RESULTS OF PATROLS FOR BEACHED SEABIRDS CONDUCTED IN SOUTHERN AFRICA IN 1984 AND 1985

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SUMMARY

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Results of surveys for beached seabirds conducted in 1984 and 1985 by members of the African Seabird Group in the Cape Province of South Africa and the Skeleton Coast Park, Namibia are presented. In 1984 1 335 seabirds of 37 species were recovered over a total distance of 2 064 km, an average of 0,65 birds/km. The most abundant species was the Cape Cormorant *Phalacrocorax capensis* (460 individuals, 35%). Single specimens of Antarctic Petrel *Thalassoica antarctica*, Sooty Albatross *Phoebetria fusca* and Fairy Prion *Pachyptila turtur* were recovered. The year was marked by an irruption of Kerguelen Petrels *Pterodroma brevirostris*, Blue Petrels *Halobaena caerulea* and Slenderbilled Prions *Pachyptila belcheri*. Wrecks of juvenile Blackbrowed Albatrosses *Diomedea melanophris*, Antarctic Prions *Pachyptila vittata desolata* and Common Terns *Sterna hirundo* occurred. Five ringed specimens of three species were recovered. Fiftyfour non-seabirds were found, including the first record for southern Africa of the Kentish Plover *Charadrius alexandrinus*. Observations on the daily rate at which birds may be washed up on beaches are discussed. In 1985 1 108 birds of 33 species were recovered over a total of 2 042 km surveyed, representing an average of 0,54 seabirds/km. The most abundant species in 1985 was the Cape Cormorant (447 individuals, 40%). Single specimens of Kerguelen Petrel and Blue Petrel and 10 Slenderbilled Prions were recovered. Antarctic Prions occurred in relatively high numbers. Seven ringed birds of five species were recovered. Thirtyeight non-seabirds were found.

INTRODUCTION

This report, which differs from previous ones in covering two years, is the eighth annual report on patrols for beached seabirds conducted by the African Seabird Group since 1977 (Cooper 1978, Avery 1979, 1980, 1981, 1982, 1984, 1985).

During 1984 regular monthly surveys were undertaken in seven localities in the Cape Province, South Africa and two areas in the Skeleton Coast Park, Namibia (Fig. 1, Table 1).

During 1985 the number of areas surveyed was reduced to six in South Africa due to the discontinuation of the Lambert's Bay survey (Table 2). As was done for the 1983 report (Avery 1985), data for the Skeleton Coast Park have been divided into two units, one north of the Hoanib River mouth and the other south of Terrace Bay. A new survey covering a total of 12 km (6 km west and east of Koppie Alleen) was initiated in the De Hoop Nature Reserve (Fig. 1) in September 1985 by A. Scott of the Cape Chief Directorate of Nature and Environmental Conservation. Because only four months were covered, results from this year of

