

Chapter 42

Revision of the conservation status of seabirds and seals breeding in the Benguela Ecosystem

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Fifteen species of seabirds, the African Black Oystercatcher (species names are indicated in Tables 1 and 2) and the Cape Fur Seal breed in the Benguela ecosystem. Ten of the 16 birds are endemic to southern Africa, two as subspecies. The populations in southern Africa of two of the other seabirds are isolated and small, whereas four birds extend

over a wider range (Table 1). The global and regional conservation status of the 16 birds was determined by Barnes (2000), based on information available in 1998/99, was reviewed at an IUCN Workshop to develop a Conservation Assessment and Management Plan (CAMP) for them in February 2002 (du Toit *et al.* 2003) and is shown in Table 1. A

Table 1: Summary of seabird species breeding in the Benguela Ecosystem and their conservation status

Species	Endemicity	Conservation status assigned in 2000/2003*	Length of generation years	Conservation status assigned in 2007
African Penguin <i>Spheniscus demersus</i>	Endemic to southern Africa	Vulnerable (global)	10	Vulnerable (global)
Leach's Storm Petrel <i>Oceanodroma leucorhoa</i>	Widespread, isolated population in South Africa	Endangered (South Africa)	10	Critically Endangered southern Africa)
Great White Pelican <i>Pelecanus onocrotalus</i>	Widespread (southern Africa)	Near-threatened	Unknown	Near-threatened (southern Africa)
Cape Gannet <i>Morus capensis</i>	Endemic to southern Africa.	Vulnerable (global)	13	Vulnerable (global)
Cape Cormorant <i>Phalacrocorax capensis</i>	Endemic to southern Africa	Near-threatened (global)	6	Vulnerable (global)
Bank Cormorant <i>Phalacrocorax neglectus</i>	Endemic to southern Africa	Vulnerable (global)	6	Endangered (global)
Crowned Cormorant <i>Phalacrocorax coronatus</i>	Endemic to southern Africa	Near-threatened (global)	5	Least concern (global)
White-breasted Cormorant <i>Phalacrocorax lucidus</i>	Endemic to sub-Saharan Africa	Least concern (coastal southern Africa)	7	Least concern (southern Africa)
African Black Oystercatcher <i>Haematopus moquini</i>	Endemic to southern Africa	Near-threatened (global)	15	Least concern (global)
Kelp Gull <i>Larus dominicanus vetula</i>	Endemic as subspecies to southern Africa	Least concern	10	Least concern (subspecies global)
Hartlaub's Gull <i>Larus hartlaubii</i>	Endemic to southern Africa	Least concern	6	Least concern (global)
Greyheaded Gull <i>L. cirrocephalus poicephalus</i>	Widespread	Least concern	10	Least concern (subspecies global)
Caspian Tern <i>Sterna caspia</i>	Widespread	Near-threatened	5	Near-threatened (southern Africa)
Roseate Tern <i>Sterna dougallii</i>	Widespread, isolated population in South Africa	Endangered (SA)	Unknown	Vulnerable (southern Africa)
Swift Tern <i>Sterna bergii bergii</i>	Endemic as subspecies to southern Africa	Least concern	6	Least concern (subspecies global)
Damara Tern <i>Sterna balaenarum</i>	Endemic to southern Africa	Near-threatened (global)	Unknown	Near-threatened (global)

*Barnes (2000), du Toit *et al.* (2003)

Table 2: Summary of the conservation status of the Cape Fur Seal

Species	Endemicity	Length of generation (years)	Conservation status assigned in 2007
Cape Fur Seal <i>Arctocephalus pusillus pusillus</i>	Endemic as subspecies to southern Africa	9	Least concern (global)

full set of taxon data sheets is available in the report of the 2003 workshop (du Toit *et al.* 2003). The IUCN threat categories that were assigned five years ago are shown in Table 1 and are reviewed in this report using updated information on the population sizes of some species and the latest available guidelines for IUCN threat categories and criteria (Standards and Petitions Working Group 2006). In many instances, the threat category was based on trends in population sizes over a specified number of generations. Generation length is the average age of parents of the current cohort (IUCN 2000). The lengths of generations were taken to be the same as those used by du Toit *et al.* (2003) and, where applicable, are shown in Table 1. The conservation status of the Cape Fur Seal is also reviewed, based on aerial censuses of pup abundance, and shown in Table 2. The generation length for

seals was determined from age at maturity and the length of the reproductive period in the life cycle (Standards and Petitions Working Group 2006).

All seabird species discussed in this report are protected in Namibia by the Marine Resources Act of 2000. In addition, the African Penguin, Cape Gannet, Bank Cormorant, African Black Oystercatcher and Damara Tern are listed as "Specially Protected" birds in the Namibian Parks and Wildlife Bill of 2001 (to date in draft format). In South Africa, these species are legally protected through the Sea Birds and Seals Protection Act No. 46 of 1973. The draft National Policy for Seals, Seabirds and Shorebirds in South Africa provides further guidelines for their management. The protection status for individual breeding localities is indicated in Tables 3–19.

African Penguin

Vulnerable

Table 3: Breeding distribution and numbers of nests containing eggs or chicks (Namibia) or occupied nest sites (South Africa) of the African Penguin. Is. = island; IBA = Important Bird Area; P = Provincial Nature Reserve; N = National Park; R = Ramsar site; WH = World Heritage Site; LA = Local Authority; RA = Restricted access

Locality	Coordinates	IBA	Protection status	Number of nests (Namibia) and nest sites (SA)	Date
Namibia					
Hollamsbird Is.	24°38'S 14°32'E		RA	1	May 1988
Sylvia Hill	25°09'S 14°51'E		N	11	March 2004
Oyster Cliffs	25°20'S 14°49'E		N	45	February 2002
Mercury Is.	25°43'S 14°50'E	N017	RA	1 813	2006/07
Neglectus Is.	26°08'S 14°57'E		RA	10	January 2003
Ichaboe Is.	26°17'S 14°56'E	N018	RA	715	2006/07
Penguin Is.	26°37'S 15°09'E	N019	RA	1	January 2006
Halifax Is.	26°37'S 15°04'E	N019	RA	305	2006/07
Possession Is.	27°01'S 15°12'E	N020	RA	356	2006/07
Pomona Is.	27°11'S 15°15'E		RA	0	January 2006
Plumpudding Is.	27°39'S 15°31'E		RA	57	January 2006
Sinclair Is.	27°40'S 15°31'E		RA	88	January 2006
Namibia total				3 402	
South Africa					
Bird Is. (Lambert's Bay)	32°05'S 18°18'E	SA100	P	0	2006
Malgas Is.	33°03'S 17°55'E	SA105	N, R	11	2006
Marcus Is.	33°03'S 17°58'E	SA105	N, R	33	2006
Jutten Is.	33°05'S 17°57'E	SA105	N, R	435	2006
Vondeling Is.	33°09'S 17°59'E		P	396	2006
Dassen Is.	33°25'S 18°05'E	SA109	P	13 283	2006
Robben Is.	33°48'S 18°22'E	SA110	WH	3 697	2006
Seal Is. (False Bay)	34°08'S 18°35'E		P	48	2006
The Boulders	34°11'S 18°27'E	SA117	N	1 075	2006
Stony Point	34°22'S 18°54'E		LA	265	2006
Dyer Is.	34°41'S 19°25'E	SA120	P	2 076	2006
Jahleel Is.	33°48'S 25°43'E	SA095	NP	301	2006
St Croix Is.	33°47'S 25°46'E	SA095	NP	8 077	2006
Brenton Rock	33°49'S 25°46'E	SA095	NP	17	2006
Seal Is. (Nelson Mandela Bay)	33°50'S 26°17'E	SA095	NP	237	2006
Stag Is.	33°50'S 26°16'E	SA095	NP	13	2006
Bird Is. (Nelson Mandela Bay)	33°51'S 26°17'E	SA095	NP	2 822	2006
South Africa total				32 786	
Overall total				36 188	

Biology

The African Penguin breeds at 25 islands and four mainland localities in Namibia and South Africa. Vagrants have been reported from Gabon (Malbrant & Maclatchy 1958) and Mozambique (Shelton *et al.* 1984). Movement of birds between regions is relatively common (Whittington 2005a); permanent emigration to other regions is rare (Whittington 2005b). The species prefers breeding in sheltered sites, such as in burrows or under bushes, but may be forced to nest in the open, particularly at localities in Namibia (Kemper 2006). It feeds in coastal waters, usually within 12 km of the coastline. The diet may vary in time and space, but consists mainly of pelagic shoaling fish and cephalopods (Crawford *et al.* 1985, 1991, Ludynia 2007).

Main threats

A lack of sufficient quality prey (Crawford *et al.* 2006, 2007a), particularly in Namibia, where sardine and anchovy stocks are inaccessible to breeders and the diet consists mainly of Pelagic Goby *Sufflogobius bibarbatatus* (Kemper *et al.* 2001) climate change is likely to exacerbate the current situation; a lack of suitable breeding habitat, especially at localities where guano harvesting significantly reduced the availability of quality burrowing habitat (Kemper 2006); oil pollution (particularly in South Africa) (Crawford *et al.* 2000); human disturbance (de Villiers & Cooper 2002); competition with other seabirds and seals for food and breeding space

(Crawford *et al.* 1989); predation at sea by seals (David *et al.* 2003) and of eggs and chicks by Kelp Gulls (Kemper 2006); nest flooding during storms (Kemper 2006).

