Conservation Assessment and Management Plan for Southern African Coastal Seabirds

Edited by

M du Toit, GC Boere, J Cooper, MS de Villiers, J Kemper, B Lenten, SL Petersen, RE Simmons, LG Underhill, PA Whittington & OP Byers

Workshop Report
Cape Town, South Africa
4–8 February 2002











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Authored by the Workshop participants

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Thank You!
September 2004

PREFACE

The preface to this report comprises the text of the welcoming speech given by Ms Judy Chalmers, MP, to the workshop participants.

"It gives me great pleasure to welcome you here this evening at the beginning of this week-long workshop – a workshop that, I am sure, will be of great importance in contributing towards the conservation of our southern African seabird populations.

Indeed, in southern Africa conservation is taken extremely seriously. Both Namibia and South Africa are water-scarce but biodiversity-rich countries that need to conserve their natural resources in a sustainable manner for the good of all. In rural areas, many people live close to the land. In developed areas, especially the large cities, addressing "brown" issues, such as the provision of potable water, clean air and open space, forms an important part of governments' mission to alleviate poverty and to improve the quality of life for our country's inhabitants.

Southern Africa supports a rich biodiversity worthy of conserving in its own right, but also one that attracts international eco-tourists, whose spending power creates jobs the region desperately needs. Just one example: the African Penguin colony on the Cape Peninsula is now on the international (and domestic) tourists' "must see" list and it brings in a large income that helps support the Table Mountain National Park and pay the salaries of the rangers who protect it.

To protect this rich diversity of life my own country, South Africa, is proud to be a member of a number of international conventions and agreements that work towards protecting biodiversity. One of these is the Bonn Convention on Migratory Species (CMS). We hosted successfully the 6th Conference of Parties of the CMS in Somerset West a few years back and we intend to be represented at the next CoP this year in Germany. Last year we hosted the second and final negotiation meeting for the Agreement on the Conservation on Albatrosses and Petrels (ACAP) here in Cape Town, a meeting organized most successfully by John Cooper of the Avian Demography Unit. I am pleased to say that South Africa will be signing and ratifying this important new agreement very shortly. Already ACAP has been the motivation for South Africa to re-survey its albatross populations on its sub-Antarctic Prince Edward Islands. This new survey, conducted last December under the leadership of Dr. Robert Crawford of Marine & Coastal Management, means that we will be able to contribute to the deliberations of ACAP from the start.

The cold nutrient-rich waters of the Benguela Current support the breeding seabirds of the west coast of southern Africa. These seabird populations are shared by three countries: Angola, Namibia and South Africa. Practically all 17 species are migratory in the sense that they cross international boundaries at some stage of their life cycle. Therefore, collaborative action between range states, as envisaged by the Bonn Convention, should lead to a marked improvement in their conservation status. Working towards a Memorandum of Understanding between southern African countries for protecting breeding seabirds is the goal of this weeks' workshop.

In so doing, I think we are showing something that South Africa is rather good at, and I expect the same applies to Namibia. This is the synergistic way that government,

academic researchers and environmental NGOs can come together to work towards a common goal in a non-combative manner. A look at the people here this evening reflects this ability to work together. There is a role for legal environmental protest of course, and South Africa's constitution gives this right, but I would hope that now is a time for us to work as one with a common purpose. A MoU for southern African breeding seabirds was originally the idea of the Avian Demography Unit of the University of Cape Town, but we hope it will become the mission of the regions' governments to progress, perhaps aided by the prodding of the NGOs.

I would like to welcome you all to Cape Town, the Mother City, especially those who have travelled far. We are especially pleased to have Dr. Onnie Byers of the World Conservation Union here to facilitate the workshop from the USA. An especial welcome is also due to Dr. Gerard Boere of Wetlands International from the Netherlands and a thank you for the generous support his organization has given that is helping fund the attendance of many of us this week. Financial and logistic support for the workshop and for the subsequent developing of an MoU has also been received from the African Seabird Group, the Bonn Convention Secretariat, Marine & Coastal Management of the South African Department of Environmental Affairs & Tourism, the Namibian Nature Foundation, the Penguin and Pelican Taxon Advisory Groups of the USA, the Penguin Fund of Japan, the University of Cape Town and the WWF South Africa. Our thanks go to them all.

I would also like to welcome all the workshop participants who have come from Namibia and from other parts of South Africa to Cape Town. You are engaged in an important task. In due course, I hope to be able to progress the idea of a Southern African Seabird Memorandum of Understanding through the Portfolio Committee on Environmental Affairs & Tourism in Parliament.

Lastly, to all our visitors, I hope you will enjoy your stay in Cape Town, and that you will come back again soon.

Thank you for your attention".

A. INTRODUCTION

In southern Africa, as elsewhere, coastal seabirds face a number of threats mainly due to changes brought about by human activity and its consequences, such as oil pollution, over-fishing, incidental mortality in fisheries, human disturbance, and habitat loss. Although many southern African coastal seabirds breed at protected sites, away from the direct effects of human development, they are not immune to these pressures and a number of them are in serious need of better conservation measures. Additionally, several species of coastal seabirds which breed outside southern Africa, primarily terns *Sterna* spp., forage and roost within southern Africa outside their breeding seasons. Because many species of coastal seabirds have wide distributions, often crossing international boundaries, their conservation status may be improved through internationally coordinated conservation management efforts. Coastal seabirds are also of economic significance, such as for eco-tourism and as indicators of prey stocks of commercial value.

A resolution calling for collaborative action inter-sessionally by range states of the Appendix II-listed African Penguin *Spheniscus demersus* was adopted at the 6th Conference of Parties of the Bonn Convention on the Conservation of Migratory Species of Wild Animals, held in Somerset West, South Africa, in November 1999. This gave impetus for the negotiation of a Memorandum of Understanding by the range states, only one of which needs to be a member of the parent Bonn Convention (as is South Africa). Following the Fourth International Penguin Conference held at La Serena, Chile in September 2000, a conservation workshop hosted by the Conservation Breeding Specialist Group (CBSG) of the World Conservation Union's (IUCN) Species Survival Commission gave unanimous support to a proposal that a MoU for the African Penguin be negotiated between South Africa and Namibia, the sole breeding range states for the species. The need for such an instrument had grown out of two previous meetings hosted by IUCN in South Africa that considered the conservation status of penguins and of the African Penguin in particular. Such an international instrument would enable collaborative research and conservation efforts over the species' full breeding ranges, and would represent a proactive conservation effort to complement the essentially reactive efforts of those organizations, most especially SANCCOB (the Southern African Foundation for the Conservation of Coastal Seabirds), which are involved in rehabilitating seabirds. Subsequent to that workshop, it was considered sensible to expand the concept to include a suite of coastal seabirds and shorebirds that occur in southern Africa.

Currently, conservation management of southern African coastal seabirds is the responsibility of a number of government agencies at both central and provincial levels in three countries. Research and monitoring is conducted by these agencies and by universities (notably the University of Cape Town) and museums. Active seabird conservation efforts are funded and undertaken by several environmental NGOs, especially SANCCOB. Collaboration among these bodies within South Africa, and between South Africa and Namibia, has occurred for many years, but has been largely undertaken on an *ad hoc* basis. Very little communication has yet taken place with Angola, where four southern African coastal seabirds have recently been proven to breed. Conservation research and monitoring efforts need to be standardized across countries, and collaboration improved.

Most of the 17 seabird species breeding in southern Africa breed on islands and rocks close inshore of the coasts of southern Angola, Namibia and the Northern, Western and Eastern Cape Provinces of South Africa. A few species and populations also breed on mainland cliffs, coastal dune fields, salt pans, and estuaries and at inland localities. Nine of the 17 species, the African Penguin, three of the four cormorant species, the Cape Gannet *Morus capensis*, two of three species of gulls, one of four tern species and the African Black Oystercatcher *Haematopus moquini* are endemic to southern Africa.

Nine of the 17 southern African breeding coastal species are listed in South Africa's Red Data Book as regionally threatened in one of three risk categories (Endangered, Vulnerable and Near Threatened). Five species have been accorded a globally threatened status by the World Conservation Union (IUCN). Risks facing South African coastal birds include fisheries interactions (both direct mortality from being caught in nets and on hooks, and the indirect effects on food supply of commercial fisheries); oil pollution (affecting especially the African Penguin); current and past habitat alteration and loss (e.g. from guano scraping on islands, mainland diamond mining, vegetating coastal dunes and harbour developments); human disturbance from inadequately controlled tourism and recreation (such as of the Damara Tern *Sterna balaenarum* by off-road vehicles on coastal sand dunes, pans and gravel flats); predation by an increasing Cape Fur Seal *Arctocephalus pusillus pusillus* population; and the presence of alien predators (such as feral domestic cats *Felis catus* on Robben and Dassen Islands).

Much publicity has recently occurred from the effects of the *Treasure* oil spill near Cape Town on the African Penguin (see www.uct.ac.za/depts/stats/adu/treasure) in 2000, and from the species' parlous conservation state. African Penguin numbers have been decreasing for nearly a century and some former colonies have shrunk to extinction, especially in Namibia. Much less well known is the loss of about half of the very few mainland breeding localities of the Damara Tern in South Africa due to human disturbance and habitat encroachment by alien vegetation in the last two decades. The South African population is now less than 100 pairs and it may be slipping quietly to extinction within the country, leaving only the much larger Namibian population in existence. The population numbers of Bank Cormorants *Phalacrocorax neglectus* and Cape Gannets have plummeted in Namibia over the past decade, and naturally small populations, such as that of the African Black Oystercatcher, are at risk of extinction by a catastrophic event.

All South African coastal seabirds are currently protected under the Seabirds and Seals Protection Act of 1973; in Namibia coastal seabirds are protected to some extent by the Namibian Marine Resources Act of 2000. Most South African (but none of the Namibian) islands are legally protected as nature reserves or national parks. The conservation status of the single known Angolan seabird breeding site at Ilha dos Tigres is uncertain but it seems to lie outside the Iona National Park boundary. Only one breeding site (Dassen Island, South Africa) has a formally adopted and publicly available management plan. Most mainland breeding sites are not formally protected. In Namibia, the African Penguin, Cape Gannet and Bank Cormorant have been listed as Specially Protected Birds in the Parks and Wildlife Management Bill of 2001 because of their decreasing populations. The bill requires that they implement a national conservation strategy and be monitored on an annual basis. Currently,

however, action or recovery plans do not yet exist for any of the 17 species of southern African breeding coastal seabirds in any of the three breeding range states.

A number of international agreements has the potential to enhance the conservation status of southern African coastal seabirds, such as the Man and the Biosphere Programme of the United Nations Educational Scientific and Cultural Organization (UNESCO), the Convention Concerning the Protection of the World Cultural and Natural Heritage (World Heritage Convention), the Convention on Biological Diversity (CBD), the Convention on Wetlands of International Importance, Especially as Waterfowl Habitat (Ramsar Convention) and the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). However, the Bonn Convention (CMS) is considered to hold the most promise for conserving southern African coastal seabirds, thanks to the possibility offered by the Convention to establish regional Agreements for individual species or groups of species. Agreements can range from legally binding multilateral treaties to less formal Memoranda of Understanding. Parties to such Agreements do not have to be parties to the parent Convention. Nearly all southern African breeding and non-breeding coastal birds are migratory in terms of the Bonn Convention, because they cross international boundaries, including those over the high seas, as part of their normal life cycles.

A further reason to refer to the CMS framework is that the Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA), negotiated under the auspices of the CMS, could support a regional initiative to conserve southern African coastal birds by way of a Working Group of its Technical Committee. Such a Working Group would develop, adopt and implement an international action plan.

Finally, CMS and AEWA are to be considered fully complementary with both the Ramsar Convention on the Conservation of Wetlands of International of International Importance and the Convention on Biological Diversity.

B. THE CAMP PROCESS

Effective conservation action is best built upon the critical examination and use of available biological information, but also very much depends upon the actions of humans living within the range of the threatened species. Motivation for organising and participating in a Conservation Assessment and Management Plan (CAMP) workshop comes from fear of loss of, as well as a hope for the recovery of, a particular group of species. The general aim of a CAMP workshop is to ensure the survival of the species under discussion. This is achieved by evaluating the life history, population trends and status of each species, and assessing the threats to the species.

In general, the participants of a CAMP workshop evaluate the status of threat of taxa in a broad group, country, or geographic region, using the IUCN Red List criteria to assign categories. Based on threat status, CAMPs provide a rational and comprehensive way to determine priorities for conservation needs and actions - both *in situ* and *ex situ* - and for information gathering. Participants develop the assessments of risks and formulate recommendations for action using a detailed Taxon Data Sheet. This sheet facilitates recording of detailed information about each taxon, including data on the status of populations, their habitat in the wild and recommendations for intensive conservation action. An accompanying computerized CAMP data entry program aids the collection of information, facilitates production of the report and allows information for all CAMP workshops to be accessed and queried by any interested parties.

A CAMP Workshop for Southern African Coastal Seabirds was held at the Marine and Coastal Management Aquarium in Cape Town, South Africa, from 4 to 8 February 2002. The workshop was organised by the Avian Demography Unit of the University of Cape Town and the IUCN/SSC Conservation Breeding Specialist Group. The five-day workshop was attended by 25 participants from South Africa and Namibia, with diverse and relevant backgrounds. Participants included scientists, field biologists, conservationists, park managers and governmental and NGO representatives. The goal of the workshop was to determine a strategy for improving the conservation status of 17 southern African coastal seabirds by fostering regional co-operation between southern African countries.

Taxon Data Sheets for each of the seabirds which were evaluated are presented in section F of this report. Eight of the 17 species and subspecies evaluated were assigned threat categories according to the IUCN Red List criteria. Two (12.5%) were classified as Endangered, Two (12.5%) as Vulnerable, and four (25%) as Near Threatened. Table 1 contains a summary of IUCN categories and key recommendations made for each of the taxa evaluated. Table 2 lists the primary threats for each taxon.

Complementary to the data collection process is a communication process, or deliberation, that takes place during a CAMP. In the case of this workshop, participants identified the key threats affecting the conservation of southern African coastal seabirds and then worked in small groups to develop action plans to mitigate these threats: pollution, habitat loss and alteration, predation, and human disturbance.

During the CAMP process, each working group was asked to:

- Identify and define the threats and determine the root cause(s);
- Develop goals to address each threat; and
- Specify the action steps necessary to achieve each of the goals.

Each group then produced a report on its topic.

Each group presented the results of their work in daily plenary sessions to make sure that everyone had an opportunity to contribute to the work of the other groups and to ensure that issues were carefully reviewed and discussed by all workshop participants. Threats-based action plan reports can be found in section E of this document.

Table 1. Recommendations for research and management of southern African coastal seabirds

Species	IUCN Red List Category	Research Recommendations					Management Recommendations					
		Survey Studies	Genetic Research	Life History	PHVA	Taxonomic Research	Limiting Factor	Wild Pop. Management	Habitat Management	Monitoring	Captive Breeding	Public Awareness
African Black Oystercatcher *Haematopus moquini*	Near Threatened	X	X	X	X	X				X		X
Caspian Tern *Hydroprogne caspia caspia*	Least Concern	X	X	X		X			X	X		
Kelp Gull *Larus [dominicanus] vetula*	Least Concern	X	X	X		X	X	X		X		X
Grey-headed Gull *Larus cirrocephalus poiocephalus*	Least Concern	X	X	X		X			X	X		
Hartlaub's Gull *Larus hartlaubii*	Least Concern	X		X						X		
Cape Gannet *Morus capensis*	Vulnerable	X					X		X	X		X
Leach's Storm Petrel *Oceanodroma leucorhoa*	Endangered	X	X			X			X	X		
Great White Pelican *Pelecanus onocrotalus*	Near Threatened	X	X	X			X	X	X	X		X
Cape Cormorant *Phalacrocorax capensis*	Near Threatened	X		X	X				X	X		X
White-breasted Cormorant *Phalacrocorax carbo lucidus*	Least Concern	X		X					X	X		X
Crowned Cormorant *Phalacrocorax coronatus*	Least Concern	X		X					X	X		X
Bank Cormorant *Phalacrororax neglectus*	Endangered	X		X	X				X	X	X	X
African Penguin *Spheniscus demersus*	Vulnerable	X	X	X			X	X	X	X	X	X
Damara Tern *Sterna balaenarum*	Near Threatened	X		X					X	X		X
Swift Tern *Sterna bergii bergii*	Least Concern	X	X	X					X	X		X
Roseate Tern *Sterna dougallii*	Vulnerable	X	X			X			X	X		X
Antarctic Tern *Sterna vittata*	Least Concern	X	X			X				X		
TOTALS		**16**	**9**	**12**	**4**	**7**	**4**	**3**	**13**	**17**	**2**	**12**

Table 2. Threats to southern African seabirds

Order	Scientific name (IUCN Red List Category)	Principal Threats
Charadriiformes		
	***Sterna dougallii* (Vulnerable)**	
		1 Tourism
		2 Oil slicks
	***Hydroprogne caspia caspia* (Least Concern)**	
		1 Tourism
		2 Human settlement
		3 Dams
		4 Entanglement
		5 Pesticides/chemical pollution
		6 Ecological imbalance (changes in native species)
		7 Predators
		Global warming/oceanic warming
	***Larus [dominicanus] vetula* (Least Concern)**	
		1 Pathogens/parasites
		2 Pesticides/chemical pollution
		3 Oil slicks
	***Larus cirrocephalus poiocephalus* (Least Concern)**	
		1 Drainage/ filling in of wetlands/ coastlines
		2 Industrial pollution
		3 Traditional medicine
		4 Air strikes at airports
	***Larus hartlaubii* (Least Concern)**	
		1 Pathogens/parasites
		2 Oil slicks
		3 Global warming/oceanic warming
	***Sterna bergii bergii* (Least Concern)**	
		1 Development
		2 Tourism
		3 Fisheries
		3 Recreation/tourism
		4 Predators
		5 Benguela Niño
		6 Global warming/oceanic warming
	***Sterna vittata* (Least Concern)**	
		1 Recreation/tourism
		2 Landslide
	***Sterna balaenarum* (Near Threatened)**	
		1 Tourism
		2 Human settlement
		3 Mining
		4 Global warming/oceanic warming
	***Haematopus moquini* (Near Threatened)**	
		1 Tourism
		2 Mining
Pelecaniformes		
	***Pelecanus onocrotalus* (Near Threatened)**	
		1 Pesticides/chemical pollution
		2 Human interference
		3 Benguela Niño
		4 Loss of prey base
		5 Power Lines
		Unspecified causes
		Drought
		Drainage/ filling in of wetlands/ coastlines
		Recreation/tourism
		Storms/flooding
		Predators
		Agriculture

Order	Scientific name (IUCN Red List Category)	Principal Threats
	***Morus capensis* (Vulnerable)**	
		1 Loss of prey base
		1 Fisheries
		2 Predators
		2 High juvenile mortality
		3 Oil slicks
		4 Entanglement
		5 Industry
		6 Benguela Niño
		6 Storms/flooding
		Research
		Recreation/tourism
		Tourism
	***Phalacrocorax neglectus* (Endangered)**	
		1 Loss of prey base
		2 Development
		3 Competitors
		4 Oil slicks
		Predators
		Recreation/tourism
		Pathogens/parasites
		Human interference
		Entanglement
	***Phalacrocorax carbo lucidus* (Least Concern)**	
		1 Human interference
		2 Oil slicks
		2 Pesticides/chemical pollution
		3 Predators
		3 Predators
		4 Pathogens/parasites
		Unspecified causes
		Exploitation
		Development
		Entanglement
	***Phalacrocorax coronatus* (Least Concern)**	
		1 Recreation/tourism
		2 Predators
		2 Predators
		3 Oil slicks
		4 Unspecified causes
		Entanglement
		Accidental mortality
		Pathogens/parasites
		Exploitation
	***Phalacrocorax capensis* (Near Threatened)**	
		1 Loss of prey base
		2 Predators
		3 Recreation/tourism
		4 Competitors
		5 Oil slicks
		6 Pathogens/parasites
		7 Exploitation
		Accidental mortality
		High juvenile mortality
		Predators
Procellariiformes		
	***Oceanodroma leucorhoa* (Endangered)**	
		1 Predators
		2 Poor recruitment/ reproduction/ regeneration
		3 Predators
		4 Pathogens/parasites
		5 Tourism

Order	*Scientific name (IUCN Red List Category)*	*Principal Threats*	
Sphenisciformes			
	***Spheniscus demersus* (Vulnerable)**		
		1	Loss of prey base
		1	Fisheries
		1	Poor recruitment/ reproduction/ regeneration
		1	High juvenile mortality
		2	Oil slicks
		3	Global warming/oceanic warming
		3	Benguela Niño
		4	Pathogens/parasites
		4	Predators
		5	Competitors
		5	Research
		5	Collecting
		5	Recreation/tourism
		5	Entanglement
		5	Industry
		5	Wildfire
		5	Tourism
		5	Road kills
		5	Storms/flooding
		5	Pesticides/chemical pollution

C. POSSIBLE ADMINISTRATIVE AND INSTITUTIONAL ARRANGEMENTS CONCERNING THE CONSERVATION AND MANAGEMENT OF SOUTHERN AFRICAN SEABIRDS

Background

At the 6th meeting of the Conference of Parties of the Convention on the Conservation of Migratory Species of Wild Animals (CMS), held in Somerset West, South Africa in December 1999, a Recommendation (6.2) was put forward for concerted action intersessionally concerning Appendix II species, including the African Penguin *Spheniscus demersus*. The IUCN/SSC/CBSG *Spheniscus* Penguin Conservation Workshop, held in Coquimbo, Chile in September 2000 endorsed the development of a Memorandum of Understanding (MoU) between South Africa and Namibia in terms of the CMS for the African Penguin. However, there is a suite of other southern African coastal seabirds which interact with one another, face similar threats and which would benefit from international co-operation towards their conservation and management.

It was initially decided to work towards an MoU between South Africa (which is a contracting party to the CMS), Namibia, Angola and possibly Mozambique for the following 17 taxa: African Penguin, Great White Pelican *Pelecanus onocrotalus*, Cape Gannet *Morus capensis*, Bank Cormorant *Phalacrocorax neglectus*, Crowned Cormorant *P. coronatus*, Cape Cormorant *P. capensis*, White-breasted Cormorant *P. carbo lucidus*, Leach's Storm Petrel *Oceanodroma leucorhoa*, South African Kelp Gull *Larus [dominicanus] vetula*, Grey-headed Gull *L. cirrocephalus poiocephalus*, Hartlaub's Gull *L. hartlaubii*, Swift Tern *Sterna bergii bergii*, Caspian Tern *S. caspia*, Roseate Tern *S. dougallii*, Damara Tern *S. baleanarum*, Antarctic Tern *S. vittata* and African Black Oystercatcher *Haematopus moquini* (see Table 3).

Texts to nominate those species not already listed on Appendix II of the CMS for inclusion were drafted; this being an obligation in order to develop a MoU. At the Southern African Seabird Conservation Workshop (Cape Town, February 2002), a small discussion/working group (which included representatives from the UNEP/AEWA and UNEP/CMS Secretariats) was established and met to discuss the merits of a stand-alone MoU. A possible alternative, namely the Agreement on the Conservation of African-Eurasian Waterbirds (AEWA, an agreement developed under the CMS), was considered during the workshop because several of the species under consideration are already included in Annex 2 of AEWA.

It was decided to remove Leach's Storm Petrel from the suite/package of species, because it is strictly pelagic, and has a large Northern Hemisphere population (this species could at a later stage be nominated for inclusion, if thought desirable, in the Agreement on the Conservation of Albatrosses and Petrels; ACAP).

Stand-alone Memorandum of Understanding

In order for a MoU to be drawn up under the CMS, it is necessary for the species involved to be listed on Appendix II of the convention; this would require nomination of the species to the CMS CoP7 and adoption. Based on this, a legal text could be drafted and agreed upon by the key Range States (Angola, Namibia and South Africa), with an open possibility of all flyway countries to join.

All the taxa considered are migratory, following CMS criteria, but not all have an unfavourable conservation status (Table 3). However, given the high level of interaction between taxa and the need for similar conservation measures, they can be nominated together and included as a group in a MoU. Development of a MoU requires active involvement of governments, and additional resources. Furthermore, it should be taken into account that a MoU is a "soft law" arrangement, but probably with a higher political profile than if the species were included in an existing Agreement.

African-Eurasian Waterbird Agreement

Species do not have to be listed on CMS Appendix II in order to be included in the Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA). The southern African distributions of the taxa under consideration fall within AEWA. Therefore, an alternative to a MoU would be to include the species within AEWA, where five of the species are already listed (see Table 3). The species considered meet the criteria "waterbird" and "migratory", as required by AEWA.

In order for the species not already listed in AEWA to be included in Annex 2 of the agreement, South Africa, being a party to AEWA, needs to propose the inclusion of those species in Annex 2. According to the Action Plan of AEWA (AP), single-species action plans can be developed. The AP does not mention multi-species action plans. Therefore, an amendment is needed at the 2nd Meeting of Parties (MoP) of AEWA to include in the AP that Parties may establish multi-species action plans.

Within AEWA, the Technical Committee (TC) can recommend the establishment of a Working Group (Article 7, paragraph 5) in order to stimulate implementation of single or multi-species action plans for southern African coastal seabirds by governments.

Discussion in plenary

The African-Eurasian Waterbird Agreement, as an existing international legal framework, is probably more efficient and feasible in terms of political involvement as opposed to a stand-alone MoU. The AEWA option might not need governmental involvement to the extent that a MoU would. The question was raised as to whether AEWA (or any proposed international agreement) provides the greatest benefit to the birds, and the difficulties experienced with the proposed Southern African Sandgrouse MoU were outlined. However, regardless of whether the MoU or AEWA route is chosen, practical action depends on work on the ground in each country. Under AEWA, the contracting parties are obliged to implement its action plans for threatened species. Although for active conservation activities on the ground an international legal framework, such as CMS or AEWA, is not strictly necessary, practice has shown that it initiates and stimulates activities. Until the establishment of a working group, the Workshop proposed setting up a Post-Workshop Liaison Group.

A number of concerns was raised on financial and legal issues. For instance, before Namibia would consider acceding to AEWA, it would need to know *inter alia* the following: a) whether a legally binding Agreement is necessary to assist in inter-governmental conservation measures for seabirds; b) what are the financial implications; c) what the legal aspects involve, and d) whether such an Agreement would lead to capacity building in the country.

Although it would be possible for Namibia to commit itself to implement the proposed action plan without formally becoming a signatory to AEWA, the benefits of joining include easier access to bilateral and international funds.

South Africa's Marine and Coastal Management Branch of the Department of Environmental Affairs and Tourism, via the South African National Focal Point for AEWA, will likely be the organisation which would approach AEWA with a request to create a Working Group (*inter alia* comprising Angola, Namibia and South Africa) under the aegis of its Technical Committee.

The deadline for submissions of proposals for the inclusion of species in AEWA is 150 days before the opening of its 2nd Meeting of Parties (MoP; 25 September 2002) in Bonn, Germany. Therefore, the South African Government needs to submit the nomination texts, after they have been approved at the provincial level, to the AEWA Secretariat by 25 April 2002.

Conclusion

Concluding a MoU would give the group of species a formal status directly under CMS, and probably a higher political profile, but would require extra legal and administrative arrangements by the governments involved, plus nomination of the species to Appendix II of the Convention. Arrangements within AEWA also require nomination of the species to its Annex 2 and a small change to the AEWA Action Plan. However, the great advantage is that use is made of an existing, already funded administrative infrastructure, and of the AEWA Technical Committee, which meets regularly and which would oversee progress made in the implementation of a multi-species action plan.

Taking this all into account, the Workshop recommended the AEWA route.

Table 3. International conservation status of 17 southern African seabirds

Common name	Scientific name	Recommended IUCN threat category	Population assessed	CMS Appendix	AEWA status
African Penguin	*Spheniscus demersus*	Vulnerable	Global	II	
Great White Pelican	*Pelecanus onocrotalus*	Near Threatened	Southern African	II (W. Palaearctic only)	AEWA
Cape Gannet	*Morus capensis*	Vulnerable	Global		
Bank Cormorant	*Phalacrocorax neglectus*	Endangered	Global		
Crowned Cormorant	*P. coronatus*	Least Concern	Global		
Cape Cormorant	*P. capensis*	Near Threatened	Global		
White-breasted Cormorant	*P. carbo lucidus*	Least Concern	Southern African		
Leach's Storm Petrel	*Oceanodroma leucorhoa*	Endangered	Southern African		
Southern African Kelp Gull	*Larus [dominicanus] vetula*	Least Concern	Southern African		
Grey-headed Gull	*L. cirrocephalus poiocephalus*	Least Concern	Southern African		
Hartlaub's Gull	*L. hartlaubii*	Least Concern	Global		
Swift Tern	*Sterna bergii bergii*	Least Concern	Southern African	II	AEWA
Caspian Tern	*S. caspia*	Least Concern	Southern African	II	AEWA
Roseate Tern	*S. dougallii*	Vulnerable	Southern African	II (Atlantic only)	AEWA
Damara Tern	*S. balaenarum*	Near Threatened	Global		AEWA
Antarctic Tern	*S. vittata*	Least Concern	Known migratory populations		
African Black Oystercatcher	*Haematopus moquini*	Near Threatened	Global		

D. CAMP WORKSHOP REQUESTS TO GOVERNMENT

RECOGNIZING the present poor conservation status of southern Africa's coastal seabirds and large-scale movements of these birds between southern African states, the CAMP Workshop for Southern African Coastal Birds, held at Sea Point from 4-8 February 2002 under the auspices of The World Conservation Union's (IUCN) Conservation Breeding Specialist Group and University of Cape Town's Avian Demography Unit

REQUESTS the South African Government before 25 April 2002, i.e. 150 days before the Second Meeting of the Parties of the African-Eurasian Waterbird Agreement (AEWA), as required by this Agreement, to be held from 25-28 September 2002:

- to propose to the Technical Committee of AEWA the establishment of a Southern African Working Group (consisting *inter alia* of Angola, Namibia and South Africa) to co-ordinate the conservation of southern African coastal seabirds; and
-
- To nominate 11 species of coastal seabirds (African Penguin *Spheniscus demersus*, Cape Gannet *Morus capensis*, Bank Cormorant *Phalacrocorax neglectus*, Cape Cormorant *P. capensis*, Crowned Cormorant *P. coronatus*, White-breasted Cormorant *P. carbo lucidus*, Grey-headed Gull *Larus cirrocephalus poiocephalus*, Hartlaub's Gull *L. hartlaubii*, Southern African Kelp Gull *L. [dominicanus] vetula*, Antarctic Tern *Sterna vittata* and African Black Oystercatcher *Haematopus moquini*) to Annex 2 of AEWA.

RECOGNIZING the present poor conservation status of African Penguins, Cape Gannets, Bank Cormorants and Cape Cormorants, coastal seabirds endemic to southern Africa, that is in large measure attributable to inadequate supplies of food, the CAMP Workshop for Southern African Coastal Seabirds

REQUESTS the Governments of Namibia and South Africa to ensure adequate escapement of food to maintain and increase breeding populations of these species, by adopting a precautionary approach to the management of their prey resources until adequate levels of fish escapement to maintain the coastal seabird populations can be rigorously established.

NOTE: The nomination texts were submitted to the AEWA Secretariat by the necessary deadline, along with the recommendation for setting up a working group, by the South African Government. At the AEWA 2nd MoP, the nominated species were accepted into AEWA and the concept of a regional working group was approved.

E. ACTION PLAN WORKING GROUP REPORTS

Human disturbance impacts on southern African seabirds

Discussion group: Mark Anderson, Marienne de Villiers, Jenny Griffin, Norbert Klages Janine le Roux and Rod Randall.

Formal tourism

Description of threat

Includes guided tours, infrastructure development close to breeding sites, and activities of the film industry. Conservation authorities are under being pressure to develop islands and other key seabird sites in order to generate funds through ecotourism. This has the potential of compromise their conservation mission.

Support personnel associated with tourism on islands (such as Robben Island) are also responsible for disturbance to seabirds.

Management suggestions

Tourism at breeding sites (especially islands) must be regulated, strictly controlled and monitored by way of management plans. The appropriate authority should enforce legislation. Tourism operators should adhere to strict guidelines developed for each site.

No tourism should be allowed at certain breeding sites (depends on size of population, sensitivity of species, size of islands, etc.).

Support personnel need to be informed of the negative impacts of their activities, and the management plan recommendations need to be adhered to and enforced.

Recreational (informal) tourism

Description of threat

Includes jetskis, 4x4 vehicles, recreational fishers, walking of dogs, and general recreation. Vehicles driving on beaches have a negative impact on seabirds.

Management suggestions

The initiative of the South African Minister of Environmental Affairs & Tourism to ban driving on beaches is strongly supported. This legislation should be enforced.

Environmental education/awareness programmes (including interpretative signage) should be conducted to improve the public's knowledge of human impacts on seabirds.

Craft

Description of threat

Includes air force and mining companies' aircraft, seaplanes, and disturbance by fishing and other boats (especially when they venture close to islands).

Management suggestions

This could be addressed by creating restricted airspace around important breeding sites (through Civil Aviation) and development of guidelines for aircraft travelling to/from islands.

Legislation should be developed to prohibit aircraft flying along certain sections of beaches regularly frequented by breeding/roosting seabirds.

Research activities

Description of threat

Monitoring, ringing, collection of stomach samples and other research activities affect breeding and roosting seabirds (especially certain species). Some species, notably the African Penguin and Cape Gannet, which are intensively studied at some islands, tend to be more tolerant to human disturbance and have in some instances become habituated to human presence.

Management suggestions

A strict code of conduct is necessary.

Ethics committees should consider and approve permit applications.

Research should be conducted to determine the effects of research activities on seabirds.

Exploitation

Description of threat

Includes subsistence (food, traditional medicine) and commercial (guano scraping and mussel, oyster and seaweed collection. Exploitation affects seabirds directly (by exploitation of birds or eggs), as well as indirectly (such as by disturbance).

Management suggestions

All Namibian islands should be afforded a formal protection status as nature reserves.

Guano collecting should not be allowed on islands.

No collection of birds or eggs should be allowed.

Permits for the commercial collection of marine resources specified in the relevant legislation should be based on sound scientific advice and include appropriate site-specific conditions to minimise negative impacts on seabirds.

Mining activities

Description of threat

Blasting and direct disturbance, both onshore and offshore, especially by diamond mining.

Management suggestions

Potential negative impacts on seabirds should be addressed in Environmental Impact Assessment and Mining Application license conditions.

An awareness of mining companies' activities on seabirds should be promoted.

Mined-out areas need to be restored.

Domestic animals and pets

Description of threat

Includes feral domestic animals such as cats and dogs, and livestock such as cattle (the last especially at the Orange River mouth).

Management suggestions

The eradication or removal of feral animals should be addressed in reserve/island management plans.

Domestic animals should be controlled when necessary.

Organized sporting events

Description of threat

Includes fishing competitions, beach races, surfing competitions, and boat races.

Management suggestions

The potential negative effects of sporting activities on seabirds should be conveyed to the organisers of these events.

Areas away from important seabird breeding/roosting/feeding areas should be used for organised sporting events.

Awareness amongst the public should be created about the negative effects of certain sporting activities on seabirds. If necessary, environmental legislation should be enforced.

Infrastructural developments

Description of threat

Includes harbour developments and residential areas.

Management suggestions

Potential negative impacts on seabirds should be addressed during the Integrated Environmental Management process.

Buffer zones should be established around important seabird sites.

These threats are summarized and ranked in Table 4.

Table 4. Human disturbance impacts on southern African seabirds. GC = Guano collection at Ichaboe Island, Namibia. * - species listed in the South African Red Data Book for birds (Barnes 2000)

Species	Recreational tourism	Formal tourism	Research activities	Organised sport
African Penguin*	Medium (Stony Point, Boulders, St Croix, Robben Island)	Low/medium	Medium (diet sampling)	Low
Great White Pelican*	Low	Low (but potential future threat at Dassen Island)	Low (potential future impact)	Low
Cape Gannet*	Low (Bird Island, Lamberts Bay and Malgas)	Low (Bird Island, Lamberts Bay and Malgas)	Medium	Low
Bank Cormorant*	Low (largely restricted to Port Nolloth islands during the summer holidays)	Low (sea-kayaking, scuba-diving - restricted to southern colonies)	Low (collection of pellets at roost sites; breeding surveys)	Low (surf-ski races)
Crowned Cormorant	Low	High	Low	Low
Cape Cormorant	Low (important sites not accessible)	High	Medium (diet sampling and ringing)	Low
White-breasted Cormorant	High	High	Low	Low
Kelp Gull	Low (adults leave nest easily; cannibalism)	Low (adults leave nest easily; cannibalism)	Low	Low
Grey-headed Gull	Low (tolerant of disturbance)	Low (tolerant of disturbance)	Low	Low
Hartlaub's Gull	Low (tolerant of disturbance)	Low (tolerant of disturbance)	Low	Low
Swift Tern	Low (tolerant of disturbance)	Low (tolerant of disturbance)	Low	Low
Caspian Tern	Medium (access to islands; disturbance at river mouths to fledged young)	Low	Low	Low
Roseate Tern*	Medium (St Croix, Dyer, Bird Island; roosts (with young) at Cape Recife disturbed)	None (but possibly a future threat)	Medium (current research at Bird Island, especially during annual ringing programme)	Low
Damara Tern*	Medium (disturbance from off road vehicles)	Low/medium	Low	Low
Antarctic Tern	Low	Low	Low	Low
African Black Oystercatcher*	High	Medium/high	Medium (current intensive research project)	Medium (fishing competitions)
Total score	24	24.5	21	17
Ranked score	2	1	4	7

(Table 4 continued)

Species	Exploitation	Craft (motor vehicles, aircraft, fishing boats)	Mining activities	Domestic animals and pets	Developments	Total score	Ranked score
African Penguin*	Low (GC)	Low	Low	Low	Low	11.5	5
Great White Pelican*	Low (utilised as food in Mozambique)	Low	Low	Low	Low	9	7
Cape Gannet*	Low/medium (GC)	Low	Low	Low	Low	10.5	7
Bank Cormorant*	Low (GC)	Low (restricted to islands with small populations)	Low (previously disturbed at Possession Island)	None	Low	8	9
Crowned Cormorant	Low (GC)	Low (helicopters at Robben Island)	Low	Low	Low	11	6
Cape Cormorant	Medium (GC)	Medium	Low	Low	Low	14	2
White-breasted Cormorant	Low (GC)	Low	Low	Low	Low	13	4
Kelp Gull	None (GC)	Low	Low	Low	Low	8	9
Grey-headed Gull	None	Low	Low	Low	Low	8	9
Hartlaub's Gull	None	Low	Low	Low	Low	8	9
Swift Tern	Medium (white mussel and seaweed collection)	Medium	Low	Low/medium (Ciskei/Transkei)	Low	11.5	5
Caspian Tern	Medium (GC; white mussel and seaweed collection)	Medium	Low	Low/medium	Low	12.5	5
Roseate Tern*	Medium (white mussel and seaweed collection)	Medium	Low	Low	Low	13	4
Damara Tern*	Medium (white mussel and seaweed collection)	Medium	Medium/high (diamond mining activities in the Sperrgebiet, Namibia)	Low	Low	14	3
Antarctic Tern	Medium (white mussel and seaweed collection)	Medium	Low	Low	Low	11	6
African Black Oystercatcher*	Medium (GC; white mussel and seaweed collection)	Low	Low	Low/medium (dogs hinder birds feeding)	Low	16	1
Total score	20.5	22	17.5	17.5	16		
Ranked score	5	3	6	6	8		

Scores: low = 1, medium = 2; high = 3

Habitat loss and alteration

Discussion group: Rob Crawford, Caroline Fox, Jessica Kemper, Nola Parsons, Anton Wolfaardt

Ranked threats

1. Decline in food base
2. Guano scraping and loss of suitable nesting habitat
3. Extreme weather conditions
4. Deterioration of freshwater habitat
5. Loss of artificial breeding habitat

Decline in food base

Description of threat

Four of southern Africa's seabirds are classified as Threatened or Near-threatened because of decreases in population size that are mainly, or in large part, attributable to a scarcity of food. These are:

African Penguin *Spheniscus demersus* Vulnerable
Cape Gannet *Morus capensis* Vulnerable
Bank Cormorant *Phalacrocorax neglectus* Endangered
Cape Cormorant *Phalacrocorax capensis* Near-threatened.

Commercial fishing comprises an important resource in South Africa and Namibia. Cape Rock Lobster *Jasus lalandii*, Anchovy *Engraulis capensis* and Sardine *Sardinops sagax*, important prey species for these seabirds, are all targeted by commercial fisheries. Additionally, central Namibia has a large population of Cape Fur Seals *Arctocephalus pusillus pusillus* that may compete with the seabirds for food resources. A lack of food negatively affects breeding success, juvenile recruitment and adult survival of seabirds, which may result in a population decrease. In addition, it could increase emigration rates to food-rich areas, potentially increase seal predation on seabirds, and disrupt breeding seasonality and synchrony.

At Mercury and Ichaboe Islands, which supported 56% of the global population of Bank Cormorants in 2000/02, numbers of breeding pairs decreased from 6334 pairs in 1990/92 to 1803 pairs in 2000/02. This is attributed to an extreme scarcity of food. The situation at the commencement of 2002 appears bleak, with several species of seabird at both localities experiencing continued food shortages. It is predicted that numbers of Bank Cormorants at these two localities will continue to decrease substantially in the immediate future. If this happens, it will lead to a further large decrease in the overall Bank Cormorant population.

Off South Africa, there were large decreases in numbers of Bank Cormorants at several colonies in the early 1990s. The decreases at some colonies took place during the period when the growth rate of Cape Rock Lobster, an important prey of Bank

Cormorants in South Africa, decreased. It is likely that food scarcity was a major cause of the decrease of the South African population of this species.

African Penguin, Cape Gannet and Cape Cormorant feed predominantly on Sardine and Anchovy. In Namibia, the collapse of the Sardine resource was followed by large decreases in the Namibian populations of African Penguin and Cape Gannet. Pelagic Goby *Sufflogobius bibarbatus* became an important food source of Bank Cormorants and African Penguins off central Namibia. There was a substantial shift in its distribution and a decrease in its abundance after the mid 1990s, probably caused by a combination of unusually high sea temperatures and an intrusion of warm water from the north (Benguela *El Niño*) resulting in unusually low oxygen levels in 1994 and 1995. This precipitated severe decreases of African Penguins at Ichaboe Island and Bank Cormorants in the region. So far, Sardine has not recovered in Namibian waters.

Since the late 1970s, the overall population of Cape Cormorants has decreased from 277 000 breeding pairs to about 72 000 breeding pairs. Much of this decrease is attributable to a decrease of the South African population in the 1990s that was associated with a fluctuating decrease in the biomass of Anchovy off South Africa. In addition, food scarcity may have caused large-scale mortality of Cape Cormorant adults from disease in the early 1990s.

It is necessary to allow adequate escapement of fish from these fisheries to achieve levels of reproductive success and immature survival sufficient to ensure that recruitment to breeding populations at least offsets mortality of breeding birds.

Especially off Namibia there is at present dislocation of seabirds and food resources, with most of the food concentrated in the north of the country away from seabird breeding colonies. Two options exist to overcome such dislocation: move seabird colonies to where food is available, or move food resources closer to breeding colonies of seabirds. Although it may be possible to establish new colonies of seabirds such as African Penguins, there is no guarantee of the success of such a venture. There is no present means of manipulating the distribution of fish prey. Therefore, matching the distribution of seabirds and their prey is probably not a realistic management option at present.

One further option exists, and that is captive breeding. Given the huge decrease in the Bank Cormorant population and the likelihood of a continuing large decrease that will drive this species to a very low level, it is recommended that steps be taken to establish one or more captive breeding populations of this species (e.g. through approaching the Jersey Wildlife Trust for assistance). Bank Cormorant chicks assumed to be orphaned at Robben Island after the *Treasure* oil spill were successfully reared to fledging, but on release were imprinted on humans.

Management suggestions

It is suggested that there should be adequate escapement of food to maintain breeding populations of African Penguins, Cape Gannets, Bank Cormorants and Cape Cormorants. A precautionary approach to the management of prey resources be adopted until adequate levels of fish escapement can be rigorously established.

The need to establish additional nature reserves (Marine Protected Areas) around seabird breeding colonies should be assessed.

A captive breeding population of Bank Cormorants should be established and research to improve captive-rearing techniques undertaken.

Guano scraping

Description of threat

The African Penguin is a burrow nester and historically dug burrows in the hard guano layer that covered most breeding islands. With the removal of guano, penguins are now largely forced to nest on the surface or burrow in a sandy substratum, which is more susceptible to collapse. This has negatively affected breeding success, with eggs and small chicks becoming more susceptible to aerial predators, such as Kelp Gulls and Sacred Ibises *Threskiornis aethopicus*. Surface-nesting birds are also exposed to extreme weather conditions. These include heat waves, which result in nest abandonment, and chick mortalities from heat stress. Heavy rain results in nest flooding and the collapse of sandy burrows.

Guano collection has now largely ceased, except in Namibia, where guano collection took place on Ichaboe Island in 2000. Even on islands where guano scraping has ceased the impact on the nesting habitat has been essentially permanent. Guano platforms have been established on the mainland coastline in central Namibia to attract seabirds, particularly Cape Cormorants, for the purpose of commercial guano collection. Whereas guano collection normally takes place after breeding by cormorants and gannets has been completed and thus does not pose a major threat to them directly, human disturbance associated with guano collecting does potentially affect African Penguins, which may breed throughout the year.

