

OBSERVATIONS OF BIRDS AT SEA BETWEEN CAPE TOWN,
MARION AND CROZET ISLANDS, SUMMER 1973 - 1974

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INTRODUCTION

The following observations of seabirds were made on board the M.S. *Marion Dufresne* on the way from Cape Town, South Africa, to Marion and the Crozet Islands (30 December 1973 to 5 January 1974) and from the Crozets to Cape Town (23 - 28 April 1974) (Fig. 1). During several watches on the voyage to Marion Island I received the assistance of Dr A.J. Williams, whom I thank here. The method used to make these observations is described in a previous paper (Voisin 1980). The results are expressed in terms of average numbers of birds of each species seen in 10 minute periods (Tables 1 & 2). The speed of the ship was about 15 knots, except on 26 and 27 April 1974, when it was about 13 knots. The observations were made from the bridge, at about 10 m above the sea.

Observations of seabirds made when the *Marion Dufresne* was dredging off the Crozet Islands are shown in Table 3. Since the ship was then travelling slowly (about two knots), another census method was used (Voisin 1980), and the results are expressed in average numbers of birds recorded at one time every ten minutes. Species are listed in the order of sighting in Tables 1 - 3, to give a better impression of faunal assemblages.

RESULTS AND DISCUSSION

I have not tried to identify to subspecies level the Shy Albatrosses *Diomedea cauta* observed. All had grey bills. On 27 April 1974 they were fairly common and nine were observed within two hours. The Yellow-nosed Albatross *D. chlororhynchos* which was encountered on the afternoon of 23 April may have straggled south of the species' normal range, but Yellow-nosed Albatrosses have been seen at Hog Island (= Ile aux Cochons), Crozets, in January 1974 (Derenne *et al.* 1976).

Both Cory's Shearwater *Calonectris diomedea* and Sooty Shearwater *Puffinus griseus* are nonbreeding visitors to South African waters, the latter being abundant (Brooke & Sinclair 1978). Their distribution in the Indian Ocean is poorly known. My observations of Cory's Shearwaters were much in the same geographic range as were the observations of Harrison (1978). Hansen (1978) possibly saw some Sooty Shearwaters between South Africa and New Zealand in July 1977. Neither Cory's nor Sooty Shearwaters were recorded by van Zinderen Bakker (1971) between Marion Island and Cape Town in early April 1966.

The distribution of White-headed Petrels *Pterodroma lessoni* was

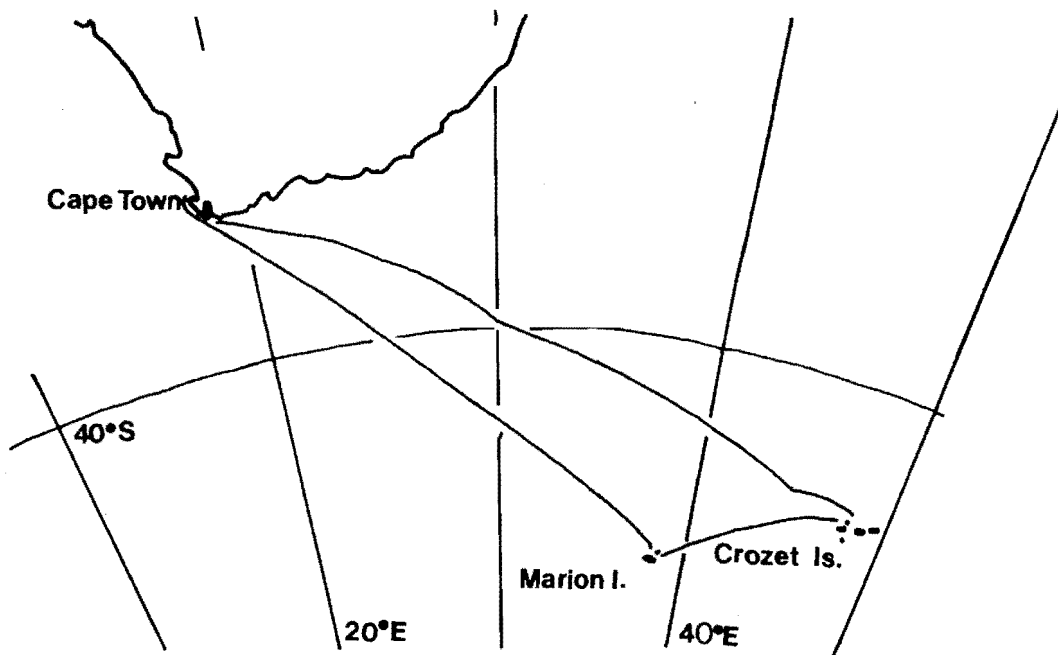


Figure 1

Route of the M.S. *Marion Dufresne* from Cape Town, South Africa, to Marion and the Crozet Islands, and from the Crozet Islands to Cape Town, summer 1973 - 1974

Footnotes to Tables 1 & 2

- o : recalculated position. Sea temperatures were taken at the beginning of each watch, if it changed more than 0,5°C during the course of the watch, the temperature at the end of the watch is given in parentheses.
- e : too numerous to be counted, evenly distributed with a low density at the surface of the sea.
- +++ : the same as e, but at a high density.
- MI : in sight of Marion Island.
- CI : in sight of Hog Island, Crozet.
- Pf : unidentified shearwaters.
- St : white tern, either *Sterna vittata*, *S. paradisaea* or *S. hirundo*.
- H : unidentified stormpetrel.
- L : unidentified skua (*Stercorarius* sp.).
- M : unidentified penguins.
- C : unidentified cormorant.
- P : Arctic Skua *S. parasiticus*, dark form.
- D : juvenile Kelp Gull, *Larus dominicanus*.