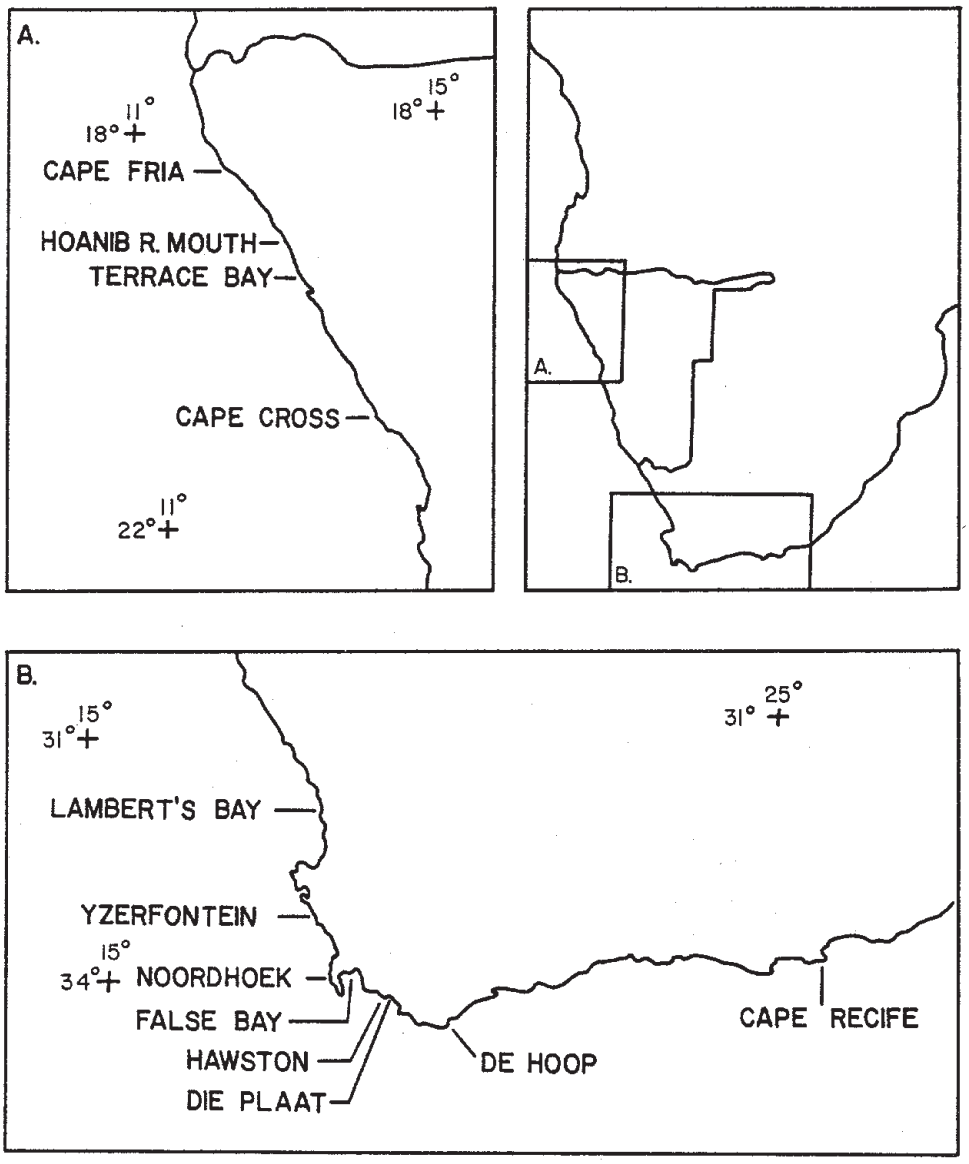

Figure 1

Localities of regular monthly patrols for beached seabirds in southern Africa in 1984 and 1985

TABLE 1

PATROLS FOR BEACHED SEABIRDS, 1984: AREAS COVERED

Area	Length (km)	Distance covered (km)	No. birds	No./km	Transport	Organizer
S.C. Park north (SN)	-	528	35	0,07	vehicle	S.G. Braine
S.C. Park south (SS)	-	728	73	0,10	vehicle	R. Loutit/ R. Braby
Lambert's Bay (LB)	5	50	59	1,18	foot	A. Berruti
Yzerfontein (YF)	15	180	512	2,84	vehicle	G. Avery
Noordhoek (NH)	4,5	54	20	0,37	foot	G.E. Rudings
False Bay (FB)	20	240	352	1,47	foot	G. Avery
Hawston (HA)	5	60	17	0,28	foot	S.T. Baron
Die Plaat (DP)	5	60	14	0,23	foot	S.T. Baron
Cape Recife (CR)	5	60	102	1,70	foot	J.A. Spearpoint/ B. Every
Various (VA)	-	104	151	1,45	foot	-
Total	-	2 064	1 335	0,65	-	-

S.C. Park = Skeleton Coast Park; Lambert's Bay missing July and December

TABLE 2

PATROLS FOR BEACHED SEABIRDS, 1985: AREAS COVERED

Area	Length (km)	Distance covered (km)	No. birds	No./km	Transport	Organizer
S.C. Park north (SN)	-	91	27	0,14	vehicle	S.G. Braine
S.C. Park south (SS)	-	1 082	171	0,16	vehicle	R. Loutit/ R. Braby
Yzerfontein (YF)	15	180	426	2,37	vehicle	G. Avery
Noordhoek (NH)	4,5	54	10	0,19	foot	G.E. Rudings
False Bay (FB)	20	240	217	0,90	foot	G. Avery
Hawston (HA)	5	60	18	0,30	foot	S.T. Baron
Die Plaat (DP)	5	60	16	0,27	foot	S.T. Baron
Cape Recife (CR)	5	60	93	1,55	foot	J.A. Spearpoint/ B. Every
Various (VA)	-	115	130	1,13	foot	-
Total	-	2 042	1 108	0,54	-	-

S.C. Park = Skeleton Coast Park

the survey have been included in the 'various' category.