Management suggestions

No further guano scraping should take place at breeding islands. This is particularly important for Mercury Island, the most important seabird breeding island in Namibia, where increasing levels of guano could make it commercially viable in the future (responsibility: Ministry of Fisheries and Marine Resources, Namibia, MFMR).

The establishment of additional artificial guano platforms should be investigated (responsibility: MFMR - Namibia).

The provision of artificial nesting sites at breeding colonies for penguins (burrows) and cormorants (raised structures). Further, the provision of shade at breeding colonies should be investigated (responsibility: MFMR (Namibia); Western Cape Nature Conservation Board, WCNCB, South African National Parks, SANP, Robben Island Museum, RIM, Overstrand Municipality, OM, and Marine and Coastal Management, MCM - South Africa).

Extreme weather conditions

Description of threats

Extreme weather events include storms, drought, flooding, fire, heat waves, global climate change (and increased sea levels), and Benguela *El Niño* events. These events have been identified as threats for the African Penguin, Grey-headed Gull, Caspian Tern, Damara Tern, Swift Tern, White Pelican, and Cape Gannet.

Storms and flooding can result in the abandonment of nests, eggs being washed away, and chicks drowning. Drought events may result in nesting colonies becoming more exposed to predators when the fresh-water levels drop. It could also result in an alteration of the dynamics of the preferred fish prey.

Fire poses a threat to habitat which contains woody vegetation or grass. At some breeding colonies (especially Boulders and Robben Island) dense Acacia thickets are a potential fire hazard. Grasslands surrounding some wetlands also pose a risk. Fire can result in nests being abandoned and the death of adults and chicks at breeding sites.

Benguela *El Niño* events can have a significant impact on the prey base of many seabirds. See "decline in food base" for more detail.

Due to the lack of suitable nesting habitat, African Penguins in particular are vulnerable to heat stress. This normally results in the abandonment of nests during breeding (and the associated loss of eggs and chicks).

Global warming is likely to increase the frequency of these extreme events.

Management suggestions

Monitor impact of extreme events on populations (breeding success, productivity, recruitment, etc. (Responsibility: relevant management authority; collaboration between WCNCB, MFMR, MCM, SANP, Ezemvelo Kwazulu-Natal Wildlife, OM, RIM and Avian Demography Unit, ADU).

Provision of artificial nesting habitat where appropriate (Responsibility: relevant management authority).

Contribute towards broader programmes related to climate change, by lobbying and increasing awareness through education (Responsibility: all management and conservation authorities).

Deterioration of freshwater habitat

Description of threat

Various factors impact on the quality and quantity of wetland and other important freshwater habitat. These include the drainage and reclamation of wetlands, water

abstraction from catchment areas, the spread of alien invasive vegetation and the artificial breaching of river mouths/estuaries.

These factors mostly impact the Caspian Tern, Grey-headed Gull, White-breasted Cormorant and Great White Pelican colonies at St. Lucia, all of which rely on the wetland ecosystem for breeding and feeding.

Management suggestions

Contribute to broader freshwater conservation programmes, such as the National River Health Programme in South Africa (Responsibility: conservation management and local authorities).

Conservation authorities should become more involved in development frameworks prepared by local authorities and in public education and awareness campaigns (Responsibility: conservation management and local authorities).

Loss of artificial breeding sites

Description of threat

Various seabirds have benefited from artificial nesting habitat. These sites include the masts of fishing vessels, buildings and other built structures. While these sites have provided extra habitat for some seabirds, many of the artificial nest sites are not permanently available and have resulted in breeding attempts being disrupted when, for example, fishing vessels leave for sea.

Management suggestions

Provision of permanent nesting habitat that would not be susceptible to human disturbance. These could include nesting platforms, pedestals and other suitable structures (Responsibility: Conservation management authorities).

Pathogens and parasites

Description of threat

Disease	**Transmission**	**Importance**
Malaria	Mosquito ?	Possibly endemic, possibly catastrophic
Babesia	Tick ?	Possibly endemic, possibly affects juvenile mortality
Avian Pox	Mosquito, biting fly ?	Possibly catastrophic in susceptible species
Newcastle's Disease	Direct, wind, contamination	Possibly catastrophic, state controlled disease
Avian Cholera	Water contamination (bacterial)	Possibly catastrophic
Aspergillosis	Fungal spore, ubiquitous	Individual birds, possibly captivity problem only
Botulism (bacterial toxin)	Decreasing water levels	Natural occurrence, possibly catastrophic
Food poisoning	Bacterial overgrowth	Natural occurrence, possibly catastrophic
Bumblefoot	Multifactorial	Individual birds, possibly captivity problem only
Underlying disease		Aggravated by predisposing factors
Parasites		
Lice	Breeding sites, direct	Irritant only
Ticks	Breeding sites, direct	Blood loss, vector of Babesia

Roundworm	Food	Compromise individual birds
Tapeworm	Food	Compromise individual birds

Factors predisposing seabirds to disease:

1 Food shortage
2. Human disturbance
3. Extreme weather conditions
4. Moulting, Habitat loss, Capture
5. Captivity

Management suggestions

Research is required to improve our understanding of disease, so as to minimize the risk as well as to decrease the uncertainty of the actual risk of disease in seabird populations. The research required includes investigating the basic levels and frequency of disease in seabird populations, identifying the specific vectors involved and how stress levels, particularly in captive birds, relate to the occurrence of disease. (Responsibility: SANCCOB; academic and veterinary institutions as collaborators; conservation management authorities).

Management of pathogens and parasites: vector control is required to reduce or eliminate breeding sites of mosquitoes (stagnant fresh-water pools). The feasibility of attracting vectors away from important seabird sites should be investigated, as well as the possibility of spraying areas (Conservation management authorities of breeding sites).

To manage the potential spread of disease at seabird localities, quarantine principles should be considered, especially at breeding islands. Some examples include control of poultry products and hygienic control of human equipment (Responsibility: Conservation management authorities of breeding sites).

To develop contingency plans to manage outbreaks of diseases. Treatment is possible in many cases; e.g. Malaria, Babesia, Aspergillosis, and Botulism (Responsibility: Conservation management authorities of breeding sites; SANCCOB).

Where food poisoning has occurred, the source should be destroyed if possible (Responsibility: Conservation management authorities of breeding sites).

Predisposing factors should be managed.

Mortality of seabirds should be regularly monitored through patrols at breeding sites and along the mainland coastline. The latter could be achieved by making use of volunteer groups.

Landslides

Description of threat

The relatively small breeding colonies of Antarctic Terns are susceptible to stochastic, catastrophic events such as landslides and volcanic activity.

Management suggestions

None. These events are natural catastrophes that cannot be managed.

Seabird predators and competitors for breeding space

Discussion group: Tony Williams, Rob Simmons, Vincent Ward (contributions from Norbert Klages and Rod Randall)

Ranked threats

Species	Rank	Indirect
Cape Fur Seal	**1**	
Kelp Gull	2	
Great White Pelican	3	
Canids	4	
Feral and wild cats	5	
Humans	6	**1**

An annotated list of known and potential predators is presented in Table 5.

Seabird predators

Cape Fur Seal

Description of threat

Cape Fur Seal numbers have increased substantially since the cessation of their exploitation in South Africa in the 1980s, although the Namibian population is only increasing slowly. Isolated incidents of predation of seabirds by Cape Fur Seals at southern African offshore islands have been observed since the early 1900s, but rates of predation appear to have increased dramatically since the 1980s. Certain seals, mainly sub-adult males, specialize on seabird predation at local seabird colonies, which may suffer the loss of hundreds of individuals a year. On account of the continued decreases in seabird population numbers, the relative importance of this mortality factor could become significant. In particular, predation by seals on threatened species of seabirds is of concern.

Management suggestions

Removal of problem individuals (in particular, seals specialising in seabird predation).

Control of numbers and distribution of seals, where they influence threatened seabirds.

The re-introduction of Brown Hyaenas *Hyaena brunea* at Kleinsee.

Southern African Kelp Gull

Description of threat

There has been an overall increase in the population levels of and predation levels by Kelp Gulls. The period after the 1950s saw an increased mainland population with a minor increase in predation. After the 1970s, the cessation of most guano collection was accompanied by an increase in island Kelp Gull populations with a resultant increase of predation on penguin and other seabird chicks and eggs. (Kelp Gulls were previously heavily persecuted because they preyed on guano-producing seabirds). The fragmentation of colonies has left surface nesters more vulnerable to predation. At Halifax, Possession and Ichaboe Islands, there is more colony edge or perimeter and thus more predation (Kelp Gull predation is wholly confined to the edges of Cape Gannet colonies). Human disturbance of seabirds increases the levels of gull predation.

Management suggestions

Manage disposal of human-generated wastes, both land and marine.

Manage the species around islands, bearing in mind natural local reductions.

Great White Pelican

Description of threat

Great White Pelicans are localised predators of seabird chicks (Swift Terns, Hartlaub's and Kelp Gulls, and Cape and Crowned Cormorants) and to a lesser extent adult cormorants (mainly Crowned and Cape Cormorants). Humans have contributed to an increase in Great White Pelican populations by providing artificial wetlands and food sources. There has therefore been increased predation and pelicans have spread to other localities in recent years.

Management suggestions

Restrict access of Great White Pelicans to breeding cormorants and terns.

Research the effects of reducing artificial food supplies.

Canids

Description of threat

High densities of mammalian predators, especially Black-backed Jackals *Canis mesomelas*, preclude mainland breeding by most seabirds (excluding Damara Tern and African Black Oystercatchers), especially along the coast of the Northern Cape and Namibia. However, artificial sites (e.g. shipwrecks) and natural sites inaccessible to predators do allow for breeding.

Management suggestions

Provide elevated sites for mainland breeding seabirds.

Control domestic dogs and remove feral dogs.

Felids and mustelids

Description of threat

Feral cats and wild felids and mustelids prey on seabirds where they have access to colonies, such as at Betty's Bay, South Africa.

Management suggestions

Lion *Panthera leo* and Leopard *Panthera pardus* should be either left alone (Namibia) or caught and translocated (Western Cape).

Remove feral cats on all islands.

Live trap and relocate mustelids.

Table 5. Annotated predator species list

Predators	Annotation
Invertebrates	
Beetles	Recorded as problems at non-southern African localities
Crabs	Recorded as problems at non-southern African localities
Octopus	Rare predators of sea/shorebirds at rocky coastlines
Fish	
Predatory fish	Potential predators of storm petrels
Sharks	Important predators of seabirds
Reptiles	
Monitor lizards	Predators at Gariep River Mouth
Snakes	Mole Snakes occur at Robben Island; Puff Adder recorded on Marcus and Meeuw Islands and Eggeater at Meeuw and Schaapen Islands
Birds	
African Fish Eagles/raptors	Accipters elicit harassing behaviour from gulls/terns
Black-crowned Night Heron	Potential problem at Marcus, Schaapen and Dassen Islands
Cattle Egret	Preys on Hartlaub's Gulls at Schaapen Island
Giant petrels	Known to prey on seabirds such as penguins and cormorants (occur rarely in southern Africa)
Great White Pelican	Major predator of cormorants, gulls and terns on Dassen and the Saldanha Bay islands
Grey Heron	Predators of Cape Cormorant chicks and kleptoparasitize adults
Kelp Gull	Refer to main text

Sacred Ibis	Common predator of seabird chicks at West Coast South African Islands
Skuas	Known to prey on seabirds at sea
Spotted Eagle Owl	Have been recorded on guano islands
Mammals	
Large indigenous:	
Humans	Refer to main text
Cape Fur Seal	Refer to main text
Chacma Baboon	Known to prey on gull eggs
Brown Hyaena	Preys on seabirds along coast
Black-backed Jackal	Preys on seabirds along coast
Leopard	Rarely preys on penguins at Betty's Bay
Lion	Preys on cormorants at and near Möwe Bay
Small indigenous:	
Cape Fox	Rarely preys on seabirds at Marcus Island
Genets	Rarely prey on seabirds at Marcus Island
Indigenous mice e.g. *Rhabdomys*	Potential problem
Cape Clawless Otter	Potential problem
Mongoose	Prey on seabirds at Lambert's Bay, Betty's Bay and Marcus Island
Marine:	
Killer Whales	Important predators of seabirds
Introduced and .feral species	
Cats	Problems on Robben and Dassen Islands
Dogs	Potential problem
Humans	Direct and indirectly affect seabird populations
Pigs	Potential problem
Rats	Predation on seabirds at Lambert's Bay in past

Competition for breeding space

Bird-bird competition

Description of threat

The competition for space fosters and/or re-enforces the differences in the timing of breeding seasons. It also leads to the use of specialized breeding sites, e.g. Crowned Cormorants use the supports of guano platforms. Different nesting materials are also utilised.

Known interactions

Swift Terns can displace Hartlaub's Gulls.

Great White Pelicans can displace White-breasted Cormorants.

Cape Cormorants displace Crowned Cormorants and recruiting Bank Cormorants.

Cape Gannets and Cape Cormorants have displaced African Penguins.

Mammal (seal and human) - bird competition

Description of threat

a) Total displacement
Total displacement of breeding seabirds by seals e.g. Seal Island, and Elephant and Albatross Rocks.
In the cases of paired islands, seals remain confined to only one due to breeding/social behaviour.
b) Partial displacement
Seabirds are displaced to sub-optimal sites e.g. Cape Gannets and African Penguins at Mercury Island.
Disturbance of courtship.
Disruption of breeding attempts.
Deterrence of recruits.
Attraction of and/or support of larger numbers of predators e.g. Kelp Gulls, Killer Whales.
Blockage of landing beaches and colony-access paths of penguins.
Seals at Mercury Island displaced 14% of the global population of Bank Cormorants. Mercury Island is now home to 33% of the global population, after the seals have been chased off.
All impacts will worsen as the numbers of seabirds decrease, or if the affected species are naturally rare.

Management suggestions

Management actions based on the precautionary principle should be followed, considering the current decline in seabird numbers, particularly African Penguins.

Provision of alternative safe breeding sites for seabirds e.g. platforms at Hollamsbird Island), pedestals and artificial burrows.

Evaluation of the impact of displacement, including an investigation of alternative sites for seals currently displacing birds.

Displacement of seals from seabird islands by constant disturbance and removal of persistent animals. Disturbance has a short-term negative impact on breeding seabirds, but population recovery/restoration is possible (e.g. Bank Cormorants at Mercury Island).

Prevention of the establishment of new seal colonies at seabird islands, especially Jutten and Dassen Islands.

Avoidance of dramatic changes in seal management without consultation. Mercury Island was swamped by seals disturbed by culling operations on the mainland.

The above recommendations should be seen in light of the combination of the competition of seabirds with seals for food and the predation of seabirds by seals.

Pollution

Discussion group: Mario Leshoro, Deon Nel, Leshia Upfold, Estelle van der Merwe, Johan Visagie, Phil Whittington

Pollution incidents were split into four main categories:

1. Industrial and chemical pollution - including sewage, agricultural run-off, effluents, plastic products, rubber bands, packaging.
2. Entanglement - including fishing line and other fishing-related products, discarded materials, plastic bags, bird rings (mainly a problem with penguins becoming entangled in vegetation).
3. Oil slicks - including spillage from vessels, land-based spillage, pipeline fractures
4. Noise pollution - mainly resulting from aircraft.

Ranking

The pollution threat categories were ranked in the following order of importance:

1. Oiling
2. Entanglements
3. Noise pollution
4. Industrial and chemical pollution

Oil

Description of threat

Affects all marine species but especially African Penguins, Cape Gannets and cormorants. Most incidences of seabird oiling have taken place in the Western and Eastern Cape Provinces of South Africa, with the most severe effects around breeding colonies, particularly those near Cape Town and Port Elizabeth.

Between 1981 and 1991, 4214 African Penguins were oiled and treated at the Southern African Foundation for Conservation of Coastal Birds (SANCCOB). The main incident in this period was the sinking of the *Kapodistras* at Cape Recife in 1985, which resulted in 923 African Penguins being oiled. Between 1991 and 2001, 31 500 penguins, i.e. 18% of the total population, were oiled in four major spills, each involving more than 1000 birds:

1994 *Apollo Sea* - sank
Dassen Island
10 000 African Penguins oiled
5 213 cleaned and released

1995 Unidentified spill
Dyer Island
1200 African Penguins oiled

1996 *Cordigliera* - sank
Port Elizabeth
1300 African Penguins oiled

2000 *Treasure* - sank
Between Robben Island and Dassen Island
19 000 African Penguins oiled
11 % of total population
19 000 cleaned/relocated and 16163 released

All told, during the latter period, approximately 35 000 African Penguins, 20% of the total population, were victims of oil pollution. Cape Gannets were the second-worst affected species, most having been oiled in three major spills. In 1983, the *Castillo de Bellver* sank offshore to the north-east of Dassen Island, oiling 1300 Cape Gannets. A further 1000 were oiled in three unidentified spills in 1998 and 1999. In addition, smaller groups were affected by other unidentified incidents of chronic oiling. The *Castillo de Bellver* still leaks oil from time to time and may affect small numbers of gannets. Oil spills in the region have also affected small numbers of Bank, Cape, Crowned and White-breasted Cormorants, and Kelp and Hartlaub's Gulls.

Management suggestions

Goals for dealing with oil pollution, in order of priority, include increasing the level of monitoring of the coastline, ensuring that current legislation is adequately enforced, improving international and national legislation where possible, creation of financial resources to assist with clean-ups of unidentified spills, funding of education and awareness campaigns, and raising awareness of the public, politicians and ships' crews to oil-pollution problems (irresponsible ship owners must not be allowed to apply economics to the detriment of environmental issues), set up seabird rehabilitation centres in Namibia and the Eastern Cape. Attain long-term funding for SANCCOB. Devise methods to catch oiled cormorants while they are still relatively strong. To achieve the goals above the following steps could be taken.

The Department of Environmental Affairs and Tourism (DEAT) has the responsibility for monitoring oil pollution along the coastline. Funding is required to increase levels of monitoring. Only one aeroplane is currently available for this purpose. Central Government should provide the necessary funds to allow an increase in monitoring, perhaps by way of creation of a pollution-contingency fund (see below).

Increased funding is also required to provide the means to enforce current legislation more effectively. The inspection of vessels, their safety procedures and equipment and other aspects of seaworthiness, e.g. ability of crew and officers to communicate in a common language, should be rigorously carried out and steps

taken to ensure that ships do not go to sea if these requirements are not met. There is a need to correct design faults in certain types of vessels, such as some bulk carriers. In South Africa, the South African Marine Safety Association (SAMSA) is the responsible authority for marine safety.

The Oil Pollution Unit is best placed to ensure that national legislation is updated in order to deal with problems posed by oil pollution and to ensure that it is in step with recent international standards.

An oil contingency fund could be established by DEAT, based on fines imposed in accordance with the Marine Pollution Act, and from a levy on ships entering harbours or exercising a right of passage through waters within the Exclusive Economic Zone (EEZ), or territorial waters in the absence of an EEZ. A levy could also be imposed on shipping of oil on a cost per barrel basis.

A major oil spill focuses public awareness on this problem. The media can play an important part in getting the message across. Education campaigns could maintain public awareness between incidents. Oil pollution prevention should be part of training programmes for ships' crews and harbour personnel. Contingency plans require regular updating.

There is a lack of capacity to monitor marine oil pollution, a lack of contingency plans for oil spills as well as a lack of well-equipped seabird rehabilitation centres in Namibia and the Eastern Cape. Furthermore, enforcement laws regarding the cleaning of bilges and the dumping of oil and other substances at sea are lacking or insufficient.

Core funding for existing rehabilitation centres needs to be firmly established. Some funding could come from the above-suggested levies.

Entanglement

Description of threat

The extent of the problem is probably under-estimated because many entangled birds are not found. The problem is exacerbated by the fact that some breeding colonies are close to cities and to major fishing areas. The main problem probably lies with entanglement in fishing line. At Robben Island, at least 10-15 African Penguins are found entangled in fishing line each year, and at Dassen Island 5-10 penguins are found, but many more probably fall victim to this threat. If not discovered and freed, birds will starve to death or may suffer loss of limbs and impaired ability to feed or breed. All species are probably effected, but especially African Penguins, Cape Gannets, cormorants, gulls and terns. Cormorants often use fishing line and discarded twine or string for nesting material and have died as a result of becoming entangled in it. African Penguins will occasionally use fishing line and even nest among barbed wire. Other materials causing entanglement include discarded twine and packaging, such as plastic six-pack holders and nylon strapping.

The fitting of penguin flipper bands of inferior quality, and the incorrect application of the bands, have resulted in an increase of entanglements of birds involving such bands. Over 25 African Penguins were found with their flipper-bands entangled in dead vegetation at Robben Island following the *Treasure* oil spill. Between 1995 and 2000, less than five penguins were found entangled in this manner. The shape and size of some bands may allow for too much space between the flipper and the band, thus increasing the likelihood of sticks getting wedged there.

Ingestion of discarded materials may also be a problem, especially for gulls, which feed at rubbish tips, and Great White Pelicans. An adult pelican was found dead on Dassen Island having ingested a 1-litre plastic bottle. Kelp Gulls at Dassen Island are known to ingest polony roll ends.

The disposal of potentially hazardous waste items may stem from a lack of awareness of the effects of disposing of such waste, or be due to a lack of concern by those responsible. There may also be a lack of incentive to dispose of waste in a responsible manner.

Management suggestions

Goals to minimise these problems include initiatives for reduction in the use of plastic bags and other packaging. Education of the public and authorities to recycle, re-use and reduce dependency on these items would help considerably. Fishers should be informed of the potential environmental hazards of disposing of fishing gear, especially nylon line, and be persuaded to dispose of certain items, such as the strapping around bait boxes, in receptacles provided on land. Of coastal plastic pollution, 96% of items were manufactured locally. A viable market for recycled goods, especially plastics, is required. Of these targets, education was considered the most important, followed by reduction in the use of plastics and creation of a market for recycled goods.

Distribution of pamphlets and visits of Coastcare/Marine & Coastal Management staff to fishing communities is an important step in education of the latter in the problems posed by improper disposal of fishing equipment. International “Coastal Cleanup” campaigns, and the publicity they attract, make the public aware of the consequences of careless disposal of plastics and other waste, as well as removing debris from the coastline. Ensuring that bird bands are made to the correct measurements and specifications should ensure that they do not become entangled in this manner.

Reduction of pollutants may be achieved if manufacturers of products, especially plastics, were responsible for disposal costs associated with their products. More initiatives to reduce packaging, e.g. “bags for life”, would contribute towards reducing pollutants in the environment.

Noise pollution

Description of threat

Aircraft flying over seabird colonies pose the main problems in this category. This may be due to pilots being unaware of the effects of aircraft noise on breeding seabirds. Helicopters have been observed to disturb cormorants at Robben and Dassen Islands, even causing chicks to fall out of nests. Disturbance to incubating adults can result in eggs and brooded chicks being uncovered and taken by Kelp Gulls. Stress may cause birds, especially chicks, to regurgitate. To reduce the problem of noise pollution we should aim to minimize disturbance caused to seabird colonies by aircraft.

Management suggestions

Flights in the vicinity of seabird colonies should be limited to those that are absolutely essential.

Flight paths should be routed away from seabird colonies and should be at or above an altitude that may otherwise result in disturbance, although safety measures may necessitate alternative routes being used in certain weather conditions. These restrictions should apply to both civil and military aircraft.

Industrial and chemical pollution

Description of threat

Sewage may leach into freshwater systems and marine ecosystems, especially harbours, by way of storm-water drains. For instance, leakage from Strandfontein Swage Works adjacent to False Bay has entered the adjacent Zeekoevlei. This can cause eutrophication, leading to decreased oxygen levels and fish mortality. Seabirds could be adversely affected by loss of available food and toxicity. Main species at risk are probably those using freshwater habitats such as Great White Pelicans, White-breasted Cormorants and Grey-headed Gulls. Fish oil leaking into a river at Randfontein, Gauteng in 1998 caused several species of waterbirds to be oiled. Heavy metals derived from maintenance activities in harbours, e.g. scraping of paint and application of anti-fouling paint, can enter water and sediment and are highly toxic to all marine life. All these problems could be increased by the proposed development at the Coega River mouth, which is close to six breeding seabird islands in Algoa Bay, including the second largest African Penguin colony, at St Croix Island.

Three provinces in South Africa (KwaZulu-Natal, Mpumalanga and Limpopo Provinces) have indicated their intention to continue to use DDT for control of mosquitoes. This compound accumulates in the tissues of organisms, concentrating in those higher up the food chain, and has caused breeding failure due to thinning of eggshells. It is, however, cheap and efficient. It has not been considered a problem when used in buildings in northern KwaZulu-Natal and tends to denature easily when dropped from high-flying aircraft, e.g. in Namibia. It may, however, present a threat to freshwater species, such as Great White Pelicans, if allowed to enter river systems. Poisons used in the control of Red-billed Queleas *Quelea quelea*, a passerine species which is a major agricultural pest, could have a negative impact on White-breasted Cormorants, if they find their way into the aquatic environment.

Negligent disposal of toxic and biological waste, usually for economic reasons, could pose a threat to gulls foraging on waste tips. Dumping of dead chickens by chicken farms could pose a disease threat to pelicans, for instance by spreading Newcastle's disease.

Management suggestions

In order to reduce emissions of toxic material, legislation regarding this, e.g. the "polluter pays" principle, should be strictly enforced. This was considered to be the most important suggestion.

Standard procedures should be carefully followed in order to minimize the risk of pollution resulting from human error.

Alternatives to the use of heavy metals in paints should be sought to minimize the risk from these toxic substances.

Animal carcasses should be buried to prevent the spread of disease.

Pressure groups, by raising public support, can play a part in moving relevant authorities to ensure that legislation is enforced and that penalties are imposed on offenders.

F. TAXON DATA SHEETS AND DISTRIBUTION MAPS

The Conservation Assessment and Management Plan (CAMP) **Taxon Data Sheet** is a working document for recording information that can be used to assess and categorize the degree of threat to a taxon using the IUCN Red List Criteria and recommend conservation action. Tables 1 to 3 summarise the information in these Taxon Data Sheets.

African Penguin

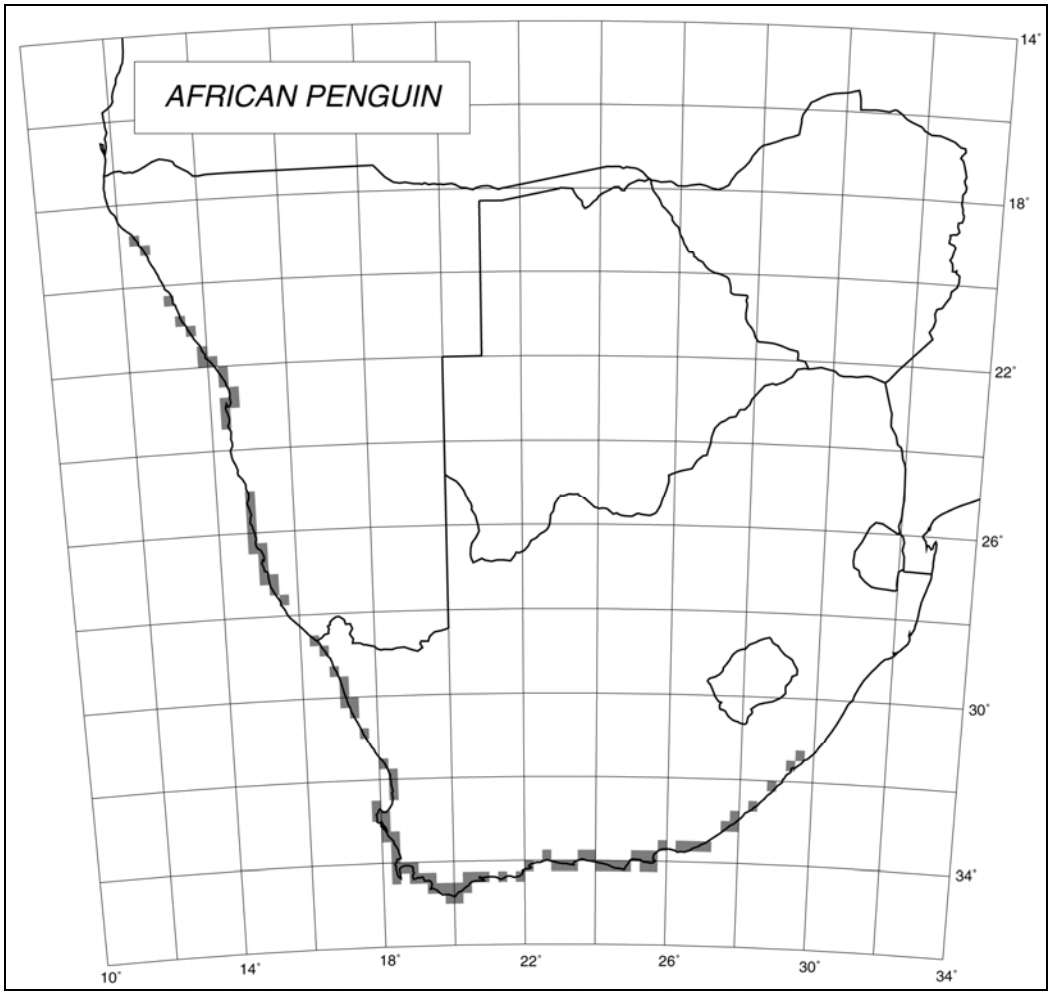

Figure 1. Distribution map of the African Penguin

Taxonomy

1. Scientific Name **(Authority, Date)**

Spheniscus demersus (Linnaeus, 1758)

LEVEL: Species
FAMILY: Spheniscidae
ORDER: Sphenisciformes
CLASS: Aves

Common Names	**Language**
African, Jackass, Black-footed or Cape Penguin	English
Manchot du Cap	French
Pinguino del Cabo	Spanish
Brillenpinguin	German
Brilpikkewyn, Afrika Pikkewyn	Afrikaans

Unombombiya Xhosa

2. Distribution of the taxon

Namibia, South Africa

HABITAT: Marine & terrestrial (must be considered holistically).

NICHE: Restricted to marine and coastal habitats.

HISTORICAL DISTRIBUTION: South Africa, Namibia.

CURRENT COUNTRIES: South Africa, Namibia.

GEOGRAPHIC EXTENT: Southern African breeding population (coast of southern Namibia, Northern, Western, and Eastern Cape Provinces of South Africa, southern KwaZulu-Natal (non-breeding)).

MIGRATION REGIONS: No concentrated sites of migration - juveniles tend to wander west and north.

3.-4. Occurrence and occupancy in & around area study/sighting

OCCURRENCE AREA: >20 000 sq km

OCCURRENCE NOTES: three centres of occurrence - Eastern Cape, Western Cape and Namibia (potential genetic differences?)

OCCUPANCY AREA: >2001 sq km

5. Number of locations or subpopulations

NO. LOCATIONS: 1

6. Habitat status

STATE OF HABITAT: Contiguous

CHANGES IN QUALITY: Decrease in quality

NOTES ON QUALITY: Some increase in quality (e.g. Robben Island, South Africa)

7. **Threats**

Threat	Now/Future	Rank
1. Habitat Loss (Human Induced)		
1.2. Extraction		
Fisheries	Y/Y	1
Reduces breeding success, productivity and juvenile recruitment (Global)		
1.3. Development		
Industry	Y/Y	5
Tourism	Y/Y	5
2. Direct Loss/Exploitation		
2.1. Exploitation		
Collecting	Y/Y	5
Guano collecting results in habitat destruction and human disturbance (Namibia)		
2.3. Accidental mortality		
Entanglement (Global)	Y/Y	5
Road kills	Y/Y	5

Boulders, Robben Island (South Africa, Western Cape Province)

3. Indirect Effects

3.1. Human interference

Recreation/tourism	Y/Y	5
Research	Y/Y	5

High levels of disturbance may result in reduced breeding success and low levels of recruitment (Global)

3.3. Ecological imbalance

Competitors	Y/Y	5

Seals compete for food and breeding habitat (Global)

Predators	Y/Y	4

Kelp gulls prey on eggs and chicks, exacerbated by surface nesting; low-level threat by seal predation (Global)

Pathogens/parasites	Y/Y	4

Insufficient information regarding disease in the wild - more research needed (Global)

Loss of prey base	Y/Y	1

Due to over-fishing and extreme weather conditions (Benguela Niños) - reduces productivity and survival (Global)

4. Natural disasters

4.3 Fire

Wildfire	Y/Y	5

Particularly Boulders, Stony Point & Robben Island where woody vegetation is predominant (South Africa - Western Cape Province)

4.4 Storms

Storms/flooding	Y/Y	5

(Global)

5. Pollution

5.1 Global

Global warming/oceanic warming

	Y/Y	3

Results in changes in food availability (Global)

5.4 El Niño

El Niño	Y/Y	3

Affects availability of prey and breeding success (Global)

6. Pollution

6.1 Chemical

Pesticides/chemical pollution

	Y	5

(Global)

6.3 Oil

Oil slicks	Y/Y	2

Direct mortality, reduced productivity and disturbance during rescue operations (Global)

7. Intrinsic

7.2 Regeneration

Poor recruitment/ reproduction

	Y/Y	1

Decline in breeding population and productivity (Global)

7.3 Mortality
High juvenile mortality Y/Y 1
Decline in breeding population and productivity (Global)

Comment: Low recruitment and high juvenile mortality is driving the continued population decline as a result of the threats listed.
Ranking for Namibian population:
Fisheries=1, Habitat Destruction=2, Extreme Weather conditions (Benguela Niños & heat waves)=3, Predation=4, Oil Pollution (chronic & catastrophic)=5, rest of threats=6
Ranking for South African population:
Fisheries=1, Oil Pollution (chronic & catastrophic)=2

8. Trade
Trade described as commercial; international trade
Parts in Trade: animal effects: causing population decline. Illegal trade is strongly suspected, but nothing is proven.

9-10. Population: numbers and trends
9A. Length of generation:10 Years

	Total Pop.	Mature
9B. Global Population:	>10 000	10 000

10A. Recent past trends: Declining
10B. Will population decline? Yes
Rate of decline (past) >80% For 90 years
Predicted Rate (future) >10% For 15 years
High rate of decline over the long term, but over the short term (last ten years) population more stable - South African population stable, however Namibian population decreasing. These populations comprise 100% of global population (i.e. entire global population).

11. Data source
DATA SOURCE/QUALITY: Qualifier: Observed. Uncertainty: 95% Confidence; census monitoring; field study. Qualifier for data: Observed. Data uncertainty: 95% Confidence; census monitoring.

12. Recent field studies
D. Nel; A. Wolfaardt, Dassen Island, South Africa 1994-2002, Breeding success of cleaned, oiled birds compared to non-oiled birds.
P. Whittington, South Africa, 1995-2001, Survival and movements of African Penguins especially after oiling.
C. Morgan, Boulders, South Africa, 1995-1996, Conservation and economic values of an urban penguin colony.
R. Crawford, Robben Island, South Africa, 1989-1995, Population dynamics, diet, effect of human disturbance.
S. Kuiper (1995), M. de Villiers (2002), Boulders, Effects of human disturbance.
N. Klages, Algoa Bay, 1992-2001, Population dynamics.
G. Murison, Boulders, 1998, Breeding success.
R. Crawford, Boulders, 1985-1999, Growth of colony.
J. Griffin, Robben Island, 2001-2002, Factors affecting breeding productivity.

J. Kemper, Namibia, 2001-present, Population dynamics.
Marine and Coastal Management, South Africa, 1985-present, Annual nest censuses, moult counts, diet analysis.

13. Status (IUCN Red Data List)

Red List Category:
CURRENT: ***Vulnerable***
CRITERIA: E
PREVIOUS: Vulnerable
IUCN Category (National): Vulnerable
CITES: Appendix II
NATIONAL WILDLIFE LEGISLATION: Protected in terms of South Africa's Sea Bird and Seals Protection Act No.46 of 1973
NATIONAL RED DATA BOOK: Vulnerable
INTERNATIONAL RED DATA BOOK: Vulnerable
OTHER LEGISLATION: Provincial Nature Conservation Ordinance, National Parks Act 57, 1976
PROTECTED AREA: West Coast National Park, Cape Peninsula National Park, Robben Island National Historical Monument, Provincial Nature Reserves (Dassen, Dyer and Bird (Lambert's Bay) Islands, all Algoa Bay islands, Stony Point (Local Authority Nature Reserve), Sylvia Hill (Namibia)
NOTES ON STATUS: Criteria based on population figures from the African Penguin Population & Habitat Viability Assessment (1999)
NOTES ON REGIONAL ASSESSMENT: 100% of global population. Global Population meets criteria to be classified as Vulnerable (E). South African population meets criteria to be classified as Vulnerable (E). Namibian population meets criteria to be classified as Endangered.
PROTECTED PLAN: e.g. Dassen Island Management Plan; Boulders and Stony Point.

14. Research recommended

Survey studies; Genetic research; life history; limiting factor research; epidemiology.
OTHER RESEARCH: Effects of predation; Effects of oiling on breeding frequency; Rehabilitation methods; Stress levels (human impact); Juvenile survival and recruitment.
PHVA NOTES: Recently done in 1999.

15. Management recommendations

Habitat management; wild population management; monitoring; public awareness; limiting factor; captive breeding / cultivation; predator control. Management of access to breeding sites. Provision of artificial nests. Manage current captive breeding programs & develop standardized methods & expertise. Monitoring of key population parameters - standardization of population analysis methods. Minimise risk of marine pollution. Maximize efficiency of contingency plans to deal with marine pollution. Fisheries control (especially pelagic fish) - incorporation of marine protected areas around breeding colonies. Minimize the risk of disease and address the current problems, especially amongst captive populations. All breeding colonies should be given full protection status. Constantly review legislation.

16. Captive breeding / Cultivation recommendations

Education; research; husbandry. Not recommended commercially, but rather for the above reasons only.

17. **Facilities**

South Africa: Two Oceans Aquarium, "Monty's", SANCCOB, Bird Island (Lambert's Bay), Bayworld (Port Elizabeth), Sea World (Durban), East London Aquarium, World of Birds, Jeffrey's Bay.

Overseas: SANCCOB has extensive list of captive stocks housed at foreign institutions.

18. Level of *ex situ* management recommended

Remain at current level.

19. Techniques to propagate the taxon

Captive breeding/rearing well established.

20. General comments

21. Sources

Input from Workshop participants; See references in African Penguin nomination text (section G).

22. Compilers

Phil Whittington, Nola Parsons, Jenny Griffin, Estelle van der Merwe, Jessica Kemper, Anton Wolfaardt, Mario Leshoro

Leach's Storm Petrel

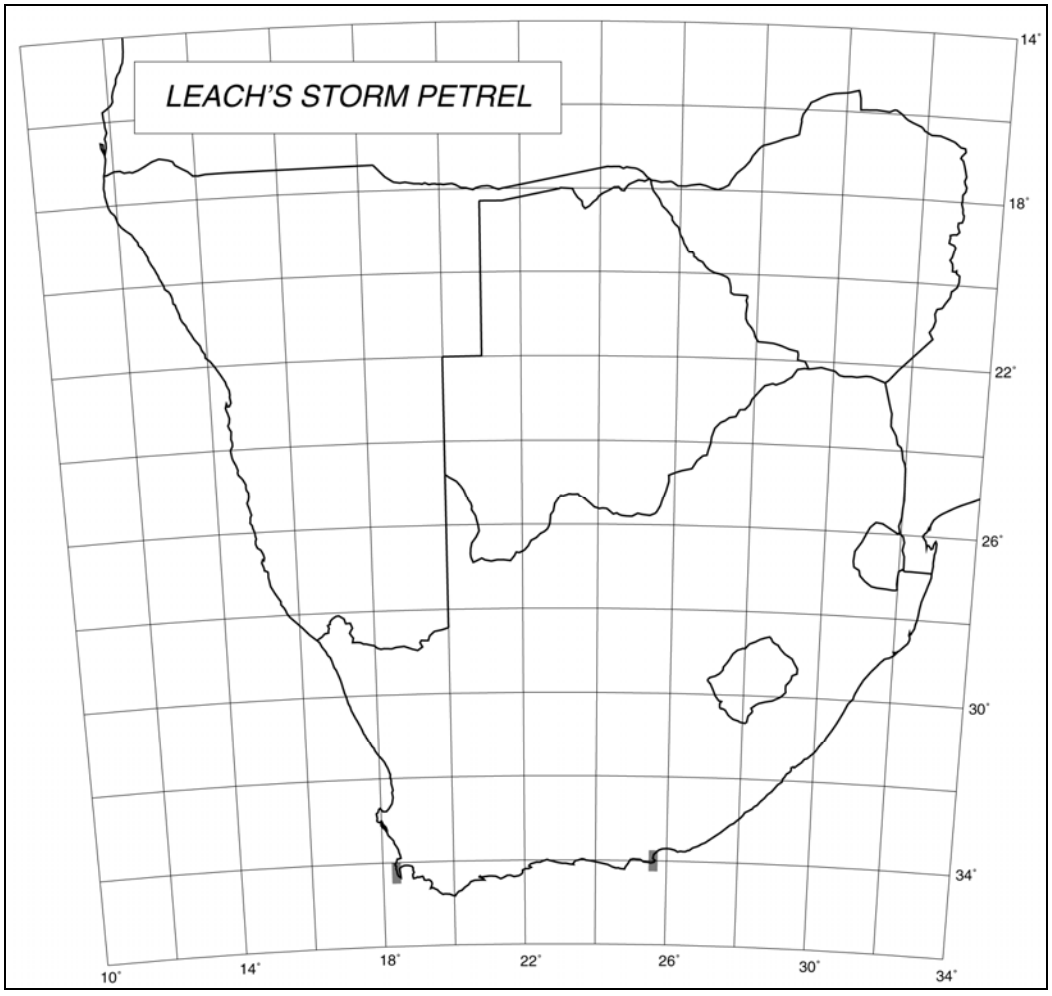

Figure 2. Distribution map of the southern African population of the Leach's Storm Petrel

Taxonomy

1. Scientific Name (Authority, Date)

Oceanodroma leucorhoa (Vieillot, 1817)

LEVEL: Species
FAMILY: Hydrobatidae
ORDER: Procellariformes
CLASS: Aves

Common Names	**Language**
Leach's Storm Petrel	English
Océanite Culblanc	French
Paiño de Leach	Spanish
Casqhilho-de-Leach	Portuguese
Swaelstertstormswael	Afrikaans

19. **Distribution of the taxon**

South Africa (population under investigation)

HABITAT: Open sea

NICHE: Leach's Storm Petrels occur mainly in deep oceanic waters (generally 2000-5000 m deep), often in areas of convergence or upwelling and less frequently over the continental shelf. Occurs in oceanic waters, is scarce over shelf-break and rare inshore

HISTORICAL DISTRIBUTION: International Waters, pelagic off West Coast of southern Africa

CURRENT COUNTRIES: International Waters, pelagic off West Coast of southern Africa

GEOGRAPHIC EXTENT: South African breeding population

MIGRATION REGIONS: International waters: It is considered highly likely that the tiny South African breeding population of Leach's Storm Petrels enters international waters when foraging

3.-4. Occurrence and occupancy in and around area study/sighting

OCCURRENCE AREA: >20 000 sq km

OCCURRENCE NOTES: Forages in pelagic waters

OCCUPANCY AREA: <10 sq km

OCCUPANCY NOTES: Breeding localities <10 sq km

5. Number of locations or subpopulations

NO. LOCATIONS: 3.

NOTES ON FRAGMENTATION: It is possible that the species may have bred at St Croix but this is yet to be confirmed.

6. Habitat status

STATE OF HABITAT: Contiguous.

PREDICTED DECLINE IN HABITAT: < 20%

PREDICTED DURATION OF DECLINE: 20 years

CHANGES IN QUALITY: Decrease in quality

NOTES ON QUALITY: Potential: tourism, loss of breeding habitat (dry stone walls)

7. Threats

Threat	now/future	Rank
1. Habitat Loss (Human Induced)		
1.3. Development		
Tourism	Y/Y	5
Human disturbance		
3. Indirect Effects		
3.2. Alien invasive species		
Predators	Y/Y	3

Exotic species such feral cats are responsible for predation of breeding adults returning to and at nesting sites.

3.3. Ecological imbalance

Predators Y/Y 1

Kelp Gulls are responsible for predation of breeding adults returning to and at nesting sites; Birds suffer injuries to feet, and become vulnerable to predatory fish.

Pathogens/parasites Y/Y 4

The colonisation of the dry stone walls by breeding Cape Cormorants leads to high parasite loads in the nests.

7. Intrinsic

7.2 Regeneration

Poor recruitment/ reproduction Y/Y 2

Potential threat to South African breeding population.

Comment: Tourism is a potential threat, especially if tourism is at night (e.g. Dyer Island, South Africa).

8. Trade

Parts in Trade: none Effects: no effect

9-10. Population: numbers and trends

9A. Length of generation: 10 years

Total Pop./ Mature

9B. Global Population 10 000

10A. Recent past trends: Stable

South Africa: Jutten Island: 5 pairs? (October 2000), Dassen Island: 2 pairs? (November 1996), Dyer Island: 6 pairs (February 1998), St Croix Island: 1 (possibly bred between 1979 and 1984). South African population is 0.000005% of the global population, and the only population confirmed breeding in Southern Hemisphere.

11. Data source

DATA SOURCE/QUALITY: Individuals counts. The nature of the nest sites will inevitably lead to undercounts.

