

**SUMMARY OF ANTARCTIC AND SUBANTARCTIC SEABIRD BANDING ,
SEPTEMBER 1982 -- APRIL 1983**

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INRODUCTION

This summary is based on replies received from five nations in response to requests from the trial Central Data Bank for Antarctic Bird Banding (CDB) for copies of their 1982-83 primary banding data relating to Antarctic and Subantarctic seabird populations. Full primary data were supplied by: the Antarctic Division, Australia; the South African Bird Ringing Unit (SAFRING); British Antarctic Survey, United Kingdom, and the Fish and Wildlife Service, U.S.A. Totals of birds banded by the French Antarctic research teams for the period 1981 to 1983 were supplied by Dr. P. Jouventin. In addition, seabirds banded by the Denstone Expedition at Tristan da Cunha and Inaccessible Islands, South Atlantic, during October 1982 to February 1983 have been included.

The Tasmanian National Parks and Wildlife Service, Australia, indicated willingness to supply data but said that they had not done any banding at Macquarie Island in the 1982-83 season. As far as can be determined from published Annual Reports to the Scientific Committee for Antarctic Research (SCAR), New Zealand is the only country actively banding birds in the Subantarctic or Antarctic which has not submitted data. However, it seems most likely that seabirds were banded by the German Democratic Republic at King George Island, South Shetland Islands, during 1982-83, but details are not yet available (J.P. Croxall *in litt.*). The criterion adopted to determine inclusion in this summary has been the species rather than the latitude of ringing site. Tristan da Cunha, Inaccessible and Gough Islands are not within the Subantarctic as usually defined, but the populations of penguins, albatrosses and petrels that breed there are palpably part of the avifauna of the Southern Ocean.

METHODS

Data from all schedules supplied were coded in a format acceptable to a custom-written computer program used by SAFRING to provide schedule summaries, banders' totals and grand totals of species banded. The French data could not be definitively broken down into discrete species' totals for the 1982-83 austral summer for the majority of species involved. The two-year totals were, therefore, arbitrarily halved and may err in either direction.

Coded data were placed in a computer file and stored on tape after the program had been run to obtain the species' totals.

RESULTS

The combined data available indicate that 8 183 birds of 30 different species (including sheathbills *Chionis* sp.) were banded between September 1982 and April 1983. The species involved are listed in Table 1 in descending order of numbers banded, 47,3 % were chicks and 52,7 % were fullgrown (mostly adult) birds.

The regional distribution of banding effort is listed in order of increasing latitude in Table 2. Only 10,3 % of the grand total were banded in maritime and continental Antarctica.

The national contributions to the overall total are listed in Table 3. It is noteworthy that the second highest total was achieved by a private school expedition (Fraser 1983) which was assisted logistically by both the United Kingdom and South Africa and which used both British and South African bands.

DISCUSSION

In view of the large populations of penguins in the Southern Ocean and Antarctica, it is surprising that of the 8 183 birds banded in this first year summarized by the CDB, only 116 (1,4 %) were penguins. Of these, 26 were Rockhopper Penguins *Eudyptes chrysocome* on Gough Island, banded more for the purpose of testing experimentally the durability under natural conditions of painted bands than for a formal study of the species. However, the fact that penguins made up only 1,4 % of the total of birds banded is in part due to the absence of New Zealand data and in part pure chance, since it is evident from the French returns that considerable numbers of penguins were banded in the previous summer.

The absence of Northern Giant Petrels *Macronectes halli* from the species' list is perhaps similarly a result of chance factors militating against any of the birds being ringed in the season under review.

The Denstone Expedition has made a considerable impact on the season's total, contributing over 35,7 % of birds ringed. This was an essentially non-repeatable effort and it will be interesting to see if any recoveries of Yellow-nosed Albatrosses *Diomedea chlororhynchos* result from it. There have already been two recoveries of Great Shearwaters *Puffinus gravis* in the Newfoundland area (M.W. Fraser pers. comm.). However, these do not contribute anything new to our knowledge. Because pelagic bird recoveries in the Southern Ocean are so rare, very little

TABLE 1
SPECIES BANDED IN 1982-83 LISTED IN DESCENDING ORDER OF
TOTAL NUMBERS

Species	Chicks	Fullgrown	Totals
Yellownosed Albatross			
<i>Diomedea chlororhynchos</i>	659	1 410	2 069
Wandering Albatross			
<i>D. exulans</i>	1 260	156	1 416
Great Shearwater			
<i>Puffinus gravis</i>	109	980	1 089
Wilson's Stormpetrel			
<i>Oceanites oceanicus</i>	0	962	962
Greyheaded Albatross			
<i>Diomedea chrysostoma</i>	514	207	721
Blackbrowed Albatross			
<i>D. melanophris</i>	367	84	451
Snow Petrel			
<i>Pagodroma nivea</i>	262	128	390
Subantarctic Skua (Brown Skua)			
<i>Catharacta antarctica</i>	160	63	223 *
Southern Giant Petrel			
<i>Macronectes giganteus</i>	193	0	193
Sooty Albatross			
<i>Phoebetria fusca</i>	60	82	142
Gentoo Penguin			
<i>Pygoscelis papua</i>	90	0	90
South Polar Skua			
<i>Catharacta maccormicki</i>	24	63	87 *
Blue Petrel			
<i>Halobaena caerulea</i>	47	33	80
American Sheathbill			
<i>Chionis alba</i>	11	34	45
Pintado Petrel (Cape Pigeon)			
<i>Daption capense</i>	39	4	43
Fairy Prion			
<i>Pachyptila turtur</i>	3	28	31
Antarctic Fulmar			
<i>Fulmarus glacialisoides</i>	18	11	29
Lesser Sheathbill			
<i>Chionis minor</i>	18	9	27
Rockhopper Penguin			
<i>Eudyptes chrysocome</i>	0	26	26
Kelp Gull			
<i>Larus dominicanus</i>	12	4	16
Whitebellied Stormpetrel			
<i>Fregetta grallaria</i>	0	15	15
Lightmantled Sooty Albatross			
<i>Phoebetria palpebrata</i>	11	0	11
Greatwinged Petrel			
<i>Pterodroma macroptera</i>	11	0	11
Softplumaged Petrel			
<i>P. mollis</i>	0	5	5
Spectacled Whitechinned Petrel			
<i>Procellaria aequinoctialis</i>			
<i>conspicillata</i>	0	5	5