RESULTS

Results in 1984

In 1984 1 335 seabirds of 37 species were found over a total of 2 064 km surveyed. This represents a density of 0,65 seabirds/km (Table 1). If, however, the Skeleton Coast Park surveys are excluded the density rises to 1,52 birds/km, which is more consistent with previous survey results from the South African coast (Cooper 1978, Avery 1979, 1980, 1981, 1982, 1984, 1985). A total of 104 km was covered on non-regular patrols, mostly in the southwestern Cape.

The most abundant seabird was the Cape Cormorant *Phalacrocorax capensis* (460 individuals, 35%) followed by the Cape Gannet *Sula capensis* (171 individuals, 13%), the Common Tern *Sterna hirundo* (119 individuals, 9%), the Jackass Penguin *Spheniscus demersus* (107 individuals, 8%), the Antarctic Prion *Pachyptila vittata desolata* (70 individuals, 5%) and Kelp Gull *Larus dominicanus* (66 individuals, 5%) (Table 3). Six of the 37 species made up 75% of the individuals found. Much the same species as usual were most abundant, although proportions have varied from year to year (Avery 1982, 1985). Whitechinned Petrels *Procellaria aequinoctialis* and Sooty Shearwaters *Puffinus griseus* contributed 49 individuals, 4% and 28 individuals 2% respectively.

During 1984 an Antarctic Petrel *Thalassoica antarctica*, being only the second record for southern Africa (Ryan & Rose 1989), was recovered from Yzerfontein and a Sooty Albatross *Phoebetria fusca* was recovered from Cape Point on 10 October 1984 (M.W. Fraser). The year was marked by an irruption, extending from the southwestern Cape to northern Natal, of other scarce Southern Ocean seabird species, notably Kerguelen Petrels *Pterodroma brevirostris*, Blue Petrels *Halobaena caerulea* and Slenderbilled Prions *Pachyptila belcheri* (Ryan *et al.* 1989). Wrecks of Juvenile Blackbrowed Albatrosses *Diomedea melanophris* (Ryan & Avery 1987), Antarctic Prions and Common Terns occurred on the west coast, although that of the terns extended to the eastern Cape. Seventythree of the Yzerfontein terns occurred in August, which coincided with the earliest month of bulk arrival of Common Terns from the Palaearctic (McLachlan & Liversidge 1978).

G.D. Underhill patrolled the same stretch of beach in Saldanha Bay over 11 days in March 1984, following the method adopted in 1982 (Avery 1984). Fiftyseven seabirds of nine species and three individuals of two non-seabird species were recovered (Table 4). The total of 34 birds (57%) recovered on the first day included birds washed ashore over a longer period, whereas the second may have included a small element missed the day before. However, as noted previously (Avery 1984), totals after the first day or two can be taken as representing the daily accrual. Comparison with 1982 (Avery 1984, Table 3) yielded the following results. Because visibility was obscured by wrack, results for the first two days of the 1982 set have been excluded from the calculations. Of a total of 24 birds, the daily accrual in 1982 ranged between zero and seven (two days with zero) with a mean of 2,7 and a density of 0,9 birds/km. In 1984 at almost exactly the same time in March, the same beach yielded 26 birds over 10 days. In this case the beach was clear of obscuring wrack and only one day was excluded. The daily accrual ranged between zero and eight (two days with zero) with a mean of 2,6 and a density of 0,9 birds/km. Although proportions of species vary, results in 1984 are very similar to those recorded in 1982.

Five ringed birds were recovered in 1984 (Table 5). Fiftyfour non-seabirds were found (Table 6). The first record for southern Africa of the Kentish Plover *Charadrius alexandrinus* was recovered in the southern section of the Skeleton Coast Park (Clancey *et al.* 1987). Members of the Columbidae