Conservation status

The African Penguin population was 141 000 pairs in 1956/57, 69 000 pairs in 1979/80, 57 000 pairs in 2004/05 and 36 000 pairs in 2006/07. This represents a decrease of 2.69% per year since 1956, or a decrease of 23.7% per generation over four generations of 10 years each. The decrease over three generations is 56%, placing the African Penguin in the category “Endangered” (A2a).

However, an exponential model fitted to data points available since 1978/79 gives an annual rate of decline of 1.44% per year, 13.5% per 10-year generation or 35% in the three most recent generations. As the reduction is continuing, this merits a classification of “Vulnerable”. On account of uncertainty surrounding estimates of population size based on nest counts in individual seasons (Kemper 2006), we have adopted this classification. However, should the recent rapid decrease continue, it may be necessary to reclassify the African Penguin as “Endangered”.

The population in Namibia decreased from 42 000 pairs in 1956/57 to 12 000 in 1978/79 and 3 000 in 2006/07. This represents a rate of decrease of 5.1% per year over the 50-year period, of 4.8% per year since 1978/79 and of 77% in the three most recent generations. The African Penguin should be regarded as “Endangered” in Namibia.

Leach's Storm Petrel

Critically Endangered (local)

Biology

This common summer visitor to the west and south coasts of southern Africa breeds at islands in the northern Pacific and the northern and southern Atlantic Oceans (Ryan and Whittington 1997). Breeding in South Africa was suspected at St Croix Island in 1979 (Randall & Randall 1986) and was confirmed at Dyer Island in 1997 (Whittington *et al.* 1999). Since then, breeding has been recorded at three localities in South Africa. Leach's Storm Petrels forage in offshore waters, feeding mainly on small fish, squid, planktonic crustaceans and offal (Watanuki 1985).

Main threats

Predation by Kelp Gulls and Domestic Cats *Felis catus* (Underhill *et al.* 2002); potential human disturbance of breeding sites, particularly from island-based tourism; lack of protected breeding sites; occupation of favoured breeding sites (dry stone walls) by cormorants with likely reduced suitability

of these habitats (du Toit *et al.* 2003).

Conservation status

The global population numbers more than 8 million pairs (Huntington *et al.* 1996) and is not considered threatened. The only known breeding population in the southern hemisphere is in South Africa. This isolated population numbers up to 25 pairs. Numbers of pairs recorded breeding decreased from an average of 18 during 1995/96–1999/00 to an average of six from 2002/03–2006/07. In 2005 and 2006, breeding was only reported at Dassen Island and appeared to have ceased at Dyer and Jutten islands. Owing to its isolated and declining nature, the South African population qualifies as locally “Critically endangered” (A2a, D1). Because summer visitors are common in the region, it is thought possible that breeders from other regions could replenish the local population (du Toit *et al.* 2003). This may, however, not be the case if the local population is found to be discrete.

Table 4: Breeding distribution and numbers of occupied nest sites of the Leach's Storm Petrel breeding in South Africa. Is. = island; IBA = Important Bird Area; P = Provincial Nature Reserve; N = National Park; R = Ramsar site; WH = World Heritage Site; LA = Local Authority; RA = Restricted access. Numbers in brackets denote highest number of nest sites and corresponding date

Locality	Coordinates	IBA	Protection status	No. of nest sites	Date
South Africa					
Jutten Is.	33°05'S 17°57'E	SA105	N, R	0 (6)	2006 (2001)
Dassen Is.	33°25'S 18°05'E	SA109	P	5	2006
Dyer Is.	34°41'S 19°25'E	SA120	P	0 (20)	2006 (1998, 1999)
St Croix Is.	33°47'S 25°46'E	SA095	NP	(possibly 1)	1984
South Africa total				5	

Biology

The Great White Pelican is widely distributed in Eurasia and Africa (Hockey *et al.* 2005). In southern Africa it breeds annually at three coastal localities, but may breed at several other coastal localities as well as at a number of inland lakes if conditions are suitable (Williams & Borello 1997). The Great White Pelican is nomadic, moving across southern Africa as water levels change (Williams & Borello 1997). It breeds on natural or artificial islands which are inaccessible to land predators. It forages in shallow lakes, dams, estuaries and flood plains where it feeds on fish and preys on other seabirds. It may scavenge agricultural offal (Crawford *et al.* 1995).

Table 5: Breeding distribution and numbers of occupied nest sites of the Great White Pelican breeding in southern Africa. Is. = island; IBA = Important Bird Area; P = Provincial Nature Reserve; N = National Park; R = Ramsar site; WH = World Heritage Site; LA = Local Authority; RA = Restricted access

Locality	Coordinates	IBA	Protection status	No. of nest sites	Date
Angola					
Ilha dos Tigres	16°45'S 11°45'E			80	2002
Namibia					
Bird Rock platform	22°53'S 14°31'E		RA	204	1993
Hardap Dam	24°30'S 17°50'E	N016	P	>400	2006
Etosha Pan	18°30'S 14°20'E	N005	N	3 000	1971
Angola/Namibia total				>3 684	
South Africa					
Vondeling Is.	33°09'S 17°59'E	SA105	P	0 (9)	2006 (2005)
Dassen Is.	33°25'S 18°05'E	SA109	P	418	2006
Lake St Lucia	28°02'S 32°29'E	SA058	N, R, WH	3 000	2000
South Africa total				3 418	
Botswana					
Lake Ngami	20°00'S 22°30'E	B004		several thousand	2007
Sua Pan	21°30'S 26°20'E	B005		2 000	1996
Botswana total				>3 000	
Overall total				>10 000	

Main threats

Human disturbance at breeding colonies (Berry *et al.* 1973); drainage of wetlands resulting in loss of feeding and breeding habitat (du Toit *et al.* 2003); pollution (particularly ingestion of plastics) (Crawford *et al.* 1995); ingestion of pesticides and potential for disease from agricultural offal (e.g. Newcastle's disease) (Crawford *et al.* 1995); collision with power lines; predation by Lion *Panthera leo* and Black-backed Jackal *Canis mesomelas*; starvation and breeding failure during droughts (du Toit *et al.* 2003) and as a result of reduced availability of agricultural offal.

Conservation status

The global population of Great White Pelicans numbers c. 250 000 individuals of which 80% occur in Africa and, overall, the species is not considered threatened. The breeding population in southern Africa currently numbers c. 10 000 pairs, of which c. 3 500 pairs breed at the three coastal localities. Breeding has ceased at several localities. The number of Great White Pelicans breeding at Dassen Island in the Western Cape increased from 30 in 1954 to 834 pairs in 2004; this number decreased to 370 pairs in 2006, as a result of the decrease in supply of agricultural offal. Because of the few permanent breeding localities in southern Africa, the southern African population of this species is classified as "Near-threatened" (A2c).

Biology

The Cape Gannet breeds at six islands off Namibia and South Africa. Historically it bred at four more islands. It is a regular winter visitor to KwaZulu-Natal, Mozambique and Angola (du Toit *et al.* 2003); distances of up to 3 300 km and 6 800 km have been recorded from recoveries of ringed adults and juveniles respectively (du Toit *et al.* 2003). The Cape Gannet nests in dense colonies on open, flat ground. Breeding population estimates are therefore made from aerial photographs taken of the breeding localities during peak breeding activities (Crawford *et al.* 2007b). It generally forages up to 100 km offshore, although further distances have been recorded (du Toit *et al.* 2003). It feeds mainly on pelagic, shoaling fish by plunge-diving, but may scavenge Hake *Merluccius* spp. and offal from fishing vessels (Hockey *et al.* 2005).

Main threats

A lack of prey (Crawford *et al.* 1983); predation by Great White Pelicans (du Toit *et al.* 2003) and Cape Fur Seals (David *et al.* 2003, Makhado *et al.* 2006, Wolfaardt & Williams 2006); by-catch during longline fishing activities (Ryan & Boix-Hinzen 1998); targeted for food in southern Angola; pollution (fish, fuel and crude oil) (du Toit & Bartlett 2001); human disturbance (especially during guano harvesting operations); lack of quality nesting habitat (excessive guano removal) (du Toit *et al.* 2003); flooding of nests during storms (Crawford *et al.* 1986).

Conservation status

The global population of Cape Gannets averaged c. 250 000

breeding pairs from 1956/57–1968/69, and c. 150 000 pairs from 1978/79–2005/06 (Crawford *et al.* 2007b). In Namibia, the number of pairs of gannets decreased from 204 000 breeding pairs in 1956/57 to 10 000 pairs in 2005/06; this represents a decrease of 6% per year over 49 years, or a decrease of 90% over three 13-year generations. In contrast in South Africa, the population increased from 50 000 pairs to 135 000 pairs over the same 49-year period, an increase of 2.05% per year, or 30% per 13-year generation. Overall, the population has decreased by 1.14% per year over 49 years, or 14% per 13-year generation. The decrease over three generations is 36%, confirming the Cape Gannet in the category “Vulnerable” (A2a).

