

Crowned Cormorants on the coast of South West Africa/Namibia

Introduction

The Crowned Cormorant *Phalacrocorax coronatus* nests on five islands off the coast of South West Africa/Namibia (Ichaboe, Penguin, Possession, Plumpudding and Sinclair) according to Rand (1963). It has also been recorded nesting under the guano platform at Walvis Bay (Berry 1974) and on the mainland in the colony of Cape Fur Seals *Arctocephalus pusillus* at Wolf Bay (Siegfried & Johnson 1977). In this note additional observations of Crowned Cormorants on the southern coast of S.W.A. are reported. They cover the period 1974 to 1978 and were made on seven separate expeditions in January 1974, January 1976, January, March, May and August 1977 and January 1978. Twelve localities where observations were made are discussed from north to south. They include the first four of the islands mentioned above, as well as Seal, Halifax, Long and Pomona Islands, and four mainland localities: Shark Island, Wolf, Atlas and Van Reenen Bays.

Observations

Ichaboe Island (26 17S, 14 56E)

About 20 nests were seen on 17 May 1977.

Seal Island (26 35S, 15 10E)

On 26 January 1976 there were five occupied nests and another 20 birds in the north-west part of the island. No occupied nests were seen on 18 May 1977, but 30 fledglings were present. 25 occupied nests were counted in a colony on the east coast on 22 January 1978.

Penguin Island (26 37S, 15 10E)

On 26 January 1976 there were 150 occupied nests on the steep sides of a valley 10 m deep on the west coast and another seven in bushes 1 m high growing on the valley floor. About 5 000 Cape Cormorants *P. capensis* were also nesting in the valley and on its gentler slopes. No nests of Crowned Cormorants were seen on the island on 18 May 1977. Only four nests containing Crowned Cormorants were in this valley on 16 January 1978, all of them in the bushes. Nearby close to the shoreline was another colony with 21 nests. A third colony of 11 nests was situated in a narrow gully further north on the west coast. The contents of these nests are given in Table 1. Thus in January 1978 there was a total of 36 nests on the island compared with 157 in the same month in 1976.

Shark Island, Lüderitz (26 38S, 15 09E)

This "island" is joined to the mainland by a causeway. On 12 March 1977 five nests (Table 1) were seen on its eastern side within the colony of Hartlaub's Gulls *Larus hartlaubi* and Swift Terns *Sterna bergii* referred to by Cooper, Shaughnessy and Clinning (1977). Two months later on 16 May there were approximately 45 nests on the island (Table 1). Fledglings (4)

and large chicks out of their nests (43) were also present during this visit.

Halifax Island (26 38S, 15 05E)

Twelve birds were counted on the island on 19 May 1977, but no nests were seen. Neither birds nor nests were seen on 9 August 1977.

Wolf Bay (26 49S, 15 07E)

On 23 January 1974 55 Crowned Cormorants were counted on a north-facing cliff 40 m high in the middle of the Cape Fur Seal colony immediately north of Wolf Bay. There were 23 nests on the cliff, most of which contained chicks. Many of the chicks were adult-sized. Although seals were above and below the cliff, the nests were inaccessible. This is presumably the same cliff where Siegfried & Johnson (1977) saw 17 Crowned Cormorants in December 1977. On 24 January 1976 there were no nests in the seal colony, but eight birds were seen in Wolf Bay.

Atlas Bay (26 50S, 15 08E)

On 21 January 1974 eight nests were seen on ledges of three small rock stacks in the Cape Fur Seal colony. Both eggs and small chicks were present. At the same site on 27 January 1976, 44 birds were counted, most at nest sites. Breeding displays were observed on this occasion.

Long Islands (26 50S, 15 07E)

These islands are divided by narrow straits into three northern islands which are well separated from a small southern island. On 16 January 1977 three nests were seen on the middle island of the northern group (Table 1).

Possession Island (27 01S, 15 12E)

Two colonies of Crowned Cormorants in the north-west corner of the island were visited on 18 January 1977. They were situated on rocky ledges of north-facing slopes. One colony contained 40 nests, the other 30 nests, all occupied. Large chicks were visible in some of the nests. Another two colonies situated in the south-east corner of the island contained 20 and five nests, all occupied. In January 1978 neither of the first mentioned two colonies was occupied, but 16 birds were roosting on a nearby rock stack on the west coast on 13 January. The south-east corner of the island was not visited in January 1978, but a small colony of 15 nests containing chicks was present on a cliff 2 m high on the coast 100 m south of the jetty in the southern harbour.

