

# Threatened species of the Northern Territory

## Masked owl (Tiwi)

*Tyto novaehollandiae melvillensis*

### Conservation status

#### Australia: Endangered

Environment Protection and Biodiversity Conservation Act 1999

#### Northern Territory: Endangered

Territory Parks and Wildlife Conservation Act 1976

### Description

The Masked Owl is a large robust owl with a prominent dark-rimmed facial disc. The upperparts are intricately streaked and mottled with buff and/or white over a blackish ground colour, while the underparts are buff to white with black speckling. Paler individuals are easily confused with the Eastern Barn Owl *Tyto javanica*, but are distinguishable by the more rounded, rather than oval, facial disc; thicker and completely feathered legs; robust feet; relatively large eyes; and bolder markings on the upperparts.

The two subspecies that occur in the Northern Territory are appreciably smaller than those that occur in south-western and south-eastern Australia. *Tyto novaehollandiae melvillensis* from the Tiwi Islands is smaller and darker (at least for females) than the subspecies occurring on mainland northern Australia.

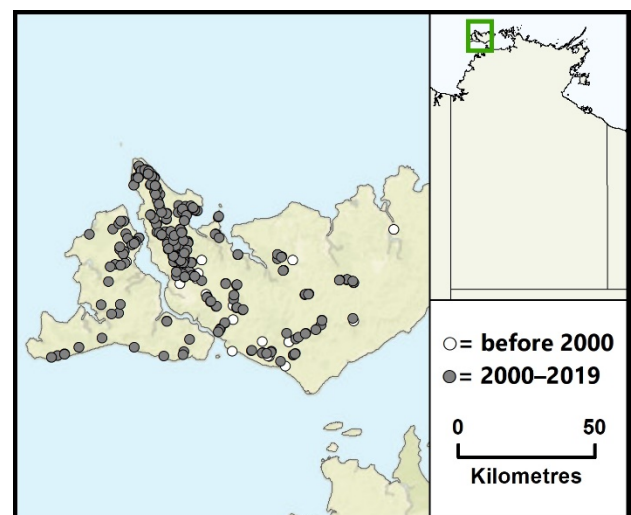
### Distribution

The Masked Owl (Tiwi) is restricted to Bathurst and Melville Islands, which together comprise the Tiwi Islands.

NT conservation reserves where reported: None.



Credit: R. H. Clarke



Caption: Known localities of the Masked Owl (Tiwi) in the NT ([nrmmaps.nt.gov.au](http://nrmmaps.nt.gov.au))

### Ecology and life-history

The Masked Owl (Tiwi) occurs mainly in tall open eucalypt forests, especially those dominated by Darwin Woollybutt *Eucalyptus miniata*, Darwin Stringybark *E. tetrodonta* and Melville Island Bloodwood *Corymbia nesophila*. The subspecies also commonly roosts in monsoon rainforests, and also forages in more open vegetation types, including grasslands and mixed shrublands

(dominated by Fern-leaved Grevillea *Grevillea pteridifolia*, *Melaleuca* spp., *Acacia* spp., Tropical Banksia *Banksia dentata* and other species)<sup>1</sup>.

Individuals typically roost in tree hollows, but may also roost among dense foliage. Masked Owls breed in large tree hollows, which usually form in large rainforest trees. It is likely that individual home ranges are large.

The diet of the Masked Owl (Tiwi) mostly comprises mammals up to the size of possums.

## Threatening processes

Clearing of the preferred habitat of the Masked Owl (Tiwi) for plantation forestry on Melville Island has now ceased. However, activities associated with the maintenance and protection of plantations on Melville and Bathurst Islands may continue to degrade habitat and threaten the species. Threats associated with plantation management include altered fire regimes and increased spread of weeds. African grassy weeds in particular potentially impact fire regimes and outcompete native grasses. Invasion of the plantation species *Acacia mangium* can alter vegetation structure and outcompete native species.

Feral Pigs *Sus scrofa* are increasing their range on Melville Island, resulting in changes to habitats, and feral Water Buffalo *Bubalus bubalis* and Horses *Equus caballus* exert unnatural grazing pressures on native vegetation. These impacts on vegetation communities may threaten the subspecies indirectly through reducing the abundance of important prey species.

## Conservation objectives and management

A national recovery plan for the Masked Owl (Tiwi) was prepared in 2004.

The main research priorities for the subspecies are to: i) estimate population size; ii) investigate habitat requirements, including home range size; and iii) develop a population viability model based on research outputs.

The main management priorities for the Masked Owl (Tiwi) are to: i) ensure the retention of adequate areas of prime habitat is included within a forestry management program; and ii) establish a monitoring program to assess the impacts of forestry development.

Some of these research and management actions have been implemented by the Tiwi Land Council and the Tiwi Forestry Project. The Tiwi Forestry Strategic Plan committed to maintaining native forests 100 m around known roost and/or nest sites<sup>4</sup>.

## References

- <sup>1</sup> Woinarski, J., Brennan, K., Hempel, C., Armstrong, M., Milne, D., Chatto, R., 2003. Biodiversity conservation on the Tiwi islands, Northern Territory. Part 2. Fauna. 127 pp. Department of Infrastructure Planning and Environment, Darwin.
- <sup>2</sup> Garnett, S.T., Szabo, J.K., Dutson, G., 2011. The action plan for Australian Birds 2010. CSIRO Publishing/Birds Australia, Melbourne.
- <sup>3</sup> Woinarski, J.C.Z., 2004. National multi-species Recovery Plan for the Partridge Pigeon [eastern subspecies] *Geophaps smithii smithii*; Crested Shrike-tit [northern (sub)-species] *Falcunculus (frontatus) whitei*; Masked Owl [north Australian mainland subspecies] *Tyto novaehollandiae kimberli*; and Masked Owl [Tiwi Islands subspecies] *Tyto novaehollandiae melvillensis*, 2004–2008. Department of Infrastructure Planning and Environment, Darwin.
- <sup>4</sup> Hadden, K., 2000. Tiwi Islands Plantation Forestry Strategic Plan. Tiwi Land Council, Darwin.