Table 6: Breeding distribution and numbers of occupied nest sites of the Cape Gannet. Is. = island; IBA = Important Bird Area; P = Provincial Nature Reserve; N = National Park; R = Ramsar site; WH = World Heritage Site; LA = Local Authority; RA = Restricted access

Locality	Coordinates	IBA	Protection status	Number of nests	Date
Namibia					
Mercury Is.	25°43'S 14°50'E	N017	RA	1 414	2005/06
Ichaboe Is.	26°17'S 14°56'E	N018	RA	8 669	2005/06
Possession Is.	27°01'S 15°12'E	N020	RA	351	2005/06
Total Namibia				10 434	
South Africa					
Bird Is. (Lambert's Bay)	32°05'S 18°18'E	SA100	P	4 962	2004/05*
Malgas Is.	33°03'S 17°55'E	SA105	N, R	36 156	2005/06
Bird Is. (Nelson Mandela Bay)	33°51'S 26°17'E	SA095	NP	98 419	2005/06
Total South Africa				139 537	
Overall total				149 971	

*No breeding took place in 2005/06 at Bird Island (Lambert's Bay), possibly due to predation and associated disturbance of gannets attempting to breed there by seals.

Cape Cormorant

Vulnerable

Biology

The Cape Cormorant breeds along the coast between southern Angola and the Eastern Cape, South Africa (Crawford 1997a). It is also a frequent visitor to southern Mozambique (Parker 1999) and regularly moves between Namibia and South Africa as well as between Namibia and Angola (Crawford 1997a). It is particularly sensitive to fluctuating environmental conditions and may not breed in some years or may abandon breeding activities if conditions for breeding become unsuitable (Crawford *et al.* 2007c). Estimates of numbers of breeding pairs therefore tend to vary between years. The Cape Cormorant roosts in large flocks and forages on pelagic shoaling fish up to 10–20 km offshore and up to 40 km from the breeding colony (Hockey *et al.* 2005).

Main threats

A lack of food (Crawford & Dyer 1995); avian cholera (Waller & Underhill 2007); human disturbance leading to nest desertion and, in severe cases, mass-abandonment of breeding colonies (Cooper *et al.* 1982); oil pollution (Crawford *et al.* 2000); plastic pollution (particularly entanglement in nesting material consisting of fishing gear); predation by Cape Fur Seals (David *et al.* 2003), Great White Pelicans, Grey Herons *Ardea cinerea* and Sacred Ibises *Threskiornis aethiopicus* (du Toit *et al.* 2003, Williams & Ward 2006); nest flooding during storms (du Toit *et al.* 2003).

Conservation status

Despite some fluctuations in numbers between years, there has been a general decline in the Cape Cormorant population during the last three decades (Crawford *et al.* 2007c). The Cape Cormorant population was 250 000 pairs in 1978/79 and 100 000 pairs in 2005/06. This represents a decrease of 3.34% per year, or a decrease of 18.4% per generation over 27 years, 4.5 generations of six years each. The decrease over three generations is 36%, placing the Cape Cormorant in the category “Vulnerable” (A2a).

Table 7: Breeding distribution and numbers of occupied nest sites of the Cape Cormorant. Is. = island; IBA = Important Bird Area; P = Provincial Nature Reserve; N = National Park; R = Ramsar site; WH = World Heritage Site; LA = Local Authority; RA = Restricted access. For additional localities for which no recent counts are available or where Cape Cormorants may no longer breed, see du Toit *et al.* (2003)

Locality	Coordinates	IBA	Protection status	No. of nest sites	Date
Angola					
Ilha dos Tigres	16°45'S 11°45'E			2 630	2005/06
Namibia					
Cape Cross north platform	21°45'S 13°56'E	N010	RA	1 234	2005/06
Cape Cross central platform	21°45'S 13°56'E	N010	RA	250	2005/06
Swakopmund platform	22°41'S 14°31'E	N012	RA	30 011	2005/06
Bird Rock platform	22°53'S 14°31'E		RA	1 167	2005/06
Sandwich harbour	23°02'S 14°30'E	N015	N, R	6 092	2001/02
Sylvia Hill	25°09'S 14°51'E		N	37	Mar. 2002
Oyster Cliffs	25°20'S 14°49'E		N	12	Feb. 2002
Mercury Is.	25°43'S 14°50'E	N017	RA	1 590	2005/06
Ichaboe Is.	26°17'S 14°56'E	N018	RA	10 655	2006/07
Seal Is.	26°36'S 15°09'E	N019	RA	3	2005/06
Penguin Is.	26°37'S 15°09'E	N019	RA	3 688	2005/06
Possession Is.	27°01'S 15°12'E	N020	RA	2 440	2005/06
Pomona Is.	27°11'S 15°15'E		RA	225	2005/06
Plumpudding Is.	27°39'S 15°31'E		RA	257	2005/06
Sinclair Is.	27°40'S 15°31'E		RA	105	2005/06
Other localities*				907	
Angola/Namibia total				67 517	

(continued . . .)

Table 7 (continued): Breeding distribution and numbers of occupied nest sites of the Cape Cormorant

Locality	Coordinates	IBA	Protection status	No. of nest sites	Date
South Africa					
Lambert's Bay	32°05'S 18°18'E	SA100	P	107	2006/07
Malgas Is.	33°03'S 17°55'E	SA105	N, R	2 206	2006/07
Jutten Is.	33°05'S 17°57'E	SA105	N, R	2 742	2006/07
Schaapen Is.	33°06'S 18°01'E	SA105	N, R	557	2006/07
Vondeling Is.	33°09'S 17°59'E	SA105	P	1 449	2006/07
Meeuw Is.	33°20'S 18°09'E	SA105	N, R	326	2006/07
Dassen Is.	33°25'S 18°05'E	SA109	P	173	2006/07
Robben Is.	33°48'S 18°22'E	SA110	WH	616	2006/07
Dyer Is.	34°41'S 19°25'E	SA120	P	25 964	2006/07
Jahleel Is.	33°48'S 25°43'E	SA095	NP	18	2006/07
St Croix Is.	33°47'S 25°46'E	SA095	NP	126	2006/07
Brenton Rock	33°49'S 25°46'E	SA095	NP	26	2006/07
Seal Is. (Nelson Mandela Bay)	33°50'S 26°17'E	SA095	NP	46	2006/07
Other localities*				1 326	
South Africa total				35 688	
Overall total				103 205	

*not counted recently; for details see du Toit *et al.* (2003)

Bank Cormorant

Endangered

Biology

The Bank Cormorant is endemic to Namibia and South Africa, with between 80–90% of the species breeding on Mercury and Ichaboe Islands in Namibia. Movement of breeding adults between these two islands has been recorded (Crawford *et al.* 1999) and movement between regions is suspected (du Toit *et al.* 2003). Adult Bank Cormorants are sedentary, with foraging ranges of less than 10 km (Siegfried *et al.* 1975, Cooper 1981). Juvenile birds may disperse beyond the foraging range of adults, up to 459 km (Cooper 1981). Adults and non-adults tend to occur and forage in different areas (Cooper 1981). Bank Cormorants feed inshore, often amongst kelp beds, either solitarily or in small groups (Cooper 1985). Main prey items include Pelagic Goby and Cape Rock Lobster *Jasus lalandii* (Cooper 1985, Crawford *et al.* 1985).

Main threats

A lack of prey (Crawford *et al.* 1999); predation of eggs and chicks by Kelp Gulls and Great White Pelicans (du Toit *et al.* 2003); predation of adults and fledglings by Cape Fur Seals (David *et al.* 2003); oil pollution – a large spill between Mercury and Ichaboe Islands could pose a serious risk to the global population (Roux & Kemper in press); human disturbance (de Villiers & Cooper 2002); drowning in lobster traps (Cooper 1985); diseases such as avian cholera have affected other cormorants in South Africa and could have catastrophic consequences for the species (Crawford *et al.* 1992,

Table 8: Breeding distribution and numbers of occupied nest sites of the Bank Cormorant. Is. = island; IBA = Important Bird Area; P = Provincial Nature Reserve; N = National Park; R = Ramsar site; WH = World Heritage Site; LA = Local Authority; RA = Restricted access. Numbers in brackets denote recent highest number of nest sites and corresponding date

Locality	Coordinates	IBA	Protection status	No. of nest sites	Date
Namibia					
Hollamsbird Is.	24°38'S 14°32'E		RA	19	1996
Oyster Cliffs	25°20'S 14°49'E		N	12	2002
Mercury Is.	25°43'S 14°50'E	N017	RA	1 839	2006
Neglectus Islet	26°08'S 14°57'E		RA	15	2004
Ichaboe Is.	26°17'S 14°56'E	N018	RA	300	2006
Seal Is.	26°36'S 15°09'E	N019	RA	58	2001
Penguin Is.	26°37'S 15°09'E	N019	RA	149	2001
Long Is.	26°49'S 15°07'E		RA	36	1995
Ladys Rock	26°52'S 15°09'E		RA	37	2001
North Reef	27°00'S 15°11'E		RA	10	2007
Possession Is.	27°01'S 15°12'E	N020	RA	2	2006
Albatross Rock	27°07'S 15°14'E		RA	36	2007
Pomona Is.	27°11'S 15°15'E		RA	0 (33)	2007 (2004)
Plumpudding Is.	27°39'S 15°31'E		RA	9	2007
Sinclair Is.	27°40'S 15°31'E		RA	5	2007
Namibia total				2 527	
South Africa					
Lambert's Bay	32°05'S 18°18'E	SA100	P	0 (33)	2006 (1989)
Malgas Is.	33°03'S 17°55'E	SA105	N, R	11	
Marcus Is.	33°03'S 17°58'E	SA105	N, R	27	
Jutten Is.	33°05'S 17°57'E	SA105	N, R	30	
Vondeling Is.	33°09'S 17°59'E	SA105	P	17	
Dassen Is.	33°25'S 18°05'E	SA109	P	63	
Robben Is.	33°48'S 18°22'E	SA110	WH	136	
Dyer Is.	34°41'S 19°25'E	SA120	P	18	
South Africa total				302	
Overall total				2 829	

Williams & Ward 2002); probable poisoning from toxic algal blooms has been recorded (MFMR unpubl. data).

