## REFERENCES

- Bradley, J. S., Wooller, R. D., Skira, I. J. and Serventy, D. L. (1990). The influence of mate retention and divorce upon reproductive success in Short-tailed Shearwaters *Pulfinus temarostris*. J. Anim. Ecol. 59: 487–496.
- Bradley, J. S., Skira, I. J. and Wooller, R. D. (1991). A long-term study of Short-tailed Shearwaters *Puffmus umuiroswis* on Fisher Island, Australia. *Ibis* 133: 55–61.
- Fitzherbert, K. (1985). The role of energetic factors in the evolution of the breeding biology of the Short-tailed Shearwater (*Puffinus tenuirosviis*). Ph.D. Thesis, Monash University, Melbourne.
- Lill. A. and Baldwin, J. (1983). Weight changes and the mode of depot fat accumulation in migratory Short-tailed Shearwaters. Aust. J. Zool. 31: 891–902.
- Meathrel, C. E., Bradley, J. S., Wooller, R. D. and Skira, I. J. (1993). The effect of egg-size and reproductive success in short-tailed shearwaters *Puffinus tenuirostris*. *Oecologia* 93: 162–164.
- Naarding, J. A. (1980). Study of the Short-tailed Shearwater, Puffmus tenuirosiris, in Tasmania. Special Report of the Tasmanian National Parks and Wildlife Service.

- Naarding, J. A. (1981). Study of the Short-tailed Shearwater, Patfinus tenuirosiris, in Tasmania. Special Report of the Tasmanian National Parks and Wildlife Service.
- Serventy, D. I. (1963). Egg laying timetable of the Slenderbilled Shearwater, Puffinus tenuirostris. Proceedings of the International Ornithological Congress XIII. 1: 338–343.
- Serventy, D. L. (1967). Aspects of the population ecology of the Short-tailed Shearwater. Proceedings of the International Ornithological Congress XIV, 165–190.
- Serventy, D. L., Serventy, V. and Warham, J. (1971). 'The Handbook of Australian Sea-Birds.' (Reed: Sydney.)
- Serventy, D. L. and Curry, P. J. (1984). Observations on colony size, breeding success, recruitment and inter-colony dispersal in a Tasmanian colony of Short-tailed Shearwaters Puffinus tenuirostris over a 30-year period. Emu 84: 71–79.
- Wooller, R. D., Bradley, J. S., Serventy, D. L. and Skira, I. J. (1988). Factors contributing to reproductive success in Short-tailed Shearwaters (Puffinus tenuirosaris). Proceedings of the International Ornithological Congress XIX. 1: 848–856.
- Wooller, R. D., Bradley, J. S., Skira, I. J. and Serventy, D. L. (1990). Reproductive success of Short-tailed Shearwaters *Puffinus tenuirostris* in relation to their age and breeding experience. J. Anim. Ecol. 59: 161–170.

## **BOOK REVIEWS**

Co-operative Mechanisms for the Conservation of Albatrosses R. Gales, 1993.

Government Printer, Hobart, 132 pp.

This report was commissioned by the Australian Nature Conservation Agency. Canberra, from where copies may be obtained. An account is given of the status of each of the 14 species. Three factors became apparent to the author.

- There is an alarming paucity of information regarding such basic parameters as size of breeding populations and demographic data.
- 2. For species where population size has been monitored, many of the populations are showing dramatic declines in numbers.
- 3. Direct mortality associated with fishing practices represents the major threats to the survival of albatrosses.

Direct mortality associated with commercial fishing is reported for 12 of the 14 species of albatrosses. The future of albatrosses is bleak unless there is a co-operative effort by all nations involved to develop and apply measures to reduce this mortality. Albatrosses are not the only seabirds killed, but they like others with a low productive rate (the Wandering Albatross only breeds every second year and does not commence to breed until over 10 years old) are highly vulnerable.

Any persons concerned about the status of albatrosses should read this report.

Review and Analysis of Albatross Banding Data held by the Australian Bird and Bat Banding Schemes H. Battam and L. E. Smith, 1993.

Australian National Parks and Wildlife, Canberra. 163 pp.

This report (Research and Consultancy Agreement No. 138) gives recovery data for Wandering, Black-browed, Shy. Yellow Nosed, Grey-headed and Light-mantled Albatrosses banded on various islands in the Southern Ocean. More detailed data is given from the study of the Wandering Albatross which commenced in 1956 off the New South Wales coast at Bellambi. Over the last 20 years, a decline in numbers has occurred and immature and young birds are now rarely seen. Reasons for the decline are discussed. Information on the Japanese long-line fishing effort in the Tasman Sca is given. This is a report which all concerned with the declining status of albatrosses should read.

M. D. Murray, Pymble

Atlas of the Southern Hemisphere Albatrosses W. L. N. Tickell, 1993. 9 pp.

A series of 10 maps is presented of the Southern Hemisphere centred around Antarctica with the oceans divided into a 5 by 5 degree grid, shaded to indicate that the albatross species has been sighted in the grid. The breeding islands of each species are marked. Maps are given for *Diomedea exulans*, *D. epomophora*, *D. melanophyrys*, *D. chrysostoma*, *D. chlororynchos*, *D. bulleri*, *D. cauta*, *Phoebetria fusca* and *P. pulpebrata*. The maps are produced on A4 paper and are obtainable from the author (Department of Zoology, University of Bristol, Bristol, BSS 1UG, UK).

M. D. Murray, Pymble