12. Recent field studies

Marine and Coastal Management, Western Cape Nature Conservation Board: Surveys, censuses, monaural information and banding of adults.

13. Status (IUCN Red Data List)

Red List Category:

CURRENT: ***Endangered***

CRITERIA: B2a, b(iii),v(iii); see below

PREVIOUS: Not evaluated for southern African population

NATIONAL LEGISLATION: Sea Birds and Seals Protection Act (South Africa) No. 46 of 1973

OTHER LEGISLATION: National Parks Act 57, 1976

PROTECTED AREA: In South Africa, Provincial Nature Reserves (Dassen, Dyer Islands); National Park (Jutten Island)

PROTECTED PLAN: Dassen Island Management Plan

NOTES ON STATUS: Qualifies for Critically Endangered, but downgraded to

Endangered due to the following: Very abundant in neighbouring regions; no important threats to those populations; taxon is capable of dispersing between regions; suitable available habitat.

14. Research recommended

Survey Studies; Genetic Research; Taxonomic Research

OTHER RESEARCH: Only known breeding locality in Southern Hemisphere. The taxonomic status of this population is unknown.

15. Management recommendations

Habitat management; Monitoring

16. Captive breeding / Cultivation recommendations

The taxonomic status of the Southern Hemisphere population needs to be established.

17. Facilities

Population in captivity: none

18. Level of *ex situ* management recommended

None

19. Techniques to propagate the taxon

None

20. General comment

None

21. Sources

Input from Workshop participants

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22. Compilers

Michelle du Toit, Johan Visagie, Leshia Upfold, Caroline Fox, Vincent Ward

Great White Pelican

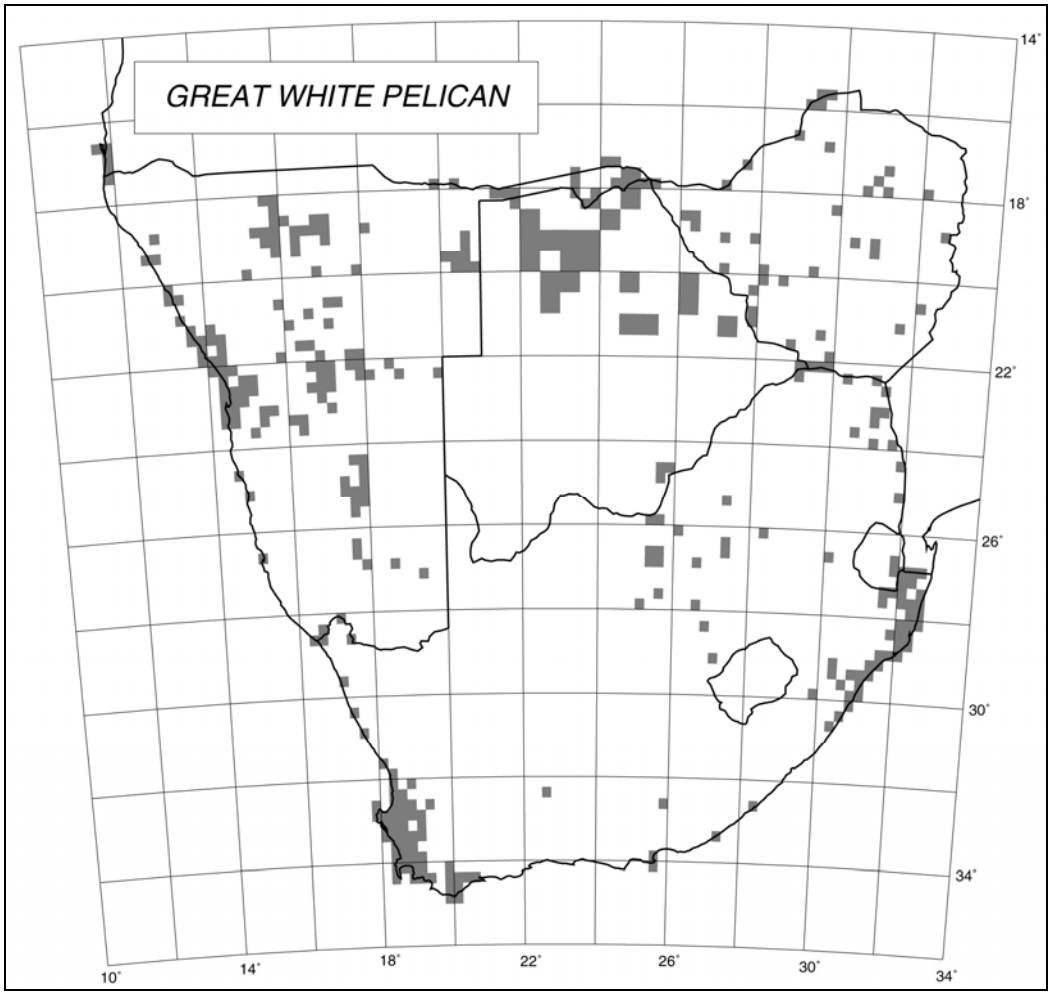

Figure 3. Distribution map of the southern African population of the Great White Pelican

Taxonomy

1. Scientific Name (Authority, Date)

Pelecanus onocrotalus (Linnaeus, 1758)

LEVEL: Species
FAMILY: Pelicanidae
ORDER: Pelecaniformes
CLASS: Aves

Common Names	**Language**
Great White Pelican	English
Pélican Blanc	French
Pelicano Comun	Spanish
Rosapelikan	German
Witpelikaan	Afrikaans

Ingcwanguba Xhosa

2. Distribution of the taxon

Angola, Botswana, Namibia, South Africa, Southern Mozambique
The countries listed include countries where the species breeds and forages in southern Africa. For the purpose of this assessment, southern Africa is defined as including southern Angola to the northern boundary of the Benguela Current (at 14ºS).

HABITAT: Seasonal/Intermittent freshwater lakes [over 8 ha]
NICHE: In southern Africa, Great White Pelicans breed on natural or artificially created islands that are inaccessible to land predators. They forage in estuaries, coastal bays and large inland water bodies that have adequate supplies of fish; also scavenge agricultural offal, and prey on other seabirds. Drying water bodies are favoured, as fish become concentrated in shallow water.

HISTORICAL DISTRIBUTION: Mozambique (no longer breeds, still occurs)
CURRENT COUNTRIES: Angola, Botswana, South Africa, Mozambique, Namibia, Zimbabwe
GEOGRAPHIC EXTENT: Angola, Botswana, South Africa, Namibia
MIGRATION REGIONS: Within southern Africa, Great White Pelicans occur on the west coast (here defined to include southern Angola to the northern boundary of the Benguela Upwelling System at 14ºS), at large inland waters of Namibia, Botswana and Zimbabwe, throughout southern Moçambique, along the KwaZulu-Natal coast and in the Northern and Mpumalanga Provinces of South Africa. They are nomadic and move across southern Africa in response to changing water levels.

3.-4. Occurrence and occupancy in and around area study/sighting
OCCURRENCE AREA: >20 000 sq km

OCCUPANCY AREA: >2001 sq km

OCCUPANCY NOTES: Inland and coastal, and within 10 km of the coast

5. Number of locations or subpopulations
NO. LOCATIONS: 10

6. Habitat status
STATE OF HABITAT: Fragmented
PREDICTED DECLINE IN HABITAT: < 20%
PREDICTED DURATION OF DECLINE: 20 years
PRIMARY CAUSE OF CHANGE: Loss and modification of wetland habitat, siltation
CHANGES IN QUALITY: Decrease in quality
NOTES ON QUALITY: Accumulation of pesticides from agricultural run-off, siltation.

7. Threats

Threat Now/Future Rank
1. Habitat Loss (Human Induced)
1.1. Agriculture

Agriculture Y/Y

Bio-accumulation of agricultural pesticides, e.g. DDT, BHC and dieldrin pesticides

1.2. Development

Power Lines Y/Y 5

Especially young birds fly into power lines and are killed.

1.4 Unspecified causes

Drainage/ filling in of wetlands/ coastlines

Y

Potential threat

Poisoning from agricultural waste

3. Indirect Effects

3.1. Human interference

Human interference Y/Y 2

Disturbance at breeding sites

Recreation/tourism Y/Y **5**

Disturbance to birds at breeding sites - Dassen Island, South Africa (proposed), St Lucia, South Africa (future)

3.3. Ecological imbalance

Predators Y/Y

Etosha & pans in Botswana - drying of pans allows access of lions *Panthera leo* and Black-backed Jackal *Canis mesomelas* which prey on pelicans

Loss of prey base Y 4

Freshwater fish may become increasingly commercially exploited

4. Natural disasters

4.2 Drought

Drought Y/Y

Drying up of water courses affects food source and breeding space

4.4 Storms

Storms/flooding Y/Y

Flooding of breeding space displaces birds

5. Pollution

5.4 El Niño

El Niño Y/Y 3

Affects availability of prey and breeding success by drought and flooding

6. Pollution

6.1 Chemical

Pesticides/chemical pollution

Y/Y 1

Bio-accumulation of pollution agricultural pesticides, e.g DDT, BHC and dieldrin pesticides.

8. Trade

None

9-10. Population: numbers & trends

9A. Length of generation: Years unknown in South Africa

	Total Pop.	Mature
9B. Global Population:	> 10 000	>10 000 (*c*. 90 000)

10A. Recent past trends: Increasing

Approximately 75 000 pairs of Great White Pelicans breed in Africa. In southern Africa, there are c. 6 000 pairs (6.6% of global), of which *c*. 3 500 breed in South Africa at two colonies. The coastal populations tend to breed on a regular annual basis, but the breeding of inland birds tends to be subject to favourable climatic conditions, e.g. good rainfall. The level of mixing between the southern African subpopulations is unknown. The Western Cape sub population has increased 6-7 fold over the last 20 years, possibly due to scavenging. The species is thus at risk of being poisoned and persecuted.

11. Data source

DATA SOURCE/QUALITY: Qualifier: Suspected. Uncertainty: Evidentiary; census monitoring; field study; Qualifier for data: Suspected. Data uncertainty: Evidentiary; Counts for some sites, data incomplete but widely spread.

12. Recent field studies

Marine and Coastal Management, South Africa: Dassen Island - 2002 (five year project)

Western Cape Nature Conservation Board: Dassen Island - cohort ringing of chicks; Vondeling Island - annual census

KwaZulu-Natal Wildlife: St Lucia - ongoing general monitoring

13. Status (IUCN Red Data List)

Red List Category:

CURRENT: ***Near Threatened***

CRITERIA: A2c

PREVIOUS: NATIONAL REDBOOK DATA: Near-threatened (South Africa)

NATIONAL LEGISLATION: Protected in terms of South Africa's Sea Birds and Seals protection act No. 46 of 1973

OTHER LEGISLATION: Bonn Convention (CMS) Appendix II (Western Palaearctic populations); 'Vulnerable' in draft management plan for the Black Sea/East Mediterranean population, Provincial Ordinance

PROTECTED AREA:

Namibia: Etosha National Park (Ramsar Site)
Walvis Bay (Provincial Nature Reserve, Ramsar Site)
Sandwich Harbour (National Park, Ramsar Site)

South Africa: Dassen Island (Provincial Nature Reserve)
Lake St Lucia (National Park, World Heritage Site, Ramsar Site)

Botswana: Lake Ngami (Ramsar Site).

PROTECTED PLAN: Dassen Island Management Plan; St Lucia Management Plan.

NOTES ON STATUS: The construction of artificial water bodies for irrigation has increased the number of feeding and roosting localities for Great White Pelicans.

14. Research recommended

Survey Studies; Life history

OTHER RESEARCH: A co-ordinated, simultaneous census of breeding pelicans at all colonies is necessary to obtain an accurate population estimate. Colour banding of juveniles, coupled with satellite tracking is required to elucidate cross-border movements within southern Africa.

15. Management recommendations

Habitat management; monitoring; public awareness; limiting factor management; work in local communities; protection of breeding colonies from human disturbance.

16. Captive breeding / Cultivation recommendations

17. Facilities

South Africa: Pretoria Zoo (Gauteng), Umgeni Bird Park (KwaZulu-Natal), World of Birds (Western Cape Province)

18. Level of *ex situ* management recommended

19. Techniques to propagate the taxon

20. General comments

21. Sources

Input from Workshop participants

Western Cape Nature Conservation Board unpublished data (Dassen Island, Vondeling Island).

KwaZulu-Natal Wildlife unpublished data.

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22. Compilers

Michelle du Toit, Caroline Fox, Dieter Oschadleus, Leshia Upfold, Johan Visagie, Vincent Ward, Anton Wolfaardt

Cape Gannet

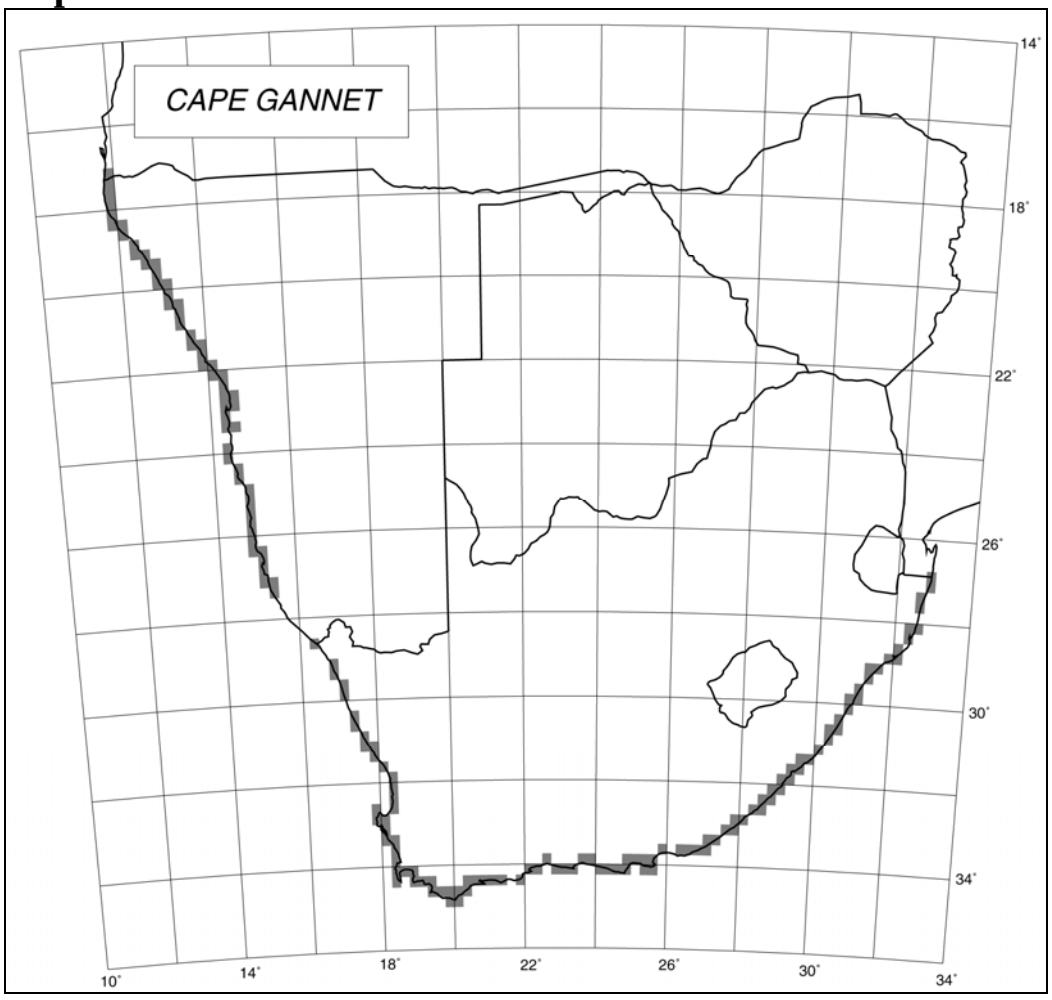

Figure 4. Distribution map of the Cape Gannet

Taxonomy

1. Scientific Name	**(Authority, Date)**
Morus capensis	(Lichtenstein, 1823)
Ambiguities	
Dysporus capensis	(Lichtenstein, 1823)

LEVEL: Species
FAMILY: Sulidae
ORDER: Pelecaniformes
CLASS: Aves

Common Names	**Language**
Cape Gannet	English
Fou du Cap	French
Alcatraz-del-Cabo	Spanish
Witmalgas	Afrikaans
Umkholonjane	Xhosa

2. Distribution of the taxon

HABITAT: Sea

NICHE: Marine (coastal waters and occasionally high seas) and terrestrial (breeding islands)

HISTORICAL DISTRIBUTION: South Africa and Namibia (breeding localities), Angola and Mozambique (foraging range)

CURRENT COUNTRIES: South Africa, Namibia (breeding localities), Angola, Mozambique (foraging range)

GEOGRAPHIC EXTENT: South Africa, Namibia

MIGRATION REGIONS: During the non-breeding season (austral winter), they are regular visitors to Angola; on the east coast they follow shoals of Sardine *Sardinops sagax* that migrate along the KwaZulu-Natal coast (South Africa), some occurring as far north as Delagoa Bay (Mozambique)

3.-4. Occurrence and occupancy in and around area study/sighting

OCCURRENCE AREA: >20 000 sq km

OCCURRENCE NOTES: 390 000 sq km (global occurrence) 295 000 sq km (South African range)

OCCUPANCY AREA: 11-500 sq km

OCCUPANCY NOTES: Only breeding island area used

5. Number of locations or subpopulations

NO. LOCATIONS: 6

NOTES ON FRAGMENTATION: 6 breeding localities : 3 in Namibia, 3 in South Africa

6. Habitat status

STATE OF HABITAT: Contiguous

CHANGES IN QUALITY: Decrease in quality

NOTES ON QUALITY: Decrease caused by guano scraping

7. Threats

Threat Now/Future Rank

1. Habitat Loss (Human Induced)

1.2. Extraction

Fisheries Y/Y 1

Competition with pelagic fisheries for food resources reduces breeding success, productivity and juvenile recruitment.

1.3. Development

Industry Y/Y

Commercial collection of guano. Breeding success may be decreased and the effective breeding season reduced (due to delayed onset of breeding) through removal of too much guano. The collection of guano may disturb breeding adults and disrupt chick feeding of late fledglings, leading to chick mortality.

Tourism Y/Y

Cape Gannets are susceptible to human disturbance during the breeding season, deserting their nests and leaving eggs and small chicks prone to predation by Kelp

Gulls.

2. Direct Loss/Exploitation

2.1. Exploitation

Collecting Y/Y

Guano collecting results in habitat destruction and human disturbance (Namibia).

2.3. Accidental mortality

Entanglement Y/Y 4

Entanglement in discarded fishing gear; caught on longline hooks as bycatch.

3. Indirect Effects

3.1. Human interference

Recreation/tourism Y/Y

Disturbance of breeding birds by tourists, resulting in eggs and chicks being exposed to Kelp Gulls.

Research Y/Y

Disturbance of breeding birds; not considered important.

3.3. Ecological imbalance

Loss of prey base Y/Y 1

Due to over-fishing and extreme weather conditions (Benguela *El Niños*) - reduces productivity and survival.

Predators Y/Y 2

Cape Fur Seals prey on adults and chicks (especially fledglings) at Malgas Island, South Africa; Kelp Gulls prey on eggs and chicks. Gull populations increase due to subsidized food from dumps, etc.

4. Natural disasters

4.4 Storms

Storms/flooding Y/Y 6

Adults die, eggs & chicks destroyed.

5. Pollution

5.4 El Niño

El Niño Y/Y 6

Affects availability of prey and breeding success (Global)

6. Pollution

6.1 Chemical

Chemical pollution Y 5

Marine pollution, chemicals from the shipping industry

6.3 Oil

Oil slicks Y/Y 3

Direct and indirect mortality, reduced productivity and disturbance during rescue operations

7. Intrinsic

7.2 Regeneration

Poor recruitment/ reproduction Y/Y 1

Decline in breeding population and productivity

7.3 Mortality

High juvenile mortality Y/Y 3

Bird, Lambert's Bay & Malgas Islands, South Africa - juveniles killed by seals

8. Trade

Trade described as commercial
Parts in Trade: guano
Effects: Commercial collection of guano for agricultural fertilizer

9-10. Population: numbers and trends

9A. Length of generation: 13 Years
Total Pop./Mature
9B. Global Population: 173 000
10A. Recent past trends: Declining
10B. Will population decline? Yes
Rate of decline (past) <20% for 40 years
Predicted Rate (future) >20% for 40 years

11. Data source

DATA SOURCE/QUALITY: Qualifier: Observed; Uncertainty: 95% Confidence; census monitoring; Qualifier for data: Observed; Data uncertainty: 95% Confidence.

12. Recent field studies

Western Cape Nature Conservation Board (WCNCB), Marine and Coastal Management (MCM); Ministry of Fisheries and Marine Resources (MFMR) (Namibia): annual aerial photographs (population size), diet samples, ringing & recoveries, breeding success.
MCM, University of Pretoria, MFMR - seal-seabird predation.

13. Status (IUCN Red Data List)

Red List Category:
CURRENT: ***Vulnerable***
CRITERIA: B2a,b(iii)
PREVIOUS: Vulnerable
NATIONAL REDBOOK DATA: Vulnerable (Barnes 1999)
NATIONAL LEGISLATION: Sea Birds and Seals Act, No. 46 of 1793 (South Africa)
OTHER LEGISLATION: Provincial Ordinance, National Parks Act 57, 1976
PROTECTED AREA: National Park (Malgas Island, South Africa), Provincial Nature Reserves (Bird Island, Algoa Bay and Bird Island, Lambert's Bay); Important Bird Area listing
PROTECTED PLAN: none

14. Research recommended

Survey Studies, monitoring
OTHER RESEARCH: Research recommended ongoing

15. Management recommendations

Habitat management; wild population management; monitoring; public awareness; limiting factor management; Management of access to breeding sites; All breeding colonies should be given full protection status; Management recommended concerning problem predators and guano harvesting.

16. Captive breeding / Cultivation recommendations

17. Facilities

18. Level of *ex situ* management recommended

19. Techniques to propagate the taxon

20. General comments

21. Sources

Input from Workshop participants; See references in Cape Gannet nomination text (Section G).

22. Compilers

Michelle du Toit, Johan Visagie, Caroline Fox, Leshia Upfold, Vincent Ward

Cape Cormorant

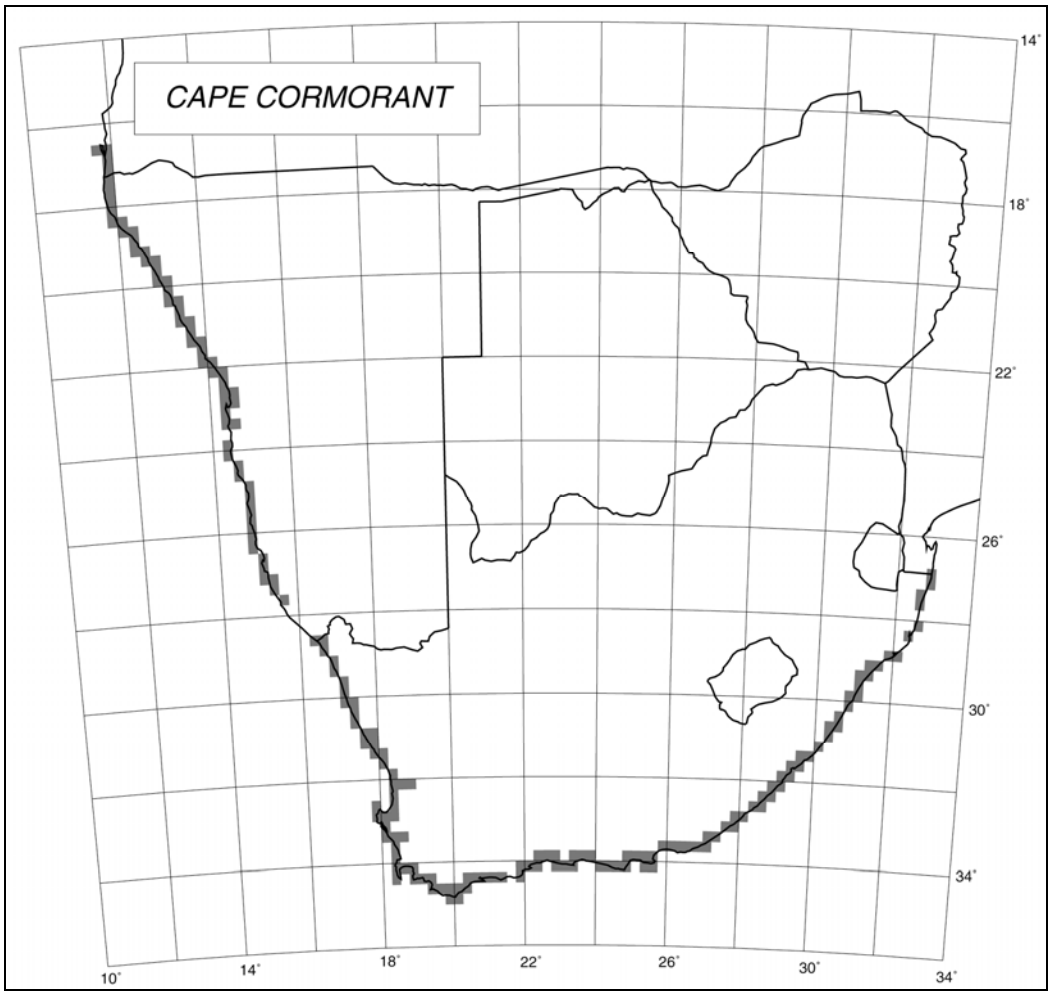

Figure 5. Distribution map of the Cape Cormorant

Taxonomy

1. Scientific Name (Authority, Date)

Phalacrocorax capensis (Sparrman, 1788)

LEVEL: Species
FAMILY: Phalacrocoracidae
ORDER: Pelecaniformes
CLASS: Aves

Common Names	**Language**
Cape Cormorant	English
Cormoran du Cap	French
Cormorán del Cabo	Spanish
Kapscharbe	German
Trekduiker	Afrikaans

Ugwidi Xhosa

2. Distribution of the taxon

Angola, Namibia, South Africa 4

HABITAT: Sea

NICHE: Entirely restricted to coastal habitats. Breeding recorded at 70 localities, on coastal islands, cliffs, stacks and artificial guano platforms. Seldom flies over land, but has nested 7.5 km inland at an island in a small lake called Die Oase, in Namibia.

HISTORICAL DISTRIBUTION: Historical breeding distribution from Ilha dos Tigres, southern Angola, to Hole-in-the-Wall, Transkei, Eastern Cape, South Africa. Present eastern extent of breeding is Seal Island, Algoa Bay, Eastern Cape. Usual non-breeding range Lobito, Angola to Delagoa Bay, Mozambique. Vagrant north to Gabon on west African coast.

CURRENT COUNTRIES: Breeding distribution: Angola, Namibia, South Africa. Non-breeding distribution: Angola, Congo, Democratic Republic of Congo, Gabon, Mozambique, Namibia, South Africa.

GEOGRAPHIC EXTENT: Angola, Namibia, South Africa

MIGRATION REGIONS: Numbers at breeding localities fluctuate widely, suggesting regional movements and/or fluctuations in numbers. Extensive post-breeding dispersal of adults and juveniles. In South Africa, regular visitor in varying numbers to KwaZulu-Natal from June to November, associated with the winter movements of pelagic prey. During June/July many birds move from southern and central Namibia northwards, as far as southern Angola.

3.-4. Occurrence and occupancy in and around area study/sighting

OCCURRENCE AREA: >20 000 sq km

OCCURRENCE NOTES: Area based on length of coastline multiplied by 10 km

OCCUPANCY AREA: >2001 sq km

OCCUPANCY NOTES: Area based on length of coastline multiplied by 10 km

5. Number of locations or subpopulations

NO. LOCATIONS: 1

NOTES ON FRAGMENTATION: Breeding habitat (offshore islands) naturally fragmented

6. Habitat status

STATE OF HABITAT: Fragmented

PREDICTED DECLINE IN HABITAT: <20%

PREDICTED DURATION OF DECLINE: 100 years

CHANGES IN QUALITY: Decrease in quality

NOTES ON QUALITY: Main cause: Highly variable prey availability. Minor causes: marine debris, discarded fishing gear and oil spills

7. Threats

Threat	Now/Future	Rank
2. Direct Loss/Exploitation		
2.1. Exploitation		
Exploitation	Y/Y	7

Disturbance due to unsupervised commercial collection of guano could have an impact.

2.3. Accidental mortality

Entanglement Y/Y 4

Entanglement in discarded fishing gear and guano sacks.

3. Indirect Effects

3.1. Human interference

Recreation/tourism Y/Y 3

Disturbance due to non-policed access to some breeding sites. Disturbance may provide opportunities for predation by Kelp Gulls. Recreational fishers may disturb birds on inshore rocks.

3.2. Alien invasive species

Predators Y/Y

Cats, dogs and rats (e.g. Robben Island, Marcus Islands, Bird Island, Lambert's Bay (South Africa)).

3.3. Ecological imbalance

Competitors Y/Y 4

Displacement from breeding sites by Cape Fur Seals.

Loss of prey base Y/Y 1

Depletion of prey base by fishing industry. Note that part of the South African quota for anchovy and pilchards may be given to Namibia in the near future. Decline in pelagic goby numbers affecting northern Namibian subpopulation.

Predators Y/Y 2

e.g. Great White Pelicans, Kelp Gulls, Cape Fur Seals. *c.* 650 pairs of pelicans on Dassen Island could have a substantial impact on breeding cormorants.

Pathogens/parasites Y/Y 6

6. Pollution

6.3 Oil

Oil slicks Y/Y 5

Direct and indirect mortality, reduced productivity and disturbance during rescue operations.

7. Intrinsic

7.3 Mortality

High juvenile mortality Y/Y 3

Lambert's Bay, Malgas Island (South Africa) and Ichaboe Island (Namibia) - juveniles killed by seals.

8. Trade

Trade described as commercial.
Parts in Trade: guano
Effects: Disturbance.

9-10. Population: numbers and trends

9A. Length of generation: 6 Years

	Total Pop.	Mature
9B. Global Population:	> 10 000	>10 000

10A. Recent past trends: Declining
10B. Will population decline? Yes
Rate of decline (past) >70% for 20 years

Predicted Rate (future) For years

1977-81 breeding population: 277 032 pairs, 1996: 72 000 breeding pairs

11. Data source

DATA SOURCE/QUALITY: Qualifier: Observed; Uncertainty: 95% Confidence; census monitoring; field study; literature; Qualifier for data: Observed; Data uncertainty: 95% Confidence.

12. Recent field studies

Ministry of Fisheries and Marine Resources (MFMR), Namibia, and Marine and Coastal Management, South Africa: Ongoing monitoring of population trends, diet samples, ringing & recoveries, breeding success.
University of Pretoria, MFMR: seal-seabird predation.

13. Status (IUCN Red Data List)

Red List Category:
CURRENT: ***Near Threatened***
CRITERIA:
PREVIOUS: Near Threatened
NATIONAL WILDLIFE LEGISLATION: Protected in terms of South Africa's Sea Birds and Seals Protection Act No. 46 of 1973.
NATIONAL RED BOOK DATA: Near-threatened (South Africa). Red Data Book for Namibia in preparation.
OTHER LEGISLATION: Protected under National Parks Act No. 57 of 1976 and the Cape Province Nature and Environmental Conservation Ordinance No. 9 of 1974 (both South Africa)
PROTECTED AREA: South Africa: West Coast National Park; Provincial Nature Reserves; Robben Island Museum (World Heritage Site)

14. Research recommended

Survey Studies; Life history. Research recommended ongoing

OTHER RESEARCH: Demography, population trends, diet

PHVA is recommended

15. Management recommendations

Habitat Management; Monitoring; Public Awareness; Increased protection of Namibian islands; Management plans for all offshore island breeding localities, dealing with issues such as controlled tourism, guano scraping and eradication of alien predators; Maintain breeding sites in the face of competition from Cape Fur Seals; Creation of public awareness of negative impacts of disturbance at breeding sites and inshore rocks.

16. Captive breeding / Cultivation recommendations: Capture techniques for oiled birds.

17. Facilities

18. Level of *ex situ* management recommended

Not recommended

19. Techniques to propagate the taxon

20. General comments

21. Sources

Input from Workshop participants; See references in Cape Cormorant nomination text (Section G).

22. Compilers

Robert Crawford, John Cooper, Mark Anderson, Tony Williams, Marienne de Villiers.

Bank Cormorant

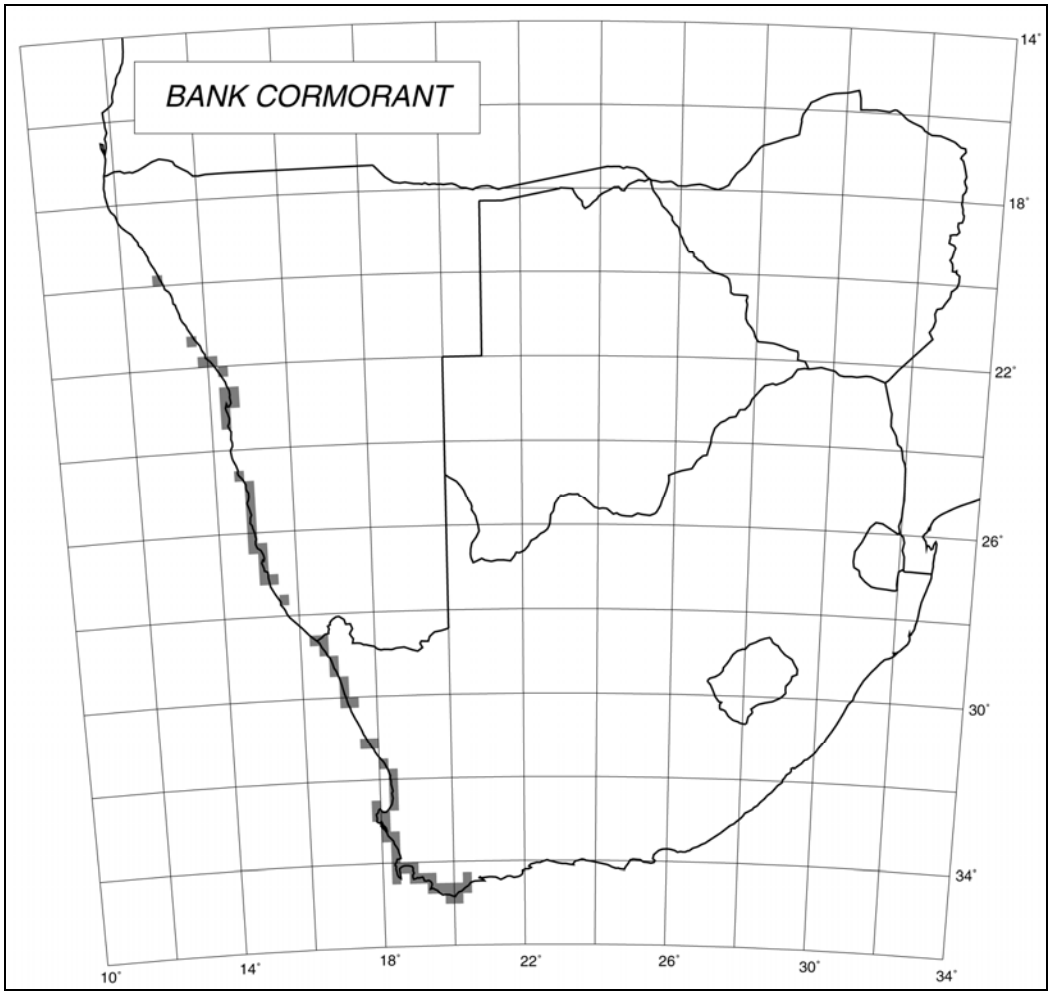

Figure 6. Distribution map of the Bank Cormorant

Taxonomy

1. Scientific Name (Authority, Date)

Phalacrocorax neglectus (Wahlberg, 1855)

LEVEL: Species
FAMILY: Phalacrocoracidae
ORDER: Pelecaniformes
CLASS: Aves

Common Names	**Language**
Bank Cormorant	English
Cormoran des Bancs	French
Cormorán del Bajío	Spanish
Küstenscharbe	German
Bank Duiker	Afrikaans

2. Distribution of the taxon

Namibia, South Africa

HABITAT: Sea

NICHE: A strictly marine species. Breeds on coastal islands, inshore rocks and stacks, walls, breakwaters and artificial platforms in close proximity to the sea. Forages inshore, primarily on the sea bottom amongst kelp beds, but also over shingle or coarse sand and in mid-water.

HISTORICAL DISTRIBUTION: Endemic to the west coast of southern Africa, from Hoanibmond, northern Namibia, to Die Walle, Western Cape, South Africa. Usually does not occur more than 10 km from land, but has been reported 122 km offshore. Breeding reported from 52 localities between Hollamsbird Island, central Namibia, and Quoin Rock, Western Cape. At Swakopmund, north of Hollamsbird Island, birds were observed manipulating nest material, but breeding was not confirmed.

CURRENT COUNTRIES: Breeding distribution: Namibia, South Africa. Non-breeding distribution: Namibia, South Africa

GEOGRAPHIC EXTENT: Namibia, South Africa (Northern and Western Cape)

MIGRATION REGIONS: Mainly sedentary, with post-breeding dispersal of fledglings. Movement of breeding adults between Mercury and Ichaboe Island, Namibia, a distance of 63 km, has been shown by colour banding. Of birds ringed when older than 1 year, 86% were recovered within 10 km of ringing site. Maximum recorded movement was 168 km. Of birds banded as juveniles aged 3-12 months, all recoveries were farther than 10 km from ringing site. Mean distance moved was 153 km; maximum distance was 459 km from Malgas Island to Port Nolloth, South Africa.

3.-4. Occurrence and occupancy in and around area study/sighting

OCCURRENCE AREA: 5001 – 20 000 sq km

OCCURRENCE NOTES: Area based on length of coastline multiplied by 10 km

OCCUPANCY AREA: >2001 sq km

OCCUPANCY NOTES: Area based on length of coastline multiplied by 10 km

5. Number of locations or subpopulations

NO. LOCATIONS: 2

NOTES ON FRAGMENTATION: Breeding habitat (offshore islands) naturally fragmented

6. Habitat status

STATE OF HABITAT: Fragmented

CHANGE IN HABITAT SIZE: Decrease in Area

PREDICTED DECLINE IN HABITAT: <20%

PREDICTED DURATION OF DECLINE: 20 years

CHANGES IN QUALITY: Decrease in quality

NOTES ON QUALITY: Human disturbance, reduced prey availability, competition with Cape Fur Seals for breeding space

7. Threats

Threat	Now/Future	Rank
Habitat Loss (Human Induced)		
Development		

Development *Y* *2*

Habitat loss through harbour developments: causeways and dredging; but note that artificial structures may also provide additional breeding sites, e.g. guano platforms.

2. Direct Loss/Exploitation

2.3. Accidental mortality

Entanglement Y/Y

Drowning in crayfish traps; entanglement in marine debris such as fishing line and guano sacks

3. Indirect Effects

3.1. Human interference

Human interference Y/Y 3

Guano scraping on offshore islands may disturb birds at breeding sites, e.g. Ichaboe Island in Namibia was scraped in 2000, and may be scraped in the future

Recreation/tourism Y/Y

Recreational fisherman on inshore rocks disturbing birds. Disturbance may provide opportunities for predation by gulls

3.3. Ecological imbalance

Competitors Y/Y 3

Cape Fur Seal populations increasing on islands used by the birds for breeding, e.g. on Mercury island in Namibia, the number of Bank Cormorants decreased by 1350 pairs prior to seal disturbance programme

Predators Y/Y

Predation by Great White Pelicans, Kelp Gulls and Cape Fur Seals

Pathogens/parasites Y/Y

Avian Cholera

Loss of prey base Y/Y 1

Fluctuations in numbers of gobies resulted in a decline in the number of Bank Cormorants in central Namibia

6. Pollution

6.3 Oil

Oil slicks Y/Y 4

Direct and indirect mortality, reduced productivity and disturbance during rescue operations. This is of greater importance to the southern breeding colonies, where marine traffic is more intense.

7. Intrinsic

7.3 Mortality

High juvenile mortality Y/Y 3

Bird Island, Lambert's Bay, Malgas Island (South Africa) and Ichaboe Island (Namibia) - juveniles killed by seals

Comment: In southern Namibia and South Africa causes of decline may be numerous and cumulative. Known threats at some localities (e.g. dredging at Lambert's Bay), but unknown at others (e.g. Saldanha Bay, South Africa).

8. Trade

Trade described as commercial
Parts in Trade: guano
Effects: Disturbance

9-10. Population: numbers and trends

9A. Length of generation: 6 Years

Total Pop./Mature

9B. Global Population: > 10,000 < 10,000

10A. Recent past trends: Declining

10B. Will population decline? Yes

Predicted Rate (future) >50% For 18 years

11. Data source

DATA SOURCE/QUALITY: Qualifier: Observed; Uncertainty: 95% Confidence; census monitoring; Qualifier for data: Observed; Data uncertainty: 95% Confidence; Relatively easy to count this species but some localities supporting small numbers are visited infrequently.

12. Recent field studies

Ministry of Fisheries and Marine Resources (MFMR), Namibia, and Marine and Coastal Management, South Africa: Ongoing monitoring of population trends, diet samples, ringing & recoveries, breeding success.

Avian Demography Unit, UCT: human disturbance.

University of Pretoria, MFMR: seal-seabird predation.

13. Status (IUCN Red Data List)

Red List Category:

CURRENT: ***Endangered***

CRITERIA: A2a

PREVIOUS: Near Threatened

NATIONAL WILDLIFE LEGISLATION: Protected in terms of South Africa's Sea Birds and Seals Protection Act No. 46 of 1973

NATIONAL RED BOOK DATA: Vulnerable (South Africa)

OTHER LEGISLATION: Protected under National Parks Act No. 57 of 1976 and the Cape Province Nature and Environmental Conservation Ordinance No. 9 of 1974 (both South Africa)

PROTECTED AREA: South Africa: West Coast National Park; Provincial Nature Reserves; Robben Island World Heritage Site.

NOTES ON STATUS: Namibian Red Data Book in preparation. Note that Ichaboe and Mercury Islands (Namibia) do not currently have Nature Reserve status.

14. Research recommended

Survey Studies; limiting life history; limiting factor research.

OTHER RESEARCH: Demographics, population trends and diet. Specifically, research needed into the causes of fluctuations in the goby populations in northern Namibia, and the potential impact of the commercial crayfish industry in the south of the species' range. Also need research into the causes of declines at individual breeding locations in South Africa, and research regarding the role of Cape Rock Lobster *Jasus lalandii* in diet of latter sub-population.

PHVA is recommended.

15. Management recommendations

Habitat management; monitoring; public awareness; captive breeding/cultivation; increased protection for Namibian offshore islands; Management plans for all offshore island breeding sites; Creation of public awareness of negative impacts of disturbance at breeding sites and inshore rocks; Guano scraping halted or timed so that it does not coincide with the breeding season of the species; Consider erecting additional guano platforms, pending Environmental Impact Assessments.

16. Captive breeding / Cultivation recommendations

Reintroduction. Need to develop capture techniques for oiled birds. Nature Reserve status for Mercury and Ichaboe Islands, Namibia. Northern Namibian sub-population has marked ecological differences and should perhaps be managed separately.

17. Facilities

SPECIES MANAGEMENT RECOMMENDED FOR RANGE COUNTRIES: Namibia, South Africa

18. Level of *ex situ* management recommended

Initiate *ex situ* programme within three years.

19. Techniques to propagate the taxon

Information not available with this group.

20. General comments

21. Sources

Input from Workshop participants; See references in Bank Cormorant nomination text (Section G).

