

SPECIES MANAGEMENT PROFILE

Pseudomys novaehollandiae New Holland Mouse

Group: Chordata (vertebrates), Mammalia (mammals), Rodentia (Rodents), Muridae (Mice and Rats)

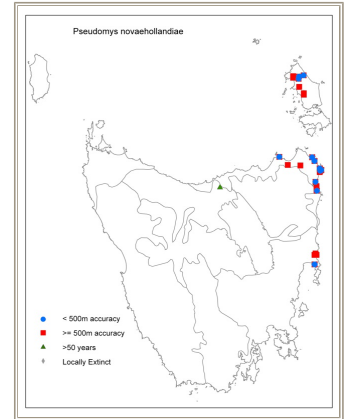
Status: *Threatened Species Protection Act 1995:* **endangered**
Environment Protection and Biodiversity Conservation Act 1999: Vulnerable

Endemic: Found in Tasmania and elsewhere

Status:



The New Holland Mouse (*Pseudomys novaehollandiae*) is a small, nocturnal native rodent found in a small number of disjunct populations on the north and north-east coast of Tasmania including Flinders Island. The species also occurs in Queensland, New South Wales and Victoria. The New Holland Mouse is similar in appearance to the introduced and relatively common House Mouse (*Mus musculus*), but can be distinguished by its relatively large eyes and lack of a 'mousey' odour. In Tasmania, it has been found in open heathlands, heathy woodlands, and vegetated sand dunes. The species appears to have undergone a major decline since European settlement. Historical and ongoing threats to the species include loss of habitat and predation from introduced predators. Causes of habitat loss include inappropriate fire regimes (either burning too little or too often), root rot fungus (*Phytophthora cinnamomi*), and coastal development.



Key Points

- **Important:** Is this species in your area? Do you need a permit? Ensure you've covered all the issues by checking the Planning Ahead page.
- **Important:** Different threatened species may have different requirements. For any activity you are considering, read the Activity Advice pages for background information and important advice about managing around the needs of multiple threatened species.

Habitat

- 'Habitat' refers to both known habitat for the species (i.e. in or near habitat where the species has been recorded) and potential habitat (i.e. areas of habitat with appropriate characteristics for the species and within the species' potential range which have not yet been adequately surveyed).
- If in doubt about whether a site represents potential habitat for this species, contact the Threatened Species Section for further advice.
- The known range of the New Holland Mouse covers the eastern and north-eastern coast of Tasmania including Flinders Island (see distribution map, above). Past records have been within 50 km of the coast; however the New Holland Mouse has not been the subject of comprehensive surveys in Tasmania. As a result the potential range for the New Holland Mouse could reasonably include any areas within Tasmania (including offshore islands) that have vegetation consistent with the elements described below.
- Habitat for the New Holland Mouse corresponds to Dry coastal vegetation in the DPIWE Bushcare Toolkit.
- Habitat for the New Holland Mouse includes the following elements: coastal open heathlands, open woodlands with a heathland understorey, and vegetated sand dunes, particularly where the following indicator species also occur: Common Aotus *Aotus ericoides*, Tassel Rope Rush *Hypolaena fastigiata*, Sand Swordsedge *Lepidosperma concavum* and grasstree *Xanthorrhoea* species.

What to avoid

- Clearing vegetation (e.g. for coastal development, and conversion to pasture and plantation)
- Inappropriate burning regime (i.e. too infrequent or frequent e.g. annual burning)

Surveying

Key	Survey reliability more info
M	Peak survey period
M	Potential survey period
M	Non-survey period

To ensure you follow the law - check whether your survey requires a permit. Always report any new records to the Natural Values Atlas, or send the information direct to the Threatened Species Section. Refer to the Activity Advice: Surveying page for background information.

Species	Spring					Summer					Autumn					Winter								
New Holland Mouse	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A

- The most appropriate time to survey is not known, and is likely to be site specific. However, the species may be most easy to detect in late summer when population densities are highest. Unfortunately, the introduced House Mouse (*Mus musculus*) which frequently co-occurs with the New Holland Mouse can also reach high abundance in late summer, overwhelming survey devices such as live-traps and hair tubes.
- A range of survey techniques can be used by qualified wildlife practitioners, including live-trap and release using approved traps (e.g. Elliott or Longworth traps), and deployment of hair tubes.
- Note that the New Holland Mouse can be difficult to detect even when known to be present at a site, therefore negative survey results should be treated with caution. There are also many areas of potentially suitable habitat for this species in Tasmania which have not been surveyed.
- As a result, all areas of habitat should be managed for the New Holland Mouse regardless of whether or not the species has been detected by survey.
- Survey for the New Holland Mouse using both live-traps and hair tubes requires a permit. Contact the Threatened Species Section for more information on obtaining a permit for surveying this species.