Conservation status

Between 1978–1980, the breeding population numbered 7 600 pairs; this number decreased to 5 750 pairs by 1990 and to 2 800 pairs by 2006. Between 1993 and 1998 the Namibian breeding population is estimated to have declined by 68%. This loss is mainly attributable to the population

collapse at Ichaboe Island after 1994/95. Since then, the global population has not shown any recovery to pre-1993 levels. Numbers at Ichaboe Island have continued to decline and although numbers at Mercury Island have increased, the total Namibian population in 2006 was 39% less than in 1993. Overall, the population has decreased by 4.3% per year over 16 years, or 23.3% per six-year generation. The decrease over three generations is 52.9%, confirming the Bank Cormorant in the category “Endangered” (A2a).

Crowned Cormorant

Least concern

Biology

The Crowned Cormorant is endemic to Namibia and South Africa, where it breeds at numerous localities (du Toit *et al.* 2003) in groups of up to 150 nests (Berruti 1989). It usually nests on vertical structures such as cliffs, jetties, trees or shipwrecks, but may also nest on the ground, often between washed-up kelp. A relatively poorly defined breeding season, as well as low site fidelity (Crawford *et al.* 1994), and probably low locality fidelity, make it difficult to obtain accurate population size estimates. The Crowned Cormorant feeds in shallow waters amongst kelp beds and close to rocky shores (Berruti 1989). The diet includes benthic fish, crustaceans, molluscs and polychaete worms (Williams & Cooper 1983). It is therefore not in direct competition with commercial fisheries.

Main threats

Predation of eggs and chicks by Kelp Gulls (Crawford 1997b) and Great White Pelicans (du Toit *et al.* 2003); predation of adults by Cape Fur Seals (David *et al.* 2003); human disturbance, particularly during breeding activities (Berry 1974); oil pollution (Crawford *et al.* 2000); plastic pollution, particularly entanglement in nesting material consisting of fishing gear (Crawford 1997b).

Conservation status

The number of Crowned Cormorants breeding at ten South African islands was relatively stable at about 800 pairs from 1978/79–1990/91, fluctuated between 800 and 1 200 pairs until 2002/03 and then increased sharply. It was more than 1 750 pairs in 2004/05 and was above 1 250 pairs in the following two seasons. Reliable counts are available from Namibia since 1996, when regular counts were made at the main breeding localities. There, the population nearly trebled from 356 pairs in 1996/97 to 1 000 pairs in 2006/07. This increase stems mainly from Ichaboe Island where numbers increased between 1996 and 2001, before decreasing slightly again since then. Overall, the Crowned Cormorant population was 1 378 pairs in 1996/97 and at least 2 076 pairs in 2005/06. This repre-

Table 9: Breeding distribution and numbers of occupied nest sites of the Crowned Cormorant. Is. = island; IBA = Important Bird Area; P = Provincial Nature Reserve; N = National Park; R = Ramsar site; WH = World Heritage Site; LA = Local Authority; RA = Restricted access. Numbers in brackets denote recent highest number of nest sites and corresponding date. For additional localities for which no recent counts are available or where Crowned Cormorants may no longer breed, see du Toit *et al.* (2003)

Locality	Coordinates	IBA	Protection status	No. of nest sites	Date
Namibia					
Bird Rock platform	22°53'S 14°31'E		RA	98	1999/00
Sylvia Hill	25°09'S 14°51'E		N	1	2000/01
Oyster Cliffs	25°20'S 14°49'E		N	18	2001/02
Mercury Is.	25°43'S 14°50'E	N017	RA	34	2006/07
Saddle Hill	25°54'S 14°54'E		RA	31	November 2003
Neglectus Islet	26°08'S 14°57'E		RA	6	2001/02
Ichaboe Is.	26°17'S 14°56'E	N018	RA	248	2006/07
Seal Is.	26°36'S 15°09'E	N019	RA	76	2005/06
Penguin Is.	26°37'S 15°09'E	N019	RA	22	2005/06
Shark Is.	26°39'S 15°09'E	N019	LA	21	2001/02
Halifax Is.	26°37'S 15°04'E	N019	RA	87	2004/05
Wolf Bay	26°49'S 15°07'E	N021	N	135	1999/00
Long Is.	26°49'S 15°07'E		RA	16	1995/96
Possession Is.	27°01'S 15°12'E	N020	RA	176	2004/05
Albatross Is.	27°07'S 15°14'E		RA	15	2000/01
Pomona Is.	27°11'S 15°15'E		RA	11	2005/06
Plum pudding Is.	27°39'S 15°31'E		RA	0 (13)	2005/06 (2001/02)
Sinclair Is.	27°40'S 15°31'E		RA	10	2005/06
Namibia total				1 005	
South Africa					
Lambert's Bay	32°05'S 18°18'E	SA100	P	11	2005/06
Malgas Is.	33°03'S 17°55'E	SA105	N, R	128	2005/06
Marcus Is.	33°03'S 17°58'E	SA105	N, R	39	2005/06
Jutten Is.	33°05'S 17°57'E	SA105	N, R	87	2005/06
Schaapen Is.	33°06'S 18°01'E	SA105	N, R	196	2005/06
Vondeling Is.	33°09'S 17°59'E	SA105	P	83	2005/06
Meeuw Is.	33°20'S 18°09'E	SA105	N, R	112	2005/06
Caspian Islet	33°11'S 18°06'E	SA105	N, R	43	2005/06
Dassen Is.	33°25'S 18°05'E	SA109	P	319	2005/06
Robben Is.	33°48'S 18°22'E	SA110	WH	99	2005/06
Dyer Is.	34°41'S 19°25'E	SA120	P	210	2005/06
South Africa total				1 327	
Overall total				2 332	

sents an increase of 4.0% per year during that period. The projected increase over three generations since 1996 is 44.6%, placing the Crowned Cormorant in the category “Least concern”. This is a marginal placement, though, as population trends are based on a short time series and may not be accurate. The overall small population size almost qualifies the species for the category “Near-Threatened”. It is imperative that population trends are updated for this species.

Table 10: Breeding distribution and numbers of occupied nest sites of the White-breasted Cormorant at coastal localities in southern Africa. Is. = island; IBA = Important Bird Area; P = Provincial Nature Reserve; N = National Park; R = Ramsar site; WH = World Heritage Site; LA = Local Authority; RA = Restricted access. Numbers in brackets denote recent highest number of nest sites and corresponding date. For additional localities for which no recent counts are available where White-breasted Cormorants may no longer breed, see du Toit *et al.* (2003)

Locality	Coordinates	IBA	Protection status	No. of nest sites	Date
Angola					
Ilha dos Tigres	16°45'S 11°45'E			60	2005/06
Namibia					
Hottentot's Bay	26°08'S 14°57'E		RA	59	2001/02
Ichaboe Is.	26°17'S 14°56'E	N018	RA	2	2003/04
Penguin Is.	26°37'S 15°09'E	N019	RA	9	2005/06
Other localities*				1 091	
Namibia/Angola Total				1 221	
South Africa					
Lambert's Bay	32°05'S 18°18'E	SA100	P	20	2001
Marcus Is.	33°03'S 17°58'E	SA105	N, R	0 (105)	1995/96 (1970/71)
Jutten Is.	33°05'S 17°57'E	SA105	N, R	0 (113)	1995/96 (1970/71)
Schaapen Is.	33°06'S 18°01'E	SA105	N, R	86	2001
Vondeling Is.	33°09'S 17°59'E	SA105	P	0 (9)	1995/96 (1984/85)
Meeuw Is.	33°20'S 18°09'E	SA105	N, R	98	1995/96
Dassen Is.	33°25'S 18°05'E	SA109	P	30	2001
Dyer Is.	34°41'S 19°25'E	SA120	P	72	2001
Geyser Is.	34°42'S 19°25'E	SA120	P	0 (58)	1995/96 (1982/83)
Ysterklip (Meeurots)	33°20'S 18°09'E			9	2001
Stony Point	34°22'S 18°54'E		LA	32	2001
St Croix Is.	33°47'S 25°46'E	SA095	NP	89	2000
Other localities*				529	
South Africa total				965	
Overall total				2 186	

*not counted recently; for details see du Toit *et al.* (2003)

Biology

The White-breasted Cormorant is widespread throughout Africa. In southern Africa it is found along the entire coastline and inland, particularly in Zimbabwe, and the eastern and southern regions of South Africa (Brooke *et al.* 1982). Birds breeding inland are nomadic, moving and breeding in response to changing water levels (Hockey *et al.* 2005). Coastal populations may exchange individuals with those breeding inland (Hockey *et al.* 2005). The White-breasted Cormorant nests colonially or singly in a variety of habitats such as offshore islands, cliffs, bushes, reeds, trees and artificial structures (e.g. jetties and pylons). It forages singly or in small groups close to the shore, feeding on fish, but also on crabs and mollusks (Brooke *et al.* 1982).

