ANTARCTIC AND SUB-ANTARCTIC SEABIRD BANDING, JULY 1985 - JUNE 1986

T.B. OATLEY

South African Bird Ringing Unit, University of Cape Town, Rondebosch 7700, South Africa

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SUMMARY

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A provisional total of 19 948 Southern Ocean birds of 42 species was banded in the Antarctic and sub-Antarctic and at other localities to the north during the period July 1985 to June 1986 by nine nations. Penguins (26%) and procellariiforms (64,5%) were the targets of most of the banding effort. Four-figure totals were achieved for eight species, and three-quarters of all bands used were fitted to dependent young.

INTRODUCTION

In this fourth annual summary of banding effort directed at seabirds of the Antarctic and sub-Antarctic during the period July 1985 to June 1986, the scope of the report has been expanded to include, insofar as feasible, all banding of Southern Ocean birds, irrespective of banding locality. The report thus takes account of various banding activities directed at albatrosses and mollymawks on the Australian continental shelf, including the free-flying birds caught by amateur banding enthusiasts off the coasts of South Australia and New South Wales.

The Central Data Bank (CDB) for Antarctic Bird Banding at the South African Bird Ringing Unit (SAFRING) has received copies of banding schedules from the following organizations: Australian Bird and Bat Banding Schemes, Australia; Centro de Estudos de Migraçóes de Aves (CEMAVE), Brazil; Forschungsstelle für Wirbeltierforschung, Akademie der Wissenschaften, German Democratic Republic; SAFRING, South Africa; British Antarctic Survey, United Kingdom and the Bird Banding Laboratory, Fish and Wildlife Service, U.S.A. The last named organization does not collate penguin banding data from the Antarctic; these were supplied separately by Dr. W. Z. Trivelpiece of the Point Reyes Bird Observatory, U.S.A.

Totals of species banded by the French Antarctic Expeditions during the review period were supplied from the Centre National de la Recherche Scientifique in France. Totals for Chile and New Zealand were extracted from Sallaberry *et al.* (1987) and Cossee (1988). At the request (Anon. 1988) of the Bird Biology Subcommittee of the Scientific Committee for Antarctic Research's Working Group on Biology (SCAR-BBS), addresses of contributing schemes and organizations are listed in an Appendix.

METHODS

Available data were computerized and programmed to provide species' and national totals. Species' totals were sub-divided into two age groups: 'dependent young' and 'fullgrown'. In cases of doubt, birds were allocated to the latter category. Discrepancies in banding totals and species banded were found between banding schedule copies supplied by CEMAVE, Brazil, and lists published by Sander (1986). The published totals have been used in this report.

RESULTS

A provisional total of 19 948 birds of 42 species was banded in the 1985-1986 year by nine nations. Table 1 shows banding effort by family; albatrosses received most attention, followed by penguins and petrels. These three families accounted for 88% of banding effort, similar to previous years.

Table 2 shows the banding totals achieved for each species for 1985-1986, now listed in systematic order at the request of the SCAR-BBS (Anon. 1988). Four-figure banding totals were recorded for two penguin, four albatross and two petrel species; these eight species receiving 62,3% of the bands used. The ratio of dependent young to fullgrown birds of 3,0:1 is markedly higher than the 1,8:1 for the previous report period (Oatley 1988) and is due in part to the inclusion in this report of banding totals for albatross chicks ringed at colonies on the Australian continental shelf.

The national contributions to overall banding effort are listed in Table 3, which also gives an indication of areas of operation. Teams from four of the nine countries have operated exclusively in the South Shetland Islands, and over one-third of the birds banded have been in this region.

DISCUSSION

The decision that annual summaries of birds banded should, where feasible, include data for individuals of all species of birds which breed in the Convention for the Conservation of Antarctic Marine Living Resources (CCAMLR) area, irrespective of where they were banded, was taken at the August 1988 meeting of the SCAR-BBS in Hobart, Tasmania (Anon. 1988). The criterion for inclusion of data in this and future reports has thus changed from banding locality to species, allowing for a more comprehensive statement of annual numbers of Southern Ocean birds banded.