Pomona Island (27 11S, 15 16E)

On 13 January 1977 18 Crowned Cormorants were counted on Pomona Island, and nests were seen.

Van Reenen Bay (27 24S, 15 20E)

Up to ten Crowned Cormorants were seen along the coast within 1 km of the bay on five occasions in January 1976. No signs of nesting were observed.

Plumpudding Island (27 38S, 15 31E)

On 21 January 1978 there were five occupied nests on the jetty. A single chick was seen in one nest. Another eight birds were roosting on the island.

Discussion

(1) Nesting localities

These observations provide further evidence of nesting by the Crowned Cormorant at five of the previously known breeding localities in S.W.A. reported by Rand (1963) and Siegfried & Johnson (1977). Further more they show that nesting occurs at five previously unreported localities : Seal Island, Shark Island, Atlas Bay, Long Islands and Pomona Island. In addition birds were noted at Halifax Island and Van Reenen Bay.

(2) Numbers

Although the birds are well distributed along the coast, especially in the vicinity of Lüderitz, their numbers are small. The highest numbers of nests recorded were 157 on Penguin Island in 1976 and 95 on Possession Island in 1977.

(3) Fidelity to nesting sites

Crowned Cormorants appear not to return to the same nesting colony every year. One large colony of 150 nests on Penguin Island in 1976 contained only four nests in 1978. Two areas on Possession Island where colonies occurred in 1977 were vacant in 1978, and a colony had formed in a different area in 1978. Similarly, at Wolf Bay a large colony observed in 1974 was empty in 1976.

(4) Nest material

Notes were made on the composition of Crowned Cormorant nests at three localities : Penguin Island, Wolf Bay and Atlas Bay.

At one of the colonies on Penguin Island in January 1978 the main nesting material was dried seaweed, but human debris was also prevalent (including plastic straps used for fastening boxes, polypropylene rope and drinking straws). Smaller amounts of sticks and bones were also used. At Wolf Bay in January 1974 nests on the large cliff were primarily composed of strands of seaweed, 20 to 30 mm wide. A bird was seen flying into the colony carrying a bone. At Atlas Bay in January 1974 the nests were composed of sticks, bones and seaweed.

The type of nesting material used at these three localities is compared in Table 2 with that reported by Berry (1974) and Williams (1978) for the guano platform at Walvis Bay (22 51S, 14 32E) and Bird Island, Lambert's Bay (32 05S, 18 17E), respectively. Seaweed is obviously the preferred material. It would be interesting to determine if the bones used in Crowned Cormorants' nests are from Cape Fur Seals since two of the locations where they are used are within seal colonies and the third is on an island which once supported a seal colony. The use of human debris appears to be related to distance from human habitation : three colonies where it is used are within 5 km of settlements, whereas the other two colonies are 20 km distant from Lüderitz. Thus it appears that Crowned Cormorants use human

Table 1

Colony size and nest contents of Crowned Cormorants on the coast of South West Africa/Namibia

Location	Date	Empty	Eggs Only			1 Egg	2 Eggs	Chicks Only			Total Nests
			1	2	3	2 Chicks	1 Chick	1	2	3	
Penguin Island	16 Jan 78	1	1					2			4
Penguin Island	16 Jan 78	15	3	3							21 ⁽¹⁾
Penguin Island	16 Jan 78	5						3	3		11
Shark Island	12 March 77		3	2							5
Shark Island	16 May 77	15	1	6	7	2	2	1	1		45 ⁽²⁾
Long Islands	16 Jan 77		1				1		1		3

(1) Plus four fledglings, (2) Includes 10 nests containing a total of 43 large chicks and **four** fledglings

Table 2

Nesting material used by Crowned Cormorants

	Seaweed	Sticks	Bones	Human debris
Walvis Bay ⁽¹⁾	+	+	-	+
Penguin Island	+	+	+	+
Wolf Bay	+	?	+	-
Atlas Bay	+	+	+	-
Bird Island, Lambert's Bay ⁽²⁾	+	+	-	+

(1) Berry (1974), (2) Williams (1978)

debris for nesting only if it is available locally.

Acknowledgement

We thank J. Cooper for providing observation on four islands visited during May 1977.