TABLE 3

PATROLS FOR BEACHED SEABIRDS, 1984: SPECIES COMPOSITION

Species	SN*	SS	LB	YF	NH	FB	HA	DP	CR	VA	TOTAL
Jackass Penguin *Spheniscus demersus*	3	0	2	45	1	19	3	1	24	9	107
Wandering Albatross *Diomedea exulans*	0	0	0	0	0	0	0	0	1	0	1
Shy Albatross *D. cauta*	0	0	1	0	0	0	0	0	0	0	1
Blackbrowed Albatross *D. melanophris*	1	0	3	9	1	0	1	0	0	19	34
Yellownosed Albatross *D. chlororhynchos*	0	1	0	1	0	0	0	0	1	0	3
Sooty Albatross *Phoebetria fusca*	0	0	0	0	0	0	0	0	0	1	1
Albatrosses indet. Diomedeidae	1	3	0	3	0	1	0	0	1	0	9
Giant petrels *Macronectes* spp.	0	0	0	0	0	0	1	0	0	1	2
Antarctic Petrel *Thalassoica antarctica*	0	0	0	1	0	0	0	0	0	0	1
Pintado Petrel *Daption capense*	1	0	0	1	0	0	0	0	2	0	4
Softplumaged Petrel *Pterodroma mollis*	0	0	0	2	0	2	1	0	1	1	7
Kerguelen Petrel *P. brevirostris*	0	0	0	2	0	9	0	0	9	1	21
Blue Petrel *Halobaena caerulea*	0	0	0	6	3	25	0	1	3	3	41
Broadbilled Prion *Pachyptila vittata*	0	0	0	0	1	0	0	0	1	2	4
Antarctic Prion *P.v. desolata*	0	0	0	44	1	12	0	1	3	9	70
Slenderbilled Prion *P. belcheri*	0	0	0	23	2	7	0	0	4	1	37
Prion indet. *Pachyptila* spp.	0	1	0	1	1	3	0	0	8	5	19
Whitechinned Petrel *Procellaria aequinoctialis*	2	0	2	3	0	36	0	0	2	4	49
Cory's Shearwater *Calonectris diomedea*	0	0	0	0	0	4	0	0	0	0	4
Great Shearwater *Puffinus gravis*	0	0	0	1	0	1	1	0	0	1	4
Sooty Shearwater *P. griseus*	1	1	0	13	0	10	0	2	0	1	28

Wilson's Storm Petrel *Oceanites oceanicus*	0	0	0	1	1	1	0	0	0	0	3
Cape Gannet *Sula capensis*	12	15	12	52	3	27	2	3	14	31	171
Whitebreasted Cormorant *Phalacrocorax carbo*	0	3	0	0	0	6	0	0	1	1	11
Cape Cormorant *P. capensis*	9	38	31	174	3	157	5	5	1	37	460
Bank Cormorant *P. neglectus*	0	0	0	6	2	1	0	0	0	1	10
Crowned Cormorant *P. coronatus*	0	0	0	1	0	0	0	0	0	2	3
Cormorant indet. *Phalacrocorax* spp.	0	0	0	0	0	0	0	0	0	1	1
Arctic Skua *Stercorarius parasiticus*	0	0	0	0	0	0	1	0	0	0	1
Subantarctic Skua *Catharacta antarctica*	0	0	0	1	0	1	0	0	0	0	2
Kelp Gull *Larus dominicanus*	0	2	6	34	1	12	0	0	1	10	66
Greyheaded Gull *L. cirrocephalus*	0	0	0	1	0	0	0	0	0	0	1
Hartlaub's Gull *L. hartlaubii*	0	0	0	1	0	0	0	0	0	6	7
Sabine's Gull *L. sabini*	0	0	0	1	0	0	0	0	0	0	1
Swift Tern *Sterna bergii*	0	0	0	1	0	2	0	0	2	2	7
Sandwich Tern *S. sandvicensis*	1	0	0	1	0	3	0	0	0	0	5
Common Tern *S. hirundo*	3	7	1	79	0	13	2	1	13	0	119
Arctic Tern *S. paradisaea*	1	0	0	2	0	0	0	0	4	0	7
Antarctic Tern *S. vittata*	0	0	0	1	0	0	0	0	0	1	2
Black Tern *Chlidonias niger*	0	2	0	0	0	0	0	0	0	0	2
Terns indet. *Sterna* spp.	0	0	1	0	0	0	0	0	3	0	4
Indet. spp.	0	0	0	1	0	0	0	0	3	1	5
TOTAL	35	73	59	512	20	352	17	14	102	151	1 335

* See Table 1 for codes to names of areas patrolled

TABLE 4

CARCASSES OF BIRDS FOUND ON A 3-KM STRETCH OF SANDY BEACH BETWEEN THE SALDANHA BAY CARAVAN PARK AND THE IRON-ORE TERMINAL BOUNDARY FENCE, 13-27 MARCH 1984, BY G.D. UNDERHILL

