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ABSTRACT

During 1981 regular beach patrols by the African Seabird Group extended to nine areas of the Cape Province and Natal, South Africa. A total of 1 357 seabirds of 32 species was found over a total distance of 22 443 km, an average of 0,06 birds per km. The most abundant species was the Cape Cormorant Phalacrocorax capensis (604 specimens, 44,5%). A Fairy Prion Pachyptila turtur was recorded. A wreck of Dove Prions P. desolata was recorded. Recovery data for ringed birds found are included. Forty nonseabirds were found.

INTRODUCTION

This is the fifth annual report on beach patrols conducted by the African Seabird Group (Cooper 1978, Avery 1979, 1980, 1981) since 1977. Analysis of data from this five-year period is underway with the help of L.G. Underhill.

RESULTS

During 1981 monthly surveys took place at eight localities in the Cape Province and three areas of Natal (the northern section was surveyed throughout the year whereas the southern areas were irregular or for shorter periods) (Table 1 & Fig. 1). Eland's Bay survey was terminated at the end of 1981 as planned (Avery 1981). The Rockcliff survey undertaken since 1978 by C.J. Vernon, East London Museum, was terminated in February 1981. Data received for 1981 for the locality are included under the heading "various" in Table 2. The Natal survey organized by T.B. Oatley, Natal Parks Board, was extended into 1981 but has now been terminated. New surveys have been initiated by A. Berruti, Fisheries Research Institute (Lambert's Bay) and by S. Braine, Department of Nature Conservation, South West Africa/ Namibia (Skeleton Coast Park). A total of 1 357 birds of 32 species was found over a total of 22 443 km. This represents a density of 0,06 seabirds/km, the lowest recorded yet (Table 1). This figure is clearly influenced by the nature and extent of the Natal surveys. If the Natal surveys are excluded, the density rises to 1,2 which is more consistent with survey results prior to their initiation (1,1 and 1,1 seabirds/km) (Cooper 1978, Avery 1979). It should be noted, however, that while the Natal densities fluctuate (0,02; 0,005; 0,02 and 0,002 seabirds/km) (Avery 1980, 1981, this report) they are consistently low, the slightly higher densities of 1979 and 1981 being influenced by Only 62 km were covered on non-Pachyptila desolata wrecks. regular patrols in the southwestern and eastern Cape. The most

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BEACH PATROLS FOR DEAD SEABIRDS 1981 : AREAS COVERED

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Area	Length (km)	Distance covered (km)	No. seabirds	No./km	Transport	Organizer
Eland's Bay	14	168	176	1,04	Foot/Vehicle	G. Avery
Yzerfontein	15	180	329	1,82	Vehicle	G. Avery
Koeberg	7	84	69	0,82	Foot	G. Avery
Fish Hoek*	0,5	30,2	47	1,56	Foot	T.B. Oatley
False Bay	20	240	291	1,21	Foot	G. Avery
Hawston	2	09	26	0,43	Foot	S.T. Baron
Die Plaat	S	09	17	0,28	Foot	S.T. Baron
Cape Recife**	ហ	40	52	1,30	Foot	J.Spearpoint B. Every
Natal***	118	7 325	181	0,02	Foot/Vehicle	T.B. Oatley
Natal +++	230	14 194	50	0,004	Foot/Vehicle	T.B. Oatley
Various	1	62	119	1,92	Foot	ı
Total		22 443	1 357	90'0		

^{*} sometimes twice or more times per month, February to December only

^{**} May to December only

^{***} several times per month, January to December (northern area) +++

several times per month, irregular months (southern areas)

