

Book review

ECOLOGY AND CONSERVATION OF OWLS

Edited by Ian Newton, Rodney Kavanagh, Jerry Olsen and Iain Taylor.

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Although the wisdom of owls remains unproven, their power over people and the political process is unarguable. I can think of no other bird group that has improved the quality of conservation management over such a large area, at least in this country and in the USA. And, while the political battles have moved on, the research they spawned is now starting to reveal the truth behind the assumptions. Much of it is published in this volume, an invaluable series of papers on owls from around the world delivered at a conference in Canberra in 2000.

The papers reveal that Australian forest owls are much more resilient than was thought. The paper by Raylene Cooke and others on the urbanisation of Powerful Owls in Melbourne is indicative of the adaptability of our largest nocturnal raptor, although Soderquist and others show that a requirement for large hollows may limit their density in the massively overcut box-ironbark forests of Victoria. Further east, however, in the taller, wetter forests of Gippsland and eastern New South Wales, a series of papers shows that, at least in the medium term, the closer management of logging seems now to have produced procedures that are consistent with the conservation of all three large owls – Powerful, Sooty and Masked. A major contributor to these papers is Rodney Kavanagh, one of Australia's most assiduous nocturnal bird researchers, and a virtue of the volume is that it synthesises a decade or more of Rod's results.

While the great battles to save Australian forests seem to have secured at least their owls, the same cannot be said for the woodland species. Those of greatest concern are the Barking Owl, the subject of pessimistic papers by Taylor and others, and the Masked Owl in Tasmania, discussed here by Mooney. The population of Barking Owl in south-west Aus-

tralia must be close to extinction, judging by the failure to find any in a comprehensive survey by Liddelow and others.

But Australia is lucky in comparison with elsewhere in our region where Stephen Debus' review shows many island taxa to be under threat. None, however, are as scarce as the Forest Owlet of Maharashtra, India. Here Ishtiaq and others found just seven pairs in two locations, each threatened by agricultural encroachment.

This paper contrasts with the astonishing sample sizes for most Northern Hemisphere contributions. For some mysterious reason it is the Finns who lead the way in owl research *per capita*. Saurola describes how more than 30 000 potential owl nest sites are checked annually and nearly 200 000 owls have been banded. With such a body of data it is possible to be far more conclusive about a whole range of demographic processes at which Australian researchers are still guessing.

For instance, it will be many years before we can produce as comprehensive a review of population fluctuations as is undertaken by Newton in the opening paper. Here he contrasts the sedentary species like Ural and Tawny Owls, which vary breeding success with local food availability, with the perennially fecund species like the Snowy and Great Grey Owls, which move to where the food is – consuming the lemmings before they have the chance to jump off Walt Disney's imaginary cliff.

Other sophisticated papers from the Northern Hemisphere deal with measuring infertility rates by finding spent sperm cells in the yolk membrane, detail on the multiple ways in which owls' hearing has evolved, the importance of parasite load to owl fecundity and the mortality rates of barn owls as a result of rodenticides.

In summary, this is an excellent synopsis of modern owl research, well produced, well edited and utterly essential for anyone with a serious interest in owl conservation and biology in Australia and beyond.

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