TABLE 1

BIRDS OBSERVED FROM THE M.S. MARION DUFRESNE BETWEEN CAPE TOWN, SOUTH AFRICA, MARION ISLAND AND THE CROZET ISLANDS,
DECEMBER 1973 - JANUARY 1974, EXPRESSED IN MEAN NUMBERS OF CONTACTS IN TEN MINUTE PERIODS

Date:	31 Dec 1973			1 Jan 1974		2 Jan 1974		3 Jan 1974		4 Jan 1974		5 Jan 1974	
Time (local):	8h-10h	14h30-15h30	17h05-19h	8h05-10h	17h15-19h	8h40-10h	17h-19h	8h-9h	17h10-18h10	8h10-9h10	17h-18h	8h45-9h45	
Position:	35 57S 20 18E	37 04S 22 13E	39 15S 25 39E	40 37S 27 49E	42 59S 31 17E	43 59S 33 27E	46 28S 37 21E	46 51S 38 08E	46 19S 43 12E	46 08S 46 19E	46 11S 51 16E		
Sea Temperature (°C)	23 (21)	22 (21)	18 (16)	17	12	9	6	6,5 M1	7 M1	6	6	6 C1	
Cory's Shearwater <i>Calonectris diomedea</i>	2,3	0,2											
Sooty Shearwater <i>Puffinus griseus</i>	0,6	-	-	-	0,2								
Blackbrowed Albatross <i>Diomedea melanophrys</i>	0,5	0,2											
Greyheaded Albatross <i>D. chrysoloma</i>	0,2	0,7	-	-	2	-	0,3	-	-	-	0,2		
Greatwinged Petrel <i>Pterodroma macrotrema</i>	30,7	0,7	0,9	1,9	0,5								
Yellownosed Albatross <i>D. chlororhynchos</i>	3,5	-	-	0,1	-	-	0,2						
Softplumaged Petrel <i>P. mollis</i>	0,7	0,3	2,6	1	3,5	7,4	0,3	2,5	6,2				
Wandering Albatross <i>D. exulans</i>	0,7	-	3,6	3	7,5	4,2	6,2	2,2	0,2	3	0,3		
Whitechinned Petrel <i>Procellaria aequinoctialis</i>		0,1	-	0,8	3	0,2	2	-	-	1	0,2		
Petrels <i>Pachyptila</i> spp.				6,2	0,5	1,5	65	5,8	0,5	+++	+++		
Grey Stormpetrel <i>Garroctia nereis</i>				0,2									
Darkmantled Sooty Albatross <i>Phoebastria fusca</i>					0,5	-	4,7	0,2	-	0,2			
Grey Petrel <i>Procellaria cinereus</i>						0,1							
Kerguelen Petrel <i>Pterodroma brevirostris</i>						0,5	-	0,5	-	0,2	0,2		
Northern Giant Petrel <i>Macroneotes halli</i>								0,8	0,3	0,2			
Wilson's Stormpetrel <i>Oceanites oceanicus</i>								0,2	0,2	0,2	0,3	0,2	
Lightmantled Sooty Albatross <i>Phoebastria palpebrata</i>								0,5	0,2	-	0,7		
Gentoo Penguin <i>Pygoscelis papua</i>									0,7				
Divingpetrel <i>Pelecanoides</i> sp.									0,2	-	-	1	
Southern Giant Petrel <i>M. giganteus</i>											0,2	0,3	
Blackbellied Stormpetrel <i>Fregatta tropica</i>											0,7		
Rockhopper Penguin <i>Sudyptes murrayi</i>												1,3	
Miscellaneous	D	L	H P						M			M	

TABLE 2

BIRDS OBSERVED FROM THE M.S. *MARION DUFRESNE* BETWEEN THE CROZET ISLANDS AND CAPE TOWN, SOUTH AFRICA, APRIL 1974, EXPRESSED IN MEAN NUMBERS OF CONTACTS IN TEN MINUTE PERIODS