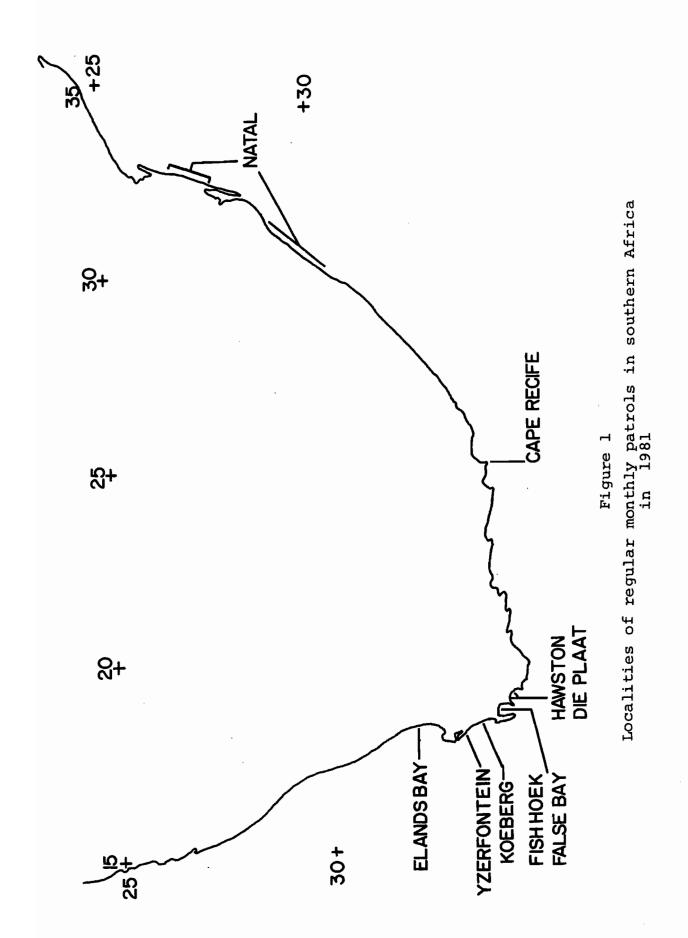


TABLE 2

BEACH PATROLS FOR DEAD SEABIRDS, 1981 : SPECIES COMPOSITION

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Table 2 (continued)

	Eland's Bay	χsextoncein	коерехд	ьтвр ноек	False Bay	Намѕtоп	Die Plaat	Cape Recife	Natal (n)	Natal (s)	Various	Тотал
Bank Cormorant P. neglectus Crowned Cormorant P. coronatus Cormorant indet. Kelp Gull Larus dominicanus Greyheaded Gull L. cirrocephalus Hartlaub's Gull L. hartlaubii Sabine's Gull L. sabini Swift Tern Sterna bergii Swift Tern S. sandvicensis Common Tern S. hirundo Arctic Tern S. hirundo Arctic Tern S. hirundo Arctic Tern S. hirundo/paradisaea "Comic" Tern S. hirundo/paradisaea Ucomic" Tern S. hirundo/paradisaea Sooty Tern S. hirundo/paradisaea Unidentifiable	100 100 100 100 100 100 100 100 100 100	440H0407H440000	000000000000000000000000000000000000000	010000100400001	10100211000 10002110001	000000000000	0-000000000000	000000000000	000000000000000000000000000000000000000	000000m0m000000	0000000000000000	11 12 13 13 13 14 15 15 17 17 17 18 18 18 18 18 18 18 18 18 18 18 18 18
Total	176	329	69	47	291	26	17	52	181	50	119	1 357

abundant seabird found was the Cape Cormorant Phalacrocorax capensis (604 specimens, 45%) followed by the Dove Prion Pachyptila desolata (195 specimens, 14%), Jackass Penguin Spheniscus demersus (112 specimens, 8%), Sooty Shearwater Puffinus griseus (90 specimens, 7%), Kelp Gull Larus dominicanus (81 specimens, 6%) and Cape Gannet Sula capensis (75 specimens, 6%). Only six species made up 86% of the total of 32 combined species. As previously, much the same species were commonest although the proportions vary from year to year. Figure 2 illustrates this for some common species and also shows the effect wrecks may have on overall proportions. A single Fairy Prion Pachyptila turtur was recovered from Cape Recife. Another specimen was also recovered in the area (Batchelor 1981).

A wreck of Dove Prions occurred on the eastern Cape and Natal coasts (Table 2, Batchelor 1981), although few occurred in the southwestern Cape. Wrecks of prions are clearly irregular although some individuals are found every year. Of interest is a high Cape Cormorant mortality (86 specimens) which occurred on Diaz Beach (0,5 km in length), Cape Point. This occurrence records the highest density experienced so far on a beach survey in southern Africa (total all species 91 specimens, 182/km). This degree of mortality was not reflected at False Bay and is considered to have been isolated and closely related to the fact that several thousand Cormorants utilize the nearby cliffs. implied correlation between high concentrations of roosting and breeding birds and mortality is supported by data currently being gathered at Lambert's Bay (Bird Island) by A. Berruti. by no means an explanation for pelagic bird mortality Pasturellosis (fowl cholera) is a possible cause of periodic high mortality of Kelp Gulls (Kaschula & Truter 1951, R.K. Brooke pers. comm.), indicated by beach surveys in the southwestern Cape.

A total of six ringed birds was recovered (Table 3). Of interest is the fact that the handreared Cape Gannet (9-20998) recovered at Durban north pier and later released by C.R.O.W. on 12 May was recovered again (begging food) a day later a further 100 km northwards (I. Mellet, C.R.O.W. and T.B. Oatley, SAFRING pers. comm.).

A total of 40 nonseabirds was found, eight of which were shorebirds (Table 4). Members of the Columbidae were again the most abundant (55 %).