Helping the species

- Identify potential habitat on your property. If in doubt, seek expert assistance.
- If you are interested in knowing for certain whether the species occurs on your land, organise a formal survey. You will need to employ an ecological consultant to do this.
- Important! Always report any observations of the species to the DPIPWE Natural Values Atlas, or else provide the data direct to the Threatened Species Section. Records stored on the NVA are a permanent record and are accessible to other people interested in this species.
- Consider the needs of the whole habitat. Preserving a threatened species' habitat is the best way to manage both the species and the environment in which it lives.
- Habitat for the New Holland Mouse corresponds to 'Dry coastal vegetation' in the DPIPWE Bushcare Toolkit. Use the Bushcare Toolkit as a guide on how to manage the vegetation in which this species occurs.
- To avoid additional pressures on the New Holland Mouse - help Tasmania eradicate European Foxes (*Vulpes vulpes*). See Foxes in Tasmania for more information.
- For long-term protection of populations on private land – consider protection of habitat through a vegetation management agreement or conservation covenant. See the DPIPWE Private Land Conservation Program for more details.
- See the 'What is Needed' section in the New Holland Mouse Listing Statement for a full list of conservation management actions for this species.

Cutting or clearing trees or vegetation

- Clearing of habitat for housing development and for agriculture are threats to this species.
- To prevent loss of habitat – do not clear habitat for the New Holland Mouse.
- Note that the New Holland Mouse can be difficult to detect even when known to be present at a site. As a result, all areas of habitat should be managed for the New Holland Mouse regardless of whether or not the species has been detected by survey.

Burning

- On mainland Australia, the New Holland Mouse has been found to peak in abundance 2-3 years following a fire. There may be exceptions to this pattern, as the species has been found in vegetation up to 16 years following fire in Tasmania.
- In the light of this uncertainty regarding fire management for the species, fire management of habitat should take into account the successional stage of the vegetation and not just the time since last fire.
- To avoid loss or degradation of habitat – seek professional advice on fire management of New Holland Mouse habitat.

Agriculture

- Clearing of habitat for agriculture and conversion to pasture and plantation are principal threats to this species.
- To prevent loss of habitat – do not clear and convert habitat for the New Holland Mouse.
- Note that the New Holland Mouse can be difficult to detect even when known to be present at a site. As a result, all areas of habitat should be managed for the New Holland Mouse regardless of whether or not the species has been detected by survey.

Subdivision

- Clearing of habitat for coastal housing development is a principal threat to this species.
- To prevent loss of habitat – do not clear New Holland Mouse habitat as part of subdivision developments.
- Note that the New Holland Mouse can be difficult to detect even when known to be present at a site. As a result, all areas of habitat should be managed for the New Holland Mouse regardless of whether or not the species has been detected by survey.

Further information

Check also for listing statement or notesheet pdf above (below the species image).

Listing Statement

Cite as: Threatened Species Section (2020). *Pseudomys novaehollandiae* (New Holland Mouse): *Species Management Profile for Tasmania's Threatened Species Link*. <https://www.threatenedspecieslink.tas.gov.au/Pages/New-Holland-Mouse.aspx>. Department of Primary Industries, Parks, Water and Environment, Tasmania. Accessed on 30/9/2020.

Contact details: Threatened Species Section, Department of Primary Industries, Parks, Water and Environment, GPO Box 44, Hobart, Tasmania, Australia, 7001. Phone (1300 368 550).

Permit: A permit is required under the Tasmanian *Threatened Species Protection Act 1995* to 'take' (which includes kill, injure, catch, damage, destroy and collect), keep, trade in or process any specimen or products of a listed species. Additional permits may also be required under other Acts or regulations to take, disturb or interfere with any form of wildlife or its products, (e.g. dens, nests, bones). This may also depend on the tenure of the land and other agreements relating to its management.