

ANTARCTIC AND SUB-ANTARCTIC SEABIRD BANDING, JULY 1984-JUNE 1985

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SUMMARY

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A provisional total of 17 763 birds of 46 species was banded in the Antarctic and sub-Antarctic by ten nations during the period July 1984 to June 1985. Penguins and procellariiforms formed the bulk of the banding effort. Totals for birds banded and number of species banded were higher than in the two previous years.

INTRODUCTION

This is the third in the series of annual summaries of seabird banding effort in the Antarctic and sub-Antarctic and covers the period July 1984 to June 1985. This overlaps the period reported on in the 1983-1984 report (Oatley 1987) which covered a September to August year, but no duplication of banding totals is involved. Most bird-banding activities in the far south are confined to the months of November to February; this report, however, includes banding totals for Southern Ocean seabirds occurring as far north as 37S. The July-June year also corresponds with the reporting period of southern hemisphere banding schemes and will be maintained in future reports.

Copies of banding schedules for the review period have been received by the Central Data Bank for Antarctic Bird Banding (CDB) at the South African Bird-Ringing Unit (SAFRING) from the following organizations: Australian Bird and Bat Banding Schemes, Australia (ABBBS); Centro de Estudos de Migrações de Aves, Brazil; Department of Polar Biology, Akademie der Wissenschaften, German Democratic Republic; South African Bird-Ringing Unit (SAFRING), South Africa; British Antarctic Survey, United Kingdom and the Bird Banding Laboratory, Fish and Wildlife Service, U.S.A.

Banding summaries (species totals) were supplied for birds banded by Chilean, French, New Zealand and Norwegian expeditions.

METHODS

Data extracted from schedules and summaries were computerized and analysed to provide species and national totals. Species totals were classified into two age groups, young of the year (chicks and runners) and fullgrown birds which, in breeding colonies, were likely to have been reproductive adults. Where the age of the bird was not supplied, it has been provisionally included in the fullgrown category.

RESULTS

A provisional total of 17 763 birds of 46 species was banded in the 1984-1985 year. As in the previous year, banding was concentrated on petrels, shearwaters, albatrosses and penguins; over 88% of the banding effort was devoted to birds in these three families (Table 1). Four-figure banding totals were achieved for two species of albatrosses, two petrels and a penguin (Table 2). The grand total shows an increase of 71% over the total for all species banded in the previous report period

TABLE 1
BANDING EFFORT AT FAMILY LEVEL

Family	Number of species banded	Number of birds banded	Percentage of total
Spheniscidae			
Penguins	8	3 746	21,1
Diomedeidae			
Albatrosses	8	5 566	31,3
Procellariidae			
Petrels and shearwaters	18	6 339	35,7
Oceanitidae			
Storm petrels	3	62	0,3
Phalacrocoracidae			
Cormorants	1	701	3,9
Chionidae			
Sheathbills	2	229	1,3
Stercorariidae			
Skuas	2	846	4,8
Laridae			
Gulls	2	120	0,7
Sternidae			
Terns	2	154	0,9
Totals	46	17 763	100,0

TABLE 2

SPECIES BANDED IN 1984-1985, LISTED IN DESCENDING ORDER OF TOTAL NUMBERS

Species	Young of the year	Fullgrown	Total
Antarctic Petrel <i>Thalassoica antarctica</i>	1 987	117	2 104
Wandering Albatross <i>Diomedea exulans</i>	1 782	276	2 058
Southern Giant Petrel <i>Macronectes giganteus</i>	919	649	1 568
Chinstrap Penguin <i>Pygoscelis antarctica</i>	158	1 086	1 244
Shy Albatross <i>Diomedea cauta</i>	990	10	1 000
Blackbrowed Albatross <i>Diomedea melanophris</i>	489	471	960
Adelie Penguin <i>Pygoscelis adeliae</i>	322	618	940
Northern Giant Petrel <i>Macronectes halli</i>	516	298	814
Imperial Cormorant <i>Phalacrocorax atriceps</i>	598	103	701

