

SEABIRD OBSERVATIONS BETWEEN ASCENSION, ST HELENA AND TRISTAN DA CUNHA IN THE CENTRAL SOUTH ATLANTIC

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SUMMARY

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There is a notable paucity of seabird records in the tropical South Atlantic, due both to a paucity of observers as well as to a low seabird density. Between Ascension and St Helena resident species tend to remain relatively close to either island, whereas species encountered between the islands are likely to be vagrants or passage migrants. Observations south of St Helena extended to c. 19S towards Tristan da Cunha and to c. 22S towards Cape Town, south of which lay a gap including the Walvis Ridge in which no birds were seen. Species associated with Tristan da Cunha and farther south were noted (but for one record) only south of this gap, at a greater density and number of occurrences.

INTRODUCTION

Details of seabirds observed from the R.M.S. *St Helena* between Cape Town, South Africa and Ascension Island, South Atlantic Ocean are presented. Owing to a paucity of records (Layard 1867, 1871, Moreau 1931, Stonehouse 1960, Duke of Edinburgh 1962, Curtis 1977, Morgan 1990, W.R.P. Bourne and K.E.L. Simmons *in litt.*), emphasis is placed on observations made between Ascension Island (07 57S, 14 22W) and St Helena (15 58S, 05 43W), and between St Helena and Tristan da Cunha (37 06S, 12 17W) (Fig. 1). Observations between Cape Town and St Helena are included to highlight the lack of sightings over the Walvis Ridge. Records between Tristan da Cunha and Cape Town provide a concurrent comparison with tropical records in terms of seabird numbers and density. Published records and details supplied

by W.R.P. Bourne, M.N. McCulloch and K.E.L. Simmons (*in litt.*) are also discussed.

STUDY AREA AND METHODS

The observations reported here are from four voyages, in December 1988, January-February 1989, May 1991 and January-February 1992, with data on seabirds at sea collected in both tropical and temperate latitudes (Tables 1 to 10). The first voyage was from Cape Town to Ascension Island, via St Helena. The second was from Ascension Island to Cape Town, via St Helena and Tristan da Cunha, and included an unscheduled circular day cruise from Tristan da Cunha to Nightingale and Inaccessible Islands (Tables 2 and 7). The third voyage, from Cape Town to Cardiff, included St Helena and Ascension Island. The fourth, Cape Town to Cardiff, included St Helena and a separate

