

TAXON SUMMARY

Southern Boobook (Norfolk Island)

1	Family	Strigidae
2	Scientific Name	<i>Ninox novaeseelandiae undulata</i> (Latham, 1802)
3	Common Name	Southern Boobook (Norfolk Island)
4	Conservation status	Extinct

5 Reasons for listing

Although the genes of the last female *N. n. undulata* persist in the offspring that she produced with males of *N. n. novaeseelandiae*, this Action Plan considers only the conservation of genetically pure forms. By that definition, the subspecies effectively became at least phenologically extinct when the last male died.

6 Intraspecific taxa

N. n. albaria (Lord Howe I.) is Extinct. Controversial separation of the remaining Australian subspecies into *N. boobook* (Schodde and Mason, 1997) is not followed here (after Norman *et al.*, 1998a,b, Higgins, 1999). These subspecies, *N. n. lurida* (north-east Queensland), *N. n. boobook* (eastern Australia), *N. n. leucopsis* (Tasmania and Bass Strait Is), *N. n. halmaturina* (Kangaroo I.) and *N. n. ocellata* (western, northern and inland Australia) are all Least Concern.

7 Past range and abundance

The Southern Boobook was probably once distributed throughout Norfolk I. Since at least 1909, however, it was largely confined to near Mt Pitt. All recent records came from an area of about 2 km², most of which was within Norfolk Island National Park (Olsen *et al.*, 1989). The subspecies was first recognised as Endangered in the 1960s, when visiting biologists neither heard nor saw owls. In 1973, 1978 and 1985, reports of calls were published, and local residents continued to hear at least one bird. A thorough survey in October 1986 found the sole surviving bird, a female, in the area in which many of the calls had been heard (Olsen *et al.*, 1989). This female was last seen late in 1996. An intensive conservation effort that involved introducing males from *N. n. novaeseelandiae*, the closest relative, has now resulted in the production of several generations of offspring; 27

N. n. undulata/novaeseelandiae hybrid nestlings were banded between December 1989 and December 1999 (Olsen, 1996, Norman *et al.*, 1998b, M. Christian, P. Olsen).

8 Ecology

All recent records of the Southern Boobook came from native forest or exotic plantations with a relatively clear understorey. Weed-infested native forest with a dense understorey was apparently avoided (Olsen *et al.*, 1989). Though boobooks nested

in tree hollows, all nests of the hybrid population are in nest-boxes (Olsen, 1996).

9 Reasons for extinction

Extensive clearance for agriculture and felling of large trees destroyed most suitable hollows (Olsen and Hicks, 1989, Olsen, 1996). Introduced Crimson Rosellas *Platycercus elegans* and honeybees occupied the remaining hollows (Olsen, 1996). Many owls were collected for museums (Olsen, 1996, Higgins, 1999). A change in forest structure, as a result of weed invasion, may have reduced the area of habitat available (Olsen *et al.*, 1989), but the success of introductions and the associated nest-box program suggests a loss of hollows was the main cause of extinction (P. Olsen).

10 Bibliography

- Higgins, P. J. (ed.) 1999. *Handbook of Australian, New Zealand and Antarctic Birds. Vol. 4. Parrots to Dollarbird*. Oxford University Press, Melbourne.
- Norman, J. A., Christidis, L., Westerman, M. and Hill, F. A. R. 1998a. Molecular data confirms the species status of the Christmas Island Hawk-Owl *Ninox natalis*. *Emu* 98:197-208.
- Norman, J. A., Olsen, P. D. and Christidis, L. 1998b. Molecular genetics confirms taxonomic affinities of the endangered Norfolk Island Boobook *Ninox novaeseelandiae undulata*. *Biological Conservation* 86:33-36.
- Olsen, P. 1996. Re-establishment of an endangered subspecies: the Norfolk Island Boobook Owl. *Bird Cons. International*. 6:63-80.
- Olsen, P. D., Mooney, N. J. and Olsen, J. 1989. Status and conservation of the Norfolk Island Boobook *Ninox novaeseelandiae undulata*. Pp. 123-129 in *Raptors in the Modern World*. B. U. Meyburg and R. D. Chancellor (eds). WWGBP, Berlin.
- Olsen, P. and Hicks, J. 1989. The very last of the Norfolk Island Boobook. *Geo* 11(4):70-77.
- Schodde, R. and Mason, I. J. 1997. Aves (Columbidae to Coraciidae). *Zoological Catalogue of Australia. Vol. 37.2*. W. W. K. Houston and A. Wells (eds). CSIRO Publishing, Melbourne.

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