DISCUSSION

If the effect of the increased distances covered in Natal is considered, it is clear that the pattern of results continues to be relatively consistent with a low density of seabirds in most localities from year to year in spite of the periodic influence of wrecks. Species composition remains consistent for the more common coastal birds although actual proportions may vary. Data from recoveries of ringed birds and on the occurrence of the rarer oceanic species continue to accrue.

It is most gratifying to have new surveys on the west coast especially in Namibia for which we have not previously had any data. A number of regular surveys have been terminated, however,

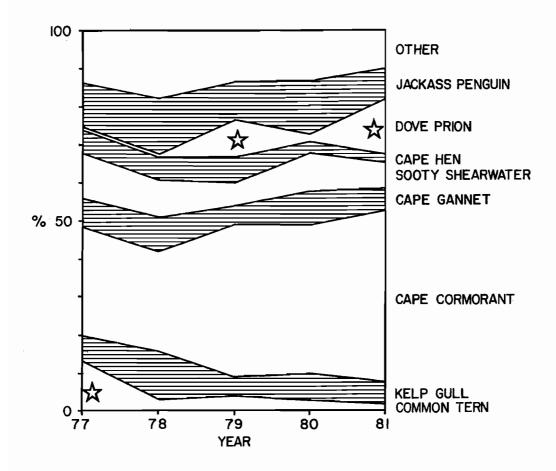


Figure 2

Summary of relative proportions (%) of the eight commonest seabirds occurring between 1977 and 1981. The occurrence of wrecks of Dove Prion Pachyptila desolata and Common Tern Sterna hirundo is illustrated (*).

TABLE 3

RECOVERY OF RINGED BIRDS : 1981

Species	Number	Ringing date	Recovery site	Date
Jackass Penguin Spheniscus demersus	T5173	Robben Island (SANCCOB Release) 27 Nov 1981	Yzerfontein	18 Dec 1981
Cape Gannet Sula capensis	9-20998	Hand reared, Port Elizabeth Museum 9 March 1981	Durban, North Pier Released by C.R.O.W. 12 May. Recovered again Mtunzini Beach (100 km north)	2 May 1981 and 13 May 1981
Cape Cormorant Phalacrocorax capensis	8-37025	Vondeling Island 18 Jan 1981 Malgas Island	Yzerfontein Koeberg	28 Feb 1981 4 Feb 1981
	8-32671	2 Jan 1901 Malgas Island 30 Dec 1980	False Bay	7 Feb 1981
Common Tern Sterna hirundo	P-573408	Danube Delta, Odessa Region, U.S.S.R. 29 July 1980	Amanzimtoti Beach	7 Apr 1981

TABLE 4

NONSEABIRDS FOUND DURING BEACH PATROLS: 1981

Species	Number
Great White Pelican Pelecanus onocrotalus	1
Reed Cormorant Phalacrocorax africanus	1
Heron indet.	1
Sacred Ibis Threskiornis aethiopicus	1
Yellowbill Duck Anas undulata	1
African Quail Coturnix coturnix	1
African Black Oystercatcher Haematopus moquini	1
Turnstone Arenaria interpres	1
Whitefronted Sandplover Charadrius marginatus	2
Curlew Sandpiper Calidris ferruginea	2
Sanderling C . $alba$	1
Rock Pigeon Columba guinea	12
Cape Turtle Dove Streptepelia capicola	1
Dove indet.	1
Feral Domestic Pigeon Columba livia	7
Pigeon indet.	1
Budgerigar Melopsitticus undulatus	2
Cockatiel	1
Redfaced Mousebird Urocolius indicus	1
Pied Kingfisher Ceryle rudis	1
Total	40

and the overall distance covered will drop drastically in the future. It would be extremely gratifying if members would initiate their own regular or irregular surveys. In this way coverage of the southern African coastline would increase.

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REFERENCES

- AVERY, G. 1979. Results of beach patrols conducted in 1978. **Cormorant 6: 4-12.
- AVERY, G. 1980. Results of beach patrols conducted in southern Africa in 1979. Cormorant 8: 65-72.
- AVERY, G. 1981. Results of beach patrols conducted in southern Africa in 1980. Cormorant 9: 113-122.
- BATCHELOR, A.L. 1981. The August 1981 seabird (*Pachyptila Halobaena* spp.) wreck off Port Elizabeth, South Africa. *Cormorant* 9: 105-112.
- COOPER, J. 1978. Results of beach patrols conducted in 1977. Cormorant 4: 4-9.
- KASCHULA, V.R. & TRUTER, D.E. 1951. Fowl cholera in sea-gulls on Dassen Island. J. S. Afr. Vet. Med. Assoc. 22: 191-192.
- G. Avery, South African Museum, Box 61, Cape Town 8000, South Africa.