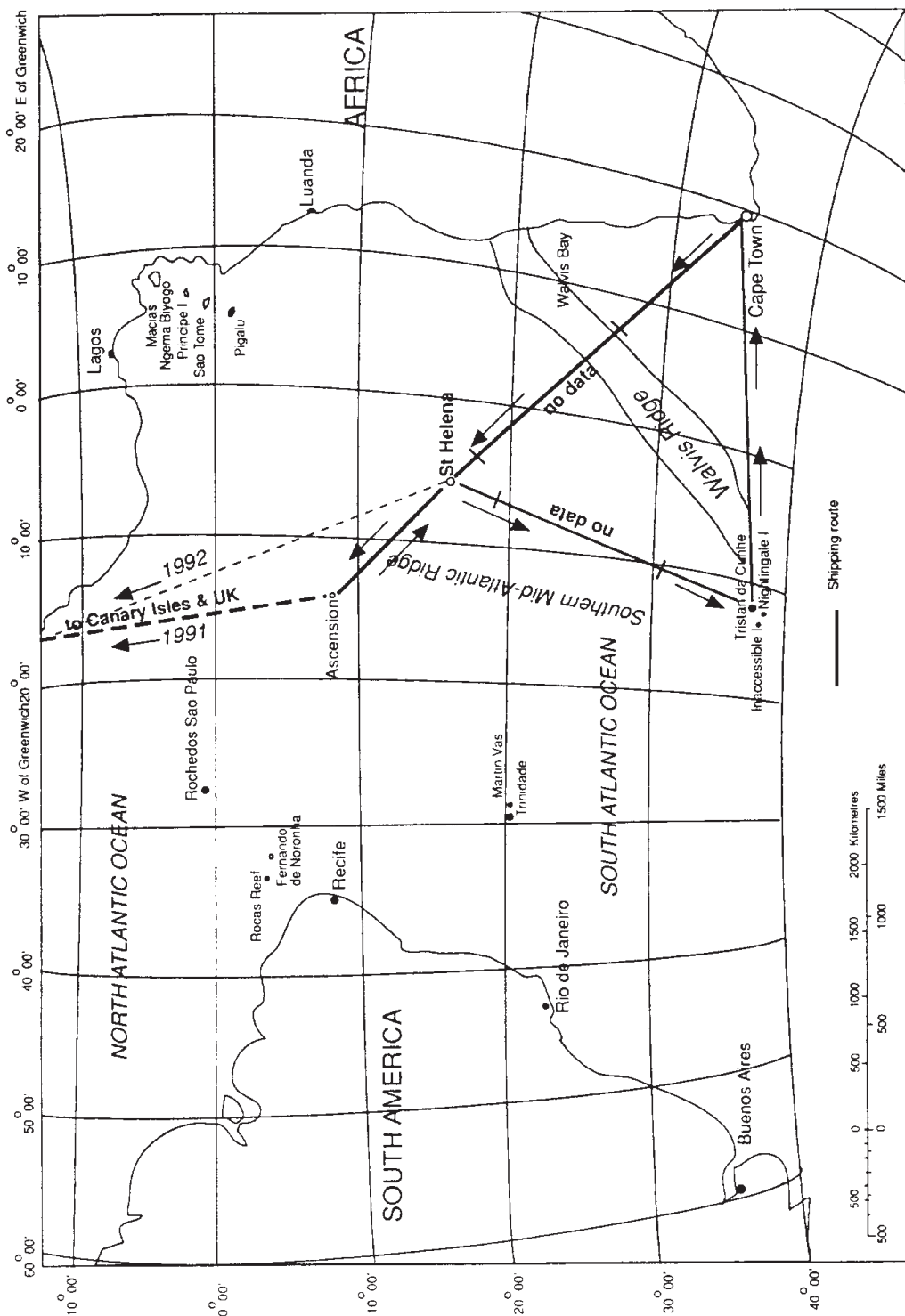


Figure 1
 Voyage routes 1988-89, showing gaps in bird observations south of St Helena

shuttle run to Ascension Island from St Helena (Tables 5 and 10).

Uninterrupted one-hour counts were made three times per full day at sea, at early morning, around midday and in the late afternoon (Tables 6 to 10). All times given are local but GMT applied between Ascension Island, St Helena and Tristan da Cunha. Birds were recorded for each minute in a 300-m square on one side of the bow, looking forward. On arrival/departure days at islands counts were made when appropriate. In each hour, six 10-minute cards were completed, along guidelines set out by Tasker *et al.* (1984), followed by a stern count. In May 1991 and January-February 1992 a stern count also preceded the forward counts. Tables 1 to 5 give the maximum number of each species seen in a 10-minute period as an indication of relative density. Almost all birds seen were in flight. Details of stern counts are given in Tables 6 to 10. Corresponding navigational and climatic data were obtained from the bridge. Significant casual observations, i.e. not made during counts, are noted in the text.

SPECIES ACCOUNTS

Altogether, 30 species were identified. Species accounts are presented only for those species noted between Ascension Island and St Helena and between St Helena and Tristan da Cunha. Details of species observed between Cape Town and St Helena and between Tristan da Cunha and Cape Town are given in Tables 1 to 4 and 6 to 9.

Wandering Albatross *Diomedea exulans*

Between St Helena and Tristan da Cunha the northernmost sighting was of a juvenile on 7 February 1989, at 35 52S, 11 52W, 84 nautical miles (nm) north of Tristan da Cunha (Table 2).

Between Ascension Island and St Helena up to four birds were observed by P.R. Messent following a vessel (towards Ascension) all day between 100 and 200 nm northwest of St Helena on 9 August 1970 (K.E.L. Simmons *in litt.*).

Yellownosed Albatross *D. chlororhynchos*

The northernmost sighting was of two birds on 7 February 1989, at 35 54S, 11 54W, 78 nm north of Tristan da Cunha (Table 2).

Sooty Albatross *Phoebastria fusca*

The northernmost sighting was of a single bird on 7 February 1989, at 36 08S, 11 58W, 68 nm north of Tristan da Cunha (Table 7).

Pintado Petrel *Daption capense*

The only sighting was of a bird on 7 February 1989, at 36 04S, 11 56W, 73 nm north of Tristan da Cunha (Table 2).

Greatwinged Petrel *Pterodroma macroptera*

This was the commonest observed seabird around 35 00S, 10 00W, northeast of Tristan da Cunha, on 17 to 19 February 1985 (Bourne & Curtis 1985).

Softplumaged Petrel *P. mollis*

Four were seen by W.F. Curtis at 19 01S, 06 42W on 10 April 1973 (Bourne & Curtis 1985) and recorded again at 20 30S, 07 00W on 20 November 1974, both about 180 nm south of St Helena (W.R.P. Bourne *in litt.*).

Gadfly petrels *Pterodroma* sp.

Four birds, possibly Softplumaged Petrels *P. mollis*, were seen by P. R. Messent c. 100 nm northwest of St Helena on 9 August 1970 (K.E.L. Simmons *in litt.*).

An all-dark gadfly petrel, possibly a dark morph Softplumaged Petrel or an intermediate morph Trinidad Petrel *P. arminjoniana*, was seen on 6 February 1989, at 31 07S, 10 19W, 370 nm north of Tristan da Cunha (Table 2). This bird almost collided with the vessel as it crossed its course, entering the water beneath the bows to reveal pink