22. Compilers

Robert Crawford, John Cooper, Mark Anderson, Marienne de Villiers

Crowned Cormorant

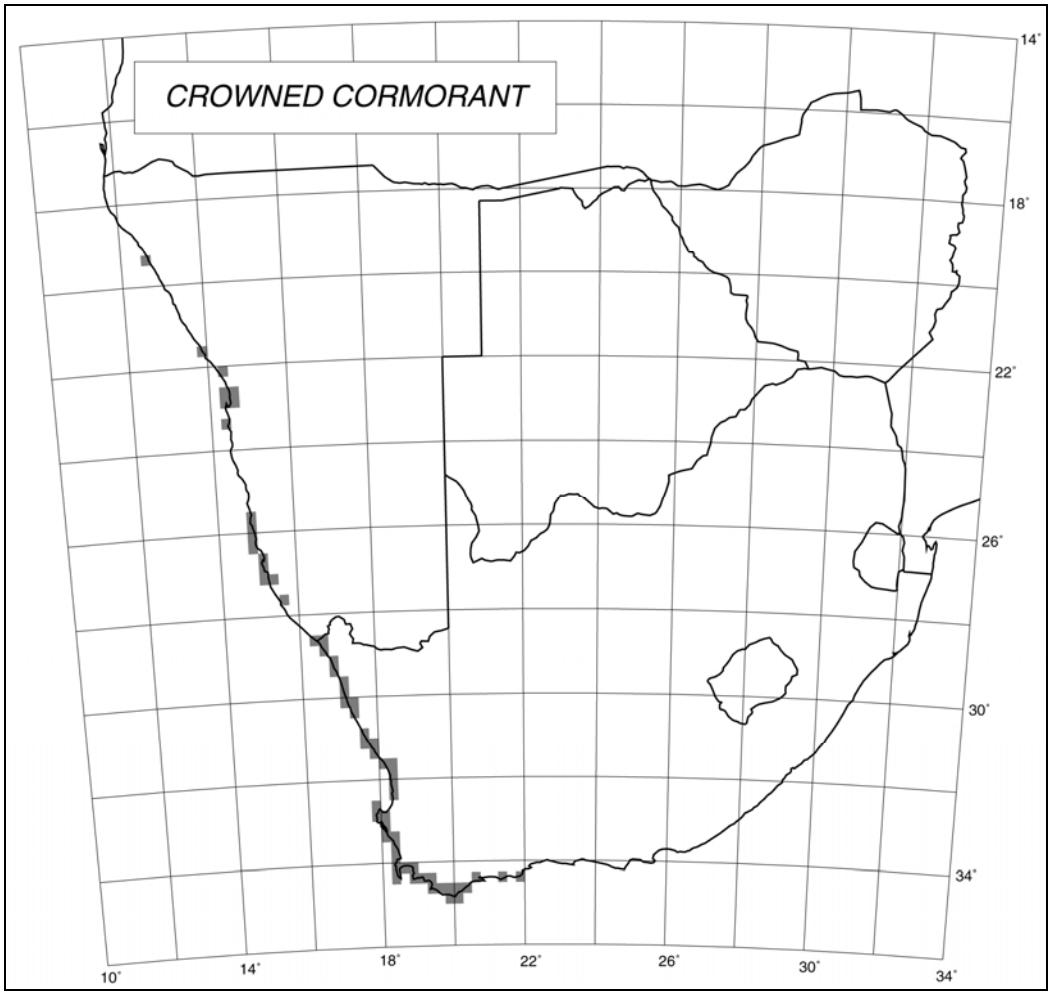

Figure 7. Distribution map of the Crowned Cormorant

Taxonomy

1. Scientific Name (Authority, Date)

Phalacrocorax coronatus (Wahlberg, 1855)

LEVEL: Species
FAMILY: Phalacrocoracidae
ORDER: Pelecaniformes
CLASS: Aves

Common Names	**Language**
Crowned Cormorant	English
Cormoran Couronné	French
Cormorán Coronado	Spanish
Kronenscharbe	German
Kuifkop Duiker	Afrikaans

2. Distribution of the taxon

Namibia, South Africa

HABITAT: Sea

NICHE: At sea not recorded more than 10 km from land. Forages off rocky shores, often among kelp beds. Feeds close inshore, often diving between breaking waves. An high tide may feed in rock pools in the intertidal zone. Has been recorded in estuaries and sewage works up to 500 m from sea. Utilizes a variety of habitats for nesting, including rocky cliffs, ledges, stacks, boulders, gullies, kelp wrack on beaches, bushes, trees, supports of marine platforms, wrecked ships, stone walls and washed-up lobster traps. Often nests on boulders, rocky outcrops, bushes and trees in colonies of Cape Fur Seals, African Penguins, Cape Gannets, Cape Cormorants, Hartlaub's Gulls, Swift Terns, herons and egrets, thereby obtaining protective advantages associated with larger colonies.

HISTORICAL DISTRIBUTION: Has bred at 48 localities between Walvis Bay, Namibia and Cape Agulhas, Western Cape. Construction of the Bird Rock Platform north of Walvis Bay and sinking of *Meisho Maru No. 8* enabled extensions of breeding range 415 km to the north and 16 km to the east. Non-breeding range from Möwe Bay, northern Namibia to Holkom Meester se Baai, Western Cape, South Africa.

CURRENT COUNTRIES: Breeding distribution: Namibia, South Africa. Non-breeding distribution: Namibia, South Africa.

GEOGRAPHIC EXTENT: Namibia, South Africa.

MIGRATION REGIONS: Mainly sedentary, with post-breeding dispersal of fledglings, the greatest distance recorded being 562 km

3.-4. Occurrence and occupancy in and around area study/sighting

OCCURRENCE AREA: 5001 – 20 000 sq km

OCCURRENCE NOTES: Coastal non-breeding distribution (2000 km) multiplied by 10 km

OCCUPANCY AREA: >2001 sq km

OCCUPANCY NOTES: Approximately the same as extent of occurrence

5. Number of locations or subpopulations

NO. LOCATIONS: 1

NOTES ON FRAGMENTATION: Breeding habitat (offshore islands) naturally fragmented

6. Habitat status

STATE OF HABITAT: Fragmented

CHANGE IN HABITAT SIZE: Decrease in area

PREDICTED DECLINE IN HABITAT: <20%

PREDICTED DURATION OF DECLINE: 100 years

CHANGES IN QUALITY: Decrease in quality

NOTES ON QUALITY: Human disturbance, marine debris, discarded fishing gear and oil spills

7. Threats

Threat	Now/Future	Rank

1. Habitat Loss (Human Induced)

Unspecified causes

Unspecified causes Y 4

Removal of trees and suitable nesting structures may result in a decrease in the breeding population (e.g. Robben Island, South Africa)

2. Direct Loss/Exploitation

2.1. Exploitation

Exploitation Y/Y

Disturbance due to unpoliced commercial collection of guano could negatively impact species

2.3 Accidental mortality

Accidental mortality Y/Y

Disturbance from helicopters over Robben Island colony (South Africa) causing chicks to fall from nests where they are vulnerable to cats (only site where species nests in trees)

Entanglement Y/Y

Mortality from entanglement in marine debris; starvation and suffocation from entanglement in guano sacking, fishing nets and line incorporated into nests

3. Indirect Effects

3.1. Human interference

Recreation/tourism Y/Y 1

Holiday-makers during the summer season in the Northern Cape (e.g. accessing Robben and Owen Islands and Matthew Rock). Disturbance may provide opportunities for predation by Kelp Gulls. Especially important at breeding sites. Recreational fishermen disturbing birds on inshore rocks.

3.2. Alien invasive species

Predators Y/Y 2

Cats, dogs and rats (e.g. In South Africa, Robben and Marcus Islands and Bird Island, Lambert's Bay)

3.3. Ecological imbalance

Predators Y/Y 2

Adults taken by Cape Fur Seals at Malgas (South Africa) and Ichaboe Island (Namibia), and by Great White Pelicans at Dassen Island, South Africa. Also, predation of eggs and chicks by Great White Pelicans and Kelp Gulls at South African off shore islands.

Pathogens/parasites Y/Y

Avian Cholera

6. Pollution

6.3 Oil

Oil slicks Y/Y 3

Direct and indirect mortality, reduced productivity and disturbance during rescue operations

8. Trade

9-10. Population: numbers & trends

9A. Length of generation: 5 Years

	Total Pop.	Mature
9B. Global Population:	< 10,000	< 10,000

10A. Recent past trends: stable

11. Data source

DATA SOURCE/QUALITY: Qualifier: Observed; census monitoring; field study; literature; Qualifier for data: Observed.

12. Recent field studies

Ministry of Fisheries and Marine Resources, Namibia: ongoing monitoring of population trends

Marine and Coastal Management, South Africa: ongoing monitoring of population trends, survival and diet

13. Status (IUCN Red Data List)

Red List Category:

CURRENT: ***Least Concern***

CRITERIA:

PREVIOUS: Near Threatened

NATIONAL WILDLIFE LEGISLATION: Protected in terms of South Africa's Sea Birds and Seals Protection Act, No. 46 of 1973

NATIONAL RED BOOK DATA: Vulnerable (South Africa)

OTHER LEGISLATION: Protected under National Parks Act, No. 57 of 1976 and the Cape Province Nature and Environmental Conservation Ordinance, No. 9 of 1974 (both South Africa)

PROTECTED AREA: South Africa: West Coast National Park; Provincial Nature Reserves; Robben Island Museum (World Heritage Site)

NOTES ON STATUS: Namibian Red Data Book in preparation. Note that Namibian islands do not currently have Nature Reserve status

14. Research recommended

Survey Studies; Life history

OTHER RESEARCH: Population trends, demography; impacts of natural predators; mortality due to unnatural causes such as pollution

15. Management recommendations

Habitat management; monitoring; public awareness; Increase protection of Namibian Islands and offshore rocks; Management plans for all offshore island breeding localities, dealing with issues such as eradication of exotic predators, and alien plant control (ensure this does not remove breeding sites, e.g. on Robben Island), increased public awareness, restricted public access.

16. Captive breeding / Cultivation recommendations

Need to develop capture techniques for oiled birds.

17. Facilities

18. Level of *ex situ* management recommended

None

19. Techniques to propagate the taxon

20. General comments

21. Sources
Input from Workshop participants; See references in Crowned Cormorant nomination text (Section G).

22. Compilers
Robert Crawford, John Cooper, Mark Anderson, Marienne de Villiers

White-breasted Cormorant

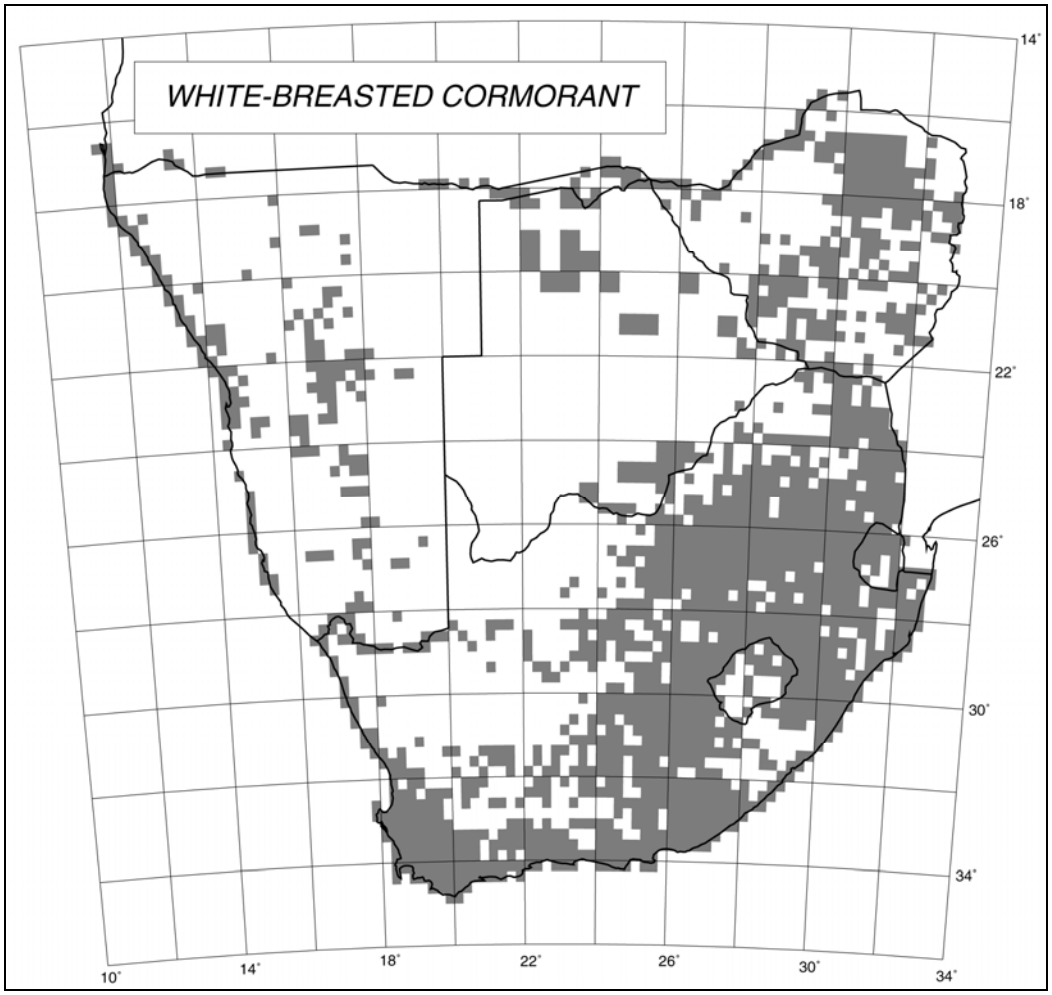

Figure 8. Distribution map of the White-breasted Cormorant

Taxonomy

1. Scientific Name **(Authority, Date)**

Phalacrocorax carbo lucidus (Lichtenstein, 1823)

LEVEL: Species
FAMILY: Phalacrocoracidae
ORDER: Pelecaniformes
CLASS: Aves

Common Names	**Language**
White-breasted Cormorant	English
Grand Cormoran	French
Cormorán Grande	Spanish
Corvo-marinho-de-peito-branco	Portuguese
Witbors Duiker	Afrikaans
Ugwidi	Xhosa

2. Distribution of the taxon

Angola, Botswana, Lesotho, Mozambique, Namibia, South Africa, Swaziland, Zimbabwe.

HABITAT: Aquatic (coastal marine and inland freshwater) and terrestrial (breeding colonies).

NICHE: Mainly aquatic in both salt and fresh water. In interior of southern Africa, occurs at dams and impoundments, streams and rivers, provided there are adequate fish populations and sufficient depth of water to dive for prey. Along the coast it feeds inshore, often near reefs and in estuaries. At Lake St Lucia, South Africa, birds normally forage between 10 and 200 m, but up to 1 km, from shore. Breeds colonially at suitable predator-free localities, such as islands, stacks, cliff ledges, man-made guano platforms, pylons, wrecked ships and trees along rivers or that remain standing in dams after inundation.

HISTORICAL DISTRIBUTION: In southern Africa, occurs along entire coastline within 10 km of land. In interior, more common in the mesic east and south than in the arid west, where it occurs along the major river systems, such as the Orange River (border between South Africa and Namibia), and in areas where impoundments have been constructed, e.g. central Namibia and Zimbabwe. Poorly represented in Okavango basin, Botswana. Sparse to fairly common resident of Okavango, Linyanti and Chobe River systems, common at Nata River delta, Botswana. Previously considered a coastal bird (early 1900s) but inland distribution has become more widespread (benefited from construction of dams and their stocking with fish).

CURRENT COUNTRIES: Sub-Saharan Africa.

GEOGRAPHIC EXTENT: Angola, South Africa, Namibia.

MIGRATION REGIONS: In South Africa they undertake nomadic movements in response to changing water levels. Some birds carry out long-range movements, but the majority appears sedentary. Long-distance recoveries of banded birds show no seasonal pattern and reflect dispersal of young birds rather than migration. There is interchange of marine and freshwater populations in both directions. Birds breeding inland in Western Cape thought to be derived from the coastal population because all inland localities, except one, are artificial waterbodies. Birds at inland localities fly up to 8 km to sea or 5 km to other inland waterbodies to feed. Peaks in numbers at coastal lakes and estuaries are most common in winter. At inland breeding sites numbers may peak in winter or summer, most commonly in summer. May be absent from coastal breeding colonies for several weeks outside the breeding season. Interchange between KwaZulu-Natal and the remainder of South Africa has not been shown, suggesting the KwaZulu-Natal population may be discrete.

3.-4. Occurrence and occupancy in and around area study/sighting

OCCURRENCE AREA: >20 000 sq km

OCCURRENCE NOTES: Coastal and inland occurrence

OCCUPANCY AREA: >2001 sq km

OCCUPANCY NOTES: Coastal and inland occurrence

5. Number of locations or subpopulations

NO. LOCATIONS: 1

NOTES ON FRAGMENTATION: Related to distribution of suitable habitat

6. Habitat status

STATE OF HABITAT: Fragmented

CHANGES IN QUALITY: Decrease in quality

NOTES ON QUALITY: Human disturbance, marine debris, fishing gear and oil spills

7. Threats

Threat Now/Future Rank

1. Habitat Loss (Human Induced)

1.3 Development

Development Y

Loss of natural wetlands

1.4 Unspecified causes

Unspecified causes Y

Loss of suitable breeding habitat through removal of trees and breaking up of artificial breeding structures such as shipwrecks. Also, habitat loss through the flooding of low sites, e.g. Strandfontein Sewage Works, South Africa. But note that habitat increased through construction of impoundments, plantations and establishment of new fish stocks.

2. Direct Loss/Exploitation

2.1. Exploitation

Exploitation Y/Y

Deliberate persecution at fish farms and large impoundments, because of conflict with fishing. Potential future reduction in prey base.

Collecting Y/Y

Harvesting of eggs at Algoa Bay saltworks, South Africa

2.4 Accidental mortality

Entanglement Y/Y

Mortality from entanglement in marine debris such as discarded fishing line

3. Indirect Effects

3.1 Human interference

Human interference Y/Y 1

Of the four cormorant species, this is the most susceptible to disturbance. Disturbance (e.g. tourism, guano collection, recreational fishermen and divers), especially at breeding sites, exacerbated through predation opportunities created for Kelp Gulls.

3.2 Alien invasive species

Predators Y/Y 3

Cats, dogs and rats (e.g. Robben and Marcus Islands and Bird Island, Lambert's Bay, all in South Africa)

3.3 Ecological imbalance

Predators Y/Y 3

Preyed upon by Black-backed Jackals and Cape Fur Seals

Pathogens/parasites Y/Y 4

Avian Cholera

6. Pollution

6.1 Chemical

Pesticides/chemical Y/Y 2

Bio-accumulation of organochlorines and other pesticides may be important inland
Oil
Oil slicks Y/Y 2
Occasional, but may become important in southern part of range

8. Trade
Trade described as commercial
Parts in Trade: guano
Effects: Disturbance

9-10. Population: numbers and trends
9A. Length of generation: 7 Years

	Total Pop.	Mature
9B. Global Population:	>10 000	<10 000

10A. Recent past trends: stable

11. Data source
DATA SOURCE/QUALITY: Qualifier: Observed; census monitoring; field study; literature. Qualifier for data: Observed. Data uncertainty: Data quality for coastal population of South Africa good, although some localities visited infrequently. Quality good for some but not all inland localities. Not all sites monitored at other southern African countries.

12. Recent field studies
Ministry of Fisheries and Marine Resources, Namibia: Ongoing monitoring of population trends at coastal islands.
Marine and Coastal Management, South Africa: Ongoing monitoring at coastal islands of population trends, breeding success, survival, diet .
Monitoring at some sites by provincial Nature Conservation organisations.

13. Status (IUCN Red Data List)
Red List Category:
CURRENT: ***Least Concern***
PREVIOUS: Least Concern
NATIONAL WILDLIFE LEGISLATION: Protected in terms of South Africa's Sea Birds and Seals Protection Act No. 46 of 1973
NATIONAL RED BOOK DATA: Vulnerable (South Africa)
OTHER LEGISLATION: Protected under National Parks Act No. 57 of 1976 and the Cape Province Nature and Environmental Conservation Ordinance No. 9 of 1974 (both South Africa)
PROTECTED AREAS: South Africa: West Coast National Park; Provincial Nature Reserves; Robben Island Museum (World Heritage Site)
NOTES ON STATUS: Namibian Red Data Book in preparation. Note that Namibian islands do not currently have Nature Reserve status

14. Research recommended
Survey studies; Life history
OTHER RESEARCH: Research into reducing conflicts with commercial and other fishing operations. Quantify impacts of unnatural mortality causes (disease and

pollution). Continued monitoring of population numbers (expansion of existing monitoring programme).

15. Management Recommendations

Habitat management; monitoring; public awareness; work in local communities; Increase protection status of marine offshore islands; Management plans for all offshore island breeding sites to address factors such as alien predator and plant eradication (positive and negative results); Creation of public awareness of negative impacts of disturbance at breeding sites and inshore rocks, and appropriate legislation.

16. Captive breeding / Cultivation recommendations

Need to develop capture techniques for oiled birds

17. Facilities

18. Level of *ex situ* management recommended

None

19. Techniques to propagate the taxon

20. General Comments

21. Sources

Input from Workshop participants; See references in White-breasted Cormorant nomination text (Section G)

22. Compilers

Robert Crawford, John Cooper, Mark Anderson, Marienne de Villiers

Southern African Kelp Gull

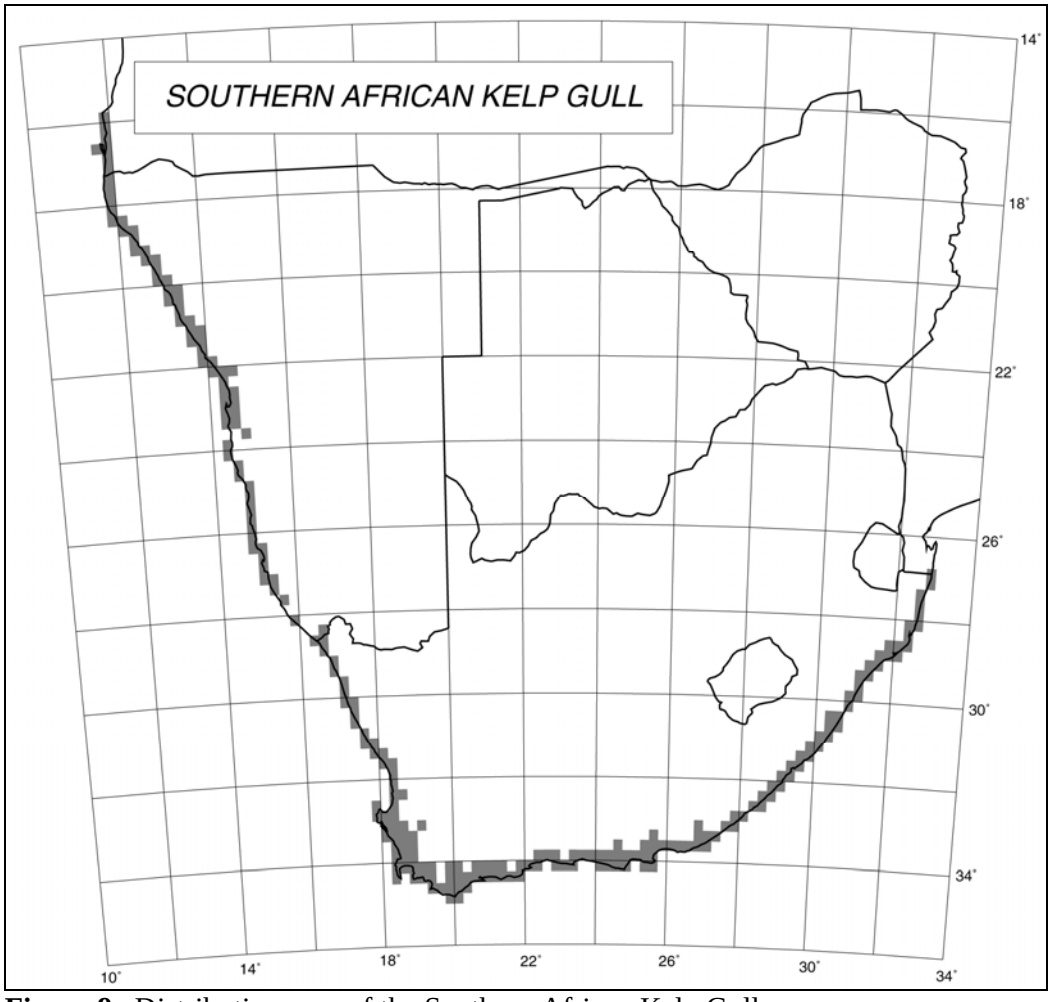

Figure 9. Distribution map of the Southern African Kelp Gull

Taxonomy

1. Scientific Name (Authority, Date)

Larus [dominicanus] vetula (Bruch, 1853)

LEVEL: Subspecies
FAMILY: Laridae
ORDER: Charadriiformes
CLASS: Aves

Common Names	**Language**
Kelp Gull,	English
Southern Black-backed Gull	English
Goeland Dominicain	French
Gaviota Dominicana	Spanish
Swartrugmeeu	Afrikaans
Ingaba-ngaba	Xhosa

On the basis of preliminary studies of several gull taxa, it has recently been proposed that this subspecies be afforded species status. This needs investigation and

verification.

2. Distribution of the taxon

Angola, Mozambique, Namibia, South Africa 4

HABITAT: Coastline

NICHE: Sea level. This species is found exclusively along coastal regions in southern Africa. They feed or roost at lakes, reservoirs, estuaries and rivers, and on lawns and farmlands. Kelp Gulls nest colonially, occasionally singly, in a variety of coastal and marine habitats, including offshore islands, cliffs, headlands, rock stacks, among sand dunes and small islets in estuaries, lagoons, salt and sewage works.

HISTORICAL DISTRIBUTION: Angola, Mozambique, Namibia, South Africa

CURRENT COUNTRIES: Angola, Mozambique, Namibia, South Africa

GEOGRAPHIC EXTENT: Southern Mozambique, South Africa, Namibia and southern Angola

3.-4. Occurrence and occupancy in and around area study/sighting

OCCURRENCE AREA: 5001 – 20 000 sq km

OCCUPANCY AREA: 501-2000 sq km

5. Number of locations or subpopulations

NO. LOCATIONS: 1

6. Habitat status

STATE OF HABITAT: Contiguous

CHANGES IN QUALITY: Increase in quality

NOTES ON QUALITY: Human supplementation of food supply has artificially inflated available resources within the species' range

7. Threats

Threat	Now/Future	Rank
3. Indirect Effects		
3.3. Ecological imbalance		
Pathogens/parasites	Y	1
6. Pollution		
6.1 Chemical		
Pesticides/ Chemical pollution	Y	2
Feeds at rubbish dumps, and is therefore at risk of picking up pollutants and other pathogens		
6.3 Oil		
Oil slicks	Y	3
Coastline of southern Africa is vulnerable to oil pollution		

Are threats well-understood? Yes

8. Trade

9-10. Population: numbers and trends

9A. Length of generation: 10 Years

Total Pop./ Mature

9B. Global Population: >10 000 >10 000
10A. Recent past trends: Increasing

11. Data source
DATA SOURCE/QUALITY: Census monitoring

12. Recent field studies
Marine and Coastal Management (MCM): South African range, 1970+, monitoring, movements
R. Simmons and co-workers: Namibian range, 1980+, monitoring

13. Status (IUCN Red Data List)
Red List Category:
CURRENT: ***Least Concern***
PREVIOUS: Least Concern
NATIONAL WILDLIFE LEGISLATION: Protected in terms of South Africa's Sea Birds and Seals Protection Act No. 46 of 1973
OTHER LEGISLATION: Protected under National Parks Act No. 57 of 1976 and the Cape Province Nature and Environmental Conservation Ordinance No. 9 of 1974 (both South Africa)
PROTECTED AREAS: South Africa: West Coast National Park; Provincial Nature Reserves; Robben Island World Heritage Site

14. Research recommended
Survey studies; Genetics; Taxonomy; Life History

15. Management recommendations
Wild Population Management; Monitoring; Public Awareness; Limiting Factor Management

16. Captive breeding / Cultivation recommendations
None

17. Facilities

18. Level of *ex situ* management recommended

19. Techniques to propagate the taxon

20. General comments

21. Sources
Input from Workshop participants; see references in Southern African Kelp Gull nomination text (Section G)

22. Compilers
Les Underhill and Tony Williams

Hartlaub’s Gull

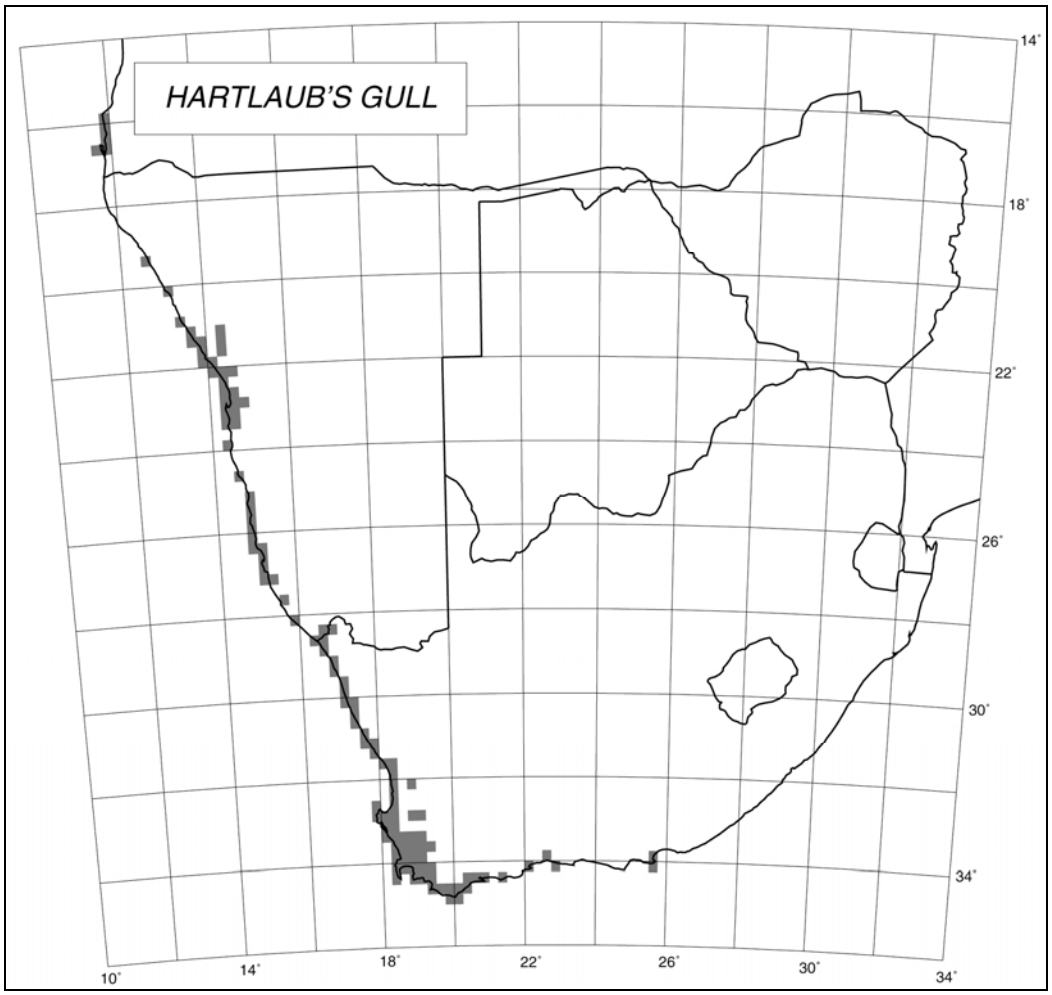

Figure 10. Distribution map of the Hartlaub's Gull

Taxonomy

1. Scientific Name **(Authority, Date)**

Larus hartlaubii (Bruch, 1853)

LEVEL: Subspecies
FAMILY: Laridae
ORDER: Charadriiformes
CLASS: Aves

Common Names	**Language**
Hartlaub's Gull	English
Mouette de Hartlaub	French
Gaviota de Hartlaub	Spanish
Hartlaubse Meeu	Afrikaans

2. Distribution of the taxon

South Africa, Namibia

HABITAT: Coastline
NICHE: Sea level. Aquatic (coastal marine, estuaries and artificial wetlands) and terrestrial (offshore islands and mainland). Hartlaub's Gulls breed colonially and utilise a variety of natural habitats for nesting, such as offshore rocks and islands, rivers and coastal pans and also man-made structures such as salt- and sewage works, quarries, airfields, harbours, and urban areas, including buildings. Their nests consist of a bowl of roots, twigs, grass and shells. Nesting habitat usually has little or no vegetation. Hartlaub's Gulls frequently switch breeding localities, because the guano produced at breeding colonies sometimes results in lush vegetation growth a year later. They therefore tend to use them cyclically. They forage on invertebrates at the sea surface, on the shore, offshore islands, estuaries, artificial wetlands and rubbish dumps. They also follow fishing vessels for offal, and frequent restaurants, gardens and parks for discarded food, including at night under artificial lights.

HISTORICAL DISTRIBUTION: Namibia, South Africa

CURRENT COUNTRIES: Namibia, South Africa
GEOGRAPHIC EXTENT: South Africa (Western Cape, Northern Cape), Namibia (Hardap Dam, Erongo)

3.-4. Occurrence and occupancy in and around area study/sighting

OCCURRENCE AREA: 101-5000 sq km

OCCUPANCY AREA: >2000 sq km

5. Number of locations or subpopulations

NO. LOCATIONS: 1

6. Habitat status

STATE OF HABITAT: Fragmented

CHANGES IN QUALITY: Increase in quality
NOTES ON QUALITY: Provision of new habitat by humans

7. Threats

Threat	Now/Future	Rank
3. Indirect Effects		
3.3. Alien invasive species		
Pathogens/parasites	Y	1
Birds feed at rubbish tips, and are therefore susceptible to disease		
6. Pollution		
6.1 Global		
Global warming/ Oceanic warming	Y	3
Species has a small range, adjacent to upwelling system		
6.3 Oil		
Oil slicks	Y	2
Oiled gulls are difficult to rehabilitate.		

Are threats well-understood? Yes

8. Trade

9-10. Population: numbers and trends

9A. Length of generation: 6 Years

	Total Pop./	Mature
9B. Global Population:	>10 000	>10 000

10A. Recent past trends: Increasing

11. Data Source

DATA SOURCE/QUALITY: Census monitoring. Qualifier for data: Observed

12. Recent field studies

Les Underhill, Western Cape: 1969-present, breeding biology and ringing studies
Robert Crawford and MCM co-workers: 1975-present, breeding biology and ringing studies

13. Status (IUCN Red Data List)

Red List Category:
CURRENT: ***Least Concern***
PREVIOUS: Least Concern
NATIONAL WILDLIFE LEGISLATION: Protected in terms of South Africa's Sea Birds and Seals Protection Act No. 46 of 1973
OTHER LEGISLATION: Protected under National Parks Act, No. 57 of 1976 and the Cape Province Nature and Environmental Conservation Ordinance, No. 9 of 1974 (both South Africa)
PROTECTED AREAS: South Africa: West Coast National Park; Provincial Nature Reserves; Robben Island Museum (World Heritage Site)

14. Research recommended

Survey studies; Life history.
PHVA is recommended.

15. Management recommendations

Monitoring

16. Captive breeding / Cultivation recommendations

None

17. Facilities

18. Level of *ex situ* management recommended

19. Techniques to propagate the taxon

20. General comments

21. Sources

Input from Workshop participants; see references in Hartlaub's Gull nomination text (Section G)

22. Compilers

Gerard Boere, Deon Nel, Les Underhill, Tony Williams

Grey-headed Gull

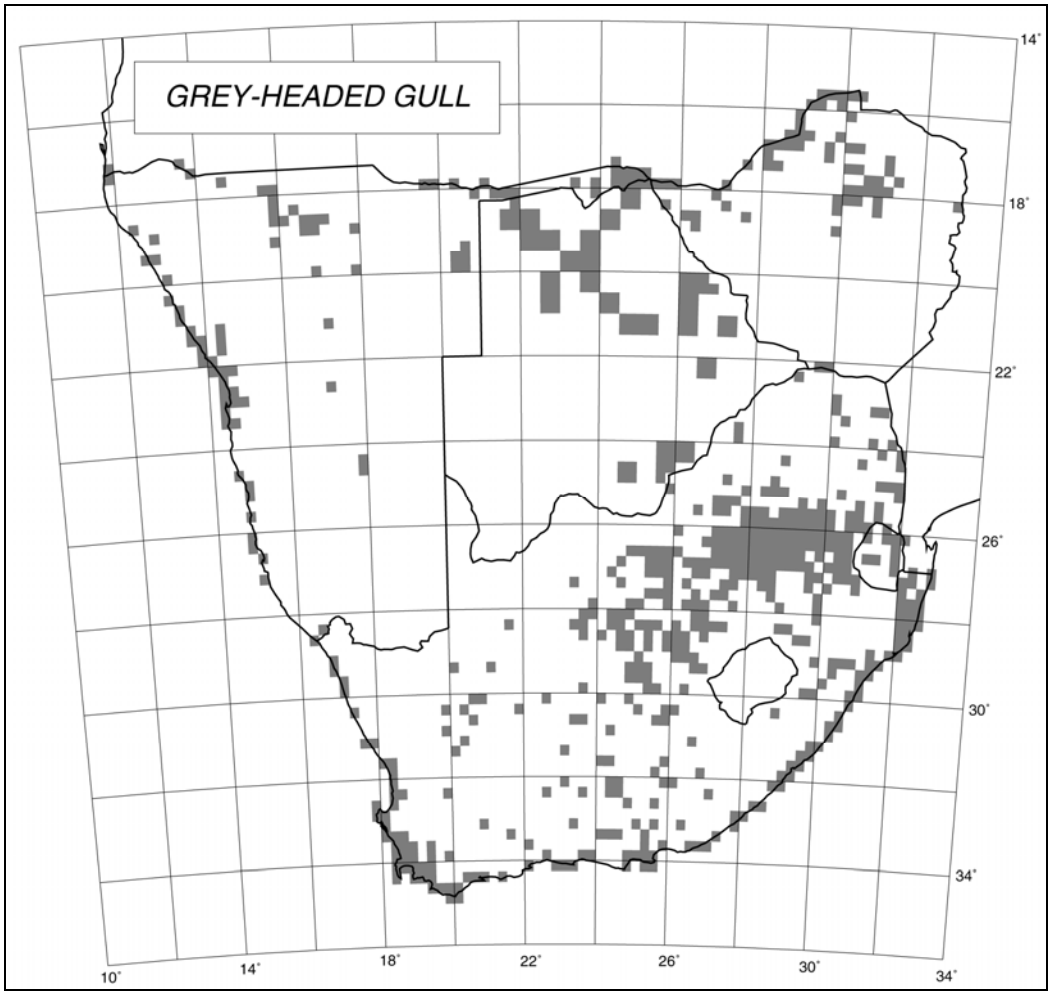

Figure 11. Distribution map of the Grey-headed Gull

Taxonomy

1. Scientific Name **(Authority, Date)**

Larus cirrocephalus poiocephalus (Vieillot, 1818)

LEVEL: Subspecies
FAMILY: Laridae
ORDER: Charadriiformes
CLASS: Aves

Common Names	**Language**
Grey-headed Gull	English
Mouette a Tete Grise	French
Gaviota de Cabeza Gris	Spanish
Gryskopmeeu	Afrikaans

2. Distribution of the taxon

Angola, Mozambique, Namibia, South Africa

HABITAT: Wetlands (inland), Coastline

NICHE: 0 m - 6000 m above sea level. Aquatic (coastal marine and inland freshwater) and terrestrial (breeding colonies). The Grey-headed Gull is a gregarious species, and is found along the seashore, at estuaries, coastal lakes, and inland dams and pans. It forages in loose flocks over shallow water or on the shore. Breeding colonies, even at coastal localities, are mainly associated with freshwater habitats, often reed beds. It utilises islands, shorelines, and old Red-Knobbed Coots *Fulica cristata* nests for breeding. New permanent sites and temporarily suitable sites for nesting can be utilised due to the species' dispersive behaviour.

HISTORICAL DISTRIBUTION: Angola, Mozambique, Namibia, South Africa

CURRENT COUNTRIES: Angola, Mozambique, Namibia, South Africa

GEOGRAPHIC EXTENT: Angola, Mozambique, Namibia, South Africa

3.-4. Occurrence and occupancy in and around area study/sighting

OCCURRENCE AREA: >20 000 sq km

OCCUPANCY AREA: >2001 sq km

5. Number of locations or subpopulations

NO. LOCATIONS: 1

6. Habitat status

STATE OF HABITAT: Fragmented

CHANGES IN QUALITY: Increase in quality

NOTES ON QUALITY: Provision of new habitat by humans

7. Threats

Threat	Now/Future	Rank
1. Habitat Loss (Human Induced)		
1.4. Unspecified causes		
Drainage/ filling in of wetlands/ coastlines	Y/Y	1
Loss of pans in the South African highveld results in loss of habitat		
2. Direct Loss/Exploitation		
2.1. Exploitation		
Traditional medicine	Y	3
Known to be utilized in traditional medicine trade, but likely to be on a very low scale		
2.2. Accidental mortality		
Air strikes	Y/Y	4
Colony near Johannesburg International Airport, South Africa, poses risks of collisions with aircraft		
6. Pollution		
6.2 Industrial		
Industrial pollution	Y/Y	2

Occurs in industrial areas
Are threats well-understood? Yes

8. Trade

9-10. Population: numbers and trends

9A. Length of generation: 10 Years

	Total Pop.	Mature
9B. Global Population:	<10 000	< 2500

10A. Recent past trends: Increasing

11. Data source

DATA SOURCE/QUALITY: Qualifier: Estimated. Uncertainty: Range of Opinion; census monitoring; literature. Qualifier for data: Estimated. Data uncertainty: Range of Opinion

12. Recent field studies

Les Underhill, Western Cape: 1969-present, breeding biology and ringing studies
Rob Crawford and Marine and Coastal Management co-workers: 1975-present, breeding biology and ringing studies

13. Status (IUCN Red Data List)

Red List Category:
CURRENT: ***Least Concern***
PREVIOUS: Least Concern
NATIONAL WILDLIFE LEGISLATION: Protected in terms of South Africa's Sea Birds and Seals Protection Act No. 46 of 1973
OTHER LEGISLATION: Protected under National Parks Act No. 57 of 1976 and the Cape Province Nature and Environmental Conservation Ordinance No. 9 of 1974 (both South Africa)
PROTECTED AREAS: South Africa: West Coast National Park; Provincial Nature Reserves; Robben Island Museum (World Heritage Site)

14. Research recommended

Survey Studies; Life History; PHVA

15. Management recommendations

Monitoring

16. Captive breeding / Cultivation recommendations

None

17. Facilities

18. Level of *ex situ* management recommended

19. Techniques to propagate the taxon

20. General comments

21. Sources

Input from Workshop participants; see references in Grey-headed Gull nomination text (Section G)

22. Compilers

Les Underhill, Tony Williams

Caspian Tern

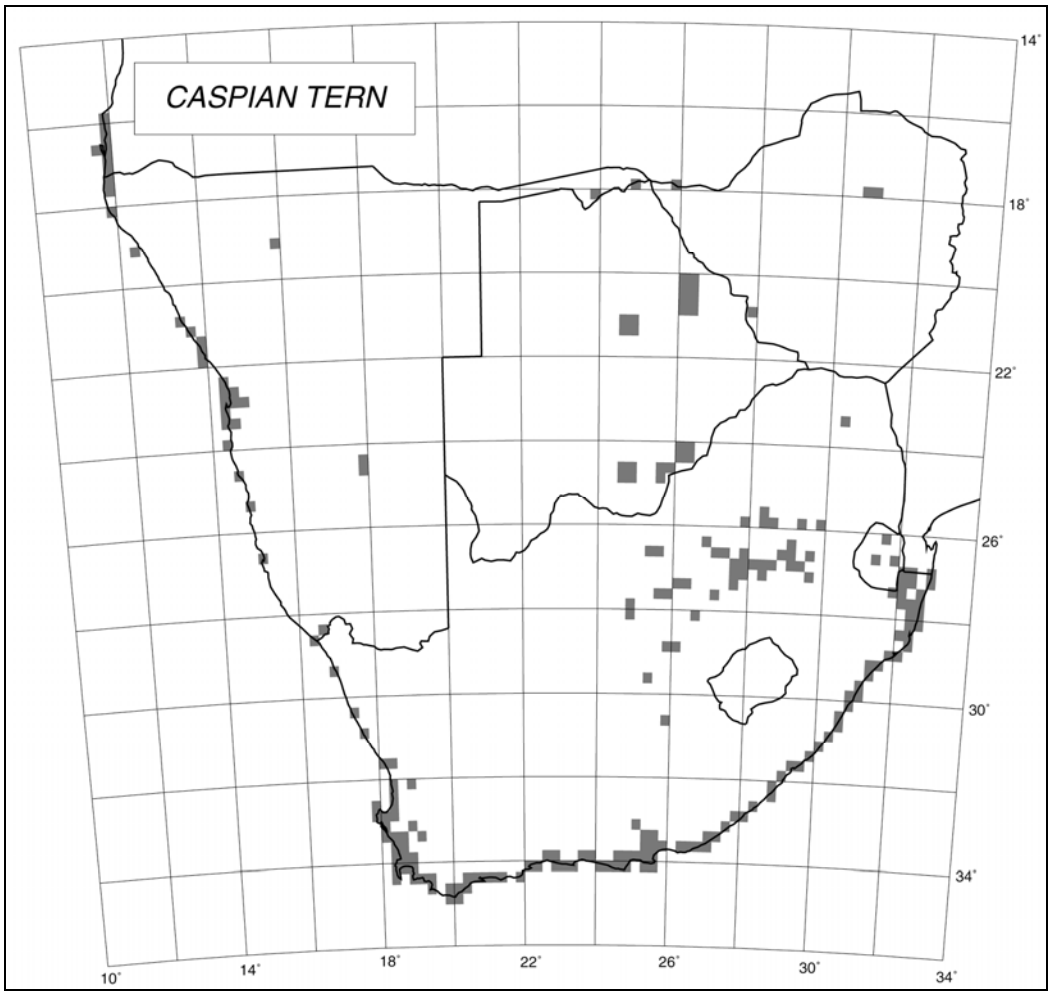

Figure 12. Distribution map of the Caspian Tern

Taxonomy

1. Scientific Name **(Authority, Date)**

Sterna caspia caspia (Pallas ,1770)

LEVEL: Subspecies
FAMILY : Laridae
ORDER: Charadriiformes
CLASS: Aves

Common Names	**Language**
Caspian Tern	English
Sterne Caspienne	French
Pagaza Piquirroja	Spanish
Reuse Sterretjie	Afrikaans

2. Distribution of the taxon

Botswana, Mozambique, Namibia, South Africa, Zimbabwe

HABITAT: Sheltered coasts and large inland water bodies

NICHE: Coastal and freshwater

HISTORICAL DISTRIBUTION: Does not appear to have changed from the present distribution

GEOGRAPHIC EXTENT: Along the southern African coastline from the Cunene to the Zambezi River mouths, on large dams and rivers and salt pans

3.-4. Occurrence and occupancy in and around area study/sighting

OCCURRENCE AREA: >20 000 sq km

OCCUPANCY AREA: 11-500 sq km

OCCURRENCE NOTES: 27 breeding sites in southern Africa are known

5. Number of locations or subpopulations

NO. LOCATIONS: 27

NOTES ON FRAGMENTATION: Most birds breed at Lake St Lucia, South Africa

6. Habitat status

STATE OF HABITAT: Fragmented

PRIMARY CAUSE OF CHANGE: Man-made salt pans and large freshwater dams

7. Threats

Threat	Now/Future	Rank
1. Habitat Loss (Human Induced)		
1.3 Development		
Human settlement	Y/Y	2
Encroachment on traditional breeding sites		
Dams	Y/Y	3
Fluctuating water levels		
Tourism	Y/Y	1
Disturbance by beach users and their pets		
2. Direct Loss/Exploitation		
2.3. Accidental mortality		
Entanglement	Y/Y	4
Entanglement in fishing lines, swallowing of baited fishing hooks		
3. Indirect Effects		
3.1. Human interference		
Recreation/tourism	Y/Y	5
Research	Y/Y	5
High levels of disturbance may result in reduced breeding success and low levels of recruitment (Global)		
3.3. Ecological imbalance		
Predators	Y/Y	7
Feral dogs prey on chicks		
Climate change	Y/Y	6
Changes in native species dynamics		

5. Pollution

5.1 Global

Global warming/Oceanic warming

Y/Y

Ecosystem change

6. Pollution

6.1 Chemical

Pesticides/

Chemical pollution Y 5

Spraying of pesticides on crops and to combat malaria

Are threats well-understood? Yes

8. Trade

9-10. Population: numbers and trends

9A. Length of generation: 5 years

10A. Recent past trends: Stable

500 breeding pairs in southern Africa

11. Data source

DATA SOURCE/QUALITY: Qualifier: Observed. Uncertainty: 95% Confidence; census monitoring; field study; informal sightings. Qualifier for data: Observed. Data uncertainty: 95% Confidence

12. Recent field studies

13. Status (IUCN Red Data List)

Red List Category:

CURRENT: ***Least Concern***

PREVIOUS: Least Concern

IUCN Category (National): Near Threatened

CITES: Not listed

NATIONAL RED BOOK DATA: Near Threatened

OTHER LEGISLATION: Fully protected under national legislation throughout southern African range, National Parks Act, No. 57, 1976, Provincial Ordinance

14. Research recommended

Genetic research; taxonomic research

15. Management recommendations

Habitat management; monitoring

16. Captive breeding / Cultivation recommendations

None

17. Facilities

18. Level of *ex situ* management recommended

19. Techniques to propagate the taxon

20. General comments

21. Sources

Input from Workshop participants

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Underhill, L.G., Tree, A.J., Oschadleus, H.D. & Parker, V. 1999. Review of ring recoveries of waterbirds in southern Africa. Cape Town: Avian Demography Unit.