Species	Date in March 1984											Total
	13	14	15	16	17	20	22	23	24	26	27	
Jackass Penguin *Spheniscus demersus*	1	0	0	0	0	0	0	0	0	0	0	1
Cape Gannet *Sula capensis*	14	1	0	0	2	0	0	0	0	0	0	17
Whitebreasted Cormorant *Phalacrocorax carbo*	1	0	0	0	0	0	0	0	0	0	0	1
Cape Cormorant *P. capensis*	10	2	1	2	0	6	3	0	1	0	0	25
Bank Cormorant *P. neglectus*	1	0	0	0	0	0	0	0	0	0	0	1
Crowned Cormorant *P. coronatus*	1	0	0	1	0	0	0	0	0	0	0	2
Kelp Gull *Larus dominicanus*	3	0	0	0	0	1	0	0	0	0	1	5
Hartlaub's Gull *L. hartlaubii*	1	2	0	0	0	0	0	0	0	0	0	3
Swift Tern *Sterna bergii*	0	2	0	0	0	0	0	0	0	0	0	2
Sacred Ibis *Threskiornis aethiopicus*	1	0	0	0	0	0	0	0	0	0	0	1
Rock Pigeon *Columba guinea*	1	0	0	0	0	1	0	0	0	0	0	2
Totals	34	7	1	3	2	8	3	0	1	0	1	60

TABLE 5

RECOVERIES OF RINGED BIRDS: 1984 AND 1985

Species	Number	Ringing locality	Recovery site	Date
	V 2955	Marcus Isl. 06/12/82	Lambert's Bay	13/09/84
Jackass Penguin *Spheniscus demersus*	T 5345	Robben Isl. (SANCCOB) 21/08/84	Yzerfontein	26/01/85
	V 3714	Dassen Isl. 24/06/83	Yzerfontein	24/08/85
	V 7218	Dyer Isl. 10/11/85	Yzerfontein	21/12/85
Cape Gannet *Sula capensis*	936251	Malgas Isl. 20/12/83	Yzerfontein	28/01/84
	934862	Malgas Isl. 14/02/84	Yzerfontein	24/03/84
	906829	Marcus Isl. 19/10/83	Yzerfontein	13/07/85
Arctic Skua *Stercorarius parasiticus*	EF85995	Fair Isles. Scotland, 27/06/77	Yzerfontein	26/01/85
Sandwich Tern *Sterna sandvicensis*	XS02923	Farne Isl., England 21/06/74	N. Ogden Rocks, Namibia	30/01/85
Common Tern *Sterna hirundo*	241155	Cape Recife, Algoa Bay, 25/09/71	Yzerfontein	24/11/84
	AT054675	Viljakkala, Finland, 30/06/82	Yzerfontein	24/11/84
Arctic Tern *Sterna paradisaea*	H169471	Varbla, Estonia, USSR, 26/06/85	Yzerfontein	23/11/85

Crowned Cormorant *P. coronatus*	0	0	1	0	2	0	0	0	1	4
Cormorants indet. *Phalacrocorax* spp.	0	0	0	0	0	0	0	0	2	2
Arctic Skua *Stercorarius parasiticus*	0	1	2	0	0	0	0	0	0	3
Subantarctic Skua *Catharacta antarctica*	0	0	0	0	0	0	0	1	0	1
Kelp Gull *Larus dominicanus*	0	1	44	2	23	0	1	0	8	79
Greyheaded Gull *L. cirrocephalus*	0	0	0	0	1	0	0	0	0	1
Hartlaub's Gull *L. hartlaubii*	0	0	2	0	1	0	0	0	0	3
Sabine's Gull *L. sabini*	0	0	5	0	0	0	0	0	0	5
Swift Tern *Sterna bergii*	0	0	2	0	0	0	0	1	1	4
Sandwich Tern *S. sandvicensis*	0	3	1	0	0	0	0	0	0	4
Common Tern *S. hirundo*	0	14	15	1	1	1	0	5	2	39
Arctic Tern *S. paradisaea*	0	0	5	0	3	1	0	0	1	10
Antarctic Tern *S. vittata*	0	0	2	0	0	0	0	0	0	2
Sooty Tern *S. fuscata*	0	0	0	0	0	0	0	1	0	1
Damara Tern *S. balaenarum*	0	1	0	0	0	0	0	0	0	1
Terns indet. *Sterna* spp.	0	1	0	0	0	0	0	2	1	4
Indet. spp.	1	0	0	0	0	0	0	0	1	2
TOTAL	27	171	426	10	217	18	16	93	130	1 108