TABLE 1
 MAXIMUM NUMBER OF SEABIRDS SEEN AT SEA IN A 10-MINUTE PERIOD, CAPE TOWN TO
 ASCENSION ISLAND, DECEMBER 1988

Species	December	15	16	17	18	19	21	22	23
Wandering Albatross									
<i>Diomedea exulans</i>		2							
Shy Albatross									
<i>D. cauta</i>		1							
Greatwinged Petrel									
<i>Pterodroma macroptera</i>		1	3						
Whitechinned Petrel									
<i>Procellaria aequinoctialis</i>		1							
Cory's Shearwater									
<i>Calonectris diomedea</i>			1						
Leach's/Madeiran Storm Petrel									
<i>Oceanodroma</i> sp.			1		2				1
Whitebellied Storm Petrel									
<i>Fregetta grallaria</i>			1						
Redbilled Tropicbird									
<i>Phaethon aethereus</i>						2			
Masked Booby									
<i>Sula dactylatra</i>						8	9		
Brown Booby									
<i>S. leucogaster</i>							1		
Pomarine Skua									
<i>Stercorarius pomarinus</i>						12	5		
Subantarctic Skua									
<i>Catharacta antarctica</i>		1							
Lesser Noddy									
<i>Anous tenuirostris</i>						16	3		1
Common Noddy									
<i>A. stolidus</i>					1	16	6		1
White Tern									
<i>Gygis alba</i>						25	28		

Noon positions

15:	31	16S	14	24E	18:	18	41S	02	12W	21:	St Helena
16:	27	01S	08	28E	19:	St Helena				22:	13 15S 08 48W
17:	22	47S	03	15E	20:	St Helena				23:	09 51S 12 46W

TABLE 2
 MAXIMUM NUMBER OF SEABIRDS SEEN AT SEA IN A 10-MINUTE PERIOD, ASCENSION ISLAND
 TO CAPE TOWN, VIA TRISTAN DA CUNHA, JANUARY AND FEBRUARY 1989

Species	January							February						
	25	26	27	4	5	6	7	9	10	11	12	13		
Wandering Albatross <i>Diomedea exulans</i>							1		1					
Blackbrowed Albatross <i>D. melanophris</i>									1			1		
Yellownosed Albatross <i>D. chlororhynchus</i>							6	7				1		
Shy Albatross <i>D. cauta</i>												1		
Sooty Albatross <i>Phoebastria fusca</i>							2		1					
Pintado Petrel <i>Daption capense</i>							1							
Greatwinged Petrel <i>Pterodroma macroptera</i>										4	1	2		
Softplumaged Petrel? <i>Pterodroma</i> sp.							1							
Prions <i>Pachyptila</i> sp.							3							
Whitechinned Petrel <i>Procellaria aequinoctialis</i>							1		1	1	1	3		
Great Shearwater <i>Puffinus gravis</i>							6	c. 500				1		
Cory's Shearwater <i>Calonectris diomedea</i>												8		
Leach's/Madeiran Storm Petrel <i>Oceanodroma</i> sp.					7									
Wilson's Storm Petrel <i>Oceanites oceanicus</i>										1	2	4		
Whitebellied Storm Petrel <i>Fregata grallaria</i>							1							
Redbilled Tropicbird <i>Phaethon aethereus</i>				1										
Subantarctic Skua <i>Catharacta antarctica</i>							2		1			1		
Antarctic Tern <i>Sterna vittata</i>							7		6					
Common Noddy <i>Anous stolidus</i>			2											
White Tern <i>Gygis alba</i>		2			1									
Noon positions														
25:	Ascension				6:	30	58S	10	16W	10:	36	22S	06	00W
26:	11	44S	10	09W	7:	37	01S	12	18W	11:	35	45S	01	03E
27:	St Helena				8:	Tristan da Cunha				12:	34	44S	08	20E
4:	19	11S	06	47W	9:	37	25S	12	29W	13:	34	10S	14	57E
5:	25	02S	08	28W		(island cruise)				14:	Cape Town			

TABLE 3
 MAXIMUM NUMBER OF SEABIRDS SEEN AT SEA IN A 10-MINUTE PERIOD, CAPE TOWN TO
 ASCENSION ISLAND, MAY 1991

Species	May	13	14	15	16	17	22	23	24					
Wandering Albatross														
<i>Diomedea exulans</i>		1												
Blackbrowed Albatross														
<i>D. melanophris</i>		3												
Yellownosed Albatross														
<i>D. chlororhynchos</i>		1												
Shy Albatross														
<i>D. cauta</i>		4												
Great Shearwater														
<i>Puffinus gravis</i>		1	1					1						
Cory's Shearwater														
<i>Calonectris diomedea</i>		1												
Leach's/Madeiran Storm Petrel														
<i>Oceanodroma</i> sp.							1		1					
Wilson's Storm Petrel														
<i>Oceanites oceanicus</i>		1												
Redbilled Tropicbird														
<i>Phaethon aethereus</i>				1	1									
Cape Gannet														
<i>Morus capensis</i>		2												
Masked Booby														
<i>Sula dactylatra</i>						5			3					
Brown Booby														
<i>S. leucogaster</i>									3					
Subantarctic Skua														
<i>Catharacta antarctica</i>		2												
Tern (small)														
<i>Sterna</i> sp.		1												
Tern (large)														
<i>Sterna</i> sp.		1												
Lesser Noddy														
<i>Anous tenuirostris</i>									31					
Common Noddy														
<i>A. stolidus</i>									5					
White Tern														
<i>Gygis alba</i>						1	4		1					
Noon positions														
12:	Cape Town			15:	22	48S	03	01E	22:	St Helena				
13:	31	02S	14	17E	16:	18	44S	02	08W	23:	11	55S	10	22W
14:	26	57S	08	40E	17:	St Helena			24:	Ascension				