22. Compilers

Norbert Klages, Rod Randall, Caroline Fox, Rob Simmons

Roseate Tern

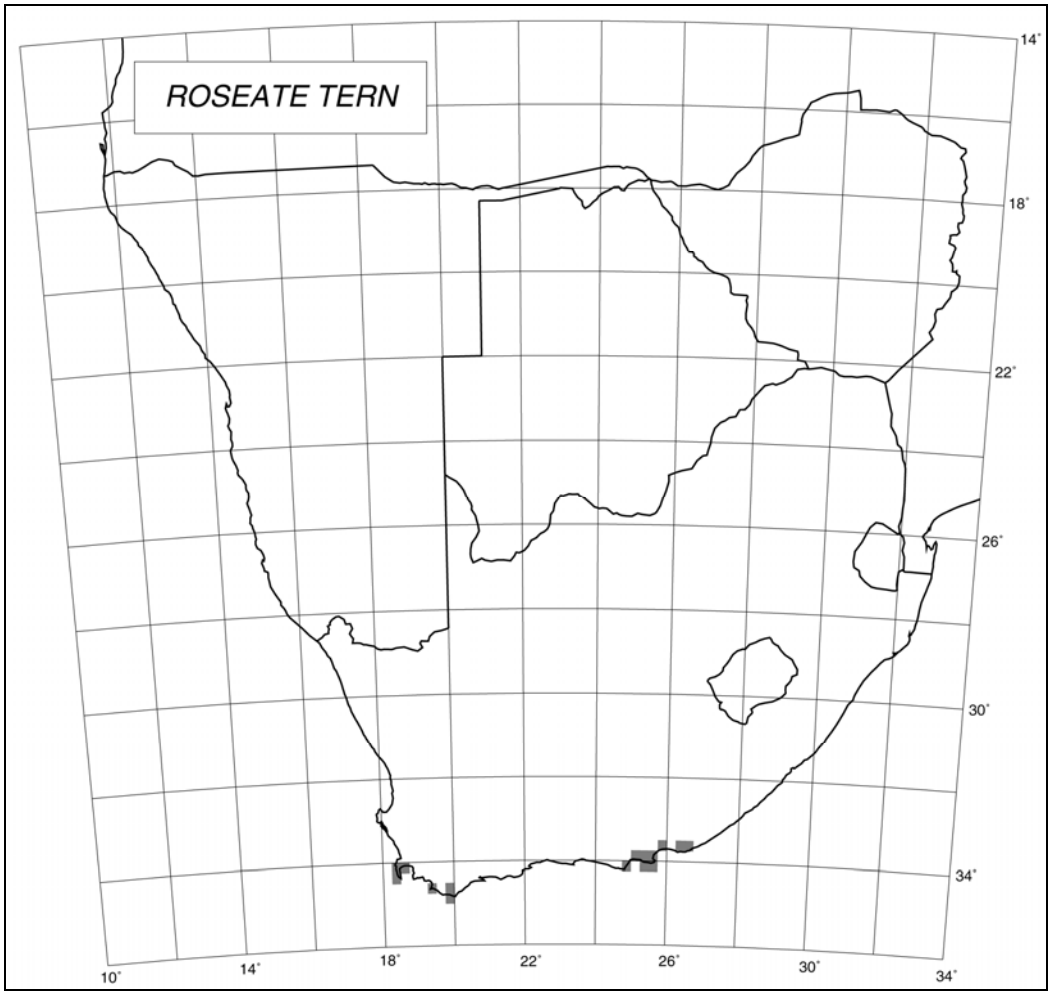

Figure 13. Distribution map of the Roseate Tern

Taxonomy

1. Scientific Name **(Authority, Date)**

Sterna dougallii (Montagu)

LEVEL: Species
FAMILY: Laridae
ORDER: Charadriiformes
CLASS: Aves

Common Names	**Language**
Roseate Tern	English
Sterne de Dougall	French
Charran Rosado	Spanish
Rooiborssterretjie	Afrikaans

2. Distribution of the taxon

South Africa

HABITAT: Sea.
NICHE: They breed on sandy, rocky or coral islands, often with dense vegetation in temperate areas, or barren islets in the tropics. Most colonies are close to shallow-water fishing sites with sandy bottoms, bars or shoals. They rarely breed on salt-marshes. They forage along tide-rips, in estuaries and as well as several kilometres offshore.
HISTORICAL DISTRIBUTION: Probably same as current distribution
GEOGRAPHIC EXTENT: Within South Africa: breeds on Bird Island in Algoa Bay, with two tiny outlier populations on St Croix Island in Algoa Bay and on Dyer Island, Western Cape.
MIGRATION REGIONS: Migration between breeding colonies situated along the East African seaboard and South Africa is strongly suspected but not proven.

3.-4. Occurrence and occupancy in and around area study/sighting

OCCURRENCE AREA: >20 000 sq km

OCCUPANCY AREA: <10 sq km

5. Number of locations or subpopulations

NO. LOCATIONS: 3
NOTES ON FRAGMENTATION: The Roseate Tern occurs in scattered pockets throughout the Indian Ocean east to the Central Western Pacific. The species is also found on both sides of the North Atlantic. The present size of the world population is thought to be in the order of 40 000 pairs. Neither North Atlantic nor Indian Ocean birds are known to migrate to southern Africa. West European birds migrate only as far south as West Africa and remain north of the equator, whereas birds from the tropical Indian Ocean are thought to be infrequent visitors to southern Mozambique and KwaZulu-Natal, but are probably overlooked. Nothing is known of the population dynamics of the tiny, endangered population (220 pairs) breeding in South Africa, nor is it known where these birds go during the non-breeding season.

6. Habitat status

STATE OF HABITAT: Fragmented

CHANGES IN QUALITY: Increase in quality
PRIMARY CAUSE OF CHANGE: Cessation of guano scraping; eradication of rabbits on offshore islands, allowing vegetation to recover and thereby give shelter to chicks; lighthouse operates automatically, so no more lighthouse keepers on island.

7. Threats

Threat	Now/Future	Rank
1. Habitat Loss (Human Induced)		
1.3 Development		
Tourism	Y/Y	1

Breeding birds are easily disturbed by tourists approaching too close. Recreational beach users at capes and headlands frequently disturb roosting birds.

6. Pollution
6.1 Oil

Oil slicks Y 2

As surface feeders members of this species are very vulnerable to floating oil slicks.

8. Trade

9-10. Population: numbers and trends

9B. Global Population: 40 000

The South African breeding population comprises 250 pairs.

11. Data source

DATA SOURCE/QUALITY: Qualifier: Observed. Uncertainty: 95% Confidence; census monitoring; field study; informal sightings. Qualifier for data: Observed. Data uncertainty: 95% Confidence.

12. Recent field studies

13. Status (IUCN Red Data List)

Red List Category:

CURRENT: ***Vulnerable***

CRITERIA: D1,2; see below

PREVIOUS: Threatened

IUCN Category (National): Endangered

CITES: Not listed

NATIONAL RED BOOK DATA: Endangered

NATIONAL WILDLIFE LEGISLATION: Protected in terms of South Africa's Sea Birds and Seals Protection Act, No. 46 of 1973

NATIONAL RED BOOK DATA: Vulnerable (South Africa)

OTHER LEGISLATION: Protected under National Parks Act, No. 57 of 1976 and the Cape Province Nature and Environmental Conservation Ordinance, No. 9 of 1974 (both South Africa)

NOTES ON STATUS: No longer considered Endangered since there has been no decline in the recent past (population >250 individuals). Rather, it fulfils the criteria for Vulnerable, since the population is <1000 adults (criterion D1) and population with restricted area of occupancy or number of localities (criteria D2).

14. Research recommended

Survey studies; genetic research; taxonomic research.

15. Management recommendations

Habitat management; monitoring; public awareness.

16. Captive breeding / Cultivation recommendations None

17. Facilities

18. Level of *ex situ* management recommended

19. Techniques to propagate the taxon

20. General comments

21. Sources

Input from Workshop participants.

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22. Compilers

Swift Tern

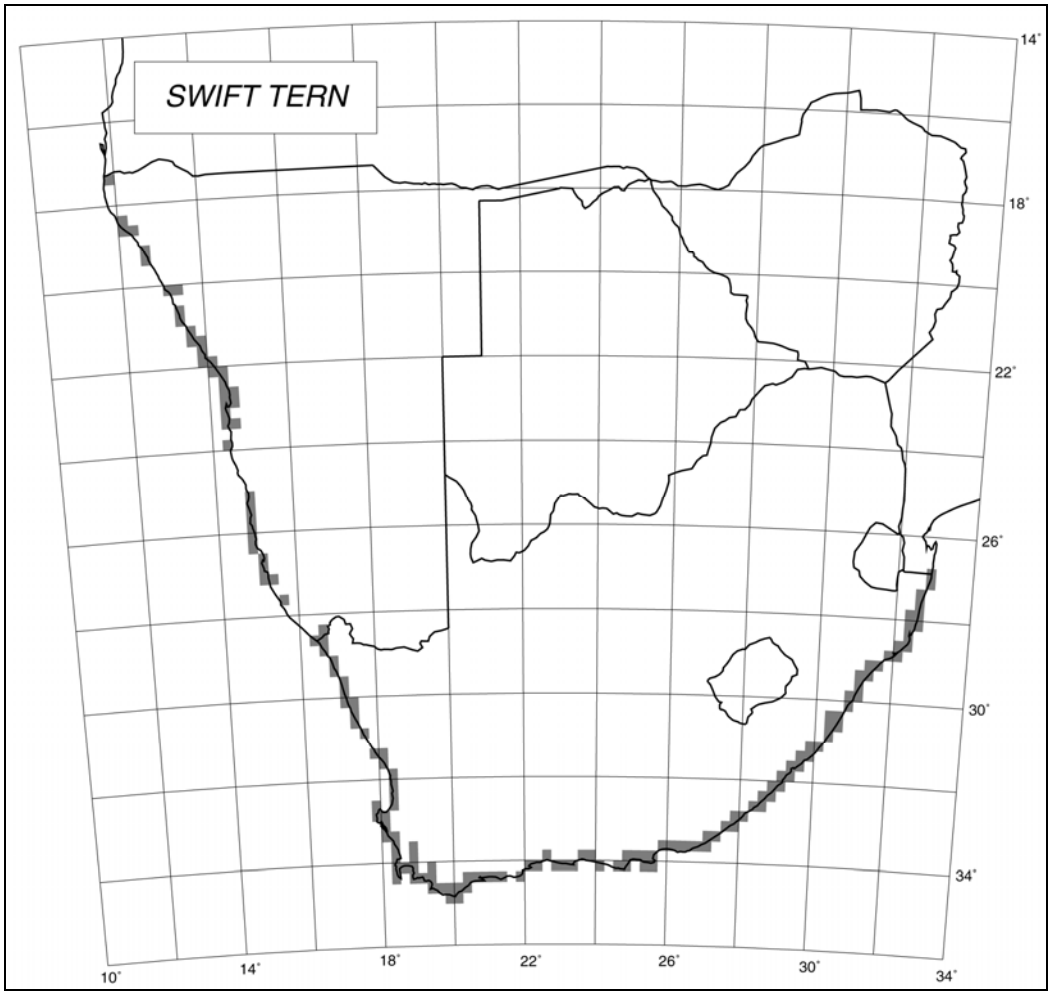

Figure 14. Distribution map of the Swift Tern

Taxonomy

1. Scientific Name **(Authority, Date)**

Sterna bergii bergii (Lichtenstein, 1823)

LEVEL: Subspecies
FAMILY: Laridae
ORDER: Charadriiformes
CLASS: Aves

Common Names	**Language**
Greater Crested Tern, Swift Tern	English
Sterne Huppe	French
Charran de Berg	Spanish
Geelbeksterretjie	Afrikaans

2. **Distribution of the taxon**

Angola, Mozambique, Namibia, South Africa
HABITAT: Sea

NICHE: Inshore, coastal, islands, salt works, estuaries
HISTORICAL DISTRIBUTION: Namibia, South Africa, southern Mozambique, southern Angola
GEOGRAPHIC EXTENT: Breeds at up to 27 localities between Swakopmund in Namibia and Seal and Stag Islands in Algoa Bay in South Africa. Regularly occurs in southern Angola and southern Mozambique but in small numbers.
MIGRATION REGIONS: A great majority disperse post-breeding in an anti-clockwise direction along the coasts of southern Africa.

3.-4. Occurrence and occupancy in and around area study/sighting
OCCURRENCE AREA: >20 000 sq km

OCCUPANCY AREA: 11-500 sq km

5. Number of locations or subpopulations
NO. LOCATIONS: 27

6. Habitat status
STATE OF HABITAT: Fragmented
CHANGE IN HABITAT SIZE: Decrease in area
RECENT CHANGE: <20%
DURING HOW MANY YEARS? >50 years
PREDICTED DECLINE IN HABITAT: < 20%
PREDICTED DURATION OF DECLINE: 10
PRIMARY CAUSE OF CHANGE: Destruction of or disturbance at breeding sites by humans

CHANGES IN QUALITY: Decrease in quality

NOTES ON QUALITY: Decrease in quality of breeding habitat and decrease in area

7. Threats

Threat	Now/Future	Rank
1. Habitat Loss (Human Induced)		
1.2 Extraction		
Fisheries	Y/Y	3
Over-fishing of food resources		
1.3 Development		
Development	Y/Y	1
Destruction of breeding sites, disturbance at breeding sites, disturbance at roosts		
Tourism	Y/Y	2
Direct destruction of breeding sites by tourists; degradation of roost quality by people		
3. Indirect Effects		
3.1. Human interference		
Recreation/tourism	Y/Y	3
Disturbance at breeding sites.		
3.2. Alien invasive species		

Predators Y/Y 4
Feral dogs and cats prey on nestlings
5. Pollution
5.1 Global
Global warming/Oceanic warming
Y 6
Ecosystem change
5.4 El Niño
El Niño Y/Y 5
Preferred food species become temporarily unavailable
Are threats well-understood? Yes

8. Trade

9-10. Population: numbers and trends

9A. Length of generation: 6 Years

	Total Pop.	Mature
9B. Global Population:	20 000	12 000
10A. Recent past trends:	Stable	Stable

There are good data available to indicate that there are 6000 breeding pairs. The number of individuals was calculated as the number of observed pairs multiplied by 3.5 (to allow for non-breeding adults and juveniles).

11. Data source

DATA SOURCE/QUALITY: Qualifier: Observed. Uncertainty: Evidentiary; census monitoring; informal sightings. Qualifier for data: Observed. Data uncertainty: Evidentiary.

12. Recent field studies

Marine and Coastal Management (South Africa), and Ministry of Environment and Tourism (Namibia): Annual counts of breeding birds at selected large breeding colonies
Avian Demography Unit, University of Cape Town: Juvenile dispersal

13. Status (IUCN Red Data List)

Red List Category:
CURRENT: ***Least Concern***
PREVIOUS: Least Concern
IUCN Category (National): Least Concern (South Africa), Vulnerable (Namibia)
CITES: not listed.
NATIONAL WILDLIFE LEGISLATION: Marine Living Resources Act (South Africa), Parks and Wildlife Management Act (Namibia), South African Act, No. 46, 1973
NATIONAL RED BOOK DATA: not listed
INTERNATIONAL RED BOOK DATA: not listed
OTHER LEGISLATION: Provincial Nature Conservation Ordinances (South Africa), National Parks Act, No. 57, 1976
PROTECTED AREA: Most South African offshore islands are protected by provincial and national legislation
NOTES ON STATUS: Conservation status in Mozambique and in Angola unknown. The world population of *Sterna bergii* (all subspecies) is in excess of 1 000 000

individuals, most of which are in Australia. *S. b. bergii* comprises only 2% of the world population.

14. Research recommended

Survey studies; genetic research; life history

15. Management recommendations

Habitat management; monitoring; public awareness; work in local communities

16. Captive breeding / Cultivation recommendations

None

17. Facilities

18. Level of *ex situ* management recommended

19. Techniques to propagate the taxon

Some techniques known for taxon or similar taxon

20. General comments

21. Sources

Input from Workshop participants.

Braby, R.J., Shapira, A. & Simmons, R.E. 2001. Successful conservation measures and new breeding records for Damara Terns *Sterna balaenarum* in Namibia. *Marine Ornithology* 29: 81-84

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22. Compilers

Norbert Klages, Janine le Roux, Rod Randall, Rob Simmons

Damara Tern

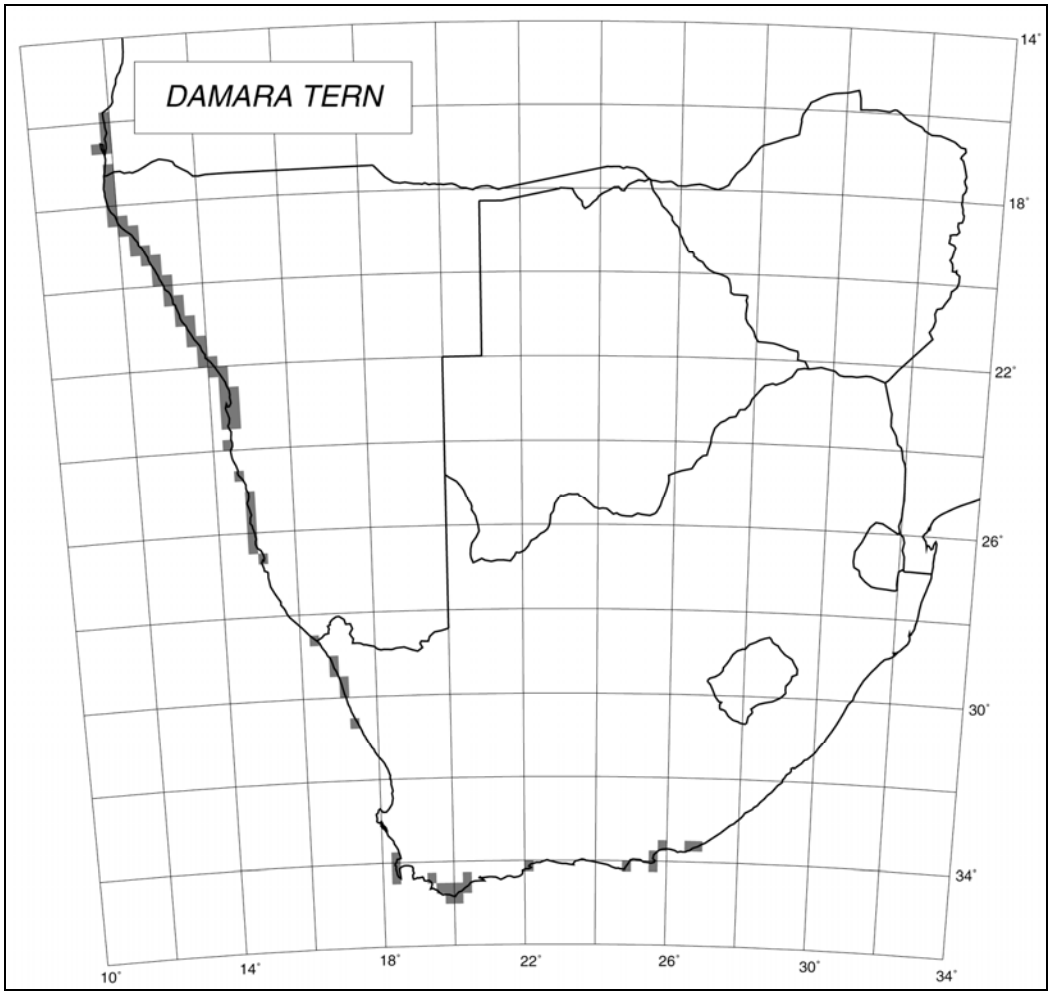

Figure 15. Distribution map of the Damara Tern

Taxonomy

1. Scientific Name	**(Authority, Date)**
Sterna balaenarum	(Strickland, 1852)

LEVEL: Species
FAMILY: Laridae
ORDER: Charadriiformes
CLASS: Aves

Common Names	**Language**
Damara Tern	English
Sterne de baleiniers	French
Damarasterretjie	Afrikaans

2. **Distribution of the taxon**

Angola, Benin, Cameroon, Congo, Equatorial Guinea, Gabon, Ghana, Namibia, Nigeria, South Africa, Togo 4

HABITAT: Sea

NICHE: Inshore, desert coast, dune fields, dune slacks, salt pans

HISTORICAL DISTRIBUTION: Same as present but two breeding colonies have disappeared in the last century (north of Swakopmund, Namibia, and Kommetjie, South Africa)

CURRENT COUNTRIES: South Africa to West Africa

GEOGRAPHIC EXTENT: Breeding only in Namibia, South Africa and possibly in Angola

MIGRATION REGIONS: Migrates along the west coast of Africa to West Africa

3.-4. Occurrence and occupancy in and around area study/sighting

OCCURRENCE AREA: >20 000 sq km

OCCUPANCY AREA: >2001 sq km

5. Number of locations or subpopulations

NO. LOCATIONS: 4

6. Habitat status

STATE OF HABITAT: Fragmented

PRIMARY CAUSE OF CHANGE: Human development

7. Threats

Threat	Now/Future	Rank
3. Habitat loss (Human induced)		
1.2 Extraction		
Mining	Y/Y	3
Diamond mining destroys breeding habitat		
1.3 Development		
Human settlement	Y/Y	2
Directly destroys breeding habitat		
Tourism	Y/Y	2
Tourists and other recreational beach users (e.g. drivers of off-road vehicles) disturb breeding birds, and may trample or drive over eggs and small chicks.		
5. Pollution		
5.1 Global		
Global warming/oceanic warming	Y	4
Ecosystem change		
Are threats well-understood? Yes		

8. Trade

9-10. Population: numbers and trends

9B. Global population: 13 500

10A. Recent past trends: Stable

Stable population numbers in Namibia; some decline known in South Africa (from

150 to 120 pairs over the last 20 years)

11. Data source

DATA SOURCE/QUALITY: Qualifier: Observed. Uncertainty: Evidentiary; census monitoring; informal sightings. Qualifier for data: Observed. Data uncertainty: Evidentiary

12. Recent field studies

13. Status (IUCN Red Data List)

Red List Category:

CURRENT: ***Near Threatened***

CRITERIA: See below

PREVIOUS: Lower risk - Near Threatened

IUCN Category (National): Rare (South Africa)

CITES: Not listed

NATIONAL RED BOOK DATA: Endangered (South Africa), Near Threatened (Namibia)

NATIONAL LEGISLATION: Seabirds and Seals Act

OTHER LEGISLATION: Specially Protected Species in Namibia. Protected in the Western Cape and Northern Cape Provincial Ordinances. Protected under South Africa's Marine Living Resources Act.

NOTES ON STATUS: National Red Data Books: Categorized as Endangered in South Africa. Likely to be categorized as Near Threatened in Namibia`s Red Data List (to be published). Categorised as Near Threatened because it nearly meets Endangered C2a.

14. Research recommended

Survey studies; life history

15. Management recommendations

Habitat management; monitoring; public awareness

16. Captive breeding / Cultivation recommendations None

17. Facilities:

19. Techniques to propagate the taxon

Some techniques known for taxon or similar taxa

20. General comments

21. Sources

Input from Workshop participants.

Braby, R.J., Shapira, A. & Simmons, R.E. 2001 Successful conservation measures and new breeding records for Damara Terns *Sterna balaenarum* in Namibia. *Marine Ornithology* 29: 81-84.

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Underhill, L.G. 2000. Damara Tern. In: Barnes, K.N. (Ed.). The Eskom Red Data Book of birds of South Africa, Lesotho and Swaziland. Johannesburg: Birdlife South Africa. p.45.
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22. Compilers

Norbert Klages, Janine le Roux, Rod Randall, Rob Simmons

Antarctic Tern

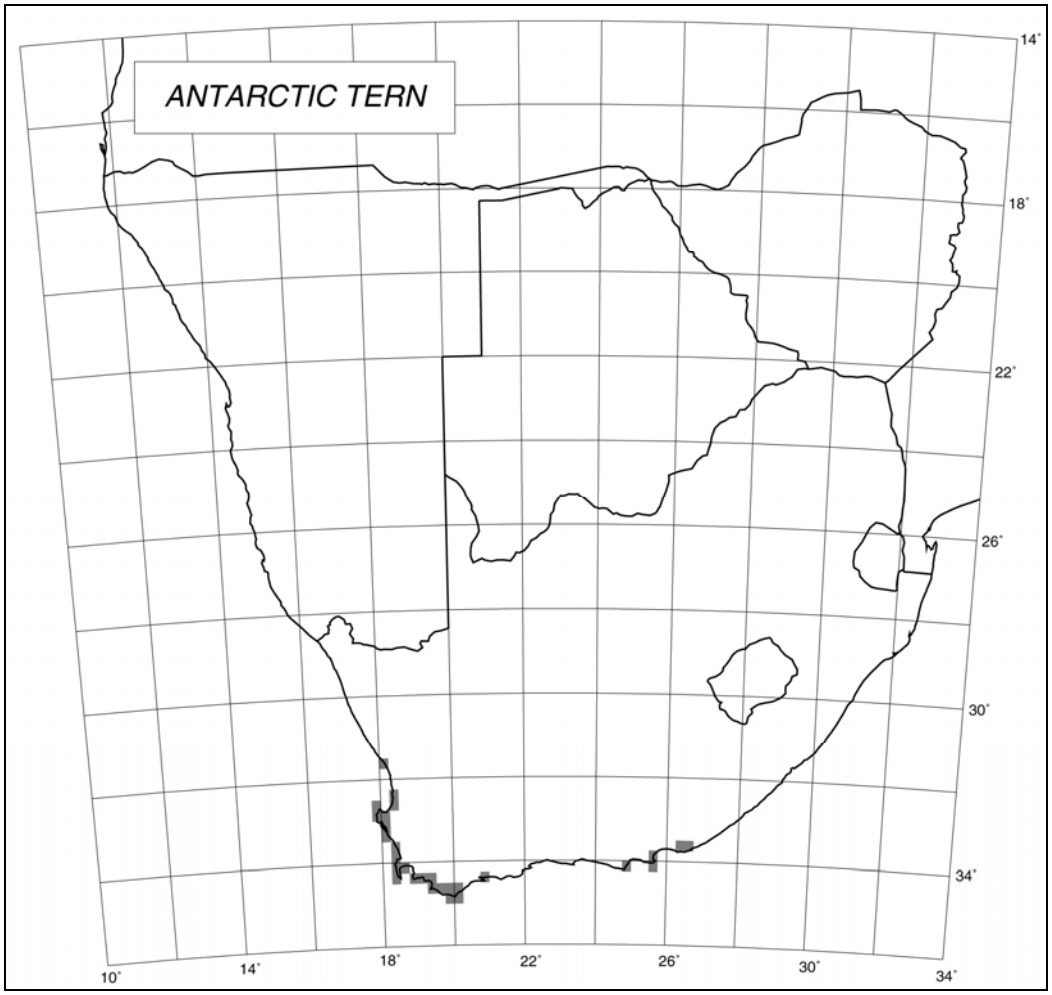

Figure 16. Distribution map of the Antarctic Tern

Taxonomy

1. Scientific Name (Authority, Date)

Sterna vittata (Bonaparte, 1856)

LEVEL: Species
FAMILY: Laridae
ORDER: Charadriiformes
CLASS: Aves

Common Names	**Language**
Antarctic Tern	English
Sterne couronneé	French
Gaviotin antartico	Spanish
Grysborssterretjie	Afrikaans

2. Distribution of the Taxon

South Africa.

HABITAT: Sea.

NICHE: Entirely marine in coastal waters and high seas, coming to land to breed and roost. Breeding colonies typically comprise fewer than 100 nests scattered among rocks or glacial moraine near the coast; sometimes also on coastal cliffs. Roosts communally in winter quarters, often with other tern species roosts, in tightly packed aggregations numbering many hundreds and even thousands of birds on rocky islands or on a few prominent rocky headlands.

HISTORICAL DISTRIBUTION: Not known to differ from current distribution.

CURRENT COUNTRIES: The Antarctic Tern is widely distributed in the southern ocean. Breeding in the Atlantic sector is reported from the western coast of the Antarctic Peninsula, South Shetland Islands, South Orkney Islands, South Sandwich Islands, South Georgian Islands, Bouvet Island, Tristan da Cunha and Gough Archipelagos. The species breeds in the Indian Ocean at the Prince Edward Islands, Crozet Islands and Kerguelen, Amsterdam, Saint Paul, and Heard Islands. It also breeds on Macquarie Island, and the southern New Zealand islands of Bounty, Antipodes, Auckland, and Campbell in the Pacific Ocean. Range states: Argentina, Australia, Brazil, Chile, France, Great Britain, Namibia, New Zealand, Norway, South Africa, Uruguay.

GEOGRAPHIC EXTENT: South African wintering grounds are located between Algoa Bay and St Helena Bay.

MIGRATION REGIONS: not known

3.-4. Occurrence and occupancy in and around area study/sighting

OCCURRENCE AREA: >20 000 sq km

OCCUPANCY AREA: >2001 sq km

OCCUPANCY NOTES: The total number of breeding colonies may lie in the low 200's but is not known exactly as many areas have never been surveyed accurately

5. Number of locations or subpopulations

NO. LOCATIONS: 200

NOTES ON FRAGMENTATION: Nearly 80% of the world population is found on the South Shetland Islands

6. Habitat status

STATE OF HABITAT: Fragmented

PRIMARY CAUSE OF CHANGE: Global warming

CHANGES IN QUALITY: Increase in quality

7. Threats

Threat	Now/Future	Rank
3. Indirect effects		
3.1. Human interference		
Recreation/tourism	Y/Y	1

In South Africa recreational beach users, including those with off-road vehicles and pet dogs, frequently disturb tern roosts on beaches in unprotected areas

4. Natural disasters

4.5 Landslide

Landslide Y/Y 2

Due to their isolation and very small size some populations, e.g. Bouvet, Heard, Macquarie, Prince Edward Islands, are vulnerable to catastrophe and their persistence must be considered tenuous.

8. Trade

9-10. Population: numbers & trends

9A. Length of generation: 4 Years

	Total Pop.
9B. Global Population:	44000

10A. Recent past trends: Declining

11. Data source

DATA SOURCE/QUALITY: Qualifier: Estimated. Uncertainty: Evidentiary; census monitoring; field study; informal sightings; literature. Qualifier for data: Estimated. Data uncertainty: Evidentiary.

12. Recent field studies

13. Status (IUCN Red Data List)

Red List Category:

CURRENT: ***Least Concern***

PREVIOUS: Least Concern

IUCN Category (National): Least Concern

CITES: Not listed

NATIONAL REDBOOK DATA: Not listed

OTHER LEGISLATION: Convention for the Conservation of Antarctic Marine Living Resources (CCAMLR)

NOTES ON STATUS: The global IUCN conservation status is Least Concern but some populations (Heard, Macquarie, Prince Edward Islands) are locally Endangered. Not listed in CITES. Most (numerically) Antarctic Tern populations fall inside the Antarctic Treaty area and are afforded protection by CCAMLR.

14. Research recommended

Survey studies; genetic research; taxonomic research.

15. Management recommendations

Monitoring, public awareness.

16. Captive breeding / Cultivation recommendations

None

17. Facilities

18. Level of *ex situ* management recommended

19. Techniques to propagate the taxon

20. General comments

21. Sources

Input from Workshop participants; see references in Antarctic Tern nomination text (Section G)

22. Compilers

Norbert Klages, Rod Randall, Janine le Roux, Rob Simmons

African Black Oystercatcher

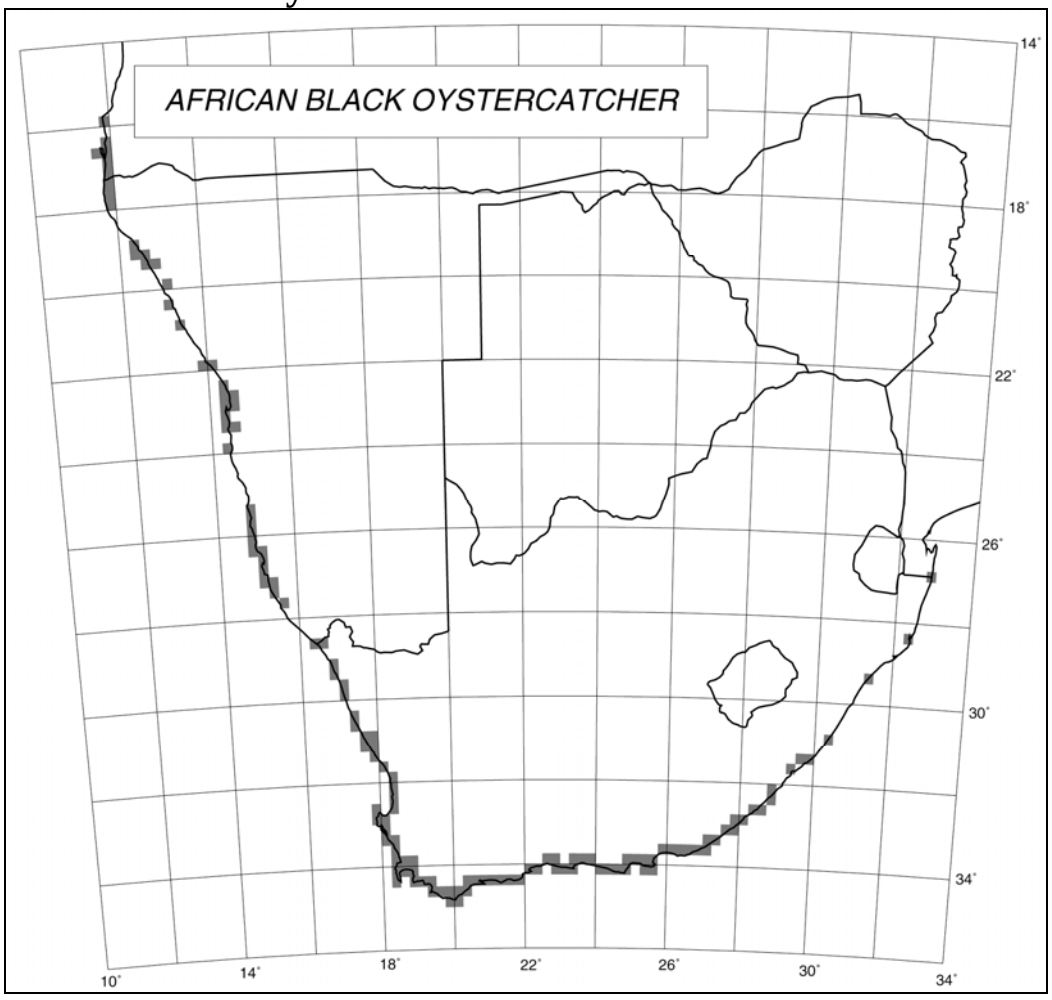

Figure 17. Distribution map of the African Black Oystercatcher

Taxonomy

1. Scientific Name (Authority, Date)

Haematopus moquini (Bonaparte, 1856)

LEVEL: Species
FAMILY: Haematopodidae
ORDER: Charadriiformes
CLASS: Aves

Common Names	**Language**
African Black Oystercatcher	English
Hultrier de Moquin	French
Ostrero Negro Africano	Spanish
Schwarzen Austernfischer	German
Swarttobie	Afrikaans

2. Distribution of the taxon

Angola, Namibia, South Africa

HABITAT: Coastline, including offshore Islands, estuaries, coastal salt pans and sewage works

NICHE: sea level

HISTORICAL DISTRIBUTION: Angola, Namibia, South Africa, Mozambique

CURRENT COUNTRIES: Angola, Namibia, South Africa, Mozambique

GEOGRAPHIC EXTENT: southern Angola, Namibia, South Africa (especially Western Cape), southern Mozambique

MIGRATION REGIONS: None

3.-4. Occurrence and occupancy in and around area study/sighting

OCCURRENCE AREA: 101-5000 sq km

OCCUPANCY AREA: 501-2000 sq km

5. Number of locations or subpopulations

NO. LOCATIONS: 1

6. Habitat status

STATE OF HABITAT: Contiguous

CHANGE IN HABITAT SIZE: Decrease in area

RECENT CHANGE: <20%

DURING HOW MANY YEARS? 100 years

PREDICTED DECLINE IN HABITAT: <20%

PREDICTED DURATION OF DECLINE: 100 years

PRIMARY CAUSE OF CHANGE: On mainland coastline with sandy shores, breeding habitat is churned up by off-road vehicles. Some sections of shoreline are used intensively for recreational purposes, effectively destroying breeding habitat.

CHANGES IN QUALITY: Decrease in quality

NOTES ON QUALITY: Disturbance, however caused, decreases the quality of habitat.

7. Threats

Threat	Now/Future	Rank
1. Habitat loss (Human induced)		
1.2. Extraction		
Mining	Y	2
On Northern Cape coast, diamond mining destroys coastal habitat.		
1.3. Development		
Tourism	Y	1
Recreational use of beaches effectively destroys habitat by disturbing birds and preventing them from breeding.		

8. Trade

9-10. Population: numbers and trends

9A. Length of generation: 15 Years

	Total Pop.	Mature

9B. Global Population: <10 000 <2500
10A. Recent past trends: Increasing
Survival rate has been estimated to be 96% per annum.

11. Data source

DATA SOURCE/QUALITY: Qualifier: Observed. Uncertainty: 95% Confidence; census monitoring. Qualifier for data: Observed. Data uncertainty: 95% Confidence.

12. Recent field studies

Phil Hockey, Antje Leseberg, Doug Lowenthal: Entire range, 1997-present: population dynamics, breeding, migration.
Les Underhill & Kathy Calf: Western Cape, 2001-present: energetics.

13. Status (IUCN Red Data List)

Red List Category:
CURRENT: ***Near Threatened***
PREVIOUS: Lower risk - Near Threatened (1994)
IUCN Category (National): Least Concern
CITES: Not listed
NATIONAL RED BOOK DATA: Near Threatened (South Africa)
INTERNATIONAL RED BOOK DATA: Near Threatened
PROTECTED PLAN: Oystercatcher Conservation Programme in progress

14. Research recommended

Survey studies; genetic research; life history.

PHVA is recommended.

PHVA NOTES: PHVA needs to concentrate on the concept of the offshore islands as sources and the mainland coastline as a sink.

15. Management recommendations

Monitoring, public awareness.

16. Captive breeding / Cultivation recommendations

17. Facilities

Two Oceans Aquarium, Cape Town

18. Level of *ex situ* management recommended:

19. Techniques to propagate the taxon

20. General comments

21. Sources

Input from Workshop participants; see references in African Black Oystercatcher nomination text (Section G)

22. Compilers

Gerard Boere, Phil Hockey, Deon Nel, Les Underhill, Tony Williams

G. NOMINATION TEXTS

Proposals for inclusion of species in Annex 2 of the Agreement on the Conservation of African-Eurasian Migratory Waterbirds (an agreement under UNEP/CMS)

PROPONENT: **Republic of South Africa**

Nomination of the African Penguin for inclusion in the list of species as covered by the African-Eurasian Waterbird Agreement (an Agreement under the Bonn Convention) is proposed together with the following 10 southern African coastal species: Cape Gannet *Morus capensis* (global population), Bank Cormorant *Phalacrocorax neglectus* (global population), Crowned Cormorant *P. coronatus* (global population), Cape Cormorant *P. capensis* (global population), White-breasted Cormorant *P. carbo lucidus* (southern African population), southern African Kelp Gull *Larus [dominicanus] vetula* (global population), Grey-headed Gull *L. cirrocephalus poiocephalus* (southern African population), Hartlaub's Gull *L. hartlaubii* (global population), Antarctic Tern *Sterna vittata* (known migratory populations), African Black Oystercatcher *Haematopus moquini* (global population).

At the Conservation Assessment and Management Plan Workshop, the conservation status of the above coastal seabird species was evaluated using the IUCN Red List criteria (version 3.1) and ranged from Endangered (one species), Vulnerable (two species), Near Threatened (two species) to Least Concern (six species). This means that five of the 11 species can be considered as having an unfavourable conservation status.

However, this workshop has shown that the proposed 11 species interact at many levels and therefore their conservation management requires an integrated and holistic approach. They together would benefit highly from international co-operation by means of an administrative arrangement (e.g. an AEWA Technical Committee Working Group and Action Plan) between the Range States involved. This administrative arrangement should also include the following nine coastal seabird species that occur in southern Africa and are already listed in the African Eurasian Waterbird Agreement: Great White Pelican *Pelecanus onocrotalus*, Swift or Greater Crested Tern *Sterna bergii*, Caspian Tern *S. caspia*, Roseate Tern *S. dougallii*, Damara Tern *S. balaenarum*, Sandwich Tern *S. sandvicensis*, Common Tern *S. hirundo*, Arctic Tern *S. paradisaea* and Black Tern *Chlidonias niger*.

Note: In any few cases, population sizes, number of breeding localities and the species reference lists have been updated subsequent to the submission of the nomination texts to AEWA in April 2002.

African Penguin

PROPOSAL: Listing of the **African Penguin *Spheniscus demersus*** (global population) in the African-Eurasian Waterbird Agreement, Annex 2 (species list).

SUPPORTING STATEMENT

1. Taxon

1.1	Class:	Aves	
1.2	Order:	Sphenisciformes	
1.3	Family	Spheniscidae	
1.4	Genus & Species:	*Spheniscus demersus* (Linnaeus, 1758)	
1.5	Common names:	English:	African Penguin, Jackass Penguin, Black-footed Penguin
		Spanish:	Pinguino del Cabo
		French:	Manchot du Cap
		German:	Brillenpinguin

2. Biological data

2.1 Distribution

Breeds at *c*. 28 colonies (all except four on offshore islands) in South Africa and Namibia. Non-breeding birds move as far north as Gabon on the west coast of Africa and Inhaca Island, Mozambique, on the east coast.

2.2 Population

Between 1990-1994, there were an estimated 56 000 breeding pairs representing *c.* 179 000 adults; *c*. 5300 pairs bred in Namibia, the balance in South Africa. In 2000/2001 the global population was approximately 163 500 (Namibian population comprised 27 500, South African population comprised 136 000). In 1900, it is likely that there were 1.4 million adults at Dassen Island alone. By 1956, the overall population numbered 300 000 adults. The present rate of decrease is 1.2% a year. Most recent censuses give an overall of 62 304 breeding pairs (Table 6).