The grand total of species banded in 1985-1986 is thus not directly comparable with the totals for previous years (Oatley 1988 and references therein). However, it can be noted that without the addition of those birds banded in Australian waters, the grand total would have been only some 4% higher than in 1984-1985 (Oatley 1988), even though the absence of banding activities by Norway reduced the number of active nations from 10 to nine.

In this fourth summary compiled by the CDB it had been hoped to present data for at least two years of banding, in order to reduce the gap between the period reported on and the publishing date. This attempt to make the reports more topical has, up to the present, been thwarted by the failure of some organizations to submit copies of their primary banding data or summaries promptly, and indeed to submit them at all. Thus, although the CDB has complete sets of primary data for some institutions extending to the 1988-1989 season, 1986-1987 and 1987-1988 data are still awaited from others at the time of writing. More timely submission of data would greatly assist the CDB in its task.

ACKNOWLEDGEMENTS

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TABLE 1

BANDING EFFORT AT FAMILY LEVEL

Family	Number of species banded	Number of birds banded	Percentage of total
Spheniscidae			
Penguins	7	5 206	26,1
Diomedeidae			
Albatrosses	9	7 325	36,7
Procellariidae			
Petrels and shearwaters	14	5 041	25,3
Hydrobatidae			
Storm petrels	3	439	2,2
Pelecanoididae			
Diving petrels	2	65	0,3
Phalacrocoracidae			
Cormorants	1	668	3,4
Chionidae			
Sheathbills	2	141	0,7
Stercorariidae			
Skuas	2	702	3,5
Laridae			
Gulls	1	302	1,5
Sternidae			
Terns	1	59	0,3
Totals	42	19 948	100,0

TABLE 2

SPECIES BANDING TOTALS FOR 1985-1986, LISTED IN SYSTEMATIC ORDER

Species	Dependent young	Fullgrown	Total
Emperor Penguin *Aptenodytes forsteri*	0	23	23
Adélie Penguin *Pygoscelis adeliae*	1 945	128	2 073
Chinstrap Penguin *Pygoscelis antarctica*	389	321	710
Gentoo Penguin *Pygoscelis papua*	1 218	716	1 294

Rockhopper Penguin *Eudyptes chrysocome*	96	403	499
Macaroni Penguin *Eudyptes chrysolophus*	25	87	112
Yelloweyed Penguin *Megadyptes antipodes*	331	164	495
Wandering Albatross *Diomedea exulans*	1 247	352	1 599
Royal Albatross *Diomedea epomophora*	1 040	0	1 040
Amsterdam Albatross *Diomedea amsterdamensis*	7	3	10
Blackbrowed Albatross *Diomedea melanophris*	1 586	59	1 645
Greyheaded Albatross *Diomedea chrysostoma*	796	176	972
Yellownosed Albatross *Diomedea chlororhynchos*	301	263	564
Shy Albatross *Diomedea cauta*	1 296	14	1 310
Sooty Albatross *Phoebetria fusca*	35	74	109
Lightmantled Sooty Albatross *Phoebetria palpebrata*	56	20	76
Southern Giant Petrel *Macronectes giganteus*	1 158	512	1 670
Northern Giant Petrel *Macronectes halli*	254	0	254
Antarctic Fulmar *Fulmarus glacialoides*	31	9	40
Antarctic Petrel *Thalassoica antarctica*	42	0	42
Pintado Petrel *Daption capense*	1 305	484	1 789
Snow Petrel *Pagodroma nivea*	178	64	242
Slenderbilled Prion *Pachyptila belcheri*	40	57	97
Antarctic Prion *Pachyptila desolata*	31	45	76
Broadbilled Prion *Pachyptila vittata*	0	36	36
Fairy Prion *Pachyptila turtur*	17	97	114
Blue Petrel *Halobaena caerulea*	17	33	50
Greatwinged Petrel *Pterodroma macroptera*	310	15	325
Whiteheaded Petrel *Pterodroma lessonii*	38	0	38
Whitechinned Petrel *Procellaria aequinoctialis*	23	245	268
Wilson's Storm Petrel *Oceanites oceanicus*	0	33	33
Greybacked Storm Petrel *Garrodia nereis*	2	70	72
Whitefaced Storm Petrel *Pelagodroma marina*	8	326	334
South Georgian Diving Petrel *Pelecanoides georgicus*	31	9	40
Common Diving Petrel *Pelecanoides urinatrix*	6	19	25
Imperial Cormorant *Phalacrocorax atriceps*	653	15	668
American Sheathbill *Chionis alba*	14	83	97
Lesser Sheathbill *Chionis minor*	26	18	44
South Polar Skua *Catharacta maccormicki*	67	16	83
Subantarctic Skua *Catharacta antarctica*	258	361	619
Kelp Gull *Larus dominicanus*	67	235	302
Antarctic Tern *Sterna vittata*	21	38	59
Totals	14 965	4 983	19 948
%	75,0	25,0	100,0