TABLE 4
 MAXIMUM NUMBER OF SEABIRDS SEEN AT SEA IN A 10-MINUTE PERIOD, CAPE TOWN TO ST
 HELENA, JANUARY 1992

Species	January	22	23	24	25	26
Shy Albatross						
<i>Diomedea cauta</i>		1				
Greatwinged Petrel						
<i>Pterodroma macroptera</i>		2	11		1	
Whitechinned Petrel						
<i>Procellaria aequinoctialis</i>		2				
Sooty Shearwater						
<i>Puffinus griseus</i>		5				
Leach's/Madeiran Storm Petrel						
<i>Oceanodroma</i> sp.						2
Wilson's Storm Petrel						
<i>Oceanites oceanicus</i>			7	2		
Cape Gannet						
<i>Morus capensis</i>		5				
Cape Cormorant						
<i>Phalacrocorax capensis</i>		49				
Arctic Skua						
<i>Stercorarius parasiticus</i>		1				
Kelp Gull						
<i>Larus dominicanus</i>		40				
Swift Tern						
<i>Sterna bergii</i>		1				

Noon positions:

22:	Cape Town	24:	26	27S	08	03E	26:	18	09S	02	57W
23:	30	42S	13	43E	25:	22	22S	02	37E	27:	St Helena

TABLE 5

MAXIMUM NUMBER OF SEABIRDS SEEN AT SEA IN A 10-MINUTE PERIOD BETWEEN ASCENSION ISLAND AND ST HELENA, JANUARY AND FEBRUARY 1992

Species	January			February			
	29	30	31	2	3	6	7
Leach's/Madeira Stormpetrel <i>Oceanodroma</i> sp.	1	2	1		1	4	3
Wilson's Stormpetrel? <i>Oceanites oceanicus?</i>	4	1					
Whitefaced Storm Petrel <i>Pelagodroma marina</i>		1		1			
Masked Booby <i>Sula dactylatra</i>			38				
Brown Booby <i>S. leucogaster</i>			2				
Ascension Frigatebird <i>Fregata aquila</i>			5				
Arctic Skua <i>Stercorarius parasiticus</i>							1
Sooty Tern <i>Sterna fuscata</i>			65	207			
Lesser Noddy <i>Anous tenuirostris</i>		2	79	1	1	1	
White Tern <i>Gygis alba</i>						1	

Noon positions

29:	St Helena			1:	Ascension			6:	St Helena		
30:	11 42S	10	34W	2:	10 32S	11	36W	7:	10 03S	08	22W
31:	Ascension			3:	14 26S	07	09W	8:	04 05S	11	02W

TABLE 6

STERN COUNTS OF SEABIRDS, CAPE TOWN TO ASCENSION ISLAND, DECEMBER 1988

Date	Noon position	Time	Species	Numbers
14	Cape Town	23h30	Kelp Gull	c50
15	31 16S 14 24E	10h15	Blackbrowed Albatross	1
			Greatwinged Petrel	5
		14h00	Greatwinged Petrel	1
			Whitechinned Petrel	1
		18h00	Nil	
16	27 01S 08 28E	06h00	Wandering Albatross	2
		09h00	Greatwinged Petrel	1
		14h00	Nil	
		18h00	Nil	
17	22 47S 03 15E	09h00	Nil	
		13h00	Nil	
		20h00	Nil	
18	18 41S 02 12W	09h00	Nil	
		13h00	Nil	
		19h00	Nil	
19	St Helena	07h00	Redbilled Tropicbird	4
			Masked Booby	4
			Pomarine Skua	12
			Lesser Noddy	16
			Common Noddy	10
			White Tern	25
21	St Helena	19h00	Pomarine Skua	1
			Lesser Noddy	1
22	13 15S 08 48W	09h00	Nil	
		14h00	Nil	
		18h00	Nil	
23	09 51S 12 46W	09h00	Nil	
		13h00	Nil	
		18h00	Nil	
24	Ascension	06h00	Ascension Frigatebird	2

