

CROWNED CORMORANT | *Microcarbo coronatus* (*Phalacrocorax coronatus*)

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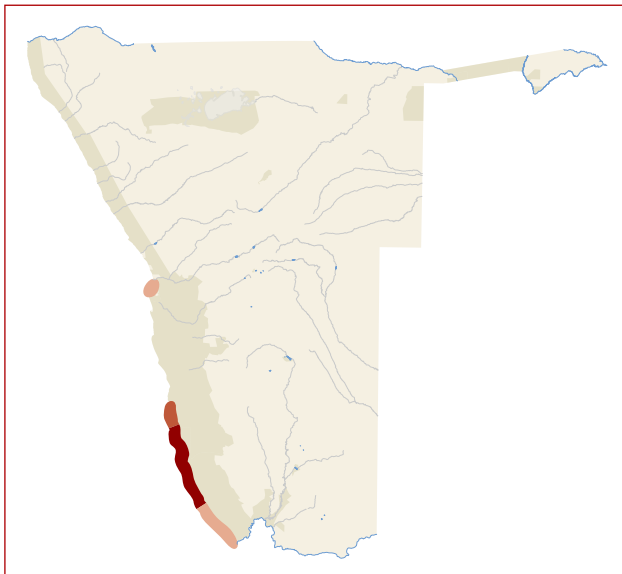
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Conservation Status:	Near Threatened
Southern African Range:	Coastal Namibia, South Africa
Area of Occupancy:	6,700 km ²
Population Estimate:	1,200 breeding pairs in Namibia
Population Trend:	Stable to slightly increasing
Habitat:	Coastal islands and rocks, protected mainland sites, artificial structures, inshore marine waters
Threats:	Disturbance, entanglement in human debris and artificial structures, predation by gulls and seals, pollution from oiling



DISTRIBUTION AND ABUNDANCE

A resident species with some juvenile dispersal, this small cormorant is endemic to south-west Namibia and west to south-western South Africa. It has a very restricted range along the coastline (Crawford 1997b), occupying an area of about 6,700 km² in Namibia (Jarvis *et al.* 2001). It usually occurs within one kilometre of the coast, and has not been recorded more than 10 km from land (Siegfried *et al.* 1975). It breeds at numerous localities in Namibia and South Africa. In Namibia, it is known to breed at 12 islands, five mainland localities and one artificial structure, from Bird Rock Guano Platform near Walvis Bay to Sinclair Island (Table 2.5: Bartlett *et al.* 2003, Berry 1974, Crawford *et al.* 1982, Shaughnessy & Shaughnessy 1978, Williams 1987a, Kemper *et al.* 2007b). The erection of the Walvis Bay guano platform and the subsequent use of its supports has extended its breeding range northwards (Crawford *et al.* 1982, 1994). Most recent estimates give about 1,200 pairs breeding in Namibia (Table 2.5). Non-breeding birds occasionally reach as far north as the Kunene River mouth (Paterson *et al.* 2009).



ECOLOGY

Crowned Cormorants forage in shallow water, usually less than five metres deep (Wilson & Wilson 1988), but sometimes up to about 20 m (T Cook pers. comm.), close to rocky shores, in tidal pools, protected bays and among kelp beds (Berruti 1989, Crawford 1997b). They feed on benthic fish, as well as crustaceans, molluscs and polychaete worms (Williams & Cooper 1983) and are thus not in direct competition with commercial fisheries. Crowned Cormorants breed in small groups of typically fewer than 50 nests (Berruti 1989), but in Namibia average colonies of 70 nests (n=39 breeding colonies). Crowned Cormorants nest at sites that are inaccessible

TABLE 2.5:

Number of Crowned Cormorant breeding pairs at individual breeding localities in Namibia (listed north to south), estimated from annual peaks of monthly nest counts at Mercury, Ichaboe, Halifax and Possession islands, and elsewhere from opportunistic counts, not necessarily done during peak breeding (Bartlett *et al.* 2003, du Toit *et al.* 2003, Kemper *et al.* 2007, MFMR unpubl. data).