TABLE 3

NATIONAL DISTRIBUTION OF BANDING EFFORT, 1985-1986

Nation	Banding localities	National totals Species	Birds	Percentage of grand total
Australia	Kangaroo Island, Tasmania, Tasman Sea, Macquarie Island, Casey, Antarctica	11	1 963	9,8
Brazil	South Shetland Islands	13	3 108	15,6
Chile	South Shetland Islands	2	120	0,6
France	Iles Crozet, Iles Kerguelen, Ile Amsterdam, Terre Adélie	24	1 841	9,2
German Democratic Republic	South Shetland Islands	7	544	2,7
New Zealand	Not supplied	17	4 562	22,9
South Africa	Tristan da Cunha, Nightingale Island, Gough Island, Marion Island	6	721	3,6
United Kingdom	Bird Island, South Georgia, Signy Island, South Orkney Is	9	3 940	19,8
United States of America	King George Island, South Shetland Islands	8	3 149	15,8
Total			19 948	100,0

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SANDER, M. 1986. Programa Brasileiao de Ornitologia na Antartica In: Encontro Nacional de Anilhadores de Aves, 2°, Rio De Janeiro, 1986. *Anais*... Rio de Janeiro, Universidade Federal do Rio de Janeiro, 1986. pp. 122-129.

APPENDIX

List of addresses of institutions or banding schemes mentioned in this report

Australian Bird and Bat Banding Schemes
Australian National Parks and Wildlife Services
G P O Box 8
Canberra ACT 2601
Australia

Biologo-Cemave
Instituto Brasileiro de Desenvolvimento Florestal
CP 04/034
Brazilia DF CEP 70 000
Brazil

British Antarctic Survey
High Cross
Madingley Road
Cambridge CB3 0ET
United Kingdom

Facultad de Ciencias
Depto. de Ciencias Ecologicas
Universidad de Chile
Casilla 653
Santiago
Chile

Centre Nationale de la Recherche Scientifique
Centre d'Etudes Biologiques des Animaux Sauvages
F 79360 Beauvoir-Sur-Niort
France

Akademie Der Wissenschaften Der DDR,
Forschungsstelle fur Wirbeltierforschung
(Im Tierpark Berlin)
AM Tierpark 125
DDR 1136 Berlin
German Democratic Republic.

Science and Research Directorate
Department of Conservation
Private Bag
Wellington
New Zealand

South African Bird Ringing Unit
University of Cape Town
Rondebosch 7700
Republic of South Africa

Bird Banding Laboratory
United States Department of the Interior
Fish and Wildlife Service
Office of Migratory Bird Management
Laurel, Maryland 20708
United States of America

Point Reyes Bird Observatory
4990 Shoreline Highway
Stinson Beach
California 94970
United States of America