Main threats

A high susceptibility to human disturbance at breeding sites (Brooke *et al.* 1982); predation of exposed eggs by Kelp Gulls (du Toit *et al.* 2003); entanglement in discarded fishing line (Hockey *et al.* 2005); loss of nesting sites; potential vulnerability to avian cholera (du Toit *et al.* 2003).

Conservation status

The global population of the White-breasted Cormorant numbers between 250 000 and 500 000 individuals, of which about 3 700 pairs occur in southern Africa (Wetlands International 2002). Between 1977 and 1981 the coastal population in Namibia and South Africa numbered c. 2 500 breeding pairs. Between 1995 and 2006, this population numbered at least 2 200 pairs. No accurate figures are available for the inland populations and some known coastal breeding localities, particularly in Namibia and in the Southern Cape, have not been visited recently. The coastal population in Namibia and South Africa has decreased by 0.6% per year over 23 years, or by 12% over three generations, qualifying the White-breasted Cormorant in the category "Near-Threatened" (an estimated 10% decline in the last three generations and fewer than 15 000 mature individuals). If, however, the inland population, thought to number a few thousand pairs, is added, the entire southern African population of White-breasted Cormorants should be considered "Least concern".

Biology

The African Black Oystercatcher is an endemic breeder in Namibia and South Africa, but is also found in small numbers in southern Angola and northern KwaZulu-Natal, with vagrants reaching central Angola and southern Mozambique (Hockey 1983, Simmons *et al.* 2006, Brown & Hockey 2007). Most breeding pairs are concentrated between Lüderitz, Namibia and the Western Cape (Hockey 1983, Braby & Underhill 2007). Adults are mostly sedentary; juveniles disperse short distances (less than 150 km) or migrate to “nursery areas” before returning to their natal areas (Hockey *et al.* 2003). African Black Oystercatchers are solitary nesters, usually on sandy ground. Nests are difficult to detect and breeding population estimates from nest counts are likely to be underestimates. The species forages in the intertidal zone. Food includes mussels, limpets, clams, polychaetes, whelks and crustaceans (Hockey & Underhill 1984). Since the late 1980s the alien Mediterranean Mussel *Mytilus galloprovincialis* has dominated the diet (Hockey & van Erkom Schurink 1992).

Main threats

Human disturbance (including off-road driving) (Williams *et al.* 2004); coastal development; breeding and feeding habitat loss through mining activities (Simmons 2005); terrestrial predators.

Conservation status

As noted by Underhill (2000), populations of African Black Oystercatcher increased at many localities during the 1990s. This trend has continued. For example, Tjørve & Underhill (2006) documented an increase in oystercatchers on Robben Island, from 40 in 1977 to 86 in 1980 to 221 in 2003/04, an increase of 3.88% per year over the 23 years since 1980.

At the far east of the breeding range, in the

Eastern Cape, the population of African Black Oystercatchers breeding along the coast near East London more than trebled between 1983 and 2004 (Vernon 2004). Vernon (2004) attributed this increase to immigration, rather than improved breeding success in the area. Numbers of African Black Oystercatchers have also increased on both the mainland and most of the offshore islands along the west coast of South Africa and Namibia (Underhill 2000, Hockey *et al.* 2005). Much of this increase has been attributed to the invasion of the Mediterranean Mussel, resulting in greater food availability for oystercatchers and thus improved breeding success (Hockey and van Erkom Schurink 1992). We recommend that the African Black Oystercatcher should be reclassified from “Near-threatened” to “Least concern”.

Table 11: Breeding distribution and numbers of occupied nest sites of the African Black Oystercatcher. Is. = island; IBA = Important Bird Area; P = Provincial Nature Reserve; N = National Park; R = Ramsar site; WH = World Heritage Site; LA = Local Authority; RA = Restricted access. Numbers in italics are averages of several counts

Locality	Coordinates	IBA	Protection status	No. of nest sites	Date
Namibia					
Mercury Is.	25°43'S 14°50'E	N017	RA	1	2005
Ichaboe Is.	26°17'S 14°56'E	N018	RA	13	2007
Seal Is.	26°36'S 15°09'E	N019	RA	35	
Penguin Is.	26°37'S 15°09'E	N019	RA	30	
Halifax Is.	26°37'S 15°04'E	N019	RA	45	
Possession Is.	27°01'S 15°12'E	N020	RA	197	2007
Pomona Is.	27°11'S 15°15'E		RA	2	2007
Namibia/Angola total				323	
South Africa					
Malgas Is.	33°03'S 17°55'E	SA105	N, R	70	2001
Jutten Is.	33°05'S 17°57'E	SA105	N, R	110	2001
Vondeling Is.	33°09'S 17°59'E	SA105	P	35	2001
Dassen Is.	33°25'S 18°05'E	SA109	P	95	2001
Robben Is.	33°48'S 18°22'E	SA110	WH	60	2001
Gamtoos–Maitland Rivers	33°58'S 25°02'E			155	2001
Nelson Mandela Bay	33°50'S 26°17'E	SA095	P	20	1998
South Africa total				545	
Overall total				868	

Biology

The Kelp Gull is widely distributed in the Southern Hemisphere. The subspecies *vetula* is endemic to southern Africa (Wetlands International 2002), where it breeds along the coasts of southern Angola, Namibia and South Africa (Crawford 1997c). Non-breeding birds are found in northern Angola and Mozambique, as well as at inland localities in the Western and Eastern Cape Provinces, South Africa (du Toit *et al.* 2003). It nests in loose colonies or singly in a variety of habitats (Williams *et al.* 1984). It feeds on a range of marine prey, including fish, limpets and mussels. In addition, it scavenges bird and mammal carcasses, predaes eggs and chicks of seabirds (including from conspecifics) and steals food from other birds. Kelp Gulls also feed on refuse from dumps and abattoirs and on offal from fishing vessels and factories (Hockey *et al.* 2005).

Main threats

Predation of eggs or chicks by conspecifics, Great White Pelicans and Sacred Ibises (Crawford *et al.* 1997, MCM unpubl. data); susceptibility to avian cholera (Crawford 1997c, du Toit *et al.* 2003); population control measures implemented at two breeding localities in Namibia (destruction of eggs) (Hockey *et al.* 2005); human disturbance during breeding (Kemper 2006); local exploitation of gull eggs at localities accessible to the public (du Toit *et al.* 2003).

Conservation status

The coastal population of the subspecies of the Kelp Gull was estimated at 11 200 breeding pairs between 1976 and 1981 (Altwegg *et al.* 2006). In 2006, the breeding population had nearly doubled to 20 500 pairs. Numbers increased substan-

Table 12: Breeding distribution and numbers of occupied nest sites of the Kelp Gull, subspecies *vetula*. Is. = island; IBA = Important Bird Area; P = Provincial Nature Reserve; N = National Park; R = Ramsar site; WH = World Heritage Site; LA = Local Authority; RA = Restricted access. Numbers in brackets denote recent highest number of nest sites and corresponding date for localities where counts vary widely between years. For additional localities for which no recent counts are available or where Kelp Gulls may no longer breed, see du Toit *et al.* (2003)