TABLE 1 contd.

Species	Chicks	Fullgrown	Totals
Antarctic Tern			
<i>Sterna vittata</i>	2	0	2
Broadbilled Prion			
<i>Pachyptila vittata</i>	0	1	1
Grey Shearwater			
<i>Procellaria cinerea</i>	1	0	1
Kerguelen Petrel			
<i>Pterodroma brevirostris</i>	0	1	1
Common Noddy			
<i>Anous stolidus</i>	1	0	1
Totals	3 872	4 311	8 183

* Includes hybrid Subantarctic and South Polar Skuas

TABLE 3

NATIONAL DISTRIBUTION OF BANDING EFFORT, 1982-83

Country	Localities	Number banded	Percentage of total
Australia	Macquarie Island and Australian Antarctic Territory	73	0,9
France	Possession Island and Terre Adélie	688 *	8,4
South Africa	Gough and Marion Islands	859	10,5
United Kingdom, (British Antarctic Survey)	Bird Island, South Georgia and Signy Island	3 404	41,6
United Kingdom (Denstone Expedition)	Inaccessible and Tristan da Cunha Islands	2 926 **	35,8
United States of America	King George Island	233	2,8
Total		8 183	

* Estimated number (see text)

** Does not include land birds and includes both South African and United Kingdom bands

TABLE 2
REGIONAL DISTRIBUTION OF BANDING EFFORT, 1982-83

Locality	Chicks	Fullgrown	Totals	No. of Species
cold temperate islands				
Tristan da Cunha (37 03S, 12 18W) *	20	22	42	2
Inaccessible Island (37 17S, 12 45W)	721	2 163	2 884	10
Gough Island (40 21S, 09 53W)	159	362	521	4
Subantarctic islands				
Possession Island, Crozets (46 25S, 51 45E) **	93	57	150	6
Marion Island, Prince Edwards (46 54S, 37 45E)	305	33	338	3
Bird Island, South Georgia (54 00S, 38 02W)	2 009	1 387	3 396	8
Macquarie Island (54 30S, 159 58E)	6	0	6	1
maritime Antarctic islands				
Signy Island, South Orkneys, (60 43S, 45 36W)	8	0	8	2
King George Island, South Shetlands (62 00S, 58 15W)	149	84	233	5
continental Antarctica				
Dewart Island (66 13S, 110 10E)	10	0	10	1
Nelly Island (66 20S, 110 28E)	43	0	43	1
Terre Adélie (67 00S, 139 00E) **	335	203	538	5
Hawker Island (68 38S, 77 51E)	14	0	14	1
Totals	3 872	4 311	8 183	30

* Not 51 as given in Fraser (1983)

** Estimated numbers (see text)

is likely to come from the Denstone Expedition's banding efforts unless some other team is able to visit Inaccessible Island at some future, but not too distant, date to 'recapture' as many banded birds as possible and thus obtain some survival data for the species involved.

The same consideration is applicable to all Subantarctic and Antarctic bird banding efforts; paucity of recoveries away from banding sites place a premium on follow-up work to recapture or, where feasible, resight marked birds at all study colonies. The few distant recoveries which may be expected will probably add much to our knowledge but it must be said that satellite-assisted radio-tracking of a few birds carrying signal devices would yield more data on movements in one season than banding is likely to do in centuries.

When one considers the latitudinal distribution of breeding localities of Southern Ocean seabirds, arbitrary restriction of data accession to the CDB from strictly Subantarctic and Antarctic localities makes little sense. The South African banding efforts at cold-temperate Gough Island illustrates this point. To be consistent, pelagic seabird banding data from Tasmania and New Zealand should also be included in the CDB summaries and would be relevant. It is known, for example, that the Tasmanian National Parks and Wildlife Service has a project involving the banding of Shy Albatrosses *Diomedea cauta* on Tasmania, which has already resulted in the recovery of two birds off the South African coast in 1983 and a further one in 1984.

It is suggested that banding data submitted to the CDB be based on species rather than on geographical criteria. The Tasmanian National Parks and Wildlife Service might well be prepared to supply the CDB, since they have already indicated a willingness to provide banding data from the Subantarctic. It is to be hoped that New Zealand could also be persuaded to supply at least summaries of species ringed each year, since they are known to be currently involved in penguin banding in the Subantarctic.

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REFERENCE

FRASER, M.W. 1983. The Denstone Expedition to Inaccessible Island. *Cormorant* 11:69-73.

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