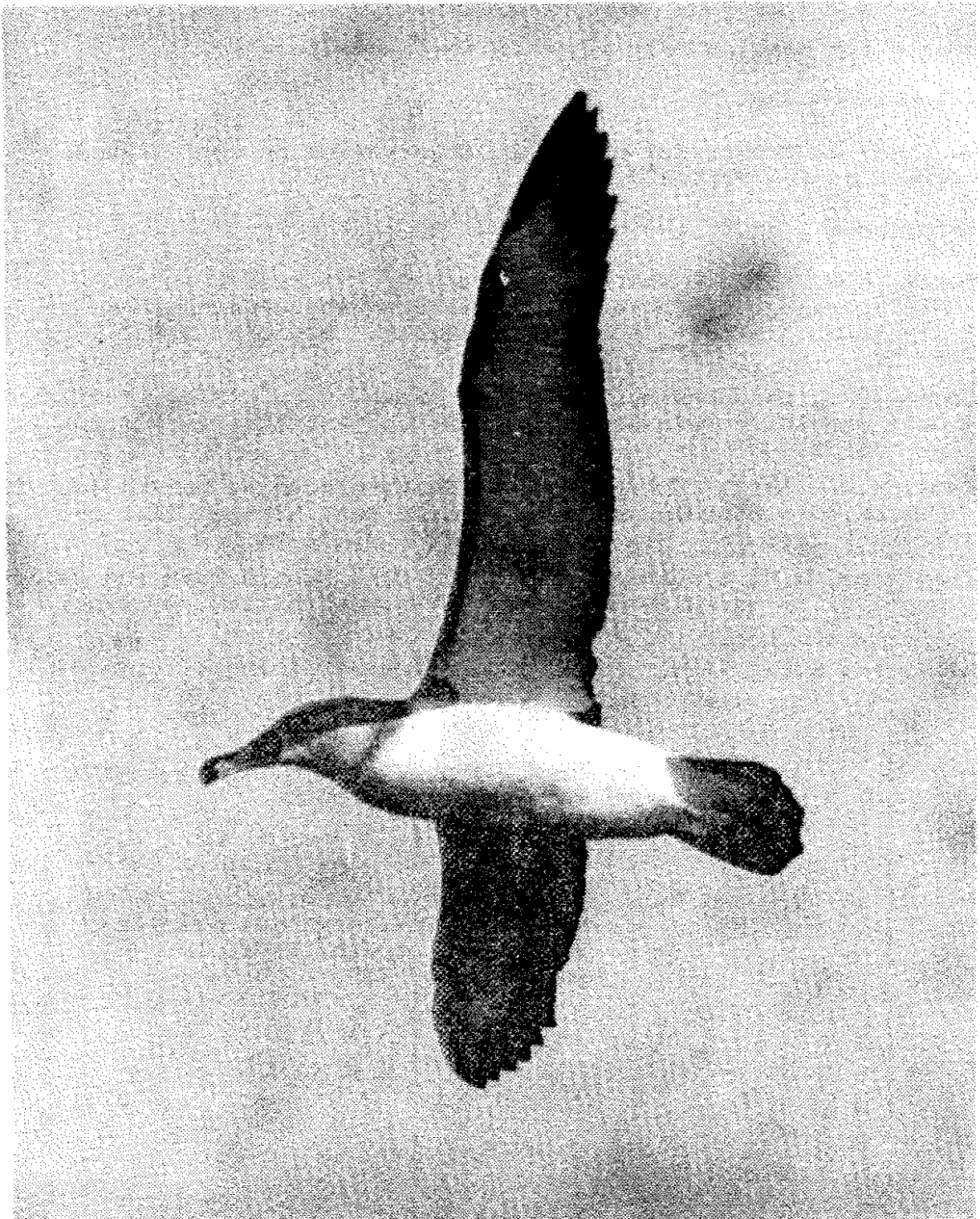
References

- Berry, H.H. 1974. The crowned race of the Reed Cormorant *Phalacrocorax africanus coronatus* breeding underneath Walvis Bay guano platform, South West Africa. Madoqua Ser 1 (8): 59-62.
- Cooper, J., Shaughnessy, P.D. & Clinning, C.F. 1977. Hartlaub's Gull and Swift Tern breeding in South West Africa. Cormorant 3: 10-12.
- Rand, R.W. 1963. The biology of guano-producing sea-birds. 5. Composition of colonies on the South West African islands. Investl Rep. Div. Sea Fish. S. Afr. 46: 1-26.
- Siegfried, W.R. & Johnson, P. 1977. The Damara Tern and other seabirds on the Diamond Coast, South West Africa, December 1977. Cormorant 3: 13.
- Williams, A.J. 1978. Nests and cormorant biology. Cormorant 4: 22-27.

P.D. Shaughnessy & G.L. Shaughnessy
Sea Fisheries Branch
P.O. Box 251
Cape Town 8000

&

School of Environmental Studies
University of Cape Town
Rondebosch 7700



Shy Albatross off Durban, May 1976
Photographed by Gerry H. Nicholls