2.3 Habitat

Coastal waters, usually within 12 km of coastline; breed on islands and a few mainland sites, preferably in shelter of a rock or bush, or where they can tunnel into guano or sand, but they also nest in the open if a sheltered site is unavailable.

2.4 Migrations and movements

Individual birds move through South African and Namibian waters according to a more-or-less regular pattern; in particular juveniles from South African

islands move northwards to Namibian waters before returning to breed, usually at their natal colonies. This information is based on ringing recovery records.

Table 6. Breeding distribution and numbers of occupied nest sites of the African Penguin *Spheniscus demersus.* 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 nest sites	Date
Namibia					
Sylvia Hill	25º09'S; 14º51'E		N	45	January 2000
Oyster Cliffs	25°20'S; 14°49'E		N	c.250	February 2002
Mercury Island	25º43'S; 14º50'E	N017	RA	2822	2000/2001
Neglectus Island	26º08'S; 14º57'E		RA	4	2000/2001
Ichaboe Island	26º17'S; 14º56'E	N018	RA	1345	2000/2001
Halifax Island	26º37'S; 15º04'E		RA	462	2000/2001
North Reef	27º00'S; 15º11'E		RA	1	2000/2001
Possession Island	27º01'S; 15º12'E	N020	RA	359	2000/2001
Pomona Island	27º11'S; 15º15'E		RA	1	2001/2002
Plumpudding Island	27º39'S; 15º31'E		RA	67	2000/2001
Sinclair Island	27º40'S; 15º31'E		RA	75	2000/2001
Namibia Total:				**5431**	
South Africa					
Bird Island, Lambert's Bay	32º05'S; 18º18'E	SA100	P	15	2001
Malgas Island	33º03'S; 17º55'E	SA105	N, R	55	March-June 2001
Marcus Island	33º03'S; 17º58'E	SA105	N, R	114	March-June 2001
Jutten Island	33º05'S; 17º57'E	SA105	N, R	1338	March-June 2001
Vondeling Island	33º09'S; 17º59'E		P	649	March-June 2001
Dassen Island	33º25'S; 18º05'E	SA109	P	21 409	March-June 2001
Robben Island	33º48'S; 18º22'E	SA110	WH	6723	March-June 2001
Boulders	34º11'S; 18º27'E	SA117	N	1054	March-June 2001
Seal Island, False Bay	34º08'S; 18º35'E		P	52	10 Nov 2000
Stony Point	34º22'S; 18º54'E		LA	111	March-June 2001
Dyer Island	34º41'S; 19º25'E	SA120	P	2088	March-June 2001
St Croix Island	33º47'S; 25º46'E	SA095	P	16 950	March-June 2001
Jahleel Island	33º48'S; 25º43'E	SA095	P	538	30 May 2000
Brenton Rock	33º49'S; 25º46'E	SA095	P	32	30 May 2000
Seal Island, Algoa Bay	33º50'S; 26º17'E	SA095	P	345	March-June 2001
Stag Island	33º50'S; 26º16'E	SA095	P	24	March-June 2001
Bird Island, Algoa Bay	33º51'S; 26º17'E	SA095	P	5376	March-June 2001
South Africa Total				**56 873**	
Overall Total				**62 304**	

3. Threat data

3.1 Direct threats

These include: Oil pollution, as exemplified from the massive oiling from the sinking of the *Treasure* in 2000; introduced predators on breeding islands, especially feral cats *Felis catus*; predation by Cape Fur Seals *Arctocephalus pusillus* and other marine predators; egg collecting; accidental mortality in fishing nets and entanglement with fishing gear and other marine debris.

3.2 Habitat destruction

Cape Fur Seals have occupied certain breeding islands and displaced penguins; guano collection forces birds to use open nest sites, where they are vulnerable to aerial predators, especially the southern African Kelp Gull *Larus [dominicanus] vetula*. Guano collection still takes place in Namibia. Risk of disease potentially poses a significant threat and requires further research. The problem of road kills needs to be addressed at certain colonies (Robben Island and Boulders, South Africa). Fire is a potential problem at breeding sites with woody vegetation (Boulders, Robben Island, Stony Point, all South Africa).

3.3 Indirect threats

The activities of commercial fisheries and increasing Cape Fur Seal, herds have lead to reduced availability of prey. Human disturbance at breeding colonies causes loss of eggs and chicks to Kelp Gulls. A port is proposed for development near the second largest colony (St Croix Island, Algoa Bay) and will increase risk of pollution at this colony. Extreme weather events including heat waves, severe storms, and El Niño events impact both foraging and breeding habitat. Low juvenile survival and poor recruitment is caused by many of these threats and is considered to be the major factor causing population decline in this species. Research is required to understand the specific causes of this decline and the relative importance of each contributing factor.

3.4. Threats connected with migration

Oil pollution; food shortages; predation by Cape Fur Seals.

3.5. Utilization

In the past, African Penguins were utilized for their eggs and guano, by the live animal trade and as bait in Cape Rock Lobster *Jasus lalandii* traps; none of these utilization threats are currently considered serious. In South Africa, eco-tourism is conducted at Bird Island (Lambert's Bay), and proposed for Dassen and Dyer Islands.

4. Protection status and needs

4.1. National protection status

Currently, all South African breeding colonies are afforded some form of protection. In Namibia there is an urgent need to protect formally all breeding sites (currently only one of the 11 breeding colonies is protected in Namibia). The species itself is, however, protected in both South Africa and Namibia.
The Red Data Book of birds of South Africa, Lesotho and Swaziland (2000) lists the African Penguin in the category of Vulnerable.
The Namibian breeding islands each have a resident caretaker ensuring protection of the birds. Landing on all six islands is prohibited without a permit.

4.2. International protection status

The African Penguin is classified as Vulnerable in the most recent (2000) BirdLife International / IUCN Red List due to changes in prey availability and the threat of oil pollution.
Listed in CITES Appendix II.
Listed in Appendix II of the Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention).
At the Conservation Assessment and Management Plan Workshop for Southern African Coastal Seabirds held in February 2002, the African Penguin was recommended as Vulnerable according to the IUCN Red List Categories and Criteria, Version 3.1.

4.3. Additional protection needs

Inclusion in Annex 2 of the Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA).
Reduction in amount of oil entering the sea and improvement of emergency facilities for cleaning birds after oil spill incidents; reduction of disturbance during the collection of oiled birds in breeding colonies.
Elimination of feral cats from breeding colonies.
Culling of individual Cape Fur Seals that cause excessive mortality.
Determination of whether prey base is sufficient to support stable or increasing populations of natural predators.
Establishment of Marine Protected Areas around breeding colonies.
Procurement of Nature reserve status for Namibian islands.

5. Range States[a]

South Africa (B), **Namibia (B)**, Mozambique (M), Angola (M), Zaire (V) and Gabon (V)

[a] **B** = breeding range, M = occurs as migrant, V = vagrant

7. Additional remarks

The African Penguin is the only member of the Order Sphenisciformes to breed in Africa. Because of its appeal to the general public, this is the flagship species for seabird conservation in southern Africa.

Further research is required to establish the reasons for the ongoing decline in

the sub-populations of this species despite the conservation measures applied at their breeding colonies. Particularly, the causes of the low level of juvenile survival and recruitment should be investigated. Because of this decline, populations of the African Penguin require ongoing monitoring.

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Cape Gannet

PROPOSAL: Listing of the **Cape Gannet *Morus capensis*** (global population) in the African-Eurasian Waterbird Agreement, Annex 2 (species list)

SUPPORTING STATEMENT

1. Taxon

1.1	Class	Aves	
1.2	Order	Pelecaniformes	
1.3	Family	Sulidae	
1.4	Genus & Species	*Morus capensis* (Lichtenstein, 1823)	
1.5	Common names:	English:	Cape Gannet
		French:	Fou du Cap
		Spanish:	Alcatraz-del-Cabo
		Afrikaans:	Witmalgas
		Portuguese:	Alcatraz-do-Cabo
		Xhosa:	Umkholonjane

2. Biological data

2.1 Distribution

The Cape Gannet is endemic to southern Africa, breeding only on three islands off South Africa (Bird (Lambert's Bay), Malgas and Bird (Algoa Bay)), and three off Namibia (Mercury, Ichaboe and Possession) (Table 7). Its non-breeding range includes the coastal waters from Nigeria on the west coast of Africa to Mozambique on the east coast of southern Africa. It seldom occurring farther offshore than 100 km, though records of birds more than 200 km offshore exist for both the Atlantic and Indian Oceans. Vagrants have been recorded in Australia, Madagascar, Ghana, Kenya, Scotland (U.K.) and at Saint Paul Island, southern Indian Ocean (France).

The historical distribution differs from present: In the past Cape Gannets also bred at Halifax and Hollamsbird Islands (Namibia), and Seal and Dyer (breeding equivocal) Islands (South Africa). Reduced northward movement in the Atlantic Ocean is evident from a decrease in recoveries of ringed birds north of 17ºS (Cunene River Mouth, Angola).

2.2 Population

In 1996, the global population numbered about 173 000 breeding pairs (88% in South Africa and the remainder in Namibia). A decrease in the total population of 31% between 1956 and 1996 and 15% between 1978 and 1996, equivalent to >20% decline in three generations, is largely attributable to a reduction in prey availability. While the colonies off South Africa have shown increases, the number of active nests at the three Namibian colonies declined by almost 80%

between the 1950's and 1995. The most rapid decline has occurred at Ichaboe Island, Namibia, which at one stage boasted the world's largest colony.

Table 7. Breeding distribution and numbers of the Cape Gannet *Morus capensis*. IBA = Important Bird Area; P = Provincial Nature Reserve; N = National Park; RA = restricted access.

Locality	Coordinates	IBA	Protection status	Population: nests/breeding pairs	Date
Namibia					
Mercury Island	25º43'S; 14º50'E	N017	RA	*c.* 400	Jan. 2002
Ichaboe Island	26º17'S; 14º56'E	N018	RA	16 453	17 Dec. 1999
Possession Island	27º01'S; 15º12'E	N020	RA	1363	Jan. 2002
Namibia Total:				**18 216**	
South Africa					
Bird Island (Lambert's Bay)	32º05'S; 18º18'E	SA100	P	17 000	2000
Malgas Island	33º03'S; 17º55'E	SA105	N	70 000	2000
Bird Island (Algoa Bay)	33º51'S; 26º17'E	SA095	P	61 000	2000
South Africa Total:				**148 000**	
Overall Total:				**166 216**	

2.3 Habitat

Marine (coastal waters and occasionally high seas) and terrestrial (breeding islands). Cape Gannets breed in dense colonies on flat ground, except on steeply sloping Mercury Island, Namibia, where they occupy flat ledges. Nests are made from guano and other material scraped together from the immediate vicinity of the nest. Gannets show marked site fidelity, returning to their natal colony to breed. Feeding occurs by plunge-diving onto prey – mainly pelagic shoaling fish of commercial importance – in cold, highly productive coastal waters. Hake *Merluccius* spp. and other offal are scavenged from demersal trawlers.

2.4 Migrations and movements

Adult Cape Gannets generally move within 540 km, but up to 3300 km, from their breeding locality; juveniles migrate up to 6800 km in a northerly direction along the west coast of Africa after fledging from natal islands by May. Both adults and juveniles roost at sea and they seldom fly over land. During the non-breeding season (austral winter), they are regular visitors to Angola; on the east coast they follow shoals of Sardine *Sardinops sagax* that migrate along the KwaZulu-Natal coast (South Africa), some occurring as far north as Delagoa Bay (Mozambique). In late August, adult gannets congregate at the breeding islands to commence breeding.

The decline since the 1980s in records of ringed gannets north of the mouth of the Cunene River (at 17ºS) may be due to these birds preferentially feeding on hake in the vicinity of demersal fishing fleets in the Benguela Upwelling Region, rather than following the northward migration of fish prey.

3. Threat data

3.1 Direct threats

Threats include entanglement in marine debris and fishing gear – Cape Gannets are sometimes caught in demersal trawls – and incidental mortality from swallowing hooks or being caught by hooks from longline fishing activities. Cape Fur Seals *Arctocephalus pusillus* compete for breeding space (Mercury Island, Namibia), and prey on both adults and fledglings. The birds are also affected by oil spills (chronic spills of fuel oil, crude oil from tankers and fish oil from factories and fishing fleets), which are potentially a great hazard. In August 1983, 5000 Cape Gannets were oiled following the sinking of the *Castillo de Bellver* off the Western Cape Province, South Africa.

Historically, gannets (especially juveniles) were killed in large numbers for food or sport, and for use as bait in Cape Rock Lobster *Jasus lalandii* traps; this still occurs off West Africa in the non-breeding range, but is difficult to assess, as is deliberate killing of birds by fishers.

3.2 Habitat destruction

The commercial collection of guano, which ceased during the 1990s at all islands except Ichaboe Island, Namibia, reduced the breeding success of Cape Gannets. Rainwater accumulates in and floods nests in areas that have become basin-shaped after removal of guano. The quantity of nesting material is then limited and results in the onset of breeding being delayed by more than a month in some instances.

3.3 Indirect threats

The main threat is reduced prey availability, especially of sardine and Cape Anchovy *Engraulis capensis*, which are commercially fished by Angola, Namibia and South Africa. The number of birds attempting to breed may be reduced through scarcity of food.
Cape Gannets are susceptible to human disturbance during the breeding season, deserting their nests and leaving eggs and small chicks vulnerable to predation by southern African Kelp Gulls *Larus [dominicanus] vetula*. Breeding success may be decreased and the effective breeding season reduced (due to delayed onset of breeding) through removal of too much guano. The larger the clutch, the more vigorous the bird defends it. The collection of guano may disturb breeding adults and disrupt feeding of late fledglings, leading to chick mortality.
The causeway to Bird Island (Lambert's Bay, South Africa) has provided access for mammalian predators such as dogs, cats and rats. Tourism to this island increases the threat from human disturbance.

3.4 Threats connected especially with migrations

At-sea mortality factors include oiling and commercial (especially longline) fishing activities. Migrant birds, especially juveniles, have been killed off West

Africa for food, and birds have been killed deliberately by fishers.

3.5 National and international utilization

Guano is collected commercially from Ichaboe Island, Namibia; the island was last scraped in 2000.
Eco-tourism is conducted at Bird Island (Lambert's Bay).

4. Protection status and needs

4.1 National protection status

The Cape Gannet is listed in the category of Vulnerable in the Red Data Book of birds of South Africa, Lesotho and Swaziland (1998).
Cape Gannets are protected in terms of South Africa's Sea Birds and Seals Protection Act No. 46 of 1973; the Namibian colonies are administered and partially protected by the Ministry of Fisheries and Marine Resources. All six breeding islands are recognised as Important Bird Areas (IBAs). The three South African breeding islands are legally protected as nature reserves and one (Malgas) falls within the West Coast National Park. The Namibian breeding islands each have a resident caretaker ensuring protection of the birds. Landing on all six islands is prohibited without a permit.
South African oiled birds have been successfully rehabilitated by the Southern African Foundation for the Conservation of Coastal Birds (SANCCOB).

4.2 International protection status

The Cape Gannet is classified as Vulnerable in the most recent (2000) BirdLife International / IUCN Red List, because of its small breeding range and a decline in the foraging quality of surrounding waters. The latter is due to overexploitation of prey by commercial fisheries and to marine pollution.
Recommended at IUCN/CAMP (Conservation Assessment and Management Plan) Workshop in February 2002 as Vulnerable according to the most recent IUCN Red List Categories and Criteria, Version 3.1. This is due to the decline in the area of occupancy (which is less than 2000 km^2) and the quality of habitat. There has been an observed reduction in the population by >20% in three generations, and Cape Gannets only breed at six localities. The population has restricted area and occupancy.

4.3 Additional protection needs

Inclusion in Annex 2 of the Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA).
Development and implementation of a sustainable, co-ordinated fisheries management plan for the Benguela Upwelling Region, and legislative measures to prevent oil spills from illegal cleaning of ship tanks.
Contingency plan for oil spills along the Namibian coast.
Management plans for islands, including nature reserve status and marine protected areas around all breeding islands.

Coverage of seabirds in better detail in Acts for Namibia; improvements to the Sea Birds and Seals Protection Act No. 46 of 1973 in South Africa; incorporation of seabirds into the Marine Living Resources Act.

5. Range states[a]

Angola (M), Australia (B* with congeneric), Benin (V), Cameroon (M), Congo (M), Equatorial Guinea (M), France (St. Paul Island) (B*), Gabon (M), Ghana (V), International waters (V), Kenya (V), Madagascar (V), Mozambique (M), **Namibia (B)**, Nigeria (M), Scotland (V), **South Africa (B)**, Tanzania (V), The Democratic Republic of Congo (M), Togo (V).

[a] **B** = breeding range; B* = breeding attempted; M = occurs solely as a migrant; V = recorded as vagrant/straggler

6. Additional remarks

The population is best regarded as a single unit, as exchange of individuals, as shown by ring recoveries, occurs between breeding localities. The conservation status of this species may be improved through internationally-coordinated proactive conservation efforts.

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Cape Cormorant

PROPOSAL: Listing of the **Cape Cormorant *Phalacrocorax capensis*** (global population) in the African-Eurasian Waterbird Agreement, Annex 2 (species list).

SUPPORTING STATEMENT

1. Taxon

1.1	Class	Aves	
1.2	Order	Pelecaniformes	
1.3	Family	Phalacrocoracidae	
1.4	Genus & Species	*Phalacrocorax capensis* (Sparrman, 1788)	
1.5	Common names:	English:	Cape Cormorant
		French:	Cormoran du Cap
		Spanish:	Cormorán del Cabo
		Afrikaans:	Trekduiker
		Portuguese:	Corvo-marinho-de-Cabo

2. Biological data

2.1 Distribution

The Cape Cormorant is endemic to southern Africa (here defined to include southern Angola to the northern boundary of the Benguela Upwelling System at 14ºS); breeding has been reported at 64 localities between Ilha dos Tigres (16º45'S; 11º45'E), Angola, and Stony Point (34º22'S; 18º54'E), South Africa (Table 1). Less than 2% of the population breeds east of Cape Agulhas (20ºE). The non-breeding range extends from Lobito, Angola, to Inhaca Island, Mozambique; it has been recorded as a vagrant as far north as Gabon on the west coast of Africa. Cape Cormorants occur usually within 20 km, but up to 70 km, from the coast. They are abundant on the west coast but less common on the east coast of southern Africa.

The known historical distribution differs from present: a recent record of Cape Cormorants breeding at Ilha dos Tigres extended the breeding range north by 300 km, and Cape Cormorants have bred in the past at Hole-in-the-Wall (32º02'S; 29º07'E), South Africa.

2.2 Population

The population trends of Cape Cormorants are not easy to determine, as the birds readily move between breeding areas, are known to desert their nests frequently, and have an extended breeding period. The numbers of birds breeding undergo large inter-annual fluctuations which are related to the abundance of Cape Anchovy *Engraulis capensis*.

The breeding population in the period 1977-1981 was estimated at 277 032 pairs, the majority (61.6%) of which occurred in Namibia. In 1996, only 72 000 pairs were recorded breeding. A large proportion of Cape Cormorants breeds on artificial platforms in Namibia, built for the easy collection of guano; in 1973,

the total number of Cape Cormorants on the platforms was between 450000 and 1050000 individual birds.
Most recent censuses give an overall of 215521 breeding pairs (Table 8).

Table 8. Breeding distribution and numbers of occupied nest sites of the Cape Cormorant *Phalacrocorax capensis.* IBA = Important Bird Area, P = Provincial Nature Reserve, N = National Park, R = Ramsar Site, RA = restricted access, LA = Local Authority

Locality	Coordinates	IBA	Protection status	Number of nest sites	Date
Angola					
Ilha dos Tigres	16º45'S; 11º45'E			6092	Feb. 2001
Angola Total:				**6092**	
Namibia					
Die Oase	19º27'S; 12º49'E		N	*c.* 75	30 Nov. 1981
Terrace Bay	19º59'S; 13º02'E		N	*c.* 20	summer 1979/80
4 km south of Torra Bay	20º21'S; 13º14'E		N	2	24 Jan. 1981
Cape Cross northern platform	21º45'S; 13º56'E		RA	4944	28 Nov. 1978
Cape Cross southern platform	21º45'S; 13º56'E		RA	25 653	28 Nov. 1978
Swakopmund platform	22º41'S; 14º31'E		RA	43 542	28 Nov. 1978
Bird Rock platform	22º53'S; 14º31'E		RA	332	28 Nov. 1978
Walvis Bay Harbour	22º59'S; 14º27'E	N014	RA	8	13 Dec. 1981
Sandwich Harbour	23º20'S; 14º30'E	N015	N, R	6092	21-23 Jan. 2002
Hollamsbird Island	24º38'S; 14º32'E		RA	109	28 Nov. 1978
Sylvia Hill	25º09'S; 14º51'E		N	37	2002
Oyster Cliffs	25º20'S; 14º49'E		N	*12*	Feb. 2002
North Head	25º40'S; 14º50'E	N021	RA	*c.* 40	Nov. 1985
Mercury Island	25º43'S; 14º50'E	N017	RA	1148	2000/2001
Dolphin Head	25º44'S; 14º50'E	N021	RA	*c.* 400	Feb. 1982
Hottentot Bay	26º08'S; 14º57'E		RA	> 200	Feb. 1982
Ichaboe Island	26º17'S; 14º56'E	N018	RA	26 000	2000/2001
Penguin Island	26º37'S; 15º09'E	N019	RA	115	2001/2002
Shark Island	26º39'S; 15º09'E		RA	32	01 Aug. 1977
North Long Islands	26º49'S; 15º07'E		RA	30	01 Dec. 1978
Elizabeth Bay jetty	26º55'S; 15º12'E	N021	RA	5	early Dec. 1977
North Reef	27º00'S; 15º11'E		RA	1177	01 Dec. 1978
Possession Island	27º01'S; 15º12'E	N020	RA	4502	2001/2002
Albatross Rock	27º07'S; 15º14'E		RA	6	2000/2001
Pomona Island	27º11'S; 15º15'E		RA	191	2001/2002
Plumpudding Island	27º39'S; 15º31'E		RA	270	2001/2002
Sinclair Island	27º40'S; 15º31'E		RA	116	2001/2002
Devil's Islet	27º40'S; 15º31'E		RA	58	08 Dec. 1978
Namibia Total:				**115109**	
South Africa					
Orange River mouth	28º35'S; 16º25'E	SA030	R	*c.* 250	17 Nov. 1981
Stacks south of Humewood Harbour	28º46'S; 16º34'E			88	19 Nov. 1981

Owen Island	29º16'S; 16º52'E			1	19 Nov. 1981
Matthew Rock	29º17'S; 16º52'E			*c.* 405	21 Nov. 1981
Penguin Rock	29º34'S; 17º00'E			4	21 Nov. 1981
Robeiland	29º34'S; 17º00'E			182	20 Nov. 1981
Stack south of Cliff Point	31º36'S; 18º08'E			124	08 Mar. 1980
Elephant Rock	31º38'S; 18º08'E			51	16 Oct. 1992
Strandfontein	31º45'S; 18º13'E			4	27 Dec. 1980
Bird Island, Lambert's Bay	32º05'S; 18º18'E	SA100	P	*c.* 3000	2000/2001
Paternoster Rocks	32º44'S; 17º53'E		RA	307	27 Oct. 2000
Steenbras Rock	32º45'S; 17º53'E			25	29 Sep. 1981
Cape Columbine Rocks	32º49'S; 17º51'E			18	02 Jan. 1981
Hospital Rock	32º57'S; 17º52'E			6	22 Aug. 1983
Malgas Island	33º03'S; 17º55'E	SA105	N, R	8708	27 Nov. 1978
Marcus Island	33º03'S; 17º58'E	SA105	N, R	5	31 Dec. 1981
Meeuw Island	33º20'S; 18º09'E	SA105	N, R	1406	25 Oct. 2001
Jutten Island	33º05'S; 17º57'E	SA105	N, R	24 277	27 Nov. 1978
Schaapen Island	33º06'S; 18º01'E	SA105	N, R	207	18 Jul. 1979
Vondeling Island	33º09'S; 17º59'E		P	7890	27 Nov. 1978
Dassen Island	33º25'S; 18º05'E	SA109	P	9629	20 Dec. 2001
St Croix Island	33º47'S; 25º46'E	SA095	P	208	27 Oct. 1980
Brenton Rock	33º49'S; 25º46'E	SA095	P	*c.* 80	15 Nov. 1980
Jahleel Island	33º48'S; 25º43'E	SA095	P	14	30 May. 2000
Seal Island, Algoa Bay	33º50'S; 26º17'E	SA095	P	44	09 Nov. 1977
Bird Island, Algoa Bay	33º51'S; 26º17'E	SA095	P	< 20	12 Aug. 1997
Flora Bay	34º03'S; 18º21'E		N	28	14 Jul. 1981
Strandfontein Sewage Works	34º05'S; 18º31'E			671	23 Nov. 1982
Seal Island, False Bay	34º08'S; 18º35'E			*c.* 200	22 Oct. 2001
Batsata Cove	34º16'S; 18º28'E		N	9	07 Jun. 1981
Dyer Island	34º41'S; 19º25'E	SA120	P	35 580	22 Nov. 1978
Die Dam	34º42'S; 20º10'E			50	28 Feb. 1985
No. 12 Stacks	34º12'S; 23º55'E		N	75	30 Oct. 1980
Cape Point	34º21'S; 18º30'E		N	643	30 Jan. 1981
Stony Point	34º22'S; 18º54'E		LA	111	20 Jun. 2001
South Africa Total:				**94209**	
Overall Total:				**215521**	

2.3 Habitat

Marine (coastal waters) and terrestrial (breeding islands); occasionally found in brackish estuaries, coastal lagoons and sewage works. Cape Cormorants breed in close proximity to the sea in dense colonies on offshore islands, rocks, cliffs or artificial platforms and jetties. They occasionally nest on breakwaters, ruined buildings and moored boats and in estuarine wetlands and coastal sewage works. Shallow nests are constructed with sticks and seaweed. They feed on various fish, including Pelagic Goby *Sufflogobius bibarbatus*, Cape Anchovy, Sardine *Sardinops sagax* and Cape Horse Mackerel *Trachurus trachurus*, generally within 10-15 km of the shoreline.

2.4 Migrations and movements

Ring recoveries of Cape Cormorants show extensive long-distance movements, including across international boundaries along the west coast of Africa as far as Lobito (Angola), and to Delagoa Bay (Mozambique) on the east coast, mainly between July and November. Vagrants have been recorded as far north as Gabon. On the east coast they follow shoals of Sardine that migrate along the KwaZulu-Natal coast (South Africa), occasionally erupting into southern Mozambique.
Cape Cormorants occur at international boundaries: they roost at the Cunene River Mouth (the boundary between Angola and Namibia), and have been recorded breeding at the Orange River Mouth (between Namibia and South Africa).

3. Threat data

3.1 Direct threats

Breeding failure through abandonment of breeding colonies, and mass mortality, result from periodic scarcity of food fish, especially Anchovy. Disease has caused major mortality: avian cholera *Pasteurella multocida* resulted in the mortality of over 14 500 adult Cape Cormorants in 1991. These birds are vulnerable to oiling and are difficult to catch and clean. Discarded fishing gear and marine debris are a potential threat.

Predation by South African Kelp Gulls *Larus [dominicanus] vetula* on eggs and chicks contributes to population declines; this is exacerbated by human disturbance and the increase in Kelp Gull numbers through human provision of additional food for the gulls. Cape Fur Seals *Arctocephalus pusillus* take both adults and fledglings as prey, while Great White Pelicans *Pelecanus onocrotalus* prey on eggs and nestlings.

3.2 Habitat destruction

The commercial collection of guano, which ceased during the 1990s at all islands except Ichaboe, Namibia, has caused habitat degradation. At Ichaboe Island, Namibia, rainwater accumulates and floods nests in areas that have become basin-shaped after removal of guano. However, Cape Cormorants have also benefited from the guano industry, and nest in large numbers on specially constructed guano platforms in Namibia They have increased the range and extent of suitable breeding areas.

3.3 Indirect threats

Cape Cormorants are affected by competition with commercial fisheries for small pelagic fish such as Anchovy; mass nest desertion is ascribed to a scarcity of food. They are susceptible to human disturbance. Especially in the early stages of breeding, disturbance may cause these birds to desert their nests, leaving eggs and small chicks prone to increased predation by Kelp Gulls.
The causeways to Bird Island (Lambert's Bay) and Marcus Island, South Africa, provide access to mammalian predators such as dogs, cats and rats. Tourism further increases the threat from human disturbance. Some breeding birds on

small rocks are disturbed by recreational fishers, scuba divers and especially summer tourists.
Displacement from breeding sites by Cape Fur Seals has historically caused a loss of breeding habitat; this remains a potential threat.

3.4 Threats connected especially with migrations

At-sea mortality factors such as oiling, and mortality resulting from commercial fishing activities, including entanglement in marine debris and fishing gear.

3.5 National and international utilization

Guano is collected commercially from Ichaboe Island, Namibia; the island was last scraped in 2000.
Eco-tourism is conducted at Bird Island (Lambert's Bay).

4. Protection status and needs

4.1 National protection status

The Red Data Book of birds of South Africa, Lesotho and Swaziland (2000) lists the Cape Cormorant as Near Threatened. The species is protected in terms of South Africa's Sea Birds and Seals Protection Act No. 46 of 1973. Most South African islands are legally protected as nature reserve or national parks.
The Ministry of Fisheries and Marine Resources administers the Namibian breeding islands, none of which is legally protected as a nature reserves or national park. However, some mainland sites in Namibia are thus protected (Table 8).
The major breeding colonies in South Africa and Namibia are Important Bird Areas (IBAs); some are national parks, nature reserves or are otherwise protected, where landing is restricted. However, many of the smaller breeding colonies are neither reserves nor within the IBA network (Table 8).
Three Namibian breeding islands have a resident caretaker ensuring protection of the birds. Landing on all six islands is prohibited without a permit.

4.2 International protection status

The Cape Cormorant is classified as Lower Risk/Near-threatened in the (2000) BirdLife International/IUCN Red List. At the Conservation Assessment and Management Plan Workshop for Southern African Coastal Seabirds, held in February 2002, the Cape Cormorant was recommended for classification as Least Concern according to the IUCN Red List Categories and Criteria, Version 3.1.

4.3 Additional protection needs

Inclusion in Annex 2 of the Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA).

Management plans for islands, including Nature Reserve status for, and Marine Protected Areas around, all breeding islands. Such plans should deal with issues such as eradication of exotic predators and zonation to limit public access to important breeding sites.

Control of disturbance of colonies on small offshore rocks accessible to the public, *inter alia* with suitable signage and through education.

Development and implementation of a sustainable, co-ordinated fisheries plan for the Benguela Upwelling Region, and legislative measures to prevent oil spills from illegal cleaning of ship tanks.

Contingency plan for oil spills along the Namibian and South African coasts.

Coverage of seabirds in better detail in Acts for Namibia; improvements to the Sea Birds and Seals Protection Act No. 46 of 1973 in South Africa; incorporation of seabirds in the Marine Living Resources Act. Formal; increased protection for the Namibian offshore islands.

Increased public awareness of the conservation issues affecting this species.

5. Range states[a]

Angola (B), Congo (V), Gabon (V), Mozambique (M), **Namibia (B)**, **South Africa (B)**, Zaire (V)

[a] **B** = breeding range; M = occurs as a non-breeding migrant; V = recorded as vagrant/straggler

6. Additional remarks

A co-ordinated census of breeding Cape Cormorants at all colonies is necessary to obtain an accurate population estimate. Internationally co-ordinated proactive conservation efforts will improve the species' conservation status.

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Bank Cormorant

PROPOSAL: Listing of the **Bank Cormorant *Phalacrocorax neglectus*** (global population) in the African-Eurasian Waterbird Agreement, Annex 2 (species list).

SUPPORTING STATEMENT

1. Taxon

1.1	Class	Aves	
1.2	Order	Pelecaniformes	
1.3	Family	Phalacrocoracidae	
1.4	Genus & Species	*Phalacrocorax neglectus* (Wahlberg, 1855)	
1.5	Common names	English:	Bank Cormorant
		French:	Cormoran des Bancs
		Spanish:	unknown
		Afrikaans:	Bankduiker

2. Biological data

2.1 Distribution

The Bank Cormorant is an endemic marine species of southern Africa, recorded breeding at 53 localities between Hollamsbird Island, Namibia, and Quoin Rock, South Africa (Table 9). The non-breeding range extends from Hoanibmond, northern Namibia (19º27'S; 12º44'E), to Die Walle, Western Cape Province, South Africa (34º47'S; 19º55'E). The species seldom occurs farther than 10 km from land. Its distribution broadly reflects that of kelp *Ecklonia maxima* beds.

The historical distribution differs from present: eight former breeding colonies have been vacated in recent years.

2.2 Population

Between 1978-1980, the global population of Bank Cormorants totalled at least 8672 breeding pairs; this number decreased to 4888 (1153 in South Africa and 3735 in Namibia) between 1995-1997. The populations at Mercury and Ichaboe Islands, Namibia, which supported 71% of the global population in 1980, suffered the greatest losses during this period. Most recent censuses give an overall of 3132 breeding pairs (Table 9), signifying a further reduction in the overall population size.

The overall Bank Cormorant population has declined by 46% over 2.3 generations (17 years), which is equivalent to 60% in the three most recent generations.

Table 9. Breeding distribution and numbers of occupied nest sites of the Bank Cormorant *Phalacrocorax neglectus*. IBA = Important Bird Area, P = Provincial Nature Reserve, N = National Park, WH = World Heritage Site; R = Ramsar site; LA = Local Authority; RA = restricted access. Counts of zero indicate localities where the species previously bred.

Locality	Coordinates	IBA	Protection status	Number of nest sites	Date
Namibia					
Hollamsbird Island	24º38'S; 14º32'E		RA	19	20 Dec. 1996
Oyster Cliffs	25º20'S; 14º49'E		N	*20*	Feb. 2002
Mercury Island	25º43'S; 14º50'E	N017	RA	1172	2000/2001
Hottentot Bay jetty	26º08'S; 14º57'E		RA	22	Mar. 2001
Neglectus Island	26º08'S; 14º57'E		RA	41	2000/2001
Ichaboe Island	26º17'S; 14º56'E	N018	RA	631	2000/2001
Little Ichaboe Island	26º17'S; 14º56'E		RA	0	Dec. 2001
Dagger Rock	26º32'S; 15º08'E		RA	50	10 Jan. 1996
Seal Island	26º36'S; 15º09'E	N019	RA	42	1999/2000
Penguin Island	26º37'S; 15º09'E	N019	RA	60	2000/2001
Long Islands	26º49'S; 15º07'E		RA	36	4 Dec. 1995
Ladys Rocks	26º52'S; 15º09'E		RA	9	2000/2001
Elizabeth Bay jetty	26º55'S; 15º12'E		RA	0	30 Apr. 1997
North Reef	27º00'S; 15º11'E		RA	12	2000/2001
Possession Island	27º01'S; 15º12'E	N020	RA	5	2000/2001
Albatross Rocks	27º07'S; 15º14'E		RA	25	2000/2001
Pomona Island	27º12'S; 15º16'E		RA	0	2000/2001
Plumpudding Island	27º39'S; 15º31'E		RA	8	2000/2001
Sinclair Island	27º40'S; 15º31'E		RA	9	2000/2001
Namibia Total:				**2161**	
South Africa					
Boegoeberg Stack	28º46'S; 16º34'E			28	6 Aug. 1996
Robbe Island	29º15'S; 16º52'E			30	7 Aug. 1996
Matthew Rock	29º17'S; 16º52'E			47	7 Aug. 1996
Robeiland	29º34'S; 17º00'E			33	8 Aug. 1996
Penguin Rock	29º34'S; 17º00'E			0	8 Aug. 1996
Bird Island, Lambert's Bay	32º05'S; 18º18'E	SA100	P	4	27 Oct. 1996
Stompneus Bay Rock	32º43'S; 17º59'E			24	6 Jul. 1996
Paternoster Rocks	32º44'S; 17º53'E		RA	168	23 Sep. 1996
Cape Columbine Rocks	32º49'S; 17º51'E			57	23 Sep. 1996
Voëleiland, Noordwesbaai	32º53'S; 17º52'E			49	23 Sep. 1996
Hospital Rock	32º57'S; 17º52'E			24	15 Sep. 1996
Jacob's Reef	32º58'S; 17º52'E			5	15 Sep. 1996
Malgas Island	33º03'S; 17º55'E	SA105	N,R	20	2001
Marcus Island	33º03'S; 17º58'E	SA105	N,R	29	2001
Jutten Island	33º05'S; 17º57'E	SA105	N,R	16	2001
Schaapen Island	33º06'S; 18º01'E	SA105	N	0	2001
Vondeling Island	33º09'S; 17º59'E		P	27	2001
Ysterklip (Meeurots)	33º20'S; 18º09'E	SA105		11	28 Jan. 2002
Dassen Island	33º25'S; 18º05'E	SA109	P	31	1999
Koeberg Harbour	33º40'S; 18º26'E			10	21 Nov. 1996

Voëlsteen	33º48'S; 18º27'E			30	23 Sep. 1996
Robben Island	33º48'S; 18º22'E	SA110	WH	27	1999
Clifton Rocks	33º56'S; 18º22'E			109	23 Sep. 1996
Bakoven Rocks	33º57'S; 18º22'E			0	23 Sep. 1996
Duikerklip	34º04'S; 18º20'E		RA	29	23 Sep. 1996
Partridge Point Rocks	34º16'S; 18º28'E			27	9 Apr. 1997
Seal Island, False Bay	34º08'S; 18º35'E		P	13	23 Sep. 1996
Hangklip Rock	34º23'S; 18º50'E			9	23 Sep. 1996
Masbaai Rock	34º23'S; 18º51'E			26	23 Sep. 1996
Stony Point	34º22'S; 18º54'E		LA	7	16 Aug. 1996
Seal Rock	34º37'S; 19º24'E			0	16 Aug. 1996
Dyer Island	34º41'S; 19º25'E	SA120	P	41	2001
Geyser Island	34º42'S; 19º25'E	SA120	P	9	2001
Voëleiland, Buffeljags	34º45'S; 19º36'E			0	16 Aug. 1996
Quoin Rock	34º47'S; 19º40'E		RA	31	23 Sep. 1996
South Africa Total:				**971**	
Overall Total:				**3132**	

2.3 Habitat

Marine (coastal waters) and terrestrial (breeding islands). Bank Cormorants breed in close proximity to the sea, constructing nests of seaweed on raised rocks, harbour walls, jetties and guano platforms. They feed on various fish, crustaceans and cephalopods, including Pelagic Goby *Sufflogobius bibarbatus* and Cape Rock Lobster *Jasus lalandii*. Their feeding is mainly benthic amongst kelp beds but also over shingle and coarse sand substrata, with goby taken in mid-water.

2.4 Migration and movements

Band recoveries indicate that fledgling Bank Cormorants disperse up to at least 459 km from their breeding colonies. Adults are more sedentary, dispersing up to 150 km.

The most northerly South African breeding colony (Boegoeberg Stack) is 18 km south of the international boundary at the Orange River, and the most southerly Namibian colony is 150 km from the boundary. These colonies have not been regularly monitored and not many birds have been banded at these localities. Although no band recoveries exist for Bank Cormorants crossing the international boundary, breeding colonies close to the international boundary are within the dispersal distance of juveniles and adults, and Bank Cormorants have been observed at the Orange River Mouth. Movements across the international boundary between Namibia and South Africa are therefore strongly suspected, though not yet proven.

3. Threat data

3.1 Direct threats

Substantial population decreases are suspected to be food-related. Therefore, the main threat is scarcity of prey. If Pelagic Goby become commercially exploited in Namibian waters, further declines are expected in the Bank Cormorant populations at Ichaboe and Mercury Islands. In the southern part of the range, a decline in Rock Lobster numbers could impact on the species. Bank Cormorants may drown in Rock Lobster traps.

Predation by southern African Kelp Gulls *Larus [dominicanus] vetula* and Great White Pelicans *Pelecanus onocrotalus* on eggs and chicks contributes to population declines. This may be exacerbated by human disturbance, which resulted in the loss of four colonies and reductions in the populations of six others between 1978 and 1997. Furthermore, predation may have increased in areas where Kelp Gull numbers have grown through human provision of additional food.

Nests are often lost to rough seas. Cape Fur Seals *Arctocephalus pusillus* take both adults and fledglings as prey. Bank Cormorants are also vulnerable to oiling; 25% of the population at Robben Island was lost during the *Treasure* oil spill in 2000. If a large oil spill occurs in the vicinity of Mercury and Ichaboe Islands, the species may be reduced to very low numbers.

3.2 Habitat destruction

Bank Cormorants have benefited by some human activities, as they breed on guano platforms, disused jetties and the harbour wall at Robben Island.

The commercial collection of guano, which had ceased by the 1990s at all islands except Ichaboe, results in habitat degradation if it occurs in areas where these birds breed.

Building activities (including harbour development) in the vicinity of nesting areas disturb and displace birds by rendering the area unsuitable for nesting purposes. This happened at Bird Island (Lambert's Bay, South Africa) in the mid-1970s, where landfill from dredging caused breeding to stop for a year until the colony relocated.

Competition with Cape Fur Seals for breeding space has led to a loss of breeding habitat at some sites.

3.3 Indirect threats

Bank Cormorants compete with seals for space at several breeding colonies. Seals displaced 1 824 pairs of Bank Cormorants from Mercury Island between 1978 and 1997 and occur at a further 16 breeding localities.

Disturbance by humans causes Bank Cormorants to desert their nests, leaving eggs and small chicks prone to predation by Kelp Gulls. The species may also be susceptible to disturbance by recreational fishers on offshore rocks.

The causeway to Bird Island (Lambert's Bay) provided access to mammalian predators such as dogs, cats and rats, and tourism increased the threat from human disturbance at this locality. This colony is now extinct.

3.4 Threats connected especially with migrations

At-sea mortality factors include oiling (especially affecting the southern subpopulation), and mortality resulting from commercial fishing activities,

including entanglement in marine debris and fishing gear.

3.5 National and international utilization

Guano is collected commercially from Ichaboe Island, Namibia; the island was last scraped in 2000.
Eco-tourism is proposed for Dassen and Dyer Islands, South Africa.

4. Protection status and needs

4.1 National protection status

The Red Data Book of birds of South Africa, Lesotho and Swaziland (2000) lists the Bank Cormorant in the category of Vulnerable. It is protected in terms of South Africa's Sea Birds and Seals Protection Act No. 46 of 1973. The Ministry of Fisheries and Marine Resources administers the Namibian colonies.
The major breeding colonies in South Africa and Namibia are Important Bird Areas (IBAs); some are national parks, nature reserves or otherwise protected, with restricted access. However, many of the smaller breeding colonies are neither reserves nor within the IBA network (Table 1). Only eleven (24.4%) of the 45 extant breeding colonies have nature reserve status.
The Namibian breeding islands each have a resident caretaker ensuring protection of the birds. Landing on all six islands is prohibited without a permit.

4.2 International protection status

The Bank Cormorant is classified as Vulnerable in the most recent (2000) BirdLife International / IUCN Red List; severe food shortages, human disturbance and displacement by seals have together resulted in a rapid decline in its small population. At the Conservation Assessment and Management Plan Workshop for Southern African Coastal Seabirds held in February 2002, the Bank Cormorant was recommended as Endangered according to the IUCN Red List Categories and Criteria, Version 3.1, due to the direct observation of a greater than 50% population decline over three generations.

4.3 Additional protection needs

Inclusion in Annex 2 of the Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA).
Development and implementation of a sustainable, co-ordinated fisheries management plan for the Benguela Upwelling Region, and legislative measures to prevent oil spills from illegal cleaning of ship tanks.
Contingency plan for oil spills along the Namibian and South African coasts.
Management plans for islands, including Nature Reserve status, and Marine Protected Areas around all breeding islands and rocks. Such plans should deal with issues such as eradication of exotic predators and alien plant control, and zonation to limit public access to important breeding sites.
Continued securing of breeding space against encroachment by seals and investigation the impact of losses to seals at small colonies.

Control of disturbance of colonies on small offshore rocks accessible to the public, *inter alia* with suitable signage and education.
Investigate the possibility of establishing a captive breeding population.
Coverage of seabirds in better detail in Acts for Namibia; improvements to the Sea Birds and Seals Protection Act No. 46 of 1973 in South Africa; incorporation of seabirds into the Marine Living Resources Act.
Formal, increased protection for the Namibian offshore islands.
Increased public awareness of the conservation issues affecting this species.
A Population Habitat and Viability Assessment (PHVA) is recommended.

5. Range states[a]

Namibia (B), South Africa (B)

[a] **B** = breeding range

6. Additional remarks

An increase in colour-banding is needed to elucidate possible movements and migration of Bank Cormorants across the border between Namibia and South Africa.

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Crowned Cormorant

PROPOSAL: Listing of the **Crowned Cormorant *Phalacrocorax coronatus*** (entire population) in the African-Eurasian Waterbird Agreement, Annex 2 (species list).

