

BIRD BANDER

Summer Visits to Australian Antarctic Stations, 1971-72

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Last summer biologists with ornithological interests visited each of the Australian Stations in Antarctica (See Fig. 1). Dr K. Kerry visited Mawson, Dr G. W. Johnstone visited Davis and I visited Casey, the new station which replaced Wilkes; on our return trips we all visited Macquarie Island. Some of our impressions, findings and problems are reported in the following articles.

After sailing south for several days noting the gradual change of species from White-capped Albatrosses to Black-browed Albatrosses and White-chinned Petrels to White-headed Petrels, the arrival at the pack-ice presents a sudden change and an abundance of life. The Light-mantled Sooty Albatross, Silver-grey Petrels, Antarctic Petrels, Cape Petrels, Snow Petrels, McCormick's Skuas, and flocks of Arctic Terns flying around the ship and the Adelie and occasional Emperor Penguin on the sea-ice do make it a different world. It is not surprising that much of the earlier biological studies were confined to seals and birds as they are the most obvious inhabitants.

At Wilkes two American biologists made the early studies on the McCormick's Skua (Eklund 1961) and on the behaviour of the Adelie Penguin (Penney 1968). Mawson has many offshore islands but their avifauna is not as rich as that of the Windmill Islands around Casey. However not too far away are the Emperor Penguin colonies of Auster and Taylor described by Budd (1961) in his analysis of colony biotopes. Davis in the Vestfold Hills is a unique area full of biological interest, and here a study of the Snow Petrel was made by Brown (1966). There is no permanently manned station on Heard Island at present but the early biologists have given a

detailed description of the natural history of the birds (Downes et al 1959). On Macquarie Island Dr R. Carrick studied the mechanisms which regulate the size of populations of Royal Penguins and Wandering Albatrosses (Carrick and Ingham 1970), Gwynn (1953) the biology of penguins, and Warham (1962, 1963 and 1967) the biology of the Rockhopper Penguin and the Giant and White-headed Petrels.

Macquarie Island may be rugged and the climate wet, windy and miserable but one has a freedom that is lacking in Antarctica where at times a trip of only a mile may necessitate the mounting of a full expedition with survival gear for 12 days in case the party should be trapped in a blizzard. Such realities are easily forgotten by summer visitors assisted by boats and helicopters.

One of the objects of my visit was to search for and recapture birds which had been banded several years previously. A bird is banded to identify it uniquely for the future, and a deliberate effort has to be made to recapture it to obtain information. Even if the data from such endeavours may appear to be meagre at the time, they should still be reported as others may be stimulated to greater efforts to confirm the observations. Where the country is inhospitable,

all visits should be reported as it may be several years before another visit is possible. We of the Bird Banders' Association of Australia are in the fortunate position of possessing a Journal through which we may inform others rapidly of such findings.