* See Table 2 for codes to names of areas patrolled

TABLE 6

NON-SEABIRDS FOUND DURING BEACH PATROLS IN 1984 AND 1985

Species	1984	1985
Ostrich *Struthio camelus* (chick)	0	1
Great Crested Grebe *Podiceps cristatus*	1	0
Blacknecked Grebe *Podiceps nigricollis*	1	0
Reed Cormorant *Phalacrocorax africanus*	0	2
Sacred Ibis *Threskiornis aethiopicus*	1	0
Lesser Flamingo *Phoenicopterus minor*	5	0
Egyptian Goose *Alopochen aegyptiacus*	0	1
Yellowbilled Duck *Anas undulata*	0	1
Mallard Duck *A. platyrhynchos*	0	1
Rock Kestrel *Falco tinnunculus*	0	1
Cape Francolin *Francolinus capensis*	0	1
Domestic Fowl *Gallus gallus*	2	1
Moorhen *Gallinula chloropus*	0	1
Redknobbed Coot *Fulica cristata*	1	0
Black Oystercatcher *Haematopus moquini*	0	1
Kentish Plover *Charadrius alexandrinus*	1	0
Whitefronted Sandplover *C. marginatus*	3	0
Grey Plover *Pluvialis squatarola*	5	0
Turnstone *Arenaria interpres*	5	0
Curlew Sandpiper *Calidris ferruginea*	1	0
Sanderling *C. alba*	1	1
Namaqua Sandgrouse *Pterocles namaqua*	1	0
Domestic Pigeon *Columba livia*	6	10
Speckled Pigeon *C. guinea*	14	11
Cape Turtle Dove *Streptopelia capicola*	1	2
Laughing Dove *S. senegalensis*	0	1
Budgerigar *Melopsittacus undulatus*	1	0
Alpine Swife *Apus melba*	0	1
Fiscal Shrike *Lanius collaris*	1	0
European Starling *Sturnus vulgaris*	1	0
Wattled Starling *Creatophora cinerea*	0	1
Cape Sparrow *Passer melanurus*	1	0
Yellow Canary *Serinus flaviventris*	1	0
Annual totals	54	38

were again the most abundant non-seabirds found (39%).

Results in 1985

In 1985 1 108 seabirds of 33 species were found over a total of 2 042 km surveyed. This represents a density of 0,54 seabirds/km (Table 2). If, however, the Skeleton Coast Park surveys are excluded the density rises to 1,18 birds/km, which is more consistent with survey results from the South African coast (Cooper 1978, Avery 1979, 1980, 1981, 1982, 1984, 1985, above). A total of 115 km was covered on non-regular patrols, mostly in the southwestern Cape.

The most abundant seabird in 1985 was the Cape Cormorant (447 individuals, 40%) followed by the Cape Gannet (130 individuals, 12%), the Jackass Penguin (127 individuals, 12%), the Antarctic Prion (105 individuals, 10%), Kelp Gull (79 individuals, 7%) and the Common Tern (39 individuals, 4%) (Table 7). Six of the 33 species made up 84% of the individuals found. Much the same species as usual were most abundant, although proportions vary from year to year (Avery 1982, 1985, above). Whitechinned Petrels and Sooty Shearwaters contributed 29 individuals, 3% and 24 individuals, 2% respectively.

During 1985 one Kerguelen Petrel and one Blue Petrel occurred at Yzerfontein. Slenderbilled Prions (10 individuals) were widespread in the southwestern Cape. Antarctic Prions occurred in relatively high numbers in the southwestern and eastern Cape areas patrolled.

Seven ringed birds were recovered in 1985 (Table 5). These included a colour-ringed Arctic Skua *Stercorarius parasiticus* killed by ingesting a Seacatfish *Tachysurus feliceps* spine (Ryan & Avery in press). Members of the Columbidae were again the most abundant non-seabirds found (63%, Table 6).