Breeding locality	Number of breeding pairs	Date of most recent reliable estimate
Bird Rock Platform	98	1999/2000
Sylvia Hill cave	1	2000/2001
Oyster Cliffs cave	18	2001/2002
Mercury Island	70	2010/2011
Saddle Hill	31	2003/2004
Neglectus Islet	6	2001/2002
Ichaboe Island	335	2010/2011
Seal Island	158	2010/2011
Penguin Island	34	2008/2009
Halifax Island	56	2010/2011
Wolf Bay	135	1999/2000
Long Island	16	1995/1996
Atlas Bay	51	2000/2001
Possession Island	106	2007/2008
Albatross Rock	15	2000/2001
Pomona Island	11	2004/2005
Plum pudding Island	29	2007/2008
Sinclair Island	10	2005/2006

to mammalian predators. These include cliffs, caves, boulders, bushes, artificial structures such as jetties and walls, and on the ground. Nests on boats in Lüderitz harbour have been observed (AJ Williams pers. obs.), and on mainland cliffs surrounded by seals (J-P Roux pers. obs.). In Namibia, the breeding peak is between October and March (Crawford 1997b), with some inter-annual (Crawford 1997b) and inter-locality variation (MFMR unpubl. data). Breeding pairs frequently move their breeding sites between years (Crawford *et al.* 1994, J Kemper pers. obs.) and may nest in association with other marine birds and Cape Fur Seals *Arctocephalus pusillus pusillus* (Crawford *et al.* 1982). The use of human debris for nesting material is common (Williams 1978); of a colony of 29 nests examined at Seal Island in October 2008, 13 nests (45%) included rope, fishing line, netting or plastics (J Kemper pers. obs.). Although clutch size ranges from one to five eggs, with three eggs being most common, only one or two chicks are usually raised per clutch (Williams & Cooper 1983).



THREATS

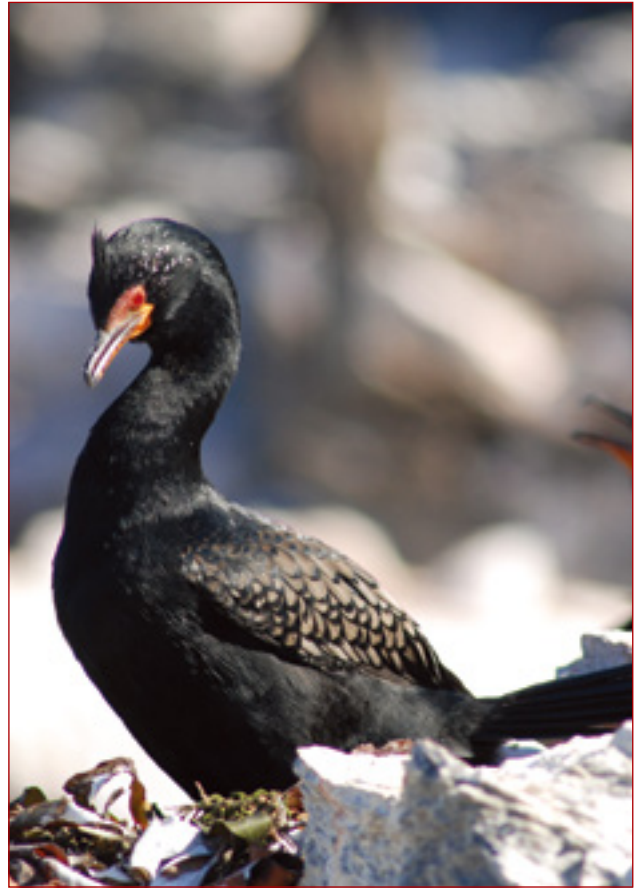
Crowned Cormorants are highly susceptible to human disturbance at breeding sites (Berry 1974, du Toit *et al.* 2003, MFMR unpubl. data) and if displaced from their

