introduced species

Cat *Felis catus*

House mouse *Mus musculus*

Brown rat *Rattus norvegicus*

Black rat *Rattus rattus*

European rabbit *Oryctolagus cuniculus*

Notes on species

Platypuses were seen regularly in Heron Pond until at least 2010, but have not been seen since then despite targeted searches. The ponds on Coffee Creek, the only bodies of water in the Peter Murrell Reserves big enough to sustain resident platypuses, are distant from other sites where platypuses are known to live, so recolonisation may be difficult.

Although echidnas are not often seen, their diggings are found widely in the reserve. Echidnas have been caught on camera foraging actively at night.

Eastern quolls were described by the Parks and Wildlife Service in 1997 as “widespread” in the reserve; at the time, quolls were common in the Tinderbox and Howden area and were frequently killed on roads bordering the reserve. In 1994 Haseler led surveys by school students along Coffee Creek, and noted: “The students found excellent examples of unmistakable quoll prints” in the west of the reserve. However, there have been no confirmed sightings of quolls in or near the reserve in the past five years, nor have quolls been detected in the live-trapping or camera-trapping programs from 2010 to 2012. Despite Haseler in 1994 finding scats that he attributed to dusky antechinus *Antechinus swainsonii*, the species has not been detected in the reserve during widespread trapping programs in 2010-2012; we have not listed it as known to be present in the reserve.

Brown bandicoots have been detected in most parts of the reserve, including dense heath communities that have not been burned for many years. Barred bandicoots have been detected most often in areas with a relatively open, grassy understorey or on parts of the slashed perimeter fire-break. Both species are fairly common.

Ringtail possums are associated mainly with dense woody vegetation (especially near creeks such as Scarborough and Coffee Creeks) in which they build their nests or “dreys”. Brushtail possums are not abundant in the reserve, probably for lack of trees large and old enough to develop hollows in which the brushtail possums can shelter. Nevertheless, camera-trapping has recorded brushtail possums quite widely when they are foraging on the ground. The only sugar glider positively identified in the reserve was a dead animal picked up in 2010.

The reserve carries good populations of pademelons, Bennett’s wallabies and, especially, potoroos, whose density in trapping programs in 2010-2012 is extraordinarily high by mainland standards. In 1997 the Parks and Wildlife Service reported a bettong killed on a road bordering the reserve. Whether bettongs occur in the reserve remains in doubt as none has been recently trapped or seen, despite signs of digging attributable to the species.

Five of Tasmania’s eight species of micro-bats have been trapped or recorded in the reserve, despite a lack of the hollow-bearing trees needed by these bats for roosting.

The only native rodents recorded in the reserve so far are the water rat (two detected during spotlighting in 1998) and the swamp rat, which trapping shows to be widespread and abundant. The introduced brown rat and black rat have each been detected only once in trapping programs. House mice were live-trapped in large numbers in 2010 and 2011, but were not live-trapped at the same sites in 2012 (although detected on camera at one site that year). Thus the species may be eruptive in the reserve’s heathland vegetation, as in heathland elsewhere in Australia.

Rabbits are common in some areas of the reserve, especially in disturbed areas, but are not distributed throughout. Cats, on the other hand, have been detected in most vegetation types of the reserve.

Summary of the mammal community's status

The mammal community of the Peter Murrell Reserves contains a dense population of potoroos, and good populations of Bennett's wallabies, pademelons, brown bandicoots, ringtail possums and swamp rats. Barred bandicoots, brushtail possums and echidnas are less widely detected in the reserve. Little is known about the bats in the reserve, but the presence of at least five species is encouraging.

However, the mammal community is not stable. Eastern quolls seem to have declined in and then disappeared from the reserve in the past few decades; platypuses have not been seen recently; and there is no recent good evidence of bettongs in the reserve. Thus, of four marsupial species that went extinct on mainland Australia after European settlement but survived in Tasmania, two (bettong and eastern quoll) are no longer known to be present in the reserve, while barred bandicoots are still quite numerous and Tasmanian pademelons are abundant. Although house mice are common in some years, brown and black rats are present in only low numbers and rabbits are not ubiquitous. Unfortunately, cats are now (2012) common and widespread. Their effects upon the community of native mammals are unknown but cannot be beneficial. Dogs are occasionally found roaming in the reserve but are probably not resident. Nevertheless, this community now appears to lack native predators and is exposed to introduced ones.

Sources of information

This list of mammals known from the reserve was compiled in July 2012, based upon published records, reliable observations, and the results of live-trapping and camera-trapping programs conducted by the Tasmanian Field Naturalists Club in March or April 2010, 2011 and 2012, and camera-trapping conducted by Vernes and Jarman in 2011. We used the following publications.

Driessen, M., Forster, L., Bonham, K., Throssell, A. & Rutherford, R. 2010 Biodiversity monitoring in the Peter Murrell Reserves by the Tasmanian Field Naturalists Club. *The Tasmanian Naturalist* **132**, 90-95.

Driessen, M. and Jarman, P. 2010 The response of mammal populations to fire in the Peter Murrell Reserves: initial survey. *The Tasmanian Naturalist* **132**, 96-100.

Haseler, Murray. 1994 *Coffee Creek Landcare Project Zoological Study: A resource for the monitoring and maintenance of wildlife*. A report to the Coffee Creek Landcare Group. September 1 1994.

Hilliard, N. 2010 Oh what a night!...Bat trapping with Lisa Cawthen. *Tasmanian Field Naturalists Club Bulletin* **339**, 2-3.

Monash, R. 1998 *Distribution of mammal species in the Peter Murrell Nature Reserve and Conservation Area, Tasmania*. Integrated Project for Bachelor of Applied Science (Conservation Technology), Southern Cross University 1998.

Parks and Wildlife Service, Tasmania. 1997 *Peter Murrell Nature Reserve and Conservation Area. Interim Management Strategy, August 1997*. Department of Environment and Land Management.

Vernes, K. and Jarman, P. 2011 The mammal fauna of the Peter Murrell Reserves, Tasmania, as revealed by truffle-baited camera-traps. *The Tasmanian Naturalist* **133**, 51-61.