Locality	Coordinates	IBA	Protection status	Number of nest sites	Date
Angola					
Ilha dos Tigres	16°45'S 11°45'E			954	2005/06
				5	1982/83
Namibia					
North of Cape Cross	–		N	5	1982/83
Bird Rock platform	22°53'S 14°31'E		RA	10	2002/03
Sandwich Harbour	23°20'S 14°30'E	N015	N, R	50	2001/02
Mercury Is.	25°43'S 14°50'E	N017	RA	2	2006/07
Ichaboe Is.	26°17'S 14°56'E	N018	RA	72	2006/07
Seal Is.	26°36'S 15°09'E	N019	RA	32 (110)	2005/06 (2004/05)
Penguin Is.	26°37'S 15°09'E	N019	RA	3 (175)	2005/06 (2004/05)
Halifax Is.	26°37'S 15°04'E	N019	RA	272	2004/05
Possession Is.	27°01'S 15°12'E	N020	RA	1 494	2006/07
Albatross Is.	27°07'S 15°14'E		RA	1	2004/05
Pomona Is.	27°11'S 15°15'E		RA	10	2005/06
Plumpudding Is.	27°39'S 15°31'E		RA	13	2005/06
Sinclair Is.	27°40'S 15°31'E		RA	8	2005/06
Other localities*				525	
Namibia/Angola total				3 456	
South Africa					
Bird Is. (Lambert's Bay)	32°05'S 18°18'E	SA100	P	69	2006/07
Malgas Is.	33°03'S 17°55'E	SA105	N, R	156	2006/07
Jutten Is.	33°05'S 17°57'E	SA105	N, R	2 528	2006/07
Schaapen Is.	33°06'S 18°01'E	SA105	N, R	5 201	2006/07
Vondeling Is.	33°09'S 17°59'E	SA105	P	234	2006/07
Caspian Islet	33°11'S 18°06'E	SA105	N, R	145	2006/07
Meeuw Is.	33°20'S 18°09'E	SA105	N, R	1 073	2006/07
Dassen Is.	33°25'S 18°05'E	SA109	P	5 001	2006/07
Robben Is.	33°48'S 18°22'E	SA110	WH	160	2006/07
Dyer Is.	34°41'S 19°25'E	SA120	P	409	2006/07
St Croix Is.	33°47'S 25°46'E	SA095	NP	1 (410)	2006/07 (1977/78)
Jahleel Is.	33°48'S 25°43'E	SA095	NP	10	2005/06
Stag Is.	33°50'S 26°16'E	SA095	NP	46	2005/06
Seal Is. (Nelson Mandela Bay)	33°50'S 26°17'E	SA095	NP	138	2005/06
Other localities*				1 887	
South Africa total				17 058	
Overall total				20 514	

*not counted recently; for details see du Toit *et al.* (2003)

tially in the 1980s at localities off the southwestern Cape (Crawford *et al.* 1994). This increase is largely attributable to the provision of additional food sources from human activities (Crawford 1997c) and the cessation of population control meas-

ures (mainly the destruction of eggs and chicks) at most breeding localities (Hockey *et al.* 2005). This represents an increase of 2.0% per year since 1976. This increase confirms this subspecies of the Kelp Gull in the category "Least concern".

Hartlaub's Gull

Least concern

Biology

The Hartlaub's Gull is endemic to Namibia and South Africa (Wetlands International 2002). Its distribution is linked to kelp *Ecklonia maxima* beds, but the species is often found in areas associated with harbours, fishing factories and other human habitation (Williams *et al.* 1990, du Toit *et al.* 2003). A large proportion of the species breeds in the greater Cape Town area, South Africa. The Hartlaub's Gull breeds colonially, often in association with Swift Terns *Sterna bergii bergii* and Crowned Cormorants *Phalacrocorax coronatus*, using a variety of nesting habitats, including artificial structures

(Hockey *et al.* 2005). The breeding season is poorly defined and often opportunistic; colony site and locality fidelity is low (Crawford 1997d). It forages on the water surface, behind trawlers, at refuse dumps and on farmlands; main food items include fish, marine invertebrates, insects, terrestrial snails, fruit and domestic waste (Walter 1984, Hockey *et al.* 2005).

Main threats

Predation of adults and nest contents by Domestic Cats (Crawford & Dyer 2000); predation of eggs and chicks by Kelp Gulls and Sacred Ibises (du Toit *et al.* 2003); breeding

habitat destruction (e.g. through housing or harbour developments); population control (through destroying eggs, chicks or adults, and by discouraging settling through deliberate disturbance in urban areas where they may become a nuisance and a risk to air traffic) (Williams *et al.* 1990); susceptibility to oil pollution (fish, fuel and crude oil) and pesticides (du Toit *et al.* 2003).

Conservation status

The breeding population Hartlaub's Gulls is difficult to estimate because of the low fidelity to their breeding localities, a poorly defined breeding season and high inter-annual fluctuations in the number of breeding birds. This, together with a lack of updated counts from the northern extreme of its breeding range probably renders latest estimates of 6 864 pairs too low. In 1976–1983 the global population of Hartlaub's Gulls numbered *c.* 8 400–9 500 pairs, of which *c.* 15% bred in Namibia. In 1984–1989 *c.* 12 000–13 700 pairs bred globally; 10% of these in Namibia (Williams *et al.* 1990). Numbers in Namibia appear to have decreased by about half since then, but this could be an artifact of the counting method rather than a real trend. Numbers in South Africa were thought to have increased in response to urban foraging opportunities, but recent evidence indicates that numbers there decreased again in the 1990s (Crawford & Underhill 2003). Breeding pairs in greater Cape Town, on average, make up 21% of the South African population. Estimates given in du Toit *et al.* (2003) and here are similar, and there has been no apparent population trend in numbers, confirming the Hartlaub's Gull in the category "Least concern". The lack of quality census data is, however, disconcerting. It is therefore essential that a series of coor-

Table 13: Breeding distribution and numbers of occupied nest sites of the Hartlaub's Gull. Is. = island; IBA = Important Bird Area; P = Provincial Nature Reserve; N = National Park; R = Ramsar site; WH = World Heritage Site; LA = Local Authority; RA = Restricted access. Numbers in brackets denote recent highest number of nest sites and corresponding date for localities where counts vary widely between years. For additional localities for which no recent counts are available or where Hartlaub's Gulls may no longer breed, see du Toit *et al.* (2003)

Locality	Coordinates	IBA	Protection status	No. of nest sites	Date
Namibia					
Ichaboe Is.	26°17'S 14°56'E	N018	RA	34	2007
Shark Is.	26°38'S 15°10'E		LA	72	2002
Halifax Is.	26°37'S 15°04'E	N019	RA	68	2007
Possession Is.	27°01'S 15°12'E	N020	RA	124	2006
Other localities*				455	
Namibia total				753	
South Africa					
Lambert's Bay	32°05'S 18°18'E	SA100	P	0 (160)	1006 (1999)
Sandy Point	32°43'S 17°57'E			100	2006
Saldanha harbour	33°02'S 17°56'E			0 (58)	2006 (2005)
Malgas Is.	33°03'S 17°55'E	SA105	N, R	17 (1357)	2006 (2005)
Marcus Is.	33°03'S 17°58'E	SA105	N, R	0 (231)	2006 (2004)
Jutten Is.	33°05'S 17°57'E	SA105	N, R	200	2006
Schaapen Is.	33°06'S 18°01'E	SA105	N, R	575 (1087)	2006 (2004)
Vondeling Is.	33°09'S 17°59'E	SA105	P	0 (1)	2006 (2004)
Caspian Islet	33°11'S 18°06'E	SA105	N, R	0 (344)	2006 (1987)
Meeuw Is.	33°20'S 18°09'E	SA105	N, R	0 (164)	2006 (2004)
Dassen Is.	33°25'S 18°05'E	SA109	P	773	2006
Koeberg	33°40'S 18°25'E			3 (100)	2006 (2005)
Robben Is.	33°48'S 18°22'E	SA110	WH	21 (117)	2006 (2004)
Greater Cape Town	33°55'S 18°23'E			1252	2006
Dyer Is.	34°41'S 19°25'E	SA120	P	44	2006
Other localities*				124	
South Africa total				6 111	
Overall total				6 864	

*not counted recently; for details see du Toit *et al.* 2003

ordinated censuses of all breeding Hartlaub's Gulls at all breeding localities be undertaken and that the conservation status be re-evaluated based on the results of the censuses.

Grey-headed Gull

Least concern

Biology

The subspecies of the Grey-headed Gull *poiocephalus* is widely distributed throughout sub-Saharan Africa and Madagascar (Brooke 1997). It breeds along the coast and the mesic eastern interior of southern Africa; individuals can disperse extensively (Hockey *et al.* 2005). Regular partial migration of pairs breeding on the South African Highveld to the coastal plains of Mozambique and KwaZulu-Natal is likely (Hockey *et al.* 2005). Grey-headed Gulls breed in small groups or singly on the ground (Brooke *et al.* 1999). Switching of localities between years is common. It may hybridize with Hartlaub's Gulls, particularly in coastal central Namibia (Williams 1989). The species forages mostly in loose flocks over shallow water. Its diet includes fish, aquatic invertebrates, insects and frogs, eggs and chicks of other birds (Hockey *et al.* 2005). It scavenges at refuse dumps and picnic sites (Brooke 1997, Hockey *et al.* 2005) and may kleptoparasitise other birds (Attwell & Attwell 1990).

Main threats

Loss of habitat through destruction and pollution of natural wetlands (this has been compensated for, in part, by the construction of artificial wetlands such as sewage works); pesticide pollution; collision with air traffic; use by the traditional-medicine trade (du Toit *et al.* 2003).