SUPPORTING STATEMENT

1. Taxon

1.1	Class	Aves	
1.2	Order	Pelecaniformes	
1.3	Family	Phalacrocoracidae	
1.4	Genus & Species	*Phalacrocorax coronatus* (Wahlberg, 1855)	
1.5	Common names:	English:	Crowned Cormorant
		French:	Cormoran Couronné
		Spanish:	Cormorán Coronado
		German:	Kronenscharbe
		Afrikaans:	Kuifkopduiker

2. Biological data

2.1 Distribution

The Crowned Cormorant is endemic to Namibia and South Africa, and breeds at 46 localities between the Bird Rock Guano Platform (22º53'S; 14º32'E), Namibia, and Quoin Rock (34º47'S; 19º40'E), South Africa (Table 10). The non-breeding range extends from Swakopmund (22º42'S; 14º32'E), Namibia, to Holkom Meester se Baai (34º23'S; 21º49'E), South Africa. They generally occur no more than 10 km offshore and frequent only one non-marine habitat, Strandfontein Sewage Works, 100 m from the sea. Crowned Cormorants are occasionally found in estuaries. The known historical distribution does not differ from the present.

2.2 Population

The global population of Crowned Cormorants between 1977-1981 was estimated at 2665 breeding pairs, of which 977 were in Namibia and 1688 in South Africa.
The colonies in the Northern Cape may have decreased by *c.* 250 pairs since then, though overall the population is believed to be stable. Most recent censuses give an overall of 2922 breeding pairs (Table 10).

Table 10. Breeding distribution and numbers of occupied nest sites of the Crowned Cormorant *Phalacrocorax coronatus.* IBA = Important Bird Area, P = Provincial Nature Reserve, N = National Park, WH = World Heritage Site, R = Ramsar site, RA = restricted access, LA = Local Authority

Locality	Co-ordinates	IBA	Protection Status	Nest sites / breeding pairs	Date
Namibia					
Bird Rock	22º53'S; 14º32'E		RA	98	24 Jan. 2000
Oyster Cliffs	25º20'S; 14º49'E		N	*18*	Feb. 2002
Mercury Island	25º43'S; 14º50'E	N017	RA	34	2000/2001
Ichaboe Island	26º17'S; 14º56'E	N018	RA	279	2000/2001
Seal Island	26º36'S; 15º09'E	N019	RA	118	2001/2002
Penguin Island	26º37'S; 15º09'E	N019	RA	26	2001/2002
Shark Island	26º39'S; 15º09'E			30	20 Jan. 2000
Halifax Island	26º37'S; 15º04'E	N019	RA	94	2001/2002
Wolf Bay	26º49'S; 15º07'E	N021	RA	84	20 Jan. 2000
Long Islands	26º49'S; 15º07'E		RA	16	1995/1996
Atlas Bay	26º50'S; 15º08'E	N021	RA	51	20 Jan. 2000
North Reef Rock	27º00'S; 15º11'E		RA	3	2000/2001
Possession Island	27º01'S; 15º12'E	N020	RA	173	2000/2001
Albatross Rock	27º07'S; 15º14'E		RA	15	2000/2001
Pomona Island	27º12'S; 15º16'E		RA	13	2001/2002
Plumpudding Island	27º39'S; 15º31'E		RA	13	2001/2002
Sinclair Island group	27º40'S; 15º31'E		RA	7	2001/2002
Namibia Total:				**1072**	
South Africa					
Owen Island	29º16'S; 16º52'E			15	19 Nov. 1981
Robbe Island	29º15'S; 16º52'E			116	16 Jan. 1980
Matthew Rock	29º17'S; 16º52'E			162	7 Aug. 1996
Robeiland/Kleinzee	29º34'S; 17º00'E			162	265 Jan. 1996
Elephant Rock	31º38'S; 18º08'E			13	16 Oct. 1992
Bird Island, Lambert's Bay	32º05'S; 18º18'E	SA100	P	13	2001
Paternoster Rocks	32º44'S; 17º53'E		RA	18	27 Oct. 2000
Steenbrasbaai Rocks	32º45'S; 17º53'E			19	1 Jul. 1981
Cape Columbine Rock	32º49'S; 17º51'E			11	2 Jan. 1981
Malgas Island	33º03'S; 17º55'E	SA105	N, R	117	2001
Marcus Island	33º03'S; 17º58'E	SA105	N, R	17	2001
Jutten Island	33º05'S; 17º57'E	SA105	N, R	47	2001
Meeuw Island	32º02'S; 18º09'E	SA105	N, R	245	25 Nov. 2001
Schaapen Island	33º06'S; 18º01'E	SA105	N, R	43	2001
Vondeling Island	33º09'S; 17º59'E		P	15	2001
Caspian Islet	33º11'S; 18º06'E	SA105	N, R	12	4 Dec. 2001
Dassen Island	33º25'S; 18º05'E	SA109	P	178	2001
Koeberg	33º40'S; 18º25'E			26	5 May. 1997
Robben Island	33º48'S; 18º22'E	SA110	WH	87	1999
Seal Island, False Bay	34º08'S; 18º35'E			1	22 Oct. 2001
Stony Point	34º22'S; 18º54'E		LA	10	5 Nov. 1999
Cape Hangklip Rock	34º23'S; 18º50'E			6	Sep. 1997
Masbaai Rock	34º23'S; 18º51'E			6	27 Jul. 1980
Preekstoel	34º29'S; 20º31'E			2	27 Jul. 1980

Seal Rock Group				27	17 Dec. 1977
Dyer Island	34º41'S; 19º25'E	SA120	P	195	2001
Geyser Island	34º42'S; 19º25'E	SA120	P	238	26 Sep. 1978
Aasfontein	34º46'S; 19º50'E			35	8 Jan. 1981
Quoin rock	34º47'S; 19º40'E			14	8 Mar. 1993
South Africa Total:				**1850**	
Overall Total:				**2922**	

2.3 Habitat

Marine (coastal waters) and terrestrial (breeding islands), occasionally in estuaries and sewage works up to 500 m from the sea. Crowned Cormorants breed in groups of up to 150, often in association with larger seabirds or even Cape Fur Seals *Arctocephalus pusillus*. They utilize a variety of habitats for nesting, including supports for marine platforms, stone walls, washed-up lobster traps, kelp wracks, jetties, wrecked ships, rocks, cliffs, stacks, caves, gullies, ledges, trees, bushes or the ground. Nests are constructed from kelp, sticks, bones and debris, and lined with finer material such as algae. Crowned Cormorants forage in shallow coastal waters, often among kelp beds, and feed on slow-moving benthic fish and invertebrates.

2.4 Migrations and movements

Crowned Cormorants are known to move between breeding sites; ring recoveries show movements of up to 562 km. They have been recorded at the Orange River mouth, which forms the international boundary between Namibia and South Africa. Seven out of 17 ring recoveries occurred at distances in excess of 100 km from the ringing site (breeding colony). Ringed juveniles have moved up to 277 km from their nests.

3. Threat data

3.1 Direct threats

The incorporation of plastics and fishing gear in nests may lead to both adult and chick mortality.

South African Kelp Gulls *Larus [dominicanus] vetula* prey on eggs and chicks and Great White Pelicans *Pelecanus onocrotalus* take eggs, chicks and adults at Dassen Island, South Africa. Adults are killed by Cape Fur Seals *Arctocephalus pusillus* at Malgas Island, South Africa and Ichaboe Island, Namibia.
Crowned Cormorants are vulnerable to oiling. Nests are often lost to rough seas.

3.2 Habitat destruction

Crowned Cormorants nest on disused artificial structures such as jetties, marine platforms, stonewalls and shipwrecks; these (especially wrecks) eventually break up and become unsuitable for breeding. The removal of trees (such as alien

plant control at Robben Island, South Africa) and suitable nesting structures may result in a decrease in the breeding population.

3.3 Indirect threats

The predation of eggs and chicks by Kelp Gulls is exacerbated by human disturbance (e.g. holiday-makers in the Northern Cape, South Africa, recreational fishers on offshore rocks and guano scraping) and the increase in Kelp Gull numbers through human provision of additional food. On Robben Island, disturbance by helicopters may cause indirect mortality of chicks. Therefore, human disturbance, to which Crowned Cormorants are very susceptible, is a major threat.
The causeways to Bird Island (Lambert's Bay) and Marcus Island (both South African) provide access to mammalian predators such as dogs, cats and rats. Tourism further increases the threat from human disturbance. Some breeding birds on small rocks are disturbed by recreational fishers, scuba divers and especially summer tourists.

3.4 Threats connected especially with migrations

At-sea mortality factors such as oiling, and mortality resulting from commercial fishing activities, including entanglement in marine debris and fishing gear.

3.5 National and international utilization

Guano is collected commercially from Ichaboe Island, Namibia; the island was last scraped in 2000. Eco-tourism is conducted at Bird Island (Lambert's Bay) and Robben Island, and proposed for Dassen Island, South Africa.

4. Protection status and needs

4.1 National protection status

The Red Data Book of birds of South Africa, Lesotho and Swaziland (2000) lists the Crowned Cormorant as Near-threatened due to its small population size. It is dependent on conservation management.
The species is protected in terms of South Africa's Sea Birds and Seals Protection Act No. 46 of 1973. Most South African islands are legally protected as nature reserves or national parks.
The Ministry of Fisheries and Marine Resources administers the Namibian colonies, none of which are legally protected as nature reserves or national parks, though landing is restricted and each island has a resident caretaker ensuring protection of the birds.
The major breeding colonies in South Africa and Namibia are Important Bird Areas (IBAs); some are national parks, nature reserves or otherwise protected, with restricted access. However, many of the smaller breeding colonies are neither reserves, nor within the IBA network (Table 10).

4.2 International protection status

The Crowned Cormorant is classified as Near Threatened in the most recent (2000) BirdLife International / IUCN Red List due to its small population size. At the Conservation Assessment and Management Plan Workshop for Southern African Coastal Seabirds, held in February 2002, the Crowned Cormorant was recommended for classification as Least Concern according to the IUCN Red List Categories and Criteria, Version 3.1, due to stable population numbers.

4.3 Additional protection needs

Inclusion in Annex 2 of the Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA).

Control of disturbance of colonies on small offshore rocks accessible to the public, *inter alia* with suitable signage and education.

Management plans for islands, including Nature Reserve status and Marine Protected Areas around all breeding islands. Such plans would deal with issues such as eradication of exotic predators, alien plant control, and zonation to limit public access to important breeding sites.

Development and implementation of a sustainable, co-ordinated fisheries plan for the Benguela Upwelling Region, and legislative measures to prevent oil spills from illegal cleaning of ship tanks.

Contingency plan for oil spills along the Namibian and South African coasts.

Coverage of seabirds in better detail in Acts for Namibia; improvements to the Sea Birds and Seals Protection Act No. 46 of 1973 in South Africa; incorporation of seabirds to the Marine Living Resources Act. Formal increased protection for the Namibian offshore islands.

Increased public awareness of the conservation issues affecting this species.

5. Range states[a]

Namibia (B), **South Africa (B)**

[a] **B** = breeding range

6. Additional remarks

The movement of Crowned Cormorants between breeding sites may cause sudden declines to go unnoticed. A co-ordinated census of breeding Crowned Cormorants at all colonies is necessary to obtain an accurate population estimate.

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White-breasted Cormorant

PROPOSAL: Listing of the **White-breasted Cormorant *Phalacrocorax carbo lucidus*** (southern African population) in the African-Eurasian Waterbird Agreement, Annex 2 (species list).

SUPPORTING STATEMENT

1. Taxon

1.1	Class	Aves	
1.2	Order	Pelecaniformes	
1.3	Family	Phalacrocoracidae	
1.4	Genus	*Phalacrocorax*	
	Species & Subspecies	*carbo lucidus* (Lichtenstein, 1823)	
1.5	Common names:	English:	White-breasted (Great) Cormorant
		French:	Grand Cormoran
		Spanish:	Cormorán Grande
		Portuguese:	Corvo-marinho-de-peito-branco
		Afrikaans:	Witborsduiker

2. Biological data

2.1 Distribution

The White-breasted Cormorant is found along the entire southern African coastline (here defined as including southern Angola to the northern boundary of the Benguela Upwelling System at 14ºS), usually within 10 km of land, and is common in the mesic eastern and southern parts of the interior. In the arid western interior it occurs along major river systems such as the Cunene and Orange Rivers, and utilizes impoundments and other artificial wetlands. It is poorly represented in the Okavango Basin. The breeding distribution along the southern African coast extends from Ilha dos Tigres (16º45'S; 11º45'E), southern Angola, to at least Inhaca Island (26º00'S; 32º58'E), Mozambique (Table 11).
The historical breeding distribution differs from present: the White-breasted Cormorant no longer breeds at 19 former coastal localities in southern Africa.

2.2 Population

In southern Africa, the coastal breeding population numbered 2524 pairs between northern Namibia and the Eastern Cape Province between 1977-1981, of these 1422 pairs were in Namibia. Most recent censuses of the coastal population give an overall of 3106 breeding pairs (Table 11). No accurate figures are available for the inland populations, but there are probably at least a few thousand pairs.

Table 11. Coastal breeding distribution and numbers of occupied nest sites of the White-breasted Cormorant *Phalacrocorax carbo lucidus.* IBA = Important Bird Area, P = Provincial Nature Reserve, N = West Coast National Park, R = Ramsar Site, RA = restricted access, LA = Local Authority

Locality	Coordinates	IBA	Protection status	Number of nest sites	Date
Angola					
Ilha dos Tigres	16º45'S; 11º45'E			< 300	9 Sep. 2001
Angola Total:				**< 300**	
Namibia					
Cunene River mouth	17º08'S; 11º53'E	N001		8	Aug. 1995
2 km north of Möwe Bay	19º20'S; 12º43'E		N	*c.* 50	28 Jan. 1979
Möwe Bay	19º20'S; 12º43'E		N	43	30 Nov. 1981
Die Oase	19º27'S; 12º49'E			49	30 Nov. 1981
4 km south of Torra Bay	20º21'S; 13º14'E			27	4 Dec. 1978
16 km south of Palgrave Point				20	19 Dec. 1979
Toscanini pylons				27	2 Nov. 1978
Toscanini Decca station				26	2 Feb. 1979
10 km south of Toscanini				82	10 Dec. 1980
Durissa Bay				32	25 Nov. 1981
Cape Cross Lagoon	21º45'S; 13º56'E	N010	RA	68	12 Dec. 1978
Swakopmund Salt Works platform	22º41'S; 14º31'E		RA	115	13 Dec. 1978
Bird Rock platform	22º53'S; 14º31'E		RA	703	28 Nov. 1978
Bird Rock pylons	22º53'S; 14º31'E		RA	51	11 Dec. 1978
Walvis Bay harbour	22º59'S; 14º27'E	N014		11	13 Dec. 1981
Mercury Island	25º43'S; 14º50'E	N017	RA	5	22 Nov. 1978
Hottentot Bay Jetty	26º08'S; 14º57'E		RA	59	15 Jan. 2002
Ichaboe Island	26º17'S; 14º56'E	N018	RA	8	2000/2001
Penguin Island	26º37'S; 15º09'E	N019	RA	74	29 Nov. 1978
Ladys Rocks	26º52'S; 15º09'E		RA	1	24 Jan. 1979
Elizabeth Bay	26º55'S; 15º12'E		RA	3	Dec. 1977
Namibia Total:				**1462**	
South Africa					
Orange River mouth	28º35'S; 16º25'E		R	75	12 Jan. 1980
Matthew Rock	29º17'S; 16º52'E			15	7 Aug. 1996
Humewood Harbour	28º46'S; 16º34'E			17	19 Nov. 1981
Robeiland	29º34'S; 17º00'E			4	25 Jan. 1996
2 km north of Groenrivier				7	19 Jan. 1980
1 km south of Cliff Point	31º36'S; 18º08'E			1	21 Jan. 1980
Bird Island, Lambert's Bay	32º05'S; 18º18'E	SA100	P	20	2001
Berg River mouth	32º43'S; 18º08'E			*c.* 60	15 Nov. 1980
Stompneus Bay rocks	32º43'S; 17º59'E			*c.* 50	2 Jan. 1981
Marcus Island	33º03'S; 17º58'E	SA105	N, R	105	19 Apr. 1981
Jutten Island	33º05'S; 17º57'E	SA105	N, R	132	6 Sep. 1977
Schaapen Island	33º06'S; 18º01'E	SA105	N, R	86	2001
Ysterklip (Meeurots)	33º20'S; 18º09'E	SA105	N, R	48	2000

Dassen Island	33º25'S; 18º05'E	SA109	P	30	4 Apr. 2001
Die Josie				19	14 Jul. 1981
Cape Point	34º21'S; 18º30'E		N	70	20 Aug. 1980
Steenbras Rock	32º45'S; 17º53'E			18	20 Aug. 1980
Seal Island, False Bay	34º08'S; 18º35'E		P	4	22 Oct. 2001
Paardevlei	34º05'S; 18º48'E			9	29 Jan. 1981
Cape Hangklip rocks	34º23'S; 18º50'E			4	2 Apr. 1979
Masbaai rock	34º23'S; 18º51'E			18	27 Jul. 1980
Grootvleie				37	5 Jan. 1981
Seal Rock				7	2 Apr. 1979
Dyer Island	34º41'S; 19º25'E	SA120	P	72	2001
Geyser Island	34º42'S; 19º25'E	SA120	P	13	1 May. 1995
Quoin Rock	34º47'S; 19º40'E		RA	20	8 Mar. 1993
2 km west of Aasfontein	34º46'S; 19º50'E			12	8 Jan. 1981
De Hoop Vlei	34º26'S; 20º29'E		P, R	11	4 Apr. 1981
2 km west of Noetsie	34º05'S; 23º07'E			*c.* 10	11 Jan. 1981
Sterkfontein				*c.* 10	11 Jan. 1981
Uiterstepunt				*c.* 5	11 Jan. 1981
Paalneskop				*c.* 12	14 Jan. 1981
West of Mossel Bay				6	16 Jan. 1981
Western Head, Knysna	34º04'S; 23º02'E			29	3 Apr. 1981
No. 12 stacks	34º12'S; 23º55'E		N	24	30 Oct. 1980
Skilderkrans				7	30 Oct. 1980
Morgan Bay	32º02'S; 29º07'E			*c.* 15	Nov. 1980
Ysterklip (Meeurots)	33º20'S; 18º09'E			9	25 Oct. 2001
St Croix Island	33º47'S; 25º46'E	SA095	P	89	30 May. 2000
Jahleel Island	33º48'S; 25º43'E	SA095	P	*c.* 30	13 Mar. 1979
Seal Island, Algoa Bay	33º50'S; 26º17'E	SA095	P	17	13 Mar. 1990
Stag Island	33º50'S; 26º16'E	SA095	P	12	12 May. 1993
Bird Island, Algoa Bay	33º51'S; 26º17'E	SA095	P	< 20	12 Aug. 1997
Hole-in-the-Wall	34º01'S; 22º45'E			3	Apr. 1980
600 m west of Gericke Point	34º02'S; 22º46'E			44	30 Jan. 1983
Stony Point	34º22'S; 18º54'E		LA	32	6 Jul. 2001
South Africa Total:				**1338**	
Mozambique					
Inhaca Island	26º00'S, 32º58'E			6	Mar. 1996
Mozambique Total:				**6**	
Overall Total:				**3106**	

2.3 Habitat

Aquatic (coastal marine and inland freshwater) and terrestrial (breeding colonies). Along the coast, White-breasted Cormorants occur mainly inshore and often near reefs; they are found at inland streams, rivers, dams and impoundments where there are adequate fish populations. They utilize a variety of habitats for nesting, such as offshore rocks and islands, cliff ledges, trees, bushes, reeds and man-made structures such as disused jetties, marine platforms, shipwrecks and pylons. The majority (56%) of White-breasted Cormorants breeding coastally use artificial structures for nesting. They nest

singly or colonially, sometimes using the same nests year after year. Marine-foraging White-breasted Cormorants feed on bottom-living, mid-water and surface-dwelling prey of little or no commercial importance, such as sparids and flatfish.

2.4 Migrations and movements

White-breasted Cormorants breeding inland in southern Africa are nomadic and breed and move in response to changing water levels. Ring recoveries indicate that some young birds undertake long-range movements of up to 1054 km, including regular crossing of international boundaries. There is an interchange between the inland (freshwater) and coastal (marine) populations in both directions. Ring recoveries have also show movements in excess of 900 km from Barberspan (26º33'S; 25º36'E), South Africa, Gazangula (17º45'S; 25º20'E), Zambia; Bulawayo (19º47'S; 28º56'E), Zimbabwe; and the Orange River mouth (28º35'S; 16º25'E), at the border between Namibia and South Africa. White-breasted Cormorants have been recorded breeding at the Orange River mouth and the Cunene River mouth (the border between Angola and Namibia).

3. Threat data

3.1 Direct threats

Southern African Kelp Gulls *Larus [dominicanus] vetula* prey on exposed eggs and chicks; this is exacerbated by human disturbance (see below) and the increase in Kelp Gull numbers through human provision of additional food for the gulls. White-breasted Cormorants are opportunistically preyed upon by Black-backed Jackals *Canis mesomelas* and Cape Fur Seals *Arctocephalus pusillus*. Avian Cholera *Pasteurella multocida* may kill birds. Discarded fishing line kills adults and juveniles, and deliberate killing by humans occurs inland. Marine individuals are occasionally oiled.

3.2 Habitat destruction

Over half the southern African coastal breeding population of White-breasted Cormorants nests on disused artificial structures; these (especially shipwrecks) may eventually break up and become unsuitable for breeding. Harbour construction activities and the removal of trees and other suitable nesting structures may result in a decrease in the breeding population.

3.3 Indirect threats

The greatest potential threat is human disturbance at breeding sites. White-breasted Cormorants are more susceptible to human disturbance than the other southern African marine cormorants. They leave their nests for extended periods if disturbed, exposing their eggs and chicks to predation by Kelp Gulls. They have been disturbed by guano-scraping activities on Malgas Island, South Africa, in the past, and no longer breed on Robben Island, South Africa, possibly due to disturbance.

The causeways to Bird Island (Lambert's Bay) and Marcus Island (both South African), have provided access to mammalian predators such as dogs, cats and rats. Tourism to Bird Island increases the threat from human disturbance. Some breeding birds on small rocks are disturbed by recreational fishers, scuba divers and especially summer tourists.

3.4 Threats connected especially with migrations

Mortality resulting from fishing activities, including entanglement in discarded fishing line; deliberate killing by humans occurs inland. Disturbance to birds roosting on small rocks accessible to the public.

3.5 National and international utilization

Eco-tourism is conducted at Bird Island (Lambert's Bay), and is proposed for Dassen Island, South Africa.

4. Protection status and needs

4.1 National protection status

The White-breasted Cormorant is not listed as threatened in the Red Data Book of birds of South Africa, Lesotho and Swaziland (2000).
The species is protected in terms of South Africa's Sea Birds and Seals Protection Act No. 46 of 1973. Most South African islands are legally protected as nature reserves or national parks.
The Ministry of Fisheries and Marine Resources administers the Namibian colonies, none of which is legally protected as a nature reserve or national park, though access is restricted.
The major coastal breeding colonies in South Africa and Namibia are Important Bird Areas (IBAs). However, many of the smaller coastal breeding colonies are neither reserves nor within the IBA network (Table 11). These are accessible to the public and human disturbance is not controlled. This applies to many inland breeding colonies as well.

4.2 International protection status

At the Conservation Assessment and Management Plan Workshop for Southern African Coastal Seabirds, held in February 2002, the White-breasted Cormorant was recommended for classification as Least Concern according to the IUCN Red List Categories and Criteria, Version 3.1.

4.3 Additional protection needs

Inclusion in Annex 2 of the Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA).
Management plans for islands, including Nature Reserve status and Marine Protected Areas around all breeding islands.

Control of disturbance of colonies on small offshore rocks accessible to the public, *inter alia* with suitable signage and education.

Development and implementation of a sustainable, co-ordinated fisheries plan for the Benguela Upwelling Region, and legislative measures to prevent oil spills from illegal cleaning of ship tanks.

Protection of inland breeding colonies from human disturbance.

Coverage of seabirds in better detail in Acts for Namibia; improvements to the Sea Birds and Seals Protection Act No. 46 of 1973 in South Africa; incorporation of seabirds into the Marine Living Resources Act.

5. Range states[a]

Angola (B), **Botswana (B)**, Lesotho (M), **Mozambique (B)**, **Namibia (B)**, **South Africa (B)**, Swaziland (M), **Zimbabwe (B)**

[a] **B** = breeding range; M = occurs as a non-breeding migrant

6. Additional remarks

A co-ordinated census of breeding White-breasted Cormorants at all southern African colonies, both coastal and inland, is needed to obtain an accurate population estimate for the region.

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Southern African Kelp Gull

PROPOSAL: Listing of the **Southern African Kelp Gull *Larus [dominicanus] vetula*** (global population) in the African-Eurasian Waterbird Agreement, Annex 2 (species list).

SUPPORTING STATEMENT

1. Taxon

1.1	Class	Aves	
1.2	Order	Charadriiformes	
1.3	Family	Laridae	
1.4	Genus	*Larus*	
	Species & subspecies	*[dominicanus] vetula* (Bruch, 1853)	
1.5	Common names:	English:	Kelp Gull; Southern Blackbacked Gull
		French:	Goéland Dominicain
		Spanish:	Gaviota Dominicana
		Afrikaans:	Swartrugmeeu

2. Biological data

2.1 Distribution

The Kelp Gull is widely distributed in the Southern Hemisphere and currently classified as two subspecies. The nominate race occurs in South America, the Southern Ocean islands, the Antarctic Peninsula and New Zealand, and has recently colonized Australia. The subspecies *vetula* is endemic to southern Africa (here defined to include southern Angola as far the northern boundary of the Benguela Upwelling System at 14ºS). A recent DNA study of selected gull taxa suggested that the two subspecies of the Kelp Gull should be afforded species status.

Breeding has been recorded at 63 colonies between Ilha dos Tigres (16º45'S; 11º45'E), Angola, and Stony Point (34º22'S; 18º54'E), South Africa. It occurs mainly on the west and south coasts, but non-breeding birds range as far as Luanda, Angola, on the west coast, and Maputo, Mozambique, on the east coast. Kelp Gulls have regularly been recorded inland in the Eastern and Western Cape Provinces, South Africa, at abattoirs, carcasses of livestock and rubbish dumps, as well as at waterbodies, including sewage works.

2.2 Population

The global population of the nominate subspecies exceeds one million birds. Between 1976-1981, the population of the subspecies of Kelp Gulls *vetula* in southern Africa was estimated at 18 000 breeding pairs in 2001, of which *c.* 9000 pairs bred in South Africa. Most recent census indicate a total of 22 999 breeding pairs (Table 12).

Table 12. Breeding distribution and numbers of breeding pairs of the southern African Kelp Gull *Larus [dominicanus] vetula*. IBA = Important Bird Area, N = National Park, P = Provincial Nature Reserve, R = Ramsar Site, WH = World Heritage Site, LA = Local Authority, RA = restricted access (adapted from Crawford *et al.* 1982)

Locality	Coordinates	IBA	Protection status	Number of breeding pairs	Date
Angola					
Ilha dos Tigres	16º45'S; 11º45'E			> 500	Feb. 2001
Angola Total:				**> 500**	
Namibia					
Cape Fria	18º26'S; 12º00'E			1	Nov. 1982 - Jan. 1983
Die Oase	19º27'S; 12º49'E			3	Dec. 1982 - Jan. 1983
Torra Bay	20º10'S; 13º10'E		N	1	Oct. 1982
Sandwich Harbour	23º20'S; 14º30'E	N015	N, R	*c.* 50	21-23 Jan. 2002
Cape Cross guano platforms	21º45'S; 13º56'E		RA	133	Nov. to Dec. 1978
Swakopmund Salt Works and guano platform	22º41'S; 14º31'E		RA	328	13 Dec. 1978
Walvis Bay Salt Works	22º59'S; 14º27'E	N014	RA,R	15	14 Dec. 1978
Ichaboe Island	26º17'S; 14º56'E	N018	RA	88	2001/2002
Seal Island, Lüderitz	26º36'S; 15º09'E	N019	RA	504	2001/2002
Penguin Island	26º37'S; 15º09'E	N019	RA	957	2001/2002
Halifax Island	26º37'S; 15º04'E	N019	RA	242	2001/2002
Lady's Rocks	26º52'S; 15º09'E		RA	2	24 Jan. 1979
North Reef Rock	27º00'S; 15º11'E		RA	23	1 Dec. 1978
Possession Island	27º01'S; 15º12'E	N020	RA	1422	2001/2002
Pomona Island	27º11'S; 15º15'E		RA	86	2001/2002
Square Point			RA	11	8 Dec. 1978
Southern Van Reenen Bay	27º23'S; 15º20'E	N021	RA	1	30 Jan. 1980
Bogenfels		N021	RA	7	8 Dec. 1978
Plumpudding Island	27º39'S; 15º31'E		RA	33	2001/2002
Sinclair Island	27º40'S; 15º31'E		RA	10	2001/2002
Namibia Total:				**3917**	
South Africa					
Orange River mouth	28º35'S; 16º25'E	SA030	R	150	Dec. 1976
Bird Island, Lambert's Bay	32º05'S; 18º18'E	SA100	P	110	2001
Cape Columbine	32º49'S; 17º51'E			2	Jan. 1981
Malgas Island	33º03'S; 17º55'E	SA105	N, R	71	2001
Jutten Island	33º05'S; 17º57'E	SA105	N, R	1960	2001
Meeuw Island	33º20'S; 18º09'E	SA105	N, R	2200	2001
Schaapen Island	33º06'S; 18º01'E	SA105	N, R	6225	2001
Vondeling Island	33º09'S; 17º59'E			114	2001
Caspian Islet	33º11'S; 18º06'E	SA105	N, R	95	2001
Die Skeiding, Yzerfontein	33º22'S; 18º09'E			3	14 Feb. 1981
Dassen Island	33º25'S; 18º05'E	SA109	P	5088	2001
Robben Island	33º48'S; 18º22'E	SA110	WH	15	Nov 2001
Rondevlei Bird Sanctuary	34º04'S; 18º30'E		LA	1	16 Nov. 2001

Strandfontein Sewage Works	34º05'S; 18º31'E			36	10 Nov. 1978
Swartklip	34º04'S; 18º41'E			249	10 Nov. 1978
Dyer Island	34º41'S; 19º25'E	SA120	P	283	2001
Geyser Island	34º42'S; 19º25'E	SA120	P	29	13 Oct. 1999
De Mond	34º43'S; 20º05'E		P	*c.* 450	10 Oct. 1980
De Hoop Vlei	34º26'S; 20º29'E	SA119	P	1	11 Nov. 1978
Gouritz River	34º21'S; 21º53'E			1	25 Nov. 1978
5 km west of Gouritz River				2	9 Jan. 1976
Fransmanshoek, Vlees Point				49	3 Oct. 1979
Sedgefield	34º00'S; 22º44'E		N,R	1	29 Dec. 1978
Knysna	34º05'S; 23º04'E			8	1 Jan. 1979
Die Eiland, Cape Seal				18	2 Jan. 1979
Keurbooms River estuary	34º02'S; 23º23'E			250	30 Nov. 1978
Arch Rock, Plettenberg Bay				2	4 Oct. 1979
No. 12 cliffs and stacks	34º12'S; 23º55'E	SA098	N	63	3 Nov. 1980
Stack off Helpmekaar River			N	2	30 Oct. 1980
Gamtoos River estuary	33º58'S; 25º02'E	SA097		25	8 Jan. 1979
Maitlands River estuary	33º59'S; 25º18'E	SA097		32	6 Oct. 1979
Redhouse Salt Works, Swartkops River	33º51'S; 25º35'E	SA096		102	13 Jan. 1979
St Croix Island	33º47'S; 25º46'E	SA095	P	410	26 Oct. 1977
Jahleel Island	33º48'S; 25º43'E	SA095	P	*c.* 100	
Brenton Rock	33º49'S; 25º46'E	SA095	P	5	30 May. 2000
Stag Island	33º50'S; 26º16'E	SA095	P	5	31 May. 2000
Seal Island, Algoa Bay	33º50'S; 26º17'E	SA095	P	390	9 Nov. 1977
Bird Island, Algoa Bay	33º51'S; 26º17'E	SA095	P	20	10 Nov. 1980
Rietvlei	33º51'S; 18º29'E		P	2	2 Dec. 1979
Seal Island, False Bay	34º08'S; 18º35'E			< 5	22 Oct. 2001
Stony Point	34º22'S; 18º54'E		LA	2	20 Jun. 2001
Voëleiland, Noordwesbaai				1	27 Oct. 2000
South Africa Total:				**18 577**	
Overall Total:				**22 994**	

2.3 Habitat

Marine (coastal waters) and terrestrial (breeding localities). Kelp Gulls nest colonially and occasionally singly, in a variety of coastal and marine habitats. These include offshore islands, cliffs, rock stacks, sand dunes and small islets in estuaries, lagoons, salt and sewage works. On Robben Island, South Africa, they breed in a disused quarry; at Steenbras Dam, South Africa, they breed on an island under pine trees. The nests are usually a scrape on the ground, with seaweed, feathers, twigs and grass as nesting material. Kelp Gulls feed on fish, mussels, limpets, insects, bird and mammal carcasses, and kleptoparasitize and take the eggs and chicks of other birds. They also feed on refuse at dumps and offal from fishing vessels, and follow ships for scraps; their partial commensalism on humans for supplementary food has enabled increased survival rates.

2.4 Migrations and movements

Non-breeding birds disperse as far as Luanda, Angola, and southern Mozambique. First- to fourth-year birds from the Western Cape Province, South Africa, utilize central Namibia as an important nursery area; young birds may remain far from their natal areas for over a year. Kelp Gulls disperse from their island breeding localities, with an eastward migration in the austral autumn and winter. They possibly follow the migration of Sardine *Sardinops sagax* northwards along the KwaZulu-Natal coast (South Africa) and occasionally move as far as southern Mozambique.
Birds ringed as fledglings in the Western Cape Province, South Africa, have been resighted as far north as Swakopmund, Namibia - a coastal distance of 2067 km.

3. Threat data

3.1 Direct threats

Great White Pelicans *Pelecanus onocrotalus* prey on the eggs and chicks of Kelp Gulls at Dassen and Jutten Islands, South Africa. Sacred Ibises *Threskiornis aethiopicus* take Kelp Gull chicks at Schaapen Island, South Africa. Kelp Gulls scavenge bird carcasses, putting them at risk of contracting and spreading diseases such as avian cholera *Pasteurella multocida,* and of being poisoned.
Kelp Gull eggs were collected on breeding islands for human consumption in the past, but this is longer a significant threat. Egg collecting for culinary purposes occurred regularly at Schaapen Island in the past. Up to the early 1970's at least, gulls were poisoned (using strychnine) and shot on guano islands to reduce their predation on African Penguin *Spheniscus demersus* eggs, which were collected for human consumption. Local exploitation of gull eggs still takes place at accessible mainland colonies, for example, in False Bay, South Africa.

3.2 Habitat destruction

None known.

3.3 Indirect threats

Disturbance by humans at breeding colonies during the egg-laying period causes Kelp Gulls to leave their nests, exposing eggs to predation by conspecifics. The causeways to Bird Island (Lambert's Bay) and Marcus Island, South Africa, provide access for native and alien mammalian predators. Alien vegetation encroaching coastal dunes in the southern Cape is a potential threat to breeding habitat.

3.4 Threats connected especially with migrations

Not known.

3.5 National and international utilization

Ecotourism is conducted at Bird Island (Lambert's Bay) and Robben Island, Western Cape Province, South Africa.

4. Protection status and needs

4.1 National protection status

The Kelp Gull is not listed as threatened in the Red Data Book of birds of South Africa, Lesotho and Swaziland (2000).

The species is protected in terms of South Africa's Sea Birds and Seals Protection Act No. 46 of 1973. Most South African islands are legally protected as nature reserves or national parks; access is restricted to the Namibian islands, and breeding colonies in the Skeleton Coast Park are fully protected.

The major breeding colonies in South Africa and Namibia are Important Bird Areas (IBAs); some are national parks, nature reserves or otherwise protected, with restricted access. However, many of the smaller breeding colonies are neither reserves nor within the IBA network (Table 12).

4.2 International protection status

Kelp Gulls are not globally threatened; however, if the two subspecies prove to be full species, the conservation status of the taxon *vetula* will need to be reassessed.

At the Conservation Assessment and Management Plan Workshop for Southern African Coastal Seabirds, held in February 2002, the Kelp Gull was recommended for classification as Least Concern according to the IUCN Red List Categories and Criteria, Version 3.1.

4.3 Additional protection needs

Inclusion in Annex 2 of the Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA).

Management plans for islands, including Nature Reserve status and Marine Protected Areas around all breeding islands.

Coverage of seabirds in better detail in Acts for Namibia; improvements to the Sea Birds and Seals Protection Act No. 46 of 1973 in South Africa; incorporation of seabirds into the Marine Living Resources Act.

5. Range states[a]

Angola (B), Mozambique (M), **Namibia (B)**, **South Africa (B)**

[a] **B** = breeding range; M = occurs as a non-breeding migrant

6. Additional remarks

An updated census of breeding Kelp Gulls at all colonies is required to obtain a population estimate.

The Kelp Gull preys on eggs and chicks of penguins, cormorants, terns and gulls. Several of these are in conservation threat categories, and there have been

suggestions that there is a need to control Kelp Gull populations at certain localities.

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Hartlaub's Gull

PROPOSAL: Listing of the **Hartlaub's Gull *Larus hartlaubii*** (global population) in the African-Eurasian Waterbird Agreement, Annex 2 (species list).

SUPPORTING STATEMENT

1. Taxon

1.1	Class	Aves	
1.2	Order	Charadriiformes	
1.3	Family	Laridae	
1.4	Genus & Species	*Larus hartlaubii* (Bruch, 1853)	
1.5	Common names:	English:	Hartlaub's Gull
		French:	Mouette de Hartlaub
		Spanish:	Gaviota de Hartlaub
		Afrikaans:	Hartlaubse Meeu

2. Biological data

2.1 Distribution

Hartlaub's Gull is endemic to South Africa and Namibia, with a regular coastal distribution from Cape Cross (21º45'S; 13º56'E), Namibia, to Quoin Point (34º47'S; 19º40'E), Western Cape Province, South Africa; it is a vagrant to the Eastern Cape Province and to KwaZulu-Natal, South Africa. The species concentrates at ports and other sites relating to the fishing industry. Its range has expanded inland into centres of human habitation and farmland, especially in the greater Cape Town area of the Western Cape, South Africa, where a large proportion of the total population occurs. The distribution of this species broadly reflects that of kelp *Ecklonia maxima* beds. The breeding range extends from Swakopmund Salt Works, Namibia, to Dyer Island, South Africa.
The known historical distribution of Hartlaub's Gull does not differ from the present, except for increased occurrence inland.

2.2 Population

Hartlaub's Gull has an estimated global population of *c.* 30 000 birds (*c.* 12 000 breeding pairs). The population may be split into an urban component, which is increasing in numbers and is subsidized by human activities, and a smaller coastal population, which feeds on natural food resources. Because of noise and fouling problems, the urban population is sometimes regarded as problematic, but in natural coastal habitats the population may be decreasing in size.

Table 13. Breeding distribution and numbers of breeding pairs of Hartlaub's Gull *Larus hartlaubii*. IBA= Important Bird Area, N = National Park, P = Provincial Nature Reserve, WH = World Heritage Site; R = Ramsar site; LA = Local Authority; RA = restricted access (adapted and updated from Appendix 1 in Williams *et al.* 1990)

Locality	Coordinates	IBA	Protection Status	Number of breeding pairs	Date
Namibia					
Swakopmund Salt Works	22º36'S; 14º31'E		RA	bred	1986
Swakopmund Sewage Works	22º40'S; 14º31'E		RA	*c.* 160, unsuccessful	Mar. 1984
Walvis Bay harbour	22º57'S; 14º30'E	N014	RA	bred	1986
Walvis Bay Sewage Works	22º58'S; 14º31'E	N014	RA	*c.* 195	May. 1984
Walvis Bay Salt Works	23º02'S; 14º25'E	N014	RA,R	8	Aug. 1987
Namib desert	23º18'S; 14º25'E		RA	2, unsuccessful	Mar. 1986
Ichaboe Island	26º17'S; 14º56'E	N018	RA	bred	May. 1988
Penguin Island	26º37'S; 15º09'E	N019	RA	bred	Aug. 1986
Halifax Island	26º38'S; 15º04'E	N019	RA	27	1999/2000
Lüderitz harbour / Shark Island	26º38'S; 15º10'E	N019	RA	247, unsuccessful	Apr. 1986
Long Island	26º48'S; 15º06'E		RA	*c.* 50	Feb. 1980
Possession Island	27º01'S; 15º21'E	N020	RA	75	2001/2002
Namibia Total:				**764**	
South Africa					
Alexander Bay, Orange River mouth	28º38'S; 16º27'E	SA030	R	*c.* 700	Mar. 1989
Papendorp Salt Works	31º42'S; 18º13'E			8	May. 1985
Bird Island, Lambert's Bay	32º05'S; 18º18'E	SA100	P	12	2001
Jakkalsriviervlei, Lambert's Bay	32º05'S; 18º19'E			7	18 Jan. 2002
Wadrifsoutpan	32º12'S; 18º20'E			393	Feb. 1981
Rocher Pan	32º36'S; 18º18'E		P	1	Oct. 1984
Berg River Salt Works	32º48'S; 18º10'E			*c.* 600, unsuccessful	Feb. 1988
Saldanha harbour and Naval Base	33º02'S; 17º56'E			520	2000
Sea Harvest, Saldanha	33º02'S; 17º56'E			600	28 Feb. 2001
Malgas Island	33º03'S; 17º55'E	SA105	N, R	8	2001
Jutten Island	33º03'S; 17º57'E	SA105	N, R	19	2001
Schaapen Island	33º06'S; 18º01'E	SA105	N, R	1641	2001
Caspian Islet	33º11'S; 18º06'E	SA105	N, R	1	16 Mar. 1995
Rooipan	33º19'S; 18º09E			*c.* 12	Sep. 1988
Dassen Island	33º25'S; 18º05'E	SA109	P	230	2001
Paarl Sewage Works	33º41'S; 18º58'E			7	Mar. 1981
Robben Island	33º47'S; 18º22'E	SA110	WH	449	July 2002
Rietvlei	33º50'S; 18º29'E			93	Sep. 1982
Cape Town area	33º55'S; 18º23'E			1488	2000
Wildevoëlvlei	34º08'S; 18º22'E			1	Mar. 1986
Rondevlei	34º04'S; 18º30'E		LA	32	Apr. 1984
Stony Point	34º22'S; 18º54'E		LA	4	20 Jun. 2001
Vermont Lagoon	34º25'S; 19º09'E			6	Sep. 1979
Seal Rock, Franskraalstrand	34º36'S; 19º22'E			1	Jul. 1980
Dyer Island	34º41'S; 19º25'E	SA120	P	176	2000
South Africa Total:				**6561**	
Overall Total:				**7325**	

2.3 Habitat

Aquatic (coastal marine, estuaries and artificial wetlands) and terrestrial (offshore islands and mainland). Hartlaub's Gulls breed colonially and utilize a variety of natural habitats for nesting. These include offshore rocks and islands, rivers and coastal pans and also man-made structures such as salt and sewage works, quarries, airfields, harbours, and urban areas, including buildings. Their nests consist of a bowl of roots, twigs, grass and shells. Nesting habitat usually has little or no vegetation. Because the guano produced at breeding colonies sometimes results in lush vegetation growth a year later, they frequently switch breeding localities and use these cyclically. They forage on invertebrates at the sea surface, on the shore, offshore islands, estuaries, artificial wetlands and rubbish dumps; they also follow fishing vessels for offal, and frequent restaurants, gardens and parks for discarded food, also at night under artificial lights.

2.4 Migrations and movements

Hartlaub's Gulls move between breeding areas and foraging grounds, and are nomadic between islands. Juveniles colour-ringed at Robben Island (33º47'S; 18º22'E), Western Cape Province, South Africa, dispersed as far as Swakopmund (22º41'S; 14º31'E), Namibia. They are vagrants along the east coast of South Africa as far as Lake St Lucia (28º12'S; 23º07'E), KwaZulu-Natal, South Africa.
Hartlaub's Gulls breed at an international boundary (Orange River mouth, the boundary between Namibia and South Africa), and utilize nearby towns for foraging (Oranjemund, Namibia and Alexander Bay, South Africa).

3. Threat data

3.1 Direct threats

Predation by terrestrial predators on offshore islands can result in low breeding success. Historically, the largest annual breeding colony was on Robben Island, *c.* 10 km from Cape Town. In the early 1990s, increasing populations of feral domestic cats *Felis catus* led to the desertion of the island as a breeding colony. The population of cats was reduced in 1998, and Hartlaub's Gulls bred again on the island in 1999; a subsequent increase in the cat population resulted in no breeding attempts in 2000 and 2001. They did, however, breed in 2002.
Colonies of Hartlaub's Gulls on buildings in urban areas and adjacent to airfields are sometimes destroyed because of their nuisance factor (noise and guano) and the risk of bird-strikes to air traffic.

3.2 Habitat destruction

The colony on the Shark Island peninsula at Lüderitz was displaced when the breeding area was converted into a campsite.
Apart from the removal of some colonies in urban areas, there is little habitat destruction.