TABLE 7
STERN COUNTS OF SEABIRDS, ASCENSION ISLAND TO CAPE TOWN VIA TRISTAN DA CUNHA,
JANUARY AND FEBRUARY 1989

Date	Noon position	Time	Species	Numbers
25	Ascension	15h15	Masked Booby	2
		18h00	Nil	
26	11 44S 10 09W	09h00	Nil	
		13h00	Nil	
		18h00	Nil	
27	St Helena	09h00	Nil	
4	19 11S 06 47W	09h00	Nil	
		13h00	Leach's/Madeiran Storm Petrel	1
		18h00	Nil	
5	25 02S 08 28W	09h00	Nil	
		13h00	Nil	
		18h00	Nil	
6	30 58S 10 16W	09h00	Nil	
		13h00	Nil	
		17h30	Nil	
7	37 01S 12 18W	09h00	Yellownosed Albatross	4
			Sooty Albatross	1
		13h00	Yellownosed Albatross	8
			Sooty Albatross	2
			Antarctic Tern	4
8	Tristan da Cunha ashore			
9	37 25S 12 29W	13h00	Yellownosed Albatross	9
	Nightingale & Inaccessible Island cruise		Sooty Albatross	6
			Subantarctic Skua	2
			Antarctic Tern	14
		18h00	Yellownosed Albatross	1
			Great Shearwater	1
10	36 22S 06 00W	09h00	Wandering Albatross	3
			Wilson's Storm Petrel	1
		13h00	Wandering Albatross	2
		18h00	Wandering Albatross	4
11	35 45S 01 03E	09h00	Nil	
		13h00	Nil	
		18h00	Nil	
12	34 44S 08 20E	09h00	Nil	
		13h00	Nil	
		17h00	Whitechinned Petrel	1
		18h00	Blackbrowed Albatross	1
			Whitechinned Petrel	1
13	34 10S 14 57E	09h00	Blackbrowed Albatross	1
			Whitechinned Petrel	1
			Cory's Shearwater	1
		13h00	Whitechinned Petrel	1
		18h00	Whitechinned Petrel	1
			Subantarctic Skua	1

TABLE 8
STERN COUNTS OF SEABIRDS, CAPE TOWN TO ASCENSION ISLAND, MAY 1991

Date	Noon position	Time	Species	Numbers
12	Cape Town			
13	31 02S 14 17E	08h00	Whitechinned Petrel	1
		09h00	Nil	
		12h00	Nil	
		12h24	Whitechinned Petrel	2
		13h00	Nil	
		17h00	Nil	
		18h00	Nil	
14	26 57S 08 40E	08h00	Nil	
		09h00	Whitechinned Petrel	1
		12h00	Nil	
		13h00	Nil	
		17h00	Nil	
		18h00	Nil	
15	22 48S 03 01E	07h55	Nil	
		09h00	Nil	
		12h00	Nil	
		13h00	Nil	
		16h00	Redbilled Tropicbird	1
		17h00	Redbilled Tropicbird	1
		18h00	Redbilled Tropicbird	1
16	18 44S 02 08W	08h09	Nil	
		09h00	Nil	
		12h00	Nil	
		13h00	Nil	
		16h30	Nil	
		17h30	Nil	
17	St Helena	06h30	Nil	
		07h50	Nil	
		09h00	White Tern	4
22	St Helena	12h00	Nil	
		13h50	Nil	
		15h00	Nil	
		17h00	Nil	
		18h00	Nil	
23	11 55S 10 22W	08h00	Nil	
		09h00	Nil	
		12h00	Nil	
		13h00	Nil	
		16h30	Nil	
		17h30	Nil	
24	Ascension	07h20	Nil	
		09h00	Nil	
		09h12	Brown Booby	1

TABLE 9

STERN COUNTS OF SEABIRDS, CAPE TOWN TO ST HELENA, JANUARY 1992

Date	Noon position	Time	Species	Numbers
22	Cape Town	17h00	Cape Cormorant	1
		18h00	Cape Gannet	1
			Cape Cormorant	6
			Kelp Gull	35
23	30 42S 13 43E	08h00	Nil	
		09h00	Greatwinged Petrel	1
			Wilson's Storm Petrel	3
		12h00	Nil	
		16h50	Greatwinged Petrel	1
		17h50	Greatwinged Petrel	1
24	26 27S 08 03E	19h15	Greatwinged Petrel	1
		08h00	Nil	
		09h00	Nil	
		12h00	Nil	
		13h00	Nil	
		17h00	Nil	
		18h00	Nil	
25	22 22S 02 37E	08h00	Nil	
		09h00	Nil	
		12h00	Nil	
		13h00	Nil	
		17h00	Nil	
		18h00	Nil	
26	18 09S 02 57W	08h00	Nil	
		09h00	Nil	
		12h00	Nil	
		13h00	Nil	
		17h00	Nil	
		18h00	Nil	

TABLE 10
 STERN COUNTS OF SEABIRDS, ASCENSION ISLAND TO ST HELENA,
 JANUARY AND FEBRUARY 1992

Date	Noon position	Time	Species	Numbers
29	St Helena	12h00	Nil	
		13h00	Nil	
		17h00	Nil	
		18h00	Nil	
30	11 42S 10 34W	08h00	Nil	
		09h00	Nil	
		12h00	Nil	
		13h00	Nil	
		17h00	Nil	
31	Ascension	07h30	Nil	
		08h30	Nil	
		08h00	Nil	
2	10 32S 11 36W	09h00	Nil	
		12h00	Nil	
		13h00	Sooty Tern	207
		17h00	Nil	
		18h00	Nil	
3	14 26S 07 09W	08h00	Nil	
		09h00	Nil	
		12h00	Nil	
		13h00	Nil	
		17h00	Nil	
6	St Helena	18h00	Nil	
		12h00	Leach's/Madeiran Storm Petrel	1
			Redbilled Tropicbird	2
		13h00	Nil	
		17h00	Nil	
7	10 03S 08 22W	18h00	Nil	
		08h00	Nil	
		09h00	Nil	
		12h00	Nil	
		13h00	Nil	
		17h00	Leach's/Madeiran Storm Petrel	2
		18h00	Nil	

legs and feet before vanishing off to port very low at great speed. According to Harrison (1983) in the similar Kerguelen Petrel *P. brevirostris* and Greatwinged Petrel, sympatric with *P. mollis* in the Tristan da Cunha area (Richardson 1984), the legs and feet are black.