Conservation status

The world population of the subspecies numbers *c.* 10 000 pairs, mostly in equatorial Africa. The southern African population was estimated at *c.* 2 000 pairs in 1980s (Brooke *et al.* 1999). A poorly defined breeding season, low breeding locality fidelity and a lack of updated counts make it difficult to estimate the size of the southern African population and current estimates of 2 116 pairs are likely to be too low. The subspecies is, however, considered to have greatly increased in numbers in southern Africa. Only two breeding

Table 14: Breeding distribution and approximate numbers of occupied nest sites of the Grey-headed Gull in southern Africa

Country	Approx. no. of breeding localities	No. of nest sites
Namibia	7	529
Botswana	3	13
Zimbabwe	5	64
South Africa	49	1 510
Overall total		2 116

sites were reported in South Africa in the 19th century; this number has increased to between 60 and 70 sites in southern Africa (Brooke 1997). There may have been a recent increase in the population in South Africa (McInnes 2006). Considering its ability to disperse and make use of new breeding localities and its apparent increase in numbers, we recommend that the southern African population of the African subspecies of the Grey-headed Gull is classified "Least concern".

Caspian Tern

Near-threatened

Biology

The Caspian Tern has a worldwide distribution, but is absent from Antarctica and South America (Hockey *et al.* 2005). It is found along the entire coast of southern Africa, as well as at a number of inland localities, mainly in eastern Botswana, central South Africa and southern Mozambique, which account for about 9% of the southern African population (Crawford 1997e). The southern African population may be geographically and possibly even genetically isolated

(Underhill 1986, Cooper *et al.* 1992). At most localities the number of breeding pairs fluctuate between years. The movements of this species are complex and not fully understood (Hockey *et al.* 2005). The majority of pairs in southern Africa breed at Lake St Lucia, South Africa. In the west, the species breeds primarily on offshore islands, but also on sandy beaches and islets in salt works, pans, rivers and dams. It feeds in shallow water, mostly on fish and may also scavenge dead fish (Whitfield & Blaber 1978).

Main threats

Human disturbance during breeding activities, including egg collecting; flooding of breeding habitat; predation by Domestic Dogs *Canis lupus familiaris* (du Toit *et al.* 2003).

Table 15: Breeding distribution and numbers of occupied nest sites of the Caspian Tern at coastal localities in southern Africa. Is. = island; IBA = Important Bird Area; P = Provincial Nature Reserve; N = National Park; R = Ramsar site; WH = World Heritage Site; LA = Local Authority; RA = Restricted access. Numbers in brackets denote recent highest number of nest sites and corresponding date for localities where counts vary widely between years

Locality	Coordinates	IBA	Conservation status	No. of nest sites	Date
Angola					
Ilha dos Tigres	16°45'S 11°45'E			88	2005
Namibia					
Swakopmund Salt Works	22°41'S 14°31'E	N012	RA	18	1975
Walvis Bay Sewage Works	22°58'S 14°31'E	N014	RA	2	1973
Sandwich Harbour	23°20'S 14°30'E	N015	N, R	1	1977
Namibia/Angola Total				109	
South Africa					
Jutten Is.	33°05'S 17°57'E	SA105	N, R	2	2006
Schaapen Is.	33°06'S 18°01'E	SA105	N, R	1	2006
Meeuw Is.	33°20'S 18°09'E	SA105	N, R	1	2006
Caspian Islet	33°11'S 18°06'E	SA105	N, R	0 (12)	2006 (2005)
West Coast National Park	33°12'S 18°08'E		N	4	2004
Lake St Lucia	28°02'S 32°29'E	SA058	N, R, WH	300	1998
South Africa total				316	
Overall total				425	

Conservation status

The southern African population of the Caspian Tern is estimated at 1 000–1 500 individuals, with a breeding population that numbered c. 435 pairs between 1980 and 1991 (Cooper *et al.* 1992). Latest population estimates show no overall decline in the breeding population, but the number of known breeding localities in southern Africa has decreased from 27 to 10 localities (Cooper *et al.* 1992) and numbers are decreasing in the West Coast National Park (Table 15). Considering this decrease and the small population size (<1 500 mature individuals in southern Africa), the southern African population of the Caspian Tern should remain "Near-threatened".

Roseate Tern

Vulnerable

Biology

The Roseate Tern is widespread, with the majority of the species breeding in Australia (Hockey *et al.* 2005). A highly localized population is found in South Africa, where it breeds in small colonies at three islands in the southern and eastern Cape (Crawford 1997f). It is probably resident within this region, with some post-breeding dispersal along the adjacent coastline (Crawford 1997f). It forages within 2 km of the

breeding island, feeding on fish (Randall & Randall 1978).

Main threats

Human disturbance at breeding colonies (Crawford 1997f); egg predation by Kelp Gulls (du Toit *et al.* 2003); chick mortality from hypothermia during wet weather (Randall & Randall 1978); high susceptibility to oil pollution (du Toit *et al.* 2003).

Conservation status

The number of breeding pairs of Roseate Terns in South Africa has remained stable since 1977 (Randall & Randall 1980, Randall *et al.* 1991) and is estimated at between 150 and 250 pairs. Du Toit *et al.* (2003) proposed that the South

African population of the species should be classified “Vulnerable” (D1, D2), based on its small but stable population size and the small number of breeding localities. Since that review, the population has remained stable and we endorse the status “Vulnerable” (D1, D2).

Table 16: Breeding distribution and numbers of occupied nest sites of the Roseate Tern in southern Africa. Is. = island; IBA = Important Bird Area; P = Provincial Nature Reserve; N = National Park; R = Ramsar site; WH = World Heritage Site; LA = Local Authority; RA = Restricted access. Numbers in brackets denote recent highest number of nest sites and corresponding date for localities where counts vary widely between years

Locality	Coordinates	IBA	Protection status	Number of nest sites	Date
South Africa					
Dyer Is.	34°41'S 19°25'E	SA120	P	12	2006
St Croix Is.	33°47'S 25°46'E	SA095	NP	0 (58)	2006 (2005)
Bird Is. (Nelson Mandela Bay)	33°51'S 26°17'E	SA095	NP	170	2006
South Africa total				170–240	

Swift Tern

Least concern

Biology

The Swift Tern is globally widespread and numbers more than 1 000 000 individuals (Crawford 1997g). The subspecies *bergii* breeds in Namibia and South Africa and in small numbers in southern Angola (Crawford 1997g). Small groups of non-breeding birds and juveniles may move large distances to KwaZulu-Natal, Mozambique, northern Namibia and southern Angola (Hockey *et al.* 2005). It nests on the ground in colonies, often in association with Hartlaub's Gulls (Crawford *et al.* 1994, 2002). Locality fidelity tends to be poor and breeding may not be attempted if conditions are not

suitable (Crawford 2003). Swift Terns forage over the continental shelf, up to 10 km from land (Cooper *et al.* 1990), feeding mostly on pelagic shoaling fish (Crawford & Dyer 1995), but also on insects, cephalopods and crustaceans (Walter *et al.* 1987).

Main threats

Human disturbance of breeding colonies; destruction of breeding habitat by developments (du Toit *et al.* 2003); predation by Domestic Cats (Cooper *et al.* 1990, Crawford *et al.* 2002); egg and chick predation by Kelp Gulls and Great

Table 17: Breeding distribution and numbers of occupied nest sites of the Swift Tern, nominate subspecies. Is. = island; IBA = Important Bird Area; P = Provincial Nature Reserve; N = National Park; R = Ramsar site; WH = World Heritage Site; LA = Local Authority; RA = Restricted access. Numbers in brackets denote recent highest number of nest sites and corresponding date for localities where counts vary widely between years

Locality	Coordinates	IBA	Protection status	Number of nest sites	Date
Namibia					
Ichaboe Is.	26°17'S 14°56'E	N018	RA	200	2007
Halifax Is.	26°37'S 15°04'E	N019	RA	1 003	2007
Possession Is.	27°01'S 15°12'E	N020	RA	55	2007
Namibia total				1 258	
South Africa					
Berg River	32°43'S 18°08'E			0 (69)	2006 (2005)
Sandy Point	32°43'S 17°57'E			20	2006
Saldanha	33°02'S 17°56'E			0 (159)	2006 (2004)
Malgas Is.	33°03'S 17°55'E	SA105	N, R	261	2006
Marcus Is.	33°03'S 17°58'E	SA105	N, R	0 (1 686)	2006
Jutten Is.	33°05'S 17°57'E	SA105	N, R	1 667*	2006
Schaapen Is.	33°06'S 18°01'E	SA105	N, R	0 (38)	2006 (2004)
Meeuw Is.	33°20'S 18°09'E	SA105	N, R	0 (56)	2006 (2004)
Dassen Is.	33°25'S 18°05'E	SA109	P	1 457*	2006
Koeberg	33°40'S 18°25'E			0 (100)	2006 (2005)
Robben Is.	33°48'S 18°22'E	SA110	WH	3	2006
Dyer Is.	34°41'S 19°25'E	SA120	P	6 722	2006
Eastern Cape				660	2001
South Africa total				7 663	
Overall total				8 921	

*breeding failed and birds were presumed to have moved to Dyer Island

White Pelicans (Crawford 1997g, du Toit *et al.* 2003); competition with commercial fisheries for food (du Toit *et al.* 2003).