3.3 Indirect threats

Current and past presence of predators (In South Africa, these include domestic cats on Dassen and Robben Islands, and Cape Grey Mongooses *Herpestes pulverulentus*, Genets *Genetta* spp. and Cape Foxes *Vulpes chama* on Marcus Island); and disturbance due to inadequately controlled tourism and recreation. The causeways to Marcus Island and Bird Island (Lambert's Bay) provide access to mammalian predators.
Disturbance by humans and accompanying dogs causes birds in natural localities to desert their nests, leaving eggs and small chicks prone to predation by southern African Kelp Gulls *Larus [dominicanus] vetula* and Sacred Ibises *Threskiornis aethiopicus*. Urban breeding birds select localities which are relatively secure from human/canine disturbance, for example fenced-off security areas and roofs of buildings.
Hartlaub's Gulls are at risk from pollution and pesticides ingested when feeding at rubbish dumps.

3.4 Threats connected especially with migrations

None known.

3.5 National and international utilization

In South Africa, ecotourism is conducted at Robben Island and Bird Island (Lambert's Bay), and is proposed for Dassen and Dyer Islands.

4. Protection status and needs

4.1 National protection status

Hartlaub's Gulls are protected in terms of South Africa's Sea Birds and Seals Protection Act No. 46 of 1973. Most South African islands are legally protected as nature reserves or national parks.
The Ministry of Fisheries and Marine Resources administers the Namibian colonies, none of which is legally protected as a nature reserve or national park. Hartlaub's Gull is a candidate species for the Red Data list of Namibia.
The major breeding colonies in South Africa and Namibia are Important Bird Areas (IBAs); some are national parks, nature reserves or otherwise protected, with restricted access. However, many of the smaller breeding colonies are neither reserves nor within the IBA network (Table 13).

4.2 International protection status

Hartlaub's Gull is not listed as threatened in the most recent (2000) BirdLife International / IUCN Red List.
At the Conservation Assessment and Management Plan Workshop for Southern African Coastal Seabirds, held in February 2002, Hartlaub's Gull was recommended for classification as Least Concern according to the IUCN Red List Categories and Criteria, Version 3.1.

4.3 Additional protection needs

Inclusion in Annex 2 of the Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA).

An Action Plan for the species with, for example, clear guidelines on how to deal with the nuisance problem of breeding on buildings and open spaces in urban areas.

Removal of all feral cats from Dassen and Robben Islands.

Coverage of seabirds in better detail in Acts for Namibia; improvements to the Sea Birds and Seals Protection Act No. 46 of 1973 in South Africa; incorporation of seabirds to the Marine Living Resources Act.

5. Range states[a]

Namibia (B), **South Africa (B)**

[a] **B** = breeding range

6. Additional remarks

A co-ordinated census of breeding Hartlaub's Gulls at all colonies is necessary to obtain a current population estimate.

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Grey-headed Gull

PROPOSAL: Listing of the **Grey-headed Gull *Larus cirrocephalus poiocephalus*** (southern African population) in the African-Eurasian Waterbird Agreement, Annex 2 (species list).

SUPPORTING STATEMENT

1. Taxon

1.1	Class	Aves	
1.2	Order	Charadriiformes	
1.3	Family	Laridae	
1.4	Genus	*Larus*	
	Species & subspecies	*cirrocephalus poiocephalus* (Swainson, 1837)	
1.5	Common names:	English:	Grey-headed Gull
		French:	Mouette à Tête Grise
		Spanish:	Gaviota de Cabeza Gris
		Afrikaans:	Gryskopmeeu

2. Biological data

2.1 Distribution

The Grey-headed Gull (subspecies *L. c. poiocephalus*) is the only non-vagrant gull species occurring in the interior of southern Africa, where it occurs mainly in the moist east; it also occurs along the southern African coastline. It is dependent on the availability of open water, and is absent from mountainous Lesotho and the dry areas of the Kalahari and Karoo, South Africa, and from Namibia. South Africa supports two main breeding areas of the southern African population; one in the East Rand, Gauteng, and one at Lake St Lucia, KwaZulu-Natal. Lake Ngami, Botswana, is also an important breeding site within southern Africa. Since the 1860s, the Grey-headed Gull has bred at 67 known localities within southern Africa - mostly in small numbers, occasionally singly, and at some localities for only a few seasons.

2.2 Population

The southern African population of *L. c. poiocephalus* was estimated at *c.* 2 000 pairs in the 1980s.

Table 14. Breeding distribution and numbers of occupied nest sites of the Grey-headed Gull *Larus cirrocephalus poiocephalus.* IBA = Important Bird Area, N = National Park, P = Provincial Nature Reserve, R = Ramsar Site, WH = World Heritage Site (adapted from Appendix 1 in Brooke *et al.* 1999)

Locality	Coordinates/ map reference	IBA	Protection status	Number of nest sites	Date
Namibia					
Bird Island, Okerfontein, Etosha	18º54'S; 16º44'E		N	4	Apr. 1971
Cunene River mouth					2002
Swakopmund Salt Works	22º36'S; 14º21'E			2	May. 1978
Swakopmund Sewage Works	22º40'S; 14º31'E			1	Apr. 1982
Walvis Bay Sewage Works	22º58'S; 14º51'E	N014	RA	*c.* 500	Jun. 1975
Walvis Bay Bird Paradise	22º58'S; 14º51'E	N014	RA	20	May. 1984
Shark Island, Lüderitz	26º38'S; 15º10'E			2	May. 1977
Namibia Total:				**529**	
Botswana					
Nata River Delta	20º10'S; 26º10'E			2	Apr. 1974
Lake Ngami	20º30'S; 22º40'E	B004		5	Nov. 1989
Mopipi Pan	21º11'S; 24º48'E			6	Aug. 1984
Botswana Total:				**13**	
Zimbabwe					
Starvation Island, Lake Kariba	16º45'S; 28º20'E		N	1	1984
Lake Kariba	16º30'S; 28º45'E			*c.* 40	Sep. 1994
Lake Manyame (Robertson)	17º45'S; 30º33'E			*c.* 15	Oct. 1994
Dam near Harare	17º52'S; 31º02'E			4	Oct. 1973
Lake Chivero (McIlwaine)	17º54'S; 30º48'E		N	4	Jul. 1987
Zimbabwe Total:				**64**	
South Africa					
KwaZulu-Natal					
St Mary's Hill	2732DC			eggs present	Jun. 1990
Lake St Lucia	28º02'S; 32º29'E		N, R, WH	*c.* 1000 chicks	1992
Charter's Creek	28º12'S; 32º26'E		N, R, WH	2	Jun. 1971
Gauteng					
Randfontein	26º10'S; 27º41'E			young present	Jun. - Aug. 1991
Rolfe's Pan	26º10'S; 28º13'E		P	*c.* 150	Jun. 1989
Westdene	26º11'S; 28º18'E		P	young present	Jan. 1989
Benoni	26º11'S; 28º19'E		P	1	Nov. 1947
Kleinfontein	26º11'S; 28º19'E			4	Apr. 1967
Ou Renbaan	26º12'S; 28º17'E			*c.* 490	Jun. 1985
Geduld	26º13'S; 28º25'E			*c.* 100	Aug. 1953
Springs	26º15'S; 28º28'E			young present	Jun. 1989
Union Settlements	26º17'S; 28º12'E			1	Jan. 1973
Jack Ellis Park				199	Jun. 1975
Blesbokspruit	26º22'S; 28º31'E		R	20	Jul. 1966

Sub-Nigel Mine dam	26º40'S; 28º28'E			36	May. 1969
Vanderbijl Park	26º42'S; 27º49'E			*c.* 250	Jun. 1968
Vaal Dam	26º54'S; 28º12'E		P	20	Jul. 1974
North-West Province					
Barberspan	26º35'S; 25º36'E		P	eggs present	Oct. 1987
S.A. Lombard Nature Reserve	27º35'S; 25º28'E		P	3	Sep. 1951
Koppiespan	26º44'S; 25º17'E			2	Oct. 1976
Free State					
Vaal Dam, Parys	26º54'S; 27º27'E		P	1	Aug. 1962
Welkom	27º59'S; 26º42'E			2	Jul. 1966
Toronto Pan, Welkom	27º59'S; 26º42'E			1	Jul. 1966
Witpan, President Brand Mine	28º01'S; 26º42'E			*c.* 150	Jul. 1966
Klippan				4	Jul. 1966
St Helena Mine dam	28º02'S; 26º44'E			3	Jul. 1968
Fauresmith	2925CB			eggs present	Sep. 1991
Limpopo					
Brandvlei	30º27'S; 20º29'E			4	Oct. 1954
Eastern Cape Province					
Lake Mentz	33º10'S; 25º08'E			1	Jan. 1992
Redhouse Salt Works	33º50'S; 25º35'E			14	Aug. 1992
Chatty Salt Pans	33º52'S; 25º35'E			95	Jul. 1990
Coega Salt Pans	33º47'S; 25º41'E			15	Jun. 1998
Swartkops River estuary	33º50'S; 25º35'E			28	1 Oct. 1982
Western Cape Province					
Bird Island, Lambert's Bay	32º05'S; 18º18'E	SA100	P	1	Jan. 1997
Marcus Island	33º03'S; 17º58'E		N,R	2	Feb. 1977
Malgas Island	33º03'S; 17º55'E	SA105	N,R	1	Feb. 1977
Jutten Island	33º05'S; 17º57'E		N,R	2	Feb. 1977
Schaapen Island	33º06'S; 18º01'E		N,R	1	May. 1995
Meeuw Island	33º20'S; 18º09'E	SA105	N, R	7	25 Oct. 2001
Paarl Sewage Works	33º41'S; 18º58'E			*c.* 25	1994
Century City, Cape Town				4	31 Aug. 2001
Robben Island	33º48'S; 18º22'E	SA110	WH	5	July 2002
Caltex Oil Refinery	33º46'S; 18º30'E			2	Jun. 1997
Rietvlei	33º50'S; 18º29'E		P	11	1 Oct. 1995
Athlone Sewage Works	33º57'S; 18º31'E			3	Mar. 1992
Strandfontein Sewage Works	34º05'S; 18º31'E			3	Nov. 1980
Dyer Island	34º41'S; 19º25'E	SA120	P	1	Sep. 1997
near Bredasdorp	34º32'S; 20º02'E			2	Sep. 1959
De Hoop Vlei	34º27'S; 20º24'E		N, R	12	Nov. 1978
South Africa Total:				**2649**	
Overall Total:				**3255**	

2.3 Habitat

Aquatic (coastal marine and inland freshwater) and terrestrial (breeding colonies). The Grey-headed Gull is a gregarious species and is found along the seashore, at estuaries, coastal lakes, and inland dams and pans. It forages in loose flocks over shallow water or on the shore, feeding on fish, insects, offal and the eggs and small nestlings of birds. It also feeds extensively on scraps and food waste at rubbish dumps and picnic sites. Night-time foraging for food waste has been observed at drive-in restaurants and cinemas, and for insects attracted to floodlights.
Breeding colonies (even at coastal localities) are mainly associated with freshwater habitats, often reed beds. Nests are built on the ground using weeds, twigs and grass, and are often next to a shrub or tuft of grass. Grey-headed Gulls utilise islands, shorelines, and old nests of Red-Knobbed Coots *Fulica cristata* for nesting. New permanent sites and temporarily suitable sites for nesting can be utilized due to the species' habit of wide dispersal.

2.4 Migrations and movements

The Grey-headed Gull disperses widely: birds ringed in South Africa have been recovered in Angola, Namibia, Botswana, Zambia, Zimbabwe and Mozambique; these movements probably reflect post-breeding dispersal. The furthest recorded distance moved by a ringed bird is 2177 km. Ring recoveries support the hypothesis of a regular partial migration. This is associated with the seasonal drying out of suitable habitat, between the high-altitude breeding localities on the Witwatersrand of central South Africa and the coastal plain of KwaZulu-Natal and Mozambique. The full extent of migration by the Grey-headed Gull in southern Africa is not fully understood, but clearly involves all the countries of the southern African region.

3. Threat data

3.1 Direct threats

The attraction of Grey-headed Gulls to airports may lead to collisions with air traffic and subsequent human persecution of urban gull populations. Grey-headed Gulls are used by the traditional-medicine trade.

3.2 Habitat destruction

Destruction of natural wetlands in the "panveld" highveld region of central South Africa has resulted in a loss of habitat. This is been counterbalanced, to some extent, by the creation of artificial wetlands such as sewage works and impoundments. Run-off of agricultural pesticides into wetlands causes loss of suitable habitat.

3.3 Indirect threats

None known.

3.4 Threats connected especially with migrations

None known.

3.5 National and international utilization

None known, probably minimal – see 6. Additional Remarks below.

4. Protection status and needs

4.1 National protection status

Grey-headed Gulls are protected in terms of South Africa's Sea Birds and Seals Protection Act No. 46 of 1973. Over half of the population breeds in areas that are conserved.
The Grey-headed Gull is not listed in the Red Data Book of birds of South Africa, Lesotho and Swaziland (2000).

4.2 International protection status

Grey-headed Gulls breed at the Lake St Lucia complex, which is both a World Heritage and a Ramsar Site.
At the Conservation Assessment and Management Plan Workshop for Southern African Coastal Seabirds, held in February 2002, the Grey-headed Gull was recommended for classification as Least Concern according to the IUCN Red List Categories and Criteria, Version 3.1.

4.3 Additional protection needs

Inclusion in Annex 2 of the Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA).
General maintenance of wetlands, and promotion of wise use of pesticides.
Coverage of seabirds in better detail in the Acts for Namibia; improvements to the Sea Birds and Seals Protection Act No. 46 of 1973 in South Africa; incorporation of seabirds into the Marine Living Resources Act.

5. Range states[a]

Angola (M), **Botswana (B)**, Mozambique (M), **Namibia (B)**, **South Africa (B)**, Swaziland (M), **Zimbabwe (B)**

[a] **B** = breeding range; M = occurs as a non-breeding migrant

6. Additional remarks

A co-ordinated census of breeding Grey-headed Gulls at all southern African colonies is necessary to obtain an accurate population estimate. However, the long breeding season and the lack of fidelity to breeding sites makes it difficult to accurately estimate the total size of the population.

A colour-banding study is needed to establish the migratory behaviour of this species, which is currently poorly understood.

Hybridization of Grey-headed Gulls with Hartlaub's Gull *Larus hartlaubii* is known to occur, especially in Namibia. This is not currently perceived to be a potential threat to the specific status of either species, as the number of hybrids is believed to be small: Hybrid viability is currently unknown.

In the late 1970s, the presence of organochloride pesticides (DDT, DDE and dieldrin) and polychlorinated biphenyls (PCBs) in the eggshells of Grey-headed Gulls indicated that this species is at risk from pollution. Given that this species breeds in the interior of the region, where pesticide levels are possibly greater than along the coastline, this threat should be monitored.

There is no evidence that the eggs or chicks of this species are taken for food by humans at any significant scale. Grey-headed Gulls have, however, been used by the traditional-medicine trade. Although this is not thought to be a significant cause of mortality, it needs monitoring.

Since the nominate subspecies of Grey-headed Gull occurs only in South America, the taxonomic status of the two subspecies needs evaluation.

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Antarctic Tern

PROPOSAL: Listing of the **Antarctic Tern *Sterna vittata*** (known migratory populations) in the African-Eurasian Waterbird Agreement, Annex 2 (species list).

SUPPORTING STATEMENT

1. Taxon

1.1	Class	Aves	
1.2	Order	Charadriiformes	
1.3	Family	Laridae	
1.4	Genus & Species	*Sterna vittata* (Gmelin, 1789)	
1.5	Common names:	English:	Antarctic Tern, Wreathed Tern
		French:	Sterne couronneé
		Spanish:	Gaviotin antartico

2. Biological data

2.1 Distribution

The Antarctic Tern is widely distributed in the Southern Ocean. Breeding in the Atlantic sector is reported from the western coast of the Antarctic Peninsula, South Shetland Islands, South Orkney Islands, South Sandwich Islands, South Georgia, Bouvet and the Tristan da Cunha and Gough Island group. The species breeds in the Indian Ocean at Prince Edward, Crozet, Kerguelen, Amsterdam, Saint Paul, and Heard Islands. It also breeds on Macquarie Island, and the southern New Zealand islands of Bounty, Antipodes, Auckland, and Campbell in the Pacific Ocean.

2.2 Population

The total world population of Antarctic Tern numbers *c.* 45 000 breeding pairs. About 90% of this total is found in the Atlantic sector of the Southern Ocean, chiefly on the South Shetland Islands. An estimated 3660 pairs breed on the southern islands of the Indian and Pacific Oceans. Large breeding colonies numbering thousands of pairs only occur on the South Shetland Islands; elsewhere colonies of over 100 pairs are unusual. The total number of breeding colonies may be in the low 200's the exact number is not known as many areas have never been surveyed accurately. At some Antarctic localities on the South Orkney Islands, South Shetland Islands and the Antarctic Peninsula, multiple census data have indicated a decline in the breeding populations over the past 50 years.

Table 15. Breeding distribution, number of breeding pairs and migratory status (as defined by the Convention of Migratory Species). NA = not assessed, Y = Yes, NR = Nature Reserve, WH = World Heritage Site

Locality	Co-ordinates	IBA	Protection status	Breeding pairs	Migrant?
Antarctic Peninsula	64ºS; 63ºW	NA		1 500	No
South Shetland Islands		NA		35 000	No
South Orkney Islands	60ºS; 45ºW	NA		500	Yes
South Sandwich Islands	60ºS; 30ºW	NA		100	Yes (?)
South Georgia Islands	54ºS; 38ºW	NA		2 500	Partial
Tristan da Cunha, Gough Archipelago	37ºS; 12ºW	Y	NR, WH	800	Yes
Bouvet Island	54º25'S; 03º20'E	Y	NR (part)	20	Yes (?)
Atlantic Ocean Total:				**40 420**	
Prince Edward Islands	46º37'S; 37º57'E	SA122	NR	20	Yes
Crozet Islands	46º06'S; 50º15'E	Y	NR (part)	100	Yes
Kerguelen Islands	49º15'S; 69º10'E	Y	NR (part)	2 000	Yes
Amsterdam and St. Paul Islands	37º52'S; 77º32'E	Y		400	Yes
Heard Island	53º05'S; 73º30'E	NA	NR, WH	100	Yes
Indian Ocean Total:				**2 620**	
Macquarie Island	54º34'S; 158º56'E		NR, WH	40	No
Southern New Zealand Islands	41ºS; 175ºE		NR, WH	1 000	No
Pacific Ocean Total:				**1 040**	
World Total:				**44 080**	

2.3 Habitat

Entirely marine in coastal waters and over high seas, coming to land to breed and roost. Breeding colonies typically comprise fewer than 100 nests scattered among rocks or glacial moraine near the coast, or on coastal cliffs. Roosts communally in winter quarters, often with other tern species, in tightly packed aggregations numbering many hundreds and even thousands of birds on rocky islands or on a few prominent rocky headlands.

2.4 Migrations and movements

The Antarctic Tern has two different patterns of migration and the moult of its flight feathers is related to these. Although vagrant birds are reported from the Pacific and Atlantic coasts of Patagonia and the Falkland Islands, most (>75%) Atlantic birds moult on or near their breeding grounds after the summer chick-rearing season is completed. New Zealand birds, and those on Macquarie Island, are sedentary. These populations are considered non-migratory in terms of the Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA) as they do not cross international boundaries. Only the populations of the Indian Ocean (Prince Edward, Crozet, Kerguelen, Amsterdam, St. Paul and Heard Islands), the Atlantic birds breeding on Tristan da Cunha and the Gough Island group, and possibly the Bouvet, South Orkney and South Sandwich Island populations, migrate to the western and southern coasts of South Africa

during the winter months. Birds arrive in South Africa from late April to commence moult, their numbers peak in July/August, and they leave by October or early November. Recent peak counts at major South African roosts were of 4000 birds on Bird Island, Algoa Bay, Eastern Cape Province, and 2600 birds on Dyer Island and 1200 birds on Dassen Island, Western Cape Province. Mainland counts usually number a few to <500 birds between Cape Recife, Eastern Cape and St. Helena Bay in the Western Cape. On South Georgia some birds remain throughout the year while others disperse along the east coast of southern South America (Argentina, Uruguay, Brazil) but the major roost sites are undecided in the scientific literature.

3. Threat data

3.1 Direct threats

Due to their isolation and very small size some populations, e.g. those on Bouvet, Heard, Macquarie and Prince Edward Islands, are vulnerable to catastrophe (e.g. volcanic eruptions, landslides) and their persistence is tenuous. Important factors influencing breeding success are predation (by skuas *Catharacta* spp., Kelp Gull *Larus dominicanus*, introduced rats *Rattus* spp. and feral cats *Felis catus)*, extreme weather conditions and human disturbance. In South Africa recreational beach users, including those with off-road vehicles and pet dogs, frequently disturb tern roosts on the mainland coastlines in unprotected areas.

3.2 Habitat destruction

Not known.

3.3 Indirect threats

Entanglement in marine debris and fishing gear and consumption of plastic particles; accumulation of chemical contaminants; fluctuations in the availability of important fish prey species; oceanographic change.

3.3 Threats connected especially with migrations

None known.

4. Protection status and needs

4.1 National protection status

Australian, Norwegian, South African, southern New Zealand and some United Kingdom (e.g. South Georgia) breeding islands are formally protected as Nature Reserves and/or have management plans that control human activities. Most French (with the exception of Ile de la Possession (Crozet Islands) and most of Kerguelen), and most British (with the exception of South Georgia) are formally protected as Nature Reserves. Several breeding sites are also World Heritage Sites (Table 1). Migratory Antarctic Terns in South Africa are protected in

terms of the Sea Birds and Seals Protection Act No. 46 of 1973. All major island roosts in South Africa (Bird, Dyer, Dassen) are recognized as Important Bird Areas and are legally protected as Nature Reserves. Most non-breeding roosts on the mainland are not protected.

4.2 International protection status

The global IUCN conservation status is Least Concern. Most Antarctic Tern populations fall within the Antarctic Treaty area where they are afforded protection by the Convention for the Conservation of Antarctic Marine Living Resources (CCAMLR).

At the Conservation Assessment and Management Plan Workshop for Southern African Coastal Seabirds, held in February 2002, the Antarctic Tern was recommended for classification as Least Concern according to the IUCN Red List Categories and Criteria, Version 3.1.

4.3 Additional protection needs

Inclusion in Annex 2 of the Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA).

Protection of major mainland roosts in South Africa from disturbance by humans, off-road vehicles and dogs.

Eradication programmes for rats and cats on breeding islands.

5. Range states[a]

Argentina (M), **Australia (B)**, Brazil (V), Chile (V), **France (B)**, **Great Britain (B)**, International Waters (M), Namibia (V), **New Zealand (B)**, **Norway (B)**, **South Africa (B/M)**, Uruguay (V).

[a] **B** = breeding range; M = occurs as a non-breeding migrant; V = recorded as vagrant/straggler

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African Black Oystercatcher

PROPOSAL: Listing of the **African Black Oystercatcher *Haematopus moquini*** (global population) in the African-Eurasian Waterbird Agreement, Annex 2 (species list).

SUPPORTING STATEMENT

1. Taxon

1.1.	Class	Aves	
1.2.	Order	Charadriiformes	
1.3.	Suborder	Charadrii	
1.4.	Family	Haematopodidae	
1.5.	Genus and species	*Haematopus moquini* (Bonaparte, 1856)	
1.6.	Common names:	English:	African Black Oystercatcher
		French:	Huîtrier de Moquin
		Spanish:	Ostrero Negro Africano
		German:	Schwarzen Austernfischer
		Afrikaans:	Swarttobie

2. Biological data

2.1 Distribution

The African Black Oystercatcher is endemic as a breeding species to Namibia and South Africa, mainly between Ichaboe Island, Namibia (26°17'S; 14°56'E) and Port Edward, KwaZulu-Natal, South Africa (31°05'S; 30°15'E). Occasional breeding attempts as far north as the Hoanib River mouth, Namibia (19°30'S; 12°50'E) are thought to have been unsuccessful. Aggregations of non-breeding juveniles, immatures and subadults occur at discrete localities north of the main breeding range in Namibia and southern Angola. Vagrants have been recorded as far north as Lobito, Angola (12°35'S; 13°25'E) on the west coast, and Inhaca Island, Mozambique (26°00'S; 32°58'E) on the east coast. The largest concentrations are on offshore islands along the west coast of southern Africa; densities on the mainland coastline are greatest on the sandy beaches of St Francis Bay, Eastern Cape Province, South Africa (25°00'E to 25°20'E), especially between the Gamtoos and Maitland Rivers (Table 16). Breeding occurs mainly on islands and the open coast, with a few pairs (<25) at estuaries on the south coast. The historical range is not known to have differed from the present range, although there is a possibility that there has been an eastward range extension in the past 20 years.

2.2 Population

In the early 1980s, the global population of African Black Oystercatchers was estimated at 4800 birds (<2000 breeding pairs). It is the third rarest of the 10 extant species of oystercatcher in the world, after the Chatham Oystercatcher *H. chathamensis* of the Chatham Islands and Variable Oystercatcher *H. unicolor* of New Zealand. Approximately 50% of the population occurs on the 980 km of

mainland coast and the offshore islands between the Olifants River (31°42'S; 18°11'E) and Mossel Bay (34°11'S; 22°10'E). The population estimate is a minimum count because surveys on which this figure was based were not dedicated oystercatcher surveys. In addition, numbers at protected islands off the west coast, especially the South African west coast, have increased since the mid-1980s. For example, the population on Robben Island has increased from 40 individuals in 1977 to 181 individuals in 2002. There have also been increases on certain mainland coastline sections. On a 27-km section of coastline in the Eastern Cape, the population has increased from 70 in 1979, to 94 in 1983, to 212 in 1994, to 310 in 2001.

Because chicks are semi-precocial and have extended parental care, pairs can raise only one brood per season. Average breeding performance in protected areas with minimal human disturbance is better than in unprotected areas. In the majority of unprotected areas for which data exist, oystercatchers do not produce enough young to maintain a stable population. On islands there is a surplus production of young. Most young return to their natal areas to breed, even at sites where adult density is high (resulting in delayed breeding). A small number of island-bred young breed on the mainland. The maximum recorded distance between birth site and breeding site is 130 km. Most mainland populations are thought to be below carrying capacity.

Table 16. Key breeding sites/areas for African Black Oystercatchers with estimates of breeding season populations (pairs). "Key" sites are defined as having large, high density populations known or believed to have high breeding success. All counts except Vondeling Island are from 2001 (Vondeling Island = mid-1980s and probably an underestimate). IBA = Important Bird Area, N = National Park, P = Provincial Nature Reserve, R = Ramsar Site, WH = World Heritage Site, RA = restricted access. * = There is great variability in counts from Namibian islands; these values are averages of several counts.

Locality	Co-ordinates	IBA	Protection status	Population (pairs)	Coast length (km)
Namibia					
Seal Island	26º36'S; 15º09'E	N019	RA	35*	?
Penguin Island	26º37'S; 15º09'E	N019	RA	30*	?
Halifax Island	26º37'S; 15º04'E		RA	45*	?
Possession Island	27º01'S; 15º12'E	N020	RA	130*	?
Namibia Total:				**240**	
South Africa					
Malgas Island	33º03'S; 17º55'E	SA105	N, R	70	1.1
Jutten Island	33º05'S; 17º57'E	SA105	N	110	2.4
Vondeling Island	33º09'S; 17º59'E		P	35	1.2
Dassen Island	33º25'S; 18º05'E	SA109	P	95	4.0
Robben Island	33º48'S; 18º22'E	SA110	WH	60	7.0
Gamtoos to Maitland Rivers	33º58'S; 25º02'E			155	27.0
South Africa Total:				**525**	
Overall Total:				**765**	

2.3. Habitat

Confined to the open coast, offshore islands and large estuaries. African Black Oystercatchers occur on sandy, rocky and mixed shores. Highest densities on the west coast occur on rocky shores and on the south and south-east coasts on sandy beaches, reflecting geographical variation in the relative availability of food in the two habitats. On rocky shores oystercatchers forage primarily on mussels, limpets and whelks, but also take a diversity of other prey ranging from polychaetes to chitons and tunicates. On sandy shores they eat almost exclusively the bivalves *Donax serra* and *D. sordidus*. In estuaries they prey primarily on bivalves, especially pencil-bait *Solen* spp. Most pairs defend fixed territories throughout the year (especially on the west coast) but join communal roosts at high tide (when foraging is no longer possible). Roost sites are usually located on offshore rocks, small mainland promontories and sand spits at river mouths (less commonly at wetlands adjacent to the coast). Nests are on the ground, usually a short distance above the spring high water mark.

2.4. Migrations and movements

Breeding adults are sedentary, and lifetime movements after breeding for the first time are rarely more than a few kilometres, although the maximum displacement recorded is 172 km. Juveniles follow one of two movement strategies after departure from the parental territory. Based on South African data, an estimated 60% undertake local dispersal with random direction and with displacement seldom exceeding 200 km. Juveniles from East London have been resighted as far east as Zinkwasi, KwaZulu-Natal (29°17'S; 31°27'E). The remaining 40%, especially those from populations west of Cape St Francis (34°14'S; 24°52'E), undertake long-distance movements across international boundaries to Namibia and southern Angola. These birds aggregate at six discrete sites on the Namib Desert coast and one site in Angola, north of the breeding range of the adults. These sites are at (from south to north; average number of birds in parentheses): Namibia - Douglas Point 26°18'S; 14°57'E (110), Hottentot Bay 26°08'S; 14°57'E (100), Sandwich Harbour 23°24'S; 14°30'E (25), Walvis Bay 23°00'S; 14°27'E and Swakopmund 22°40'S; 14°28'E (150, combined), Hoanib River mouth 19°29'S; 12°41'E (35) and, Angola – Baia dos Tigres 16°46'S; 11°47'E (50). These sites have been termed "nursery areas" and most birds remain at these nurseries until they are approximately two years old, at which time they return south to their natal areas.

3. Threat data

3.1 Direct threats

Comparison of breeding performance and adult survival in protected and unprotected areas indicates that chick mortality is the key factor causing local populations to be below carrying capacity (adult survival is *c.* 96% a year). Oystercatchers breed at the height of the summer holiday/tourist season and direct mortality of eggs and chicks is caused, *inter alia*, by trampling/crushing (people/vehicles) and predation by domestic dogs. The latter is probably the more important of the two causes.

A mass mortality of adults, as a result of a Harmful Algal Bloom (HAB), occurred in the Saldanha Bay area in the late 1970s, and killed *c.* 50% of the local adult population. On a global scale the frequency and extent of HABs are thought to be increasing, and therefore pose a potential periodic threat.

3.2 Habitat destruction

Coastal urbanization and recreational developments directly impact on a) the availability of suitability of breeding habitat, and b) disturbance levels. The few oystercatchers breeding adjacent to developed coastal areas are often forced to use suboptimal or marginal nest sites and have very low breeding success. Off-road vehicles damage nesting environments along the highwater mark.

3.3 Indirect threats

These are perhaps the most serious, especially when their cumulative effects are considered.

Disturbance of incubating adults can result in egg mortality through overheating and exposure of eggs to predators such as gulls and ravens.

Disturbance of adults feeding chicks can result in drowning of chicks on the low shore and in mortality of chicks due to starvation. Frequently, prime foraging areas for oystercatchers are also favoured angling sites.

Off-road vehicles can access remote stretches of shore that would otherwise function as *de facto* nature reserves, exacerbating the effects of the first two points.

Introduction of predators to offshore islands, by whatever means, can have very serious effects, as evidenced at Marcus Island, Saldanha Bay. The construction of a causeway allowing access to predators resulted in a reduction in the breeding population from 65 to 25 pairs in little more than 10 years.

Human exploitation of intertidal shellfish, especially on rocky shores in the east of the species' range, reduces the amount of food available on the shore and may impact on the ability of adults to rear chicks successfully (due to both disturbance and food depletion).

3.4 Threats linked to migrations

As yet, it is unknown whether the cue(s) determining dispersal or migration as a post-fledging strategy are physiological, environmental or both. Also unknown is the extent to which this is genetically mediated. Migrations seem better explained by fledging date rather than by body condition. The total area of the Namibian nurseries (characterised by foraging opportunities thought to be rare on the Namibian coast) is very small (a few square km). At present there is no evidence that juveniles in these nurseries are food-limited, or that nurseries are at carrying capacity. However, the loss of nursery areas (especially the large nursery adjacent to the urban centre of Walvis Bay) would seriously affect the carrying capacity of the Namibian coast for juveniles. The importance of these nurseries to the global population is considerable.

3.5 National and international utilization

Due to its conspicuous nature, the African Black Oystercatcher is a flagship species for coastal conservation. It is locally common in several protected areas aimed at ecotourism.

4. Protection status and needs

4.1 National protection status

South Africa: The African Black Oystercatcher is listed as Near Threatened in the South African Red Data Book. African Black Oystercatchers are protected under South Africa's Sea Birds and Seals Protection Protection Act No. 46 of 1973. Most of the South African islands are protected either within National Parks or as Provincial Nature Reserves and several significant local mainland populations are protected within provincial or local nature reserves. Further protection has been afforded in South Africa with the addition of new regulations to the National Environmental Management Act that banned all off-road vehicles use from the South African mainland coastline from January 2002.
Namibia: Although no Namibian islands are legally protected as national parks or nature reserves, the African Black Oystercatcher is to be listed as a "Specially Protected Bird" in the forthcoming Namibian "Parks and Wildlife Management Bill".
Angola: Protection status unknown.

4.2 International protection status

The African Black Oystercatcher is classified as Near Threatened in the most recent (2000) BirdLife International / IUCN Red List.
At the Conservation Assessment and Management Plan Workshop for Southern African Coastal Seabirds held in February 2002, the African Black Oystercatcher was recommended to remain Near Threatened according to the IUCN Red List Categories and Criteria, Version 3.1.

4.3 Additional protection needs

Inclusion in Annex 2 of the Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA).
Designation of key Namibian breeding islands as legally protected areas (especially Possession Island).
Designation of the Douglas Bay and Hottentot Bay (Namibia) nursery areas as local nature reserves/protected areas.
Consideration of the ecological needs of oystercatchers in assessing impacts of future developments at Walvis Bay, Namibia (such as the recently proposed and rejected *Gracilaria* seaweed farm in one of the key foraging sites).
Coverage of seabirds in better detail in Acts for Namibia; improvements to the Sea Birds and Seals Protection Act No. 46 of 1973 in South Africa; incorporation of seabirds into the Marine Living Resources Act.

5. Range states[a]

Angola (M), Mozambique (V), **Namibia (B)**, **South Africa (B)**

[a] **B** = breeding range; M = migratory range; V = vagrant

6. Additional remarks

The conservation needs of the African Black Oystercatcher, as these relate to both breeding birds and migratory juveniles have been the subject of intensive research in recent years under the *aegis* of the Oystercatcher Conservation Programme, coordinated by the Percy FitzPatrick Institute of African Ornithology at the University of Cape Town, South Africa.

The estimated total population size of the species is based partially on counts made in the early 1980s. Numbers at several localities, both islands and mainland sections of shoreline, are known to have increased since then. An up-to-date census is an urgent requirement, after which the Near Threatened conservation status should be reassessed.

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APPENDIX: TAXON DATA SHEET: ORGANISATION AND DEFINITIONS

The Conservation Assessment and Management Plan (CAMP) **Taxon Data Sheet** is a working document for recording information that can be used to assess and categorize the degree of threat to a taxon using the IUCN Red List Criteria and recommend conservation action. This sheet has four parts.

- Part one (numbers 1 -12) summarizes taxonomic and biological information on the taxon and asks for information on population, distribution, demography, habitat, threats.

- Part two (number 13) provides space for the current conservation status categorizations according to IUCN, regional, national, and legal criteria, as well as the IUCN Red List category as derived during the CAMP workshop from information in items 1 – 12.

- Part three (numbers 14 -19) requests suggesting suitable steps for management of the taxon, both in the wild and in captivity.

- Part four (numbers 20 -23) is for information sources, both published and unpublished, the names of the compilers or contributors to the completed Taxon Data Sheet and the names of the reviewers.

The completed Taxon Data Sheets for different groups of organisms will differ slightly. A major advantage of the revised IUCN Red List Categories is that they are applicable across all taxon groups. The IUCN Red List Categories are described in Appendix III of this document.

The CAMP Taxon Data Sheet is keyed to the IUCN Red List Criteria. The Taxon Data Sheet has been made more "user-friendly" so that participants can tick boxes instead writing in much of the sheet. It is also more "data friendly" to accommodate the computerized data entry program. This sheet asks for information from which the conservation status of the taxon in the wild can be derived. The information can also be used for making research and management recommendations.

DEFINITIONS OF TERMS USED IN THE TAXON DATA SHEET

This section of the CAMP Reference Manual defines precisely what data are included in each Part of the Taxon Data Sheet and also links the Taxon Data Sheet directly with the IUCN Guidelines to the Red List categories (see Appendix III). If complete information is not available for any species, details can be added to the sheets after the workshop when the Draft Report is circulated for review. Participants should make a note of incomplete taxa so information can be added later.

PART ONE

1. Scientific name (with authority and date): Scientific names of extant taxa -- genus and species (or subspecies where appropriate). The name should be followed by the authority (author's) name and date of description.

1A. Synonyms: List scientific synonyms and ambiguities with authority.

1B. Scientific nomenclature: List the Family ($1B_1$), Order ($1B_2$) and Class ($1B_3$) to which the Taxon belongs.

1C. Common name(s) with language: List known common names in English, and vernacular names followed by the language in parenthesis.

1D. Taxonomic level: This indicates the taxonomic level of assessment (e.g., species or subspecies). Taxonomic uncertainties may be discussed in this section. Subspecies not considered separately should be listed here along with their distribution.

1E. Country: List the country(ies) where the taxon is found. If the taxon is located in more than one country but is primarily found in one, please note which is the 'primary' country.

2. Distribution of the taxon

2A. Habit or Life form: List habit or life form of the taxon (plants only).

2B. Habitat (ecosystem level): Indicate the habitat in which the taxon reside using standard national classifications of ecosystems. Standard national classification of vegetation types may be used as guidelines.

2C. Habitat specificity: Indicate the specific niche or microhabitat of the taxon. Elevation or altitude range should be mentioned.

2D. Historical distribution: Record the historical global distribution of the taxon in the past 100 years (by country).

2E. Current distribution: Note the current geographic extent, including breeding and wintering locations of the taxon.

2F. Current geographic extent of taxon's distribution being assessed in this workshop: Record the geographic distribution of the taxon <u>in the region being covered in the current exercise</u> using political units/divisions (i.e. county, province, state, country, etc.).

2G. Concentrated migration sites (using political units): If applicable, specify origin and destination of the migration route (specify locale/country along migration route where the taxon may face some degree of threat).

3. Extent of occurrence: If possible, list the actual size of the area in which the taxon occurs. Also list the area contained within the shortest continuous imaginary boundary which can be drawn to encompass all the known, inferred, or projected sites of present occurrence of a taxon, excluding cases of vagrancy (see Figure 1 below). This measure does not take account of discontinuities or disjunction in the spatial distribution of taxa. Extent of occurrence can often be measured by a minimum convex polygon (the smallest polygon in which no internal angle exceeds 180 degrees and which contains all the sites of occurrence).

The Extent of Occurrence is one criterion under which a taxon can qualify for one of the IUCN Red List categories of Threat. If the Extent of Occurrence is:

- less than 100 km^2 see **"criteria B" for CR**
- less than 5,000 km^2 see **"criteria B" for EN**
- less than 20,000 km^2 see **"criteria B" for VU**
- more than 20,000 km^2 see **Area of Occupancy** described below :

4. Area of occupancy: List the area within the 'extent of occurrence' which is actually occupied by a taxon, excluding cases of vagrancy. The measure reflects the fact that a taxon will not usually occur throughout the area of its extent of occurrence, which may, for example, contain unsuitable habitats. The area of occupancy is the smallest area essential at any stage to the survival of a taxon (e.g., colonial nesting sites, feeding sites for migratory taxa). The size of the area of occupancy will be a function of the scale at which it is measured, and should be at a scale appropriate to relevant biological aspects of the taxon. The criteria include values in km^2, and thus to avoid errors in classification the area of occupancy should be measured on grid squares or equivalents which are sufficiently small (see Fig. 1).

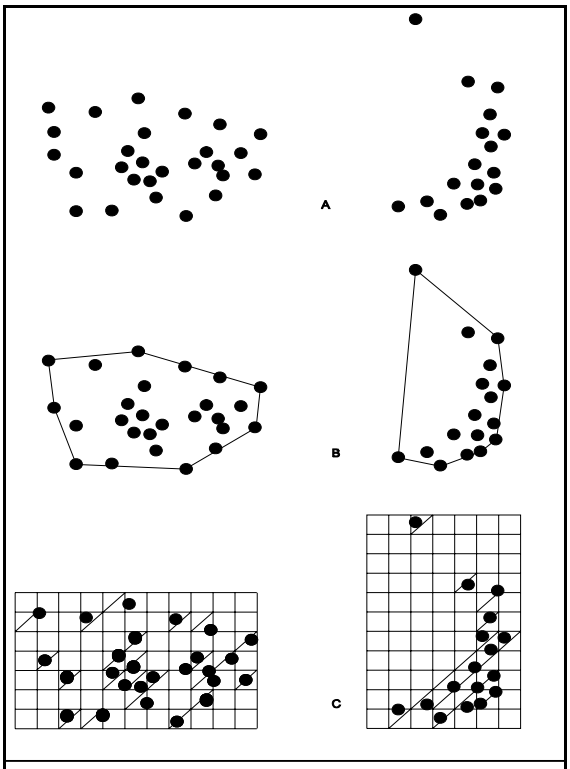

Figure 1: Two examples of the distinction between extent of occurrence and area of occupancy. (a) is the spatial distribution of known, inferred or projected sites of occurrence. (b) shows one possible boundary to the extent of occurrence, which is the measured area within this boundary. (c) shows one measure of area of occupancy

The Area of Occupancy is one criterion under which a taxon can qualify for one of the IUCN Red List categories of Threat. If the Area of Occupancy is

- less than 10 km^2, see **"Criteria B" for CR**
- less than 500 km^2, see **"Criteria B" for EN**
- less than 2,000 km^2, see **"Criteria B" for VU**

If Extent of Occurrence and Area of Occupancy are not limited to less than 20,000 km^2 and 2,000 km^2 respectively, the criteria for threat due to restricted distribution does not apply.

5. Number of populations and subpopulations: Note the number of populations (and, if appropriate, subpopulations) of the taxon. The term

'Subpopulations' refers to a set of individuals sites not likely to allow exchange by natural means.

6. Habitat status:

6A. Indicate whether or not the habitat in which the taxon occurs is fragmented (fragments are sites within a subpopulation where some degree of natural exchange can occur).

6B. If there is a change in habitat, indicate change as percent over the last number of years.

6C. If the status has not changed, indicate a percent of change if your predict so in the future.

6D. State the primary cause of change either in the past or in the future.

6E. Indicate the status of the **quality of habitat** in which the taxon is distributed.

6F. If there is a change in the status of quality of habitat, indicate primary cause for the change.

7. Threats: Identify present or predicted future events that are threats to the taxon. Circle the choice in 7A and indicate in 7B if there is any population decline due to any or all of these threats.

7A.

<u>Human interference</u>
Aircraft
Artificial lighting
Damming
Destructive fishing
Fishing
Grazing
Harvest/Hunting
Harvest for medicine
Harvest for food
Harvest for timber
Loss of habitat
Habitat fragmentation
Habitat loss due to exotic animals
Pollution
Powerlines
Road kills
Trade for market or medicine
Trade of parts
Trampling
War

<u>Natural/Man induced threats</u>
Climate

Disease
Decline in prey
Drowning
Interspecific competition – livestock
Nutritional disorders
Predation
Predation by exotics
Siltation

Catastrophes
Drought
El Nino
Fire
Hurricane
Landslide
Tsunami
Edaphic factors (due to fertilizers, pesticides, fire)

Others (please specify)

8. Trade: Is the taxon in trade? If so, indicate the level of trade in 8A, parts in trade in 8B and its effect on the population in 8C.

9. Population numbers:

9A. Global population: List the estimated numbers of individuals in the wild. If specific numbers are unavailable, estimate the general range of the population size.

9B. Population and Subpopulations: List the estimated number of individuals in any particular population or subpopulation for which there are data, followed by the location.

9C. Number of mature individuals: Indicate the number of mature individuals in the entire population.

9D. Average age of parents: Indicate the number of years in a generation. A generation is defined as the average age of parents in the population.

10. Population trends - % change in years or in generations: If possible, list the trend of the population (stable, declining, or increasing) in 10A, 10B and 10C.

11. Data Quality: List the actual age of the data used to provide 'population estimate'. Also list the type of data from which the estimates are provided.

Reliable census or population monitoring
General field study
Informal field sightings
Indirect information (trade numbers, habitat availability).
Museum/ herbarium studies/ records
Literature

Hearsay/popular belief

Record a combination if there is inconsistent data quality in different parts of range.

12. Recent field studies: List any current or recent field studies (in the last 10 years), the name of the researcher and the location of the study. Quote only study dates. Do not quote publication dates (publications form these studies can be listed in the 'Sources' section of the Taxon Data Sheet).

PART TWO

13. Conservation status

13. A-H. Current Status: Record here all current conservation status categorizations for the taxon according to global and national IUCN Red Lists, and any other regional, national, and legal criteria.

13. I and J. Assigned Status: With the information derived during the CAMP workshop (items 1 – 12 of this Taxon Data Sheet), and using the criteria and guidelines in Section III, derive a status according to the IUCN Red List categories. Also indicate the criteria that the treat category is based on. This is explained in full in Appendix III.

EX	=	Extinct	
EW	=	Extinct in the wild	
CR	**=**	**Critically Endangered**	**Threatened categories**
EN	**=**	**