nests, Kelp Gulls *Larus dominicanus* may prey on eggs and chicks (Crawford 1997b, MFMR unpubl. data). A small colony at Shark Island, Lüderitz, became extinct by 2005 following the disturbance caused by the extension of the harbour and a new housing development nearby; feral cats were also known to take chicks there (J Kemper pers. obs.). It is likely that these breeding pairs resettled at nearby Penguin or Seal Islands. Nesting birds may be displaced by the larger Cape Cormorant *P. capensis* (du Toit *et al.* 2003). Nesting attempts on some artificial structures (e.g. stacked lobster traps) and the inclusion of human debris in nests have caused entanglement and subsequent death of adults and chicks (MFMR unpubl. data). As artificial structures such as jetties and platform supports decay, they may become unsuitable for breeding (du Toit *et al.* 2003). Flooding of nests, particularly of ground nests constructed among washed-up seaweed, may occur during rough seas (J Kemper pers. obs.). Seals have been observed killing adult Crowned Cormorants at Ichaboe Island (du Toit *et al.* 2004). As a shoreline feeder, it is highly vulnerable to oil pollution (du Toit *et al.* 2003), although incidents of oiled Crowned Cormorants in Namibia have been rare to date.



CONSERVATION STATUS

The breeding population currently appears to be stable, although accurate population estimates and trend calculations are difficult because a poorly defined breeding season and a potential low colony (and possibly locality) fidelity could result in multiple counts of the same pairs (Kemper 2007). Between 1977 and 1981 the global breeding population was estimated at 2,665 pairs, of which 37% (977 pairs) were in Namibia (Crawford *et al.* 1982, 1991), roughly the same proportion as in 2011, when the global population numbered about 3,100 pairs (MFMR unpubl. data, T Cook pers. comm.). Based on its small population size, the Crowned Cormorant in Namibia qualifies for *Near Threatened* status. The world population, including non-breeding and immature birds, consists of about 8,700 birds and is listed as *Near Threatened* globally (IUCN 2012a) and in South Africa (Taylor *et al.* in press) owing to its small size and threats posed by pollution and human disturbance. All islands and rocks are included in the Namibian Islands' Marine Protected Area and the four mainland breeding localities are sited in the Namib-Naukluft or Tsau//Khaeb (Sperrgebiet) national parks. Access and activities at these localities are strictly controlled (Currie *et al.* 2009). Four of the islands (Mercury, Ichaboe, Halifax and Possession islands) are permanently staffed or frequently visited by MFMR personnel. The only locality without formal protection is the privately-owned Bird Rock guano platform. Six islands and the five mainland breeding localities have global Important Bird Area status (Simmons *et al.* 2001b). The Crowned Cormorant has been included in Annex 2 of the Agreement on the Conservation of



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African-Eurasian Migratory Waterbirds (AEWA). Revised or new Namibian Parks and Wildlife legislation should afford it *Specialty Protected* status.



ACTIONS

Monitoring of the species' status should continue. Censuses during peak breeding periods at all colonies are necessary, although the variability of timing of breeding within and between localities makes accurate censuses difficult and time-consuming. Island management plans need to be developed, particularly to ensure minimal disturbance at breeding colonies. Plans by the Ministry of Fisheries and Marine Resources to award tourism concessions at Penguin and/or Seal Island (Currie *et al.* 2009) need to take the needs of Crowned Cormorants into account and should implement and enforce access restrictions during the breeding season. The National Oil Spill Contingency Plan needs to be revised and updated and legislation on marine pollution (including fishing tackle) needs to be more strictly enforced. Provision of raised artificial structures to encourage breeding is needed, especially in areas where breeding habitat is scarce. This has been done successfully at Ichaboe Island, where stacks of old lobster traps (with netting removed) were erected (P Bartlett pers. comm.).