Conservation status

The historical distribution of the subspecies is thought to be similar to the present distribution (Crawford 1997g). It is difficult to estimate population numbers owing to poor locality fidelity. Large inter-annual fluctuations between localities

suggest that the same birds breed at different localities in different years. The number breeding in southern Africa was estimated at 5 000 pairs in 1984 (Cooper *et al.* 1990). By 2006, the breeding population had increased to 9 000 pairs, with roughly 15% of the subspecies breeding in Namibia. Given the relatively large population size, an increase of 2.4% per year since 1984, and the large number of breeding localities, this subspecies falls into the category “Least concern”.

Damara Tern

Near-threatened

Biology

The Damara Tern breeds in Namibia and South Africa and possibly in southern Angola (Crawford & Simmons 1997, Simmons *et al.* 2006), but moves to Nigeria, Cameroon and Sierra Leone during the non-breeding season (Hockey *et al.* 2005). It breeds solitarily or in loose colonies along the coast on salt pans, dune slacks, raised pebble beaches and gravel plains (Randall & McLachlan 1982, de Villiers & Simmons 1997). Nests are difficult to detect, making an accurate estimate of the breeding population difficult. Damara Terns mainly forage over shallow water, especially in bays or at salt works, but also behind the surf line at the sea shore (Braby *et al.* 1992, Simmons & Braine 1994). The diet includes small fish and squid (Clinning 1978).

Main threats

Human disturbance; breeding habitat loss from coastal developments (particularly between Swakopmund and Walvis Bay, Namibia) (R. Braby pers. comm.) and off-road driving (especially in Namibia near Swakopmund and Walvis Bay) (Braby *et al.* 2001); potential breeding and feeding habitat loss through diamond mining activities (Simmons 2005).

Conservation status

Estimates of the global population have increased from fewer than 3 000 individuals to c. 13 500 individuals (Braby *et al.* 1992, Simmons *et al.* 1998). This apparent increase is likely to stem from intensified efforts to find nests rather than an

Table 18: Breeding distribution and estimated numbers of occupied nest sites of the Damara Tern

Locality	No. of nest sites	Date
Angola		
Baia dos Tigres	May breed	
Namibia		
Moewe Bay to Swakopmund	300	2007
Swakopmund to Walvis Bay	230	2007
Walvis Bay to Lüderitz	100	2007
Lüderitz to Orange River	180	2007
Namibia total	810	
South Africa total	120	2001
Overall total	930	

increase in the number of birds and from the sighting of one large roost of more than 5 000 individuals (Braby *et al.* 1992). The breeding population in Namibia appears to be stable. Numbers decreased in South Africa from c. 150 pairs in 1984 to 120 pairs in the 1990s (Barnes 2000). The species does not meet the criteria for “Endangered” or “Vulnerable”. Given the magnitude of the current threats to its breeding habitat in an area where a significant number of Damara Terns are known to breed (i.e. the areas surrounding Swakopmund and Walvis Bay, Namibia and the mining areas in southern Namibia), we recommend that the species is listed as “Near-threatened”.

Cape fur seal

Least concern

Biology

The Cape Fur Seal is the only species of seal which breeds along the coasts of South Africa and Namibia (David 1989). Breeding has also been reported from Ilha dos Tigres in southern Angola (Meÿer 2007). It breeds in dense colonies on small, rocky, offshore islands as well as at a number of mainland colonies. During the 1990s, the seal colonies at Atlas Bay and Kleinsee were considered to be the largest mainland seal colonies in the world (David 1989). The species forages over the coastal shelf. Diet composition varies in time and space, with large differences between regions (Mecenero *et al.* 2006a, b). Main prey in Namibia includes juvenile Cape Hake *Merluccius capensis*, Cape Horse Mackerel *Trachurus trachurus capensis* and Pelagic Goby (Mecenero *et al.* 2006a, b), while the diet in South Africa is dominated by Anchovy *Engraulis capensis* and Sardine *Sardinops sagax* (David 1987). Other food items include

cephalopods (De Bruyn *et al.* 2003), crustaceans and rock lobster (David 1989).

Threats

A lack of prey as a result of environmental fluctuations (particularly changes in upwelling intensity) and overfishing (Roux 2003, Van der Lingen *et al.* 2006); shift of prey out of the reach for suckling seals (van der Lingen *et al.* 2006); sealing (a moratorium was put on sealing in South Africa in 1990, but it continues in Namibia at Cape Cross, Wolf and Atlas Bays); a lack of additional breeding space on South Africa’s southwestern and south coast (Stewardson 2001); predation of pups by Brown Hyenas *Parahyaena brunnea* and Black-backed Jackals (Wiesel 2006); predation at sea by Great White Sharks *Carcharodon carcharias* (Compagno *et al.* 1989); incidental entanglement in fishing gear and intentional killing by fishermen (Wickens *et al.* 1992); human

interference (seals are discouraged to breed at a number of islands where they would displace breeding seabirds, e.g. Crawford *et al.* 1989); probable poisoning from toxic algal blooms has been recorded (MFMR unpubl. data).

Conservation status

The population of the Cape Fur Seal in Namibia and South Africa is thought to have been reduced at one stage to fewer than 100 000 individuals (Shaughnessy & Butterworth 1981 in Kirkman *et al.* 2007) after extensive and indiscriminate seal harvesting during the 18th, 19th and part of the 20th century. Between 1972, when the first complete aerial seal census was done (Kirkman *et al.* 2007) and 1993, the total number of pups born increased at a rate of 3.1% per year from 187 000 to 324 800 pups (Kirkman *et al.* 2007). Between 1993 and 2004, pup numbers have fluctuated, particu-

larly in the northern Benguela (Namibia), which is subject to stronger and more frequent environmental perturbations than the southern Benguela (Van der Lingen *et al.* 2006). The growth of the South African population reduced between 1993 and 2004 (Kirkman *et al.* 2007). In Namibia, where approximately 60% of Cape Fur Seals occur, the seal distribution has shown a marked shift towards the north of its breeding range; the proportion of pups counted at localities north of 25°S increased from less than 20% of the Namibian stock in the early 1980s, to 30–34% between 1989 and 1993, and to more than 40% since the mid 1990s. Kirkman *et al.* (2007) estimate that despite the large inter-annual fluctuations in pup production, there has been little or no change in the overall population size since 1993, when the total seal population was estimated at about 2 million animals. The global population of the Cape Fur Seal should therefore be classified as “Least concern”.

Table 19: Breeding distribution and estimated numbers of pups born at each locality from Kirkman *et al.* (2007). Numbers in italics are proxy values for localities where pup counts were missing. Is. = island; P = Provincial Nature Reserve; N = National Park; RA = Restricted access; bPNR = bordered by a Private Nature Reserve

Locality	Coordinates	Mainland or island	Protection status	Number of pups	Date
Angola					
Ilha dos Tigres	16°42'S 11°44'E	I		1 163*	2005
Namibia					
Cape Frio	18°25'S 12°00'E	M	N	16 608	2004
Cape Cross	21°47'S 13°57'E	M	P	54 546	2004
Hollams Bird Is.	24°38'S 14°32'E	I	RA	2 305	2004
Marshall Reef	26°21'S 14°57'E	I	RA	<i>434</i>	2004
Staple Rock	26°21'S 14°58'E	I	RA	<i>1 808</i>	2004
Boat Bay Rock	26°25'S 15°05'E	I	RA	<i>1 100</i>	2004
Dumfudgeon Rock	26°29'S 15°07'E	I	RA	<i>1 230</i>	2004
Wolf Bay	26°48'S 15°07'E	M	N	29 531	2004
Atlas Bay	26°49'S 15°08'E	M	N	45 155	2004
Long Is.	26°49'S 15°07'E	I	RA	12 648	2004
North Reef	27°00'S 15°11'E	I	RA	??	
Albatross Rock	27°07'S 15°14'E	I	RA	<i>2 926</i>	2004
Black Rock	27°23'S 15°20'E	I	RA	259	2004
Van Reenen Bay	27°23'S 15°21'E	M	N	<i>5 121</i>	2004
Sinclair Is.	27°40'S 15°31'E	I	RA	10 543	2004
Lion's Head	27°40'S 15°31'E	M	N	9 603	2004
Angola/Namibia total				194 980	
South Africa					
Kleinsee	29°34'S 17°00'E	M	RA	80 897	2004
Elephant Rock	31°39'S 18°08'E	I		4 398	2004
Bird Is. (Lambert's Bay)	32°05'S 18°18'E	I	P	592	2004
Paternoster Rock	32°44'S 17°53'E	I		908	2004
Jacob's Reef	32°57'S 17°52'E	I		3 376	2004
Robbesteen	33°38'S 18°24'E	I	bPNR	908	2004
Seal Is. (False Bay)	34°08'S 18°35'E	I	P	18 339	2004
Geyser Rock	34°42'S 19°25'E	I	P	<i>11 184</i>	2004
Quoin Rock	34°47'S 19°40'E	I		<i>1 223</i>	2004
Seal Is. (Mossel Bay)	34°09'S 22°08'E	I		<i>658</i>	2004
Black Rocks (Nelson Mandela Bay)	33°50'S 26°17'E	I	NP	423	2004
South Africa total				122 906	
Overall total*				317 886	

*ground count estimate during November 2005 (MFMR/MCM unpubl. data)

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