Bulwer's Petrel *Bulweria bulwerii*

On 24 January 1957 H.M.Y. *Britannia* ringed a "Sooty Shearwater" *Puffinus griseus* at 12 30S, 09 24W, 150 nm northwest of St Helena. This bird had a wing length of 190 mm, tail 97 mm, culmen 20 mm and tarsus 25 mm, which agrees best with Bulwer's Petrel (W.R.P. Bourne *in litt.*). A bird, presumed to be of this species, was seen from the cutter *Cayenne* at 10 00S, 10 00W, about 500 nm northwest of St Helena on 17 November 1988 (Morgan 1990). Two Bulwer's Petrels were seen by W.R.P. Bourne (*in litt.*) at 18 00S, 08 48W, some 100 nm southwest of St Helena on 14 February 1985.

Prions *Pachyptila* sp.

Three were sighted on 7 February 1989, eight nautical miles north of Tristan da Cunha (Table 2). They were likely to have been Broadbilled Prions *P. vittata*, which breeds in the Tristan da Cunha group (Richardson 1984).

Whitechinned Petrel *Procellaria aequinoctialis*

The northernmost sighting was on 7 February 1989, 12 nm north of Tristan da Cunha (Table 2). No spectacled forms *P. a. conspicillata* were seen. Kevin Morgan, aboard the cutter *Cayenne*, noted the species about 170 nm southwest of St Helena on 28 October 1988 (W.R.P. Bourne *in litt.*).

Great Shearwater *Puffinus gravis*

A single bird, moving north, overtook the vessel on 23 May 1991, 308 nm northeast of St Helena and 398 nm from Ascension Island (Table 3). Since this

species migrates regularly to the North Atlantic from its breeding station in the Tristan da Cunha group (Richardson 1984), its presence between Ascension Island and St Helena in transit should not be unexpected.

Between St Helena and Tristan da Cunha the northernmost sightings were of two seen together on 7 February 1989 at 36 06S, 11 58W, 70 nm north of Tristan da Cunha (included in data given in Table 2). Curtis (1977) reported this species on the passage of R.F.A. *Reliant* from Tristan da Cunha to St Helena in November 1974 but gives no further details.

Cory's Shearwater *Calonectris diomedea*

A single bird was seen at 24 24S, 06 06W, about 250 nm south of St Helena on 15 February 1985 by W.R.P. Bourne (*in litt.*). Curtis (1977) in November 1974 reported this species from Tristan da Cunha to St Helena but gives no further details.

Leach's/Madeira Storm Petrel *Oceanodroma* sp.

Between Ascension Island and St Helena an *Oceanodroma* storm petrel was sighted on 23 December 1988, at 09 52S, 12 46W, 550 nm northwest of St Helena (Table 1). A second sighting was made the same day at 09 14S, 13 27W, 612 nm northwest of St Helena and 92 from Ascension Island. On 30 January 1992 two birds were seen together at 10 41S, 11 39W (Table 5), and a single bird was seen 22 minutes later. On 7 February 1992 two were pursued by a juvenile Arctic Skua *Stercorarius parasiticus* at 10 57S, 07 57W. Seven additional sightings were made on the same day (Table 5). Storm petrels were seen within sight of Ascension Island and St Helena on all visits and these are almost certainly the resident Madeira Storm Petrel *O. castro* (Stonehouse 1960). A few Madeira Storm Petrels were seen from the cutter *Cayenne* between St Helena and Ascension in November 1988 (Morgan 1990).

Between St Helena and Tristan da Cunha a flock of seven *Oceanodroma* storm petrels was sighted on 4 February 1989, 212 nm south of St Helena (Table 2). A single bird was seen at 19 28S, 06 53W, the most southerly recorded.

Whitefaced Storm Petrel *Pelagodroma marina*

A bird was seen at 11 32S, 10 46W on 30 January 1992, 395 nm northwest of St Helena, skimming the surface and touching the water repeatedly (Table 5). One was seen at 10 00S, 12 14W on 2 February 1992, 282 nm southeast of Ascension (Table 5). A bird was found on deck on 7 February 1992, at 11 07S, 07 48W, 308 nm from St Helena. It was released after examination.

Blackbellied Storm Petrel *Fregatta tropica*

Two were reported on approach to St Helena from the southwest on 30 October 1988 (Morgan 1990).

Whitebellied Storm Petrel *Fregatta grallaria*

Between Ascension and St Helena a bird was seen two days northwest of St Helena on 14 November 1988, three at 12 00S, 07 42W on 15 November, two on 16 November, two on 17 November at 10 00S 10 00W, three on 18 November and one within sight of Ascension Island on 19 November (Morgan 1990).

Between St Helena and Tristan da Cunha one was seen on 7 February 1989, 10 nm north of Tristan da Cunha (Table 2). At the Tristan da Cunha anchorage a bird stunned itself on the vessel's superstructure at night on 8 February, but was released the next day. Two were reported by K. Morgan two days southwest of St Helena on 29 October 1988 (W.R.P. Bourne *in litt.*).