Date:	23 Apr 1974		24 Apr 1974		25 Apr 1974		26 Apr 1974		27 Apr 1974
Time:	8h30- 10h	16h10- 17h45	8h15- 10h	16h- 17h	8h- 10h	15h35- 17h05	8h20- 9h40	16h- 17h	8h - 10h
Position:	45 05S	44 25S	42 39S	42 34S	40 17S	39 34S	37 55S	37 27S	35 54S
	47 24E	45 28E	40 05E	38 09E	33 21E	33 35E	27 17E	25 40E	21 45E
	(8h)	(16h)	(8h)	(16h ⁰)	(8h)	(15h)	(8h)	(15h)	(8h)
Sea temperature (°C)	6,5	8	10,5	16	21	21	21	19	18
Blue Petrel <i>Haloboena caerulea</i>	0,1								
Wilson's Stormpetrel <i>Oceanites oceanicus</i>	0,3								
Lightmantled Sooty Albatross <i>Phoebastria palpebrata</i>	0,1	0,1							
Blackbellied Stormpetrel <i>Fregatta tropica</i>	0,1	-	0,3	0,5					
Darkmantled Sooty Albatross <i>Phoebastria fusca</i>	0,1	0,1	-	0,1	-	-	0,1		
Prlons <i>Pachyptila</i> spp.	e	e	e	e	3,3				
Softplumaged Petrel <i>Pterodroma mollis</i>	0,1	1,1	-	0,7	0,2	0,8	1,9		
Greatwinged Petrel <i>P. macroptera</i>	0,1	0,3	0,7	-	-	0,1	0,3		
Wandering Albatross <i>Diomedea exulans</i>	0,1	-	0,2	0,1	0,8	2,5	0,7	1,7	0,1
Yellownosed Albatross <i>D. chlororhynchos</i>	0,1	-	-	-	0,8	0,1	-	0,3	2,2
Blackbrowed Albatross <i>D. melanophrys</i>	0,2		0,1						
Whiteheaded Petrel <i>Pterodroma lessoni</i>	0,6		-	-	-	0,1			
Greyheaded Albatross <i>D. chrysostrama</i>			0,1						
Northern Giant Petrel <i>Macronectes halli</i>			0,2	0,5	0,1				
Whitechinned Petrel <i>Procellaria aquinoctialis</i>			0,1	2,1	0,2	1,2	-	2	1,2
Shy Albatross <i>D. cauta</i>								0,3	0,8
Cape Gannet <i>Sula capensis</i>									0,3
Subantarctic Skua <i>Catharacta antarctica</i>									1,2
Miscellaneous			P	Pf			H St		H C

TABLE 3

BIRDS OBSERVED FROM THE M.S. *MARION DUFRESNE* DREDGING OFF THE
CROZET ISLANDS ON 22 APRIL 1974

Time	08h15 - 09h35	15h00 - 17h00
Position	46 18S, 51 29E	46 02S, 50 50E
Station (Hureau 1976)	28	30
Sea temperature (°C)	6,2	6,7
Greatwinged Petrel		
<i>Pterodroma macroptera</i>	0,3	2,8
Prions <i>Pachyptila</i> spp.	e	e
Blackbrowed Albatross		
<i>Diomedea melanophrys</i>	0,1	-
Whitechinned Petrel		
<i>Procellaria aequinoctialis</i>	6,6	5,5
Diving Petrels <i>Pelecanoides</i> sp.	0,8	0,1
Imperial Cormorant		
<i>Phalacrocorax atriceps</i>	0,1	-
Greyheaded Albatross		
<i>Diomedea chrysostoma</i>	1,0	0,4
Wandering Albatross		
<i>D. exulans</i>	3,8	1,6
Lightmantled Sooty Albatross		
<i>Phoebastria palpebrata</i>	0,8	0,3
Wilson's Stormpetrel		
<i>Oceanites oceanicus</i>	2,1	0,5
Pintado Petrel		
<i>Daption capense</i>	+	1,3
Blackbellied Stormpetrel		
<i>Fregetta tropica</i>	-	1,5
Northern Giant Petrel		
<i>Macronectes halli</i>	+	0,4
Softplumaged Petrel		
<i>Pterodroma mollis</i>	+	0,7
Kerguelen Petrel		
<i>P. brevirostris</i>	-	1,0
Southern Giant Petrel		
<i>M. giganteus</i>	-	0,1
Blue Petrel		
<i>Haloboena caerulea</i>	-	0,2
Giant petrels		
<i>Macronectes</i> sp.	-	0,1

The species are listed in the order in which they were encountered. The numbers are average numbers of birds counted around the ship at every tenth minute.

e : large numbers scattered all over the sea at a low density
+ : species seen shortly before or shortly after the watch

rather patchy. But, as I was not yet familiar with the species at sea, it is possible that I initially confused some individuals far from the ship with the much more abundant Softplumaged Petrel *P. mollis*.

Only small numbers of giant petrels *Macronectes* spp. were seen on both voyages, and most of them were the Northern Giant Petrel *M. halli*. The Southern Giant Petrel *M. giganteus* was only seen near Marion Island and the Crozets, its breeding grounds. The two first giant petrels encountered on the voyage to Marion Island were seen at 06h40 on 31 December 1973 (A.J. Williams pers.comm.). They were paler below, which is suggestive of Northern Giant Petrels.

The distribution of the birds encountered on both voyages is similar to that recorded by van Zinderen Bakker (1971) between Marion Island and Cape Town. There was little variation, but a fairly clear separation is visible between the Subantarctic avifauna and that of the warmer waters near the tip of South Africa.

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