DISCUSSION

As in 1983 (Avery 1985) the number of birds per kilometre patrolled in the Skeleton Coast Park during 1984 and 1985 remained consistently lower than for the Cape Province of South Africa (Tables 1 & 2). Blackbacked Jackals *Canis mesomelas* no longer occur in the areas patrolled in South Africa, with the possible exception of Yzerfontein, but regularly scavenge beached bird carcasses along the Namibian coast (Avery *et al.* 1986). However, the possibility that this may significantly affect the density of birds during patrols on the Skeleton Coast is minimized by patrollers checking nearby hummocks for scavenged birds. Bearing in mind that beached birds have not been transported over great distances (Cox 1976), the low densities on the Skeleton Coast, as in Natal, are therefore likely to reflect low densities of live birds offshore, since densities of beached birds are controlled by numbers of live birds in an area (Avery 1980, 1981, 1982). Overall densities for specific localities vary annually, but remain relatively low in spite of the effects of wrecks.

The 1984 irruption of Kerguelen and Blue Petrels extended beyond the South African coast (Ryan *et al.* 1989). In August 1984 large numbers of vagrant Southern Ocean species, including Kerguelen and Blue Petrels, were recorded on Australian (Carter 1984) and New Zealand beaches (Powlesland 1986).

The mean rates of daily accrual of birds (2,6 birds/day) derived from the 1984 results (Table 4) are very similar to those from the same area in 1982 (2,7 birds/day). This section of beach lies in the path of the southeast winds which prevail in summer and this, together with the proximity of large breeding colonies of seabirds in Saldanha Bay, may account for both the consistency and relatively high density of beached birds.

Figure 2 illustrates the relative proportions of the eight most commonly beached species which, when

TABLE 7

PATROLS FOR BEACHED SEABIRDS, 1985: SPECIES COMPOSITION

Species	SN*	SS	YF	NH	FB	HA	DP	CR	VA	TOTAL
Jackass Penguin *Spheniscus demersus*	0	1	55	2	22	6	5	19	17	127
Wandering Albatross *Diomedea exulans*	0	0	0	0	0	0	0	0	2	2
Shy Albatross *D. cauta*	0	0	1	0	0	0	0	1	0	2
Blackbrowed Albatross *D. melanophris*	0	0	1	0	0	0	0	0	1	2
Albatrosses indet. Diomedeidae	0	0	3	0	0	0	0	3	3	9
Giant petrels *Macronectes* spp.	0	0	3	0	3	0	0	3	0	9
Pintado Petrel *Daption capense*	0	0	2	0	0	0	0	0	1	3
Softplumaged Petrel *Pterodroma mollis*	0	0	0	0	0	0	0	1	0	1
Kerguelen Petrel *P. brevirostris*	0	0	1	0	0	0	0	0	0	1
Blue Petrel *Halobaena caerulea*	0	0	1	0	0	0	0	0	0	1
Broadbilled Prion *Pachyptila vittata*	0	0	2	0	0	1	0	0	1	4
Antarctic Prion *P.v. desolata*	0	0	50	0	14	0	0	19	22	105
Slenderbilled Prion *P. belcheri*	0	0	6	0	2	0	1	0	1	10
Fairy Prion *P. turtur*	0	0	0	0	0	0	0	1	0	1
Prions indet. *Pachyptila* spp.	0	0	3	0	2	0	0	9	7	21
Whitechinned Petrel *Procellaria aequinoctialis*	0	1	5	0	5	0	0	10	8	29
Sooty Shearwater *Puffinus griseus*	0	0	5	1	9	0	1	6	2	24
Cape Gannet *Sula capensis*	4	22	57	3	15	2	4	8	15	130
Whitebreasted Cormorant *Phalacrocorax carbo*	0	2	0	0	6	0	0	0	2	10
Cape Cormorant *P. capensis*	22	124	148	1	107	7	4	3	31	447
Bank Cormorant *P. neglectus*	0	0	4	0	1	0	0	0	0	5