Unidentified storm petrels

Four birds, possibly Wilson's Storm Petrels *Oceanites oceanicus*, were seen together at 14 58S, 06 52W on 29 January 1992, 88 nm northwest of St

Helena, and a bird was seen at 12 21S, 09 55W on 30 January 1992, 380 nm southeast of Ascension (Table 5).

Redbilled Tropicbird *Phaethon aethereus*

Between Ascension Island and St Helena a single bird was sighted on 27 January 1989 at 15 16S, 06 21W, 58 nm northwest of St Helena (Table 2). Otherwise, the species was seen only within sight of Ascension Island or St Helena. On 6 October 1988 c. 300 nm southeast of Ascension Island, a bird was seen by M.N. McCulloch (*in litt.*). On the track from Cape Town to St Helena on 15 and 16 May 1991 (Tables 3 and 8) a bird accompanied the vessel at distances of 619 to 314 nm from St Helena (southernmost at 22 26S, 02 33E).

Masked Booby *Sula dactylatra*

There was only one sighting at sea, that of two birds, 25 nm southeast of Boatswainbird Island, Ascension, flying towards the island on 25 January 1989 (Table 7). Otherwise, birds were seen only within sight of Ascension Island and St Helena (Tables 1, 3, 5 and 6) where they breed (pers. obs.).

Brown Booby *S. leucogaster*

All observations, in December 1988, May 1991 and January 1992, were within sight of Ascension Island and St Helena (Tables 1, 3, 5 and 8), where they breed (pers. obs). However, on 7 October 1988 a bird was seen by M.N. McCulloch (*in litt.*) c. 90 nm northwest of St Helena.

Ascension Frigatebird *Fregata aquila*

On 23 December 1988 a single juvenile was seen to pursue flying fish at 10 03S, 12 32W, 180 nm southeast of Ascension Island. The species was otherwise only seen within sight of Ascension Island (Tables 5 and 6) where they breed (Stonehouse 1960). On 17 November 1988 Morgan (1990) saw an immature 295 nm from Ascension at 10 00S 10 00W. On 26 December 1989 a juvenile was seen by

M.N. McCulloch (*in litt.*) c. 100 nm southeast of Ascension Island.

Arctic Skua *Stercorarius parasiticus*

A juvenile was seen to pursue two *Oceanodroma* storm petrels on 7 February 1992, at 10 57S, 07 57W, 321 nm north-northwest of St Helena.

Pomarine Skua *S. pomarinus*

Up to 12 birds were seen on arrival at St Helena on 19 December 1988, and up to five birds on departure two days later (Tables 1 and 6). Recorded by K. Morgan one day northwest of St Helena on 13 November 1988 (W.R.P. Bourne *in litt.*).

Subantarctic Skua *Catharacta antarctica*

The northernmost sighting was were of two birds which appeared together on 7 February 1989, eight nautical miles north of the Tristan da Cunha anchorage (Table 2).

Arctic Tern *Sterna paradisaea*

Between St Helena and Tristan da Cunha two groups, one of three and the other of five birds, were seen by W.F. Curtis at 19 01S, 06 43W, 180 nm south-southwest of St Helena on 10 April 1973 (Bourne & Curtis 1985, W.R.P. Bourne *in litt.*). Between Ascension Island and St Helena a single bird in near-summer plumage was seen on 19 November 1988, at 08 24S, 13 06W (Morgan 1990).

Antarctic Tern *S. vittata*

The northernmost sighting was of seven birds seen together at 12h54 on 7 February 1989, eight nautical miles north of the Tristan da Cunha anchorage (Table 2).

Sooty Tern *S. fuscata*

At Ascension Island this breeding species (Stonehouse 1960) was only seen on 31 January 1992 (Table 5). At St Helena, where they also breed (pers. obs.) no birds were seen from the vessel. At sea on 2 February 1992 around 10 42S, 11 25W, from Ascension Island to St Helena the vessel overtook a flock of 207 adult Sooty Terns following the same course (Tables 5 and 10). On 25 December 1989 three birds were seen c. 300 nm northwest of St Helena, followed the next day by sightings of five and 30 birds, by M.N. McCulloch (*in litt.*).

Lesser Noddy *Anous tenuirostris*

Commonly seen around St Helena in December 1988 and in January and February of 1989 and 1992, although not seen there in May 1991. At Ascension Island (particularly around Boatswainbird Island) Lesser Noddies were seen within sight of land on all visits. The species breeds at both St Helena and Ascension (Stonehouse 1960, pers. obs.). It was particularly common on the approach to Ascension Island on 24 May 1991 (up to 31 birds) and on 31 January 1992 (up to 79 birds) (Tables 3 and 5). At sea, a bird was seen on 23 December 1988 at 09 48S, 12 50W, 149 nm southeast of Ascension (Table 1) and two birds were seen on 26 January 1989 at 12 53S, 08 56W. On 30 January 1992 two were seen at 11 33S, 10 44W (Table 5). A bird was seen on 2 February 1992 at 11 21S, 10 22W and also on the next day 168 nm from St Helena (Table 5).