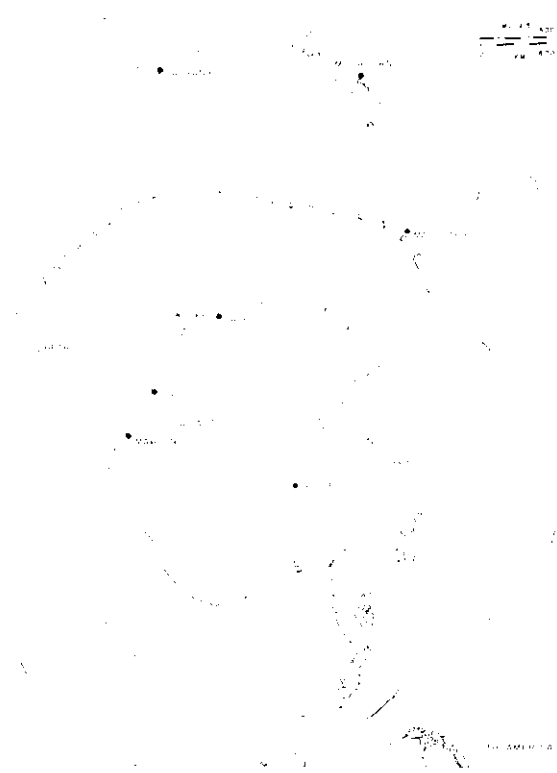
Conservation

The formulation and implementation of conservation measures whether drafted by a local council, a state, a nation or group of nations as for Antarctica eventually depend for their success upon a sound knowledge of the ecology of the species to be protected. All who claim to be concerned with conservation of wildlife have an obligation to help, for there is some urgency and the accurate observation of the behaviour and dispersal of identified individuals is a most valuable contribution.

References

- Brown, D. A. (1966). 'The Breeding Biology of the Snow Petrel *Pagodroma nivea* (Forster).' *A.N.A.R.E. Rep. Series B*, No. 89, 63 pp.
- Budd, G. M. (1961). 'The Biotores of Emperor Penguin Rookeries.' *Emu*, 61: 171-89.
- Carrick, R. and Ingham, S. E. (1968). 'Ecology and Population Dynamics of Antarctic Sea Birds,' in M. W. Holdgate (Ed.), *Antarctic Ecology*, vol. 1, pp. 505-525. Academic Press, London and New York.
- Downes, M. C., Ealey, F. H. M., Gwynn, A. M., and Young, P. S. (1959). 'The Birds of Heard Island.' *A.N.A.R.E. Rep. Series B*, 135 pp.
- Eklund, C. R. (1951). 'Distribution and Life History Studies of the South-polar Skua.' *Bird-banding*, 32: 187-223.
- Gwynn, A. M. (1953). 'The Egg-laying and Incubation Periods of Rockhopper, Macaroni and Gentoo Penguins.' *A.N.A.R.E. Rep. Series B*, 29 pp.
- Penney, R. L. (1968). 'Territorial and Social Behaviour in the Adélie Penguin,' in O. L. Austin Jr (Ed.), 'Antarctic Bird Studies' (Antarctic Research Series) vol. 12, pp. 83-131. American Geophysical Union, Washington, D.C.
- Warham, J. (1962). 'The Biology of the Giant Petrel, *Macronectes giganteus*.' *Auk*, 79: 139.
- Warham, J. (1963). 'The Rockhopper Penguin, *Eudyptes chrysocome*, at Macquarie Island.' *Auk*, 80: 229.
- Warham, J. (1967). 'The White-headed Petrel, *Pterodroma lessonii* at Macquarie Island.' *Emu* 67: 1-22.

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• Figure 1. The locations of the Australian Subantarctic and Antarctic Stations—Macquarie Island, Casey which replaced Wilkes, Davis and Mawson.

Appendix

List of bird species referred to in text.

Adélie Penguin	<i>Pygoscelis adeliae</i>
Emperor Penguin	<i>Aptenodytes forsteri</i>
Rockhopper Penguin	<i>Eudyptes chrysocome</i>
Royal Penguin	<i>Eudyptes schlegeli</i>
White-chinned Petrel	<i>Procellaria aequinoctialis</i>
Silver-grey Petrel	<i>Fulmarus glacialisoides</i>
Antarctic Petrel	<i>Thalassoica antarctica</i>
White-headed Petrel	<i>Pterodroma lessonii</i>
Snow Petrel	<i>Pagodroma nivea</i>
Southern Giant Petrel	<i>Macronectes giganteus</i>
Cape Petrel	<i>Daption capense</i>
Wandering Albatross	<i>Diomedea exulans</i>
Black-browed Albatross	<i>Diomedea melanophris</i>
White-capped Albatross	<i>Diomedea cauta</i>
Light-mantled Sooty Albatross	<i>Phoebastria palpebrata</i>
Arctic Tern	<i>Sterna paradisaea</i>
McCormick's Skua	<i>Catharacta skua maccormicki</i>