TABLE 2, continued

Greyheaded Albatross <i>Diomedea chrysostoma</i>	367	272	639
Yelloweyed Penguin <i>Megadyptes antipodes</i>	361	275	636
Subantarctic Skua <i>Catharacta antarctica</i>	394*	226	620*
Pintado Petrel <i>Daption capense</i>	484	129	613
Snow Petrel <i>Pagodroma nivea</i>	241	182	423
Antarctic Fulmar <i>Fulmarus glacialisoides</i>	61	331	392
Royal Albatross <i>Diomedea epomophora</i>	264	113	377
Yellownosed Albatross <i>Diomedea chlororhynchos</i>	231	117	348
Macaroni Penguin <i>Eudyptes chrysolophus</i>	300	0	300
Snares Crested Penguin <i>Eudyptes robustus</i>	282	0	282
South Polar Skua <i>Catharacta maccormicki</i>	167	59	226
American Sheathbill <i>Chionis alba</i>	23	151	174
Gentoo Penguin <i>Pygoscelis papua</i>	21	130	151
Antarctic Tern <i>Sterna vittata</i>	144	5	149
King Penguin <i>Aptenodytes patagonicus</i>	0	133	133
Kelp Gull <i>Larus dominicanus</i>	94	25	119
Common Diving Petrel <i>Pelecanoides urinatrix</i>	0	84	84
Lightmantled Sooty Albatross <i>Phoebetria palpebrata</i>	50	31	81
Blue Petrel <i>Halobaena caerulea</i>	0	79	79
Sooty Albatross <i>Phoebetria fusca</i>	63	15	78
Antarctic Prion <i>Pachyptila desolata</i>	0	73	73
Greatwinged Petrel <i>Pterodroma macroptera</i>	1	62	63
Rockhopper Penguin <i>Eudyptes chrysolophus</i>	0	60	60
Lesser Sheathbill <i>Chionis minor</i>	20	35	55
Kerguelen Petrel <i>Pterodroma brevirostris</i>	15	32	47
Whitefaced Storm Petrel <i>Pelagodroma marina</i>	0	40	40
South Georgian Diving Petrel <i>Pelecanoides georgicus</i>	0	25	25
Little Shearwater <i>Puffinus assimilis</i>	0	23	23
Broadbilled Prion <i>Pachyptila vittata</i>	10	11	21
Wilson's Storm Petrel <i>Oceanites oceanicus</i>	13	5	18
Fairy Prion <i>Pachyptila turtur</i>	0	15	15
Slenderbilled Prion <i>Pachyptila belcheri</i>	0	8	8
Mediumbilled Prion <i>Pachyptila salvini</i>	0	7	7
Whitechinned Petrel <i>Procellaria aequinoctialis</i>	0	5	5
Kerguelen Tern <i>Sterna virgata</i>	5	0	5
Greybacked Storm Petrel <i>Garrodia nereis</i>	0	4	4
Redbilled Gull <i>Larus novaehollandiae</i>	0	1	1
Totals	11 372	6 391	17 763
%	64,0	36,0	100,0

* Includes hybrids of Subantarctic and South Polar Skuas

TABLE 3

NATIONAL DISTRIBUTION OF BANDING EFFORT, 1984-1985

Nation	Banding localities	Numbers banded	Percentage of total
Australia	Macquarie Island Windmill Islands, Davis Rauer Islands, Casey	2 358	13,3
Brazil	South Shetland Islands	1 184	6,7
Chile	South Shetland Islands	368	2,1
France	Crozet Islands Kerguelen Island Amsterdam Island Adélie Land	1 747	9,8
German Democratic Republic	South Shetland Islands	1 075	6,0
New Zealand	Snares Island Campbell Island Antipodes Island Adams Island Disappointment Island Enderby Island Depot Island Proclamation Island	2 952	16,6
Norway	Dronning Maud Land	1 570	8,8
South Africa	Marion Island Tristan Da Cunha Island Nightingale Island Gough Island	2 359	13,3
United Kingdom (B.A.S.)	Bird Island, South Georgia Signy Island, South Orkneys	3 565	20,1
United States Of America	King George Island, South Shetlands Anvers Island, Antarctica Ross Island, Antarctica	585	3,3
Total		17 763	100,0

(Oatley 1987). Compared with the previous year, the ratio of young of the year to fullgrown birds has increased from 1,07:1 to 1,77:1.

The areas in which the various national expeditions operated, together with their respective contributions to overall banding effort, are listed in Table 3. Several teams operated in the South Shetlands Islands, especially on King Edward Island. Birds banded at Antarctic maritime islands (including Signy Island) and Antarctic continental sites totalled 8 671 (48,8%), the balance of 9 092 birds (51,2%) being banded on sub-Antarctic and south temperate oceanic islands. The difference of 2,4% in favour of sub-Antarctic and temperate oceanic banding sites would have been substantially larger had albatrosses banded on islands and waters of the Australian continental shelf during the review period been included in the above totals. Totals for these birds (53 Wandering Albatrosses *Diomedea exulans*, 14 Yellow-nosed Albatrosses *D. chlororhynchos*, one Black-browed Albatross *D. melanophris* and 14 Shy Albatrosses *D. cauta*, all free-flying, plus 2 462 Shy Albatross chicks) were supplied by the ABBBS but have been excluded from the tables so that banding totals can be validly compared with those of previous years.

DISCUSSION

Notwithstanding the exclusion of Southern Ocean birds banded in Australian inshore waters, the overall totals for birds banded and species banded are substantially higher than in the previous two reports (Oatley & Cooper 1985, Oatley 1987). This reflects an increase in the tempo of bird banding and it is noteworthy that expeditions of 10 different nations (Table 3) were active in the review period. There are grounds for including albatrosses banded in lower latitudes on the Australian continental shelf since they are an essential part of southern populations. Some Wandering Albatrosses, for example, caught as free-flying birds in the Tasman Sea off New South Wales or in the waters of the Great Australian

Bight, are known to breed on the sub-Antarctic Prince Edward Islands (Gartshore *et al.* in press).

One of the consequences of extracting data from schedules supplied by ornithologists of different nations is a sometimes confusing nomenclature. This is particularly the case with groups such as prions *Pachyptila* spp. and skuas *Catharacta* spp. which can be lumped or split according to a variety of taxonomic opinions. It is not the task of the CDB to pass judgement on the validity of scientific names submitted, and no lumping has been attempted. *Catharacta* is used here in preference to *Stercorarius* for the two skua species. No attempts are made to provide separate totals for subspecific populations.

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