Common Noddy *A. stolidus*

Seen within sight of Ascension Island and St Helena where they breed (Stonehouse 1960, pers. obs.). At sea a single bird was seen on 23 December 1988 at 09 47S, 12 50W, 147 nm southeast of Ascension Island (Table 1). Two birds were recorded on 26 January 1989 at 11 11S, 10 44W (Table 2). Although the species also breeds in the Tristan da Cunha group (Richardson 1984), no birds were seen southwest of St Helena.

White Tern *Gygis alba*

Commonly seen within sight of Ascension Island and St Helena where they breed (Stonehouse 1960, pers. obs.). At sea there were three sightings of single birds on 25 January 1989 around 08 36S 13 34W, 65 to 72 nm southeast of Ascension Island (Table 2); all were flying towards the island. On 16 May 1991 a bird was seen at 19 24S, 01 17W, 336 nm southeast of St Helena on the track from Cape Town.

Between St Helena and Tristan da Cunha there were only two sightings. The first was on 4 February 1989 at 18 17S, 06 27W, 153 nm south-southwest of St Helena (Table 2). The second and southernmost occurred on the same date, at 19 00S, 06 40W.

DISCUSSION

Between Ascension Island and St Helena the numbers of birds sighted were very low. Sightings indicate a preference for seabirds breeding at the two islands to remain close to them (Tables 1 to 5). An exception is the Sooty Tern.

Layard (1867) saw no birds between 04 21S, 09 15W and St Helena in December 1866 and also records nothing between St Helena and Ascension while northbound in October 1870 (Layard 1871), as did Darwin (1889) for 14 to 19 July 1836. The Duke of Edinburgh (1962) reports nothing in January for the area, although a likely Bulwer's Petrel was measured (W.R.P. Bourne *in litt.*). Kinnear (1931) saw no birds between Ascension and St Helena in October 1930. Stonehouse (1960) saw no birds in November 1958 and gives none for April-May 1959. In May 1991 (Tables 3 and 8) birds were observed only within sight of Ascension Island and St Helena, other than a single Great Shearwater. A notable exception in February 1992 was a flock of 207 Sooty Terns (Tables 5 and 10).

The track between St Helena and Tristan da Cunha is seldom covered by vessels. Therefore northernmost sightings of known temperate/sub-Antarctic breeding

species and the southernmost sightings of known tropical breeding species (Harrison 1983) have been highlighted and the gap between defined (Table 2, Fig. 1). Records are few in this region (Tables 2 and 7, W.R.P. Bourne *in litt.*). The Duke of Edinburgh (1962) mentions only albatrosses from Tristan da Cunha to St Helena in January 1957. Curtis (1977) reports only Great and Cory's Shearwaters in November 1974.

A notable conclusion from the St Helena to Tristan da Cunha track is that species associated with the Tristan da Cunha group, with the possible exception of the gadfly petrel observed 370 nm from Tristan, began to occur only within 85 nm of the island. This may well be a summer (breeding season) phenomenon. A more substantial picture of seabird density on this track would require data from months other than February, particularly in winter when most temperate species disperse after breeding (Harrison 1983). Further observations in these little-travelled waters may well include range extensions.

In the summer of 1988-89 the pattern of distribution south of St Helena was one of bird-free gaps between the occurrences of tropical species (Ascension Island and St Helena breeders) and of temperate species (breeders farther south). These gaps, of similar width, northbound 26 39S to 17 58S, 779 nm, and southbound 19 17S to 31 07S, 723 nm, each included a full day when no birds were observed (17 December 1988 and 5 February 1989, respectively) (Tables 1 and 2, 6 and 7, Fig. 1). No temperate species were seen north of these gaps. The Greatwinged Petrel and Whitebellied Stormpetrel were only seen south of 26S. The southernmost tropical species sighting was of a White Tern at 19 00S.

During the May 1991 autumn track from Cape Town to St Helena (Tables 3 and 8) there was a gap of 426 nm between 26 54S (14 May) and 22 26S (15 May) (Table 3). In the south the northernmost temperate species seen (other than a Great Shearwater) was a Whitechinned Petrel at 27 18S, 09 05E on 14 May

(Table 8) and the southernmost tropical species were a Redbilled Tropicbird at 22 26S and a White Tern at 19 24S.

During January 1992 on a summer track from Cape Town to St Helena (Tables 4 and 9) the gap was 379 nm, from 27 01S (24 January) to 22 55S (25 January) and although birds were seen every day, numbers from 24 January were very low (Table 4).

The Greatwinged Petrel sighting on 25 January, at 22 55S, (Table 4) was north of the Walvis Ridge and was the northernmost temperate species sighting for all four voyages. However, the species is a winter breeder in the Tristan da Cunha group (Richardson 1984, pers obs. 1974), which could explain its absence between Cape Town and St Helena in May 1991 and its summer dispersal to the vicinity of the Tropic of Capricorn (23 30S) in January 1992.

On all three Cape Town to St Helena voyages the Walvis Ridge (c. 23-26S) fell within the bird-free gap. North of the Walvis Ridge and south of St Helena away from land on no voyage was there a sighting of more than two birds at a time (Tables 1, 3, 4, 6, 8 and 9).

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Figure 1 was drawn by T. Mee, Newcastle College, Newcastle upon Tyne.

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