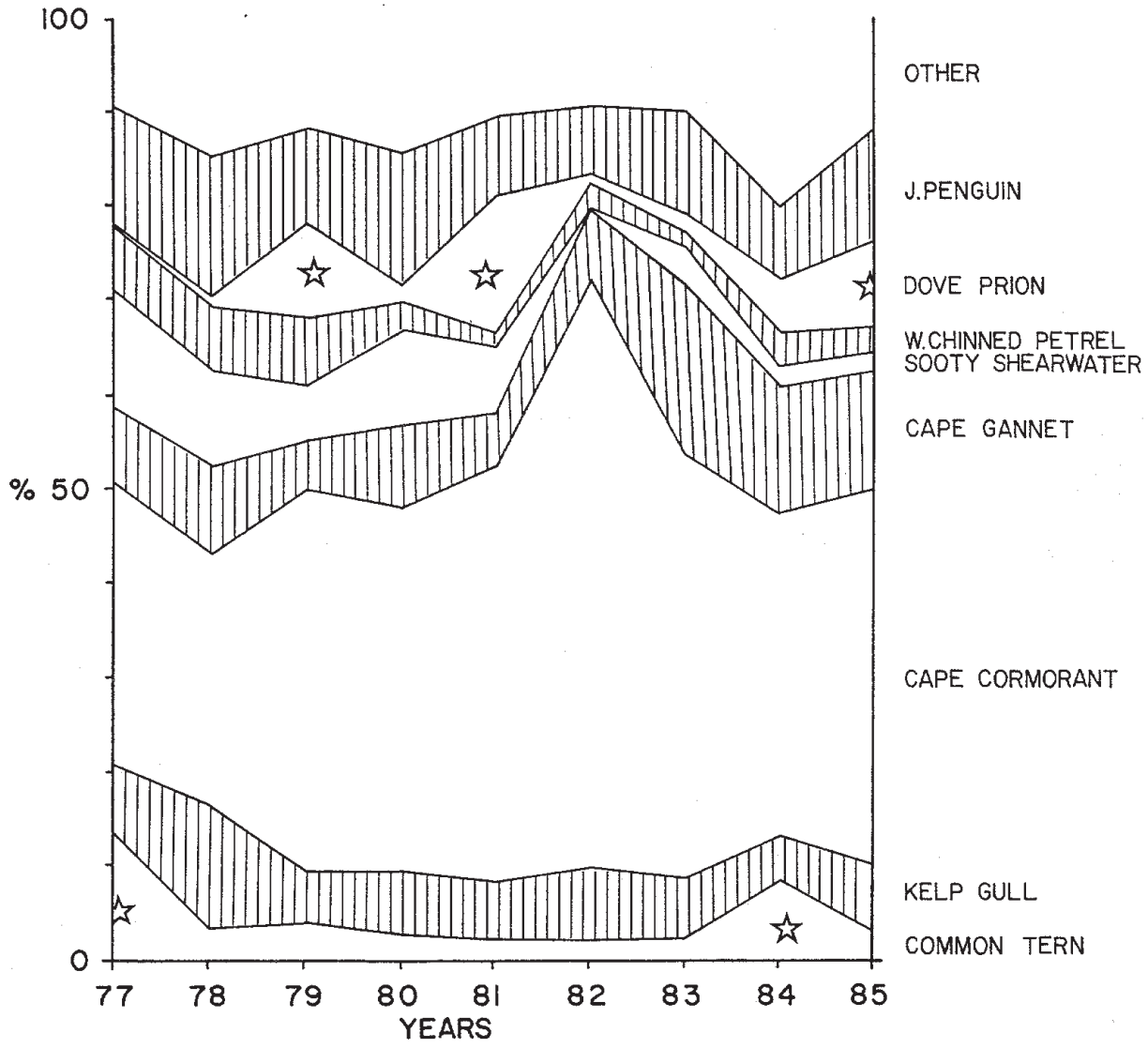

Figure 2

Relative proportions of the eight seabird species most abundantly recorded on beach patrols, 1977-1985. Note that 1977 patrols were from August to December only. Stars indicate years in which species were wrecked

combined, account for no less than 80% of the total in any year. The periodic nature of wrecks of Dove Prions and Common Terns is evident, as is the very high Cape Cormorant mortality in 1982 which preceded the Southern Oscillation warm event of 1983 (Avery 1985).

Non-seabirds, some of which breed on offshore islands, are a small, but consistent proportion of recovered birds. The occurrence of beached African Crake *Crex egregia*, although not recovered on official patrols, and other inland non-seabird species in the Skeleton Coast Park provides an indication of how winds may cause species to cross the Namib desert as vagrants (Avery *et al.* 1988, Braine 1988). Southeast winds across False Bay in the southwestern Cape are similarly thought to cause some non-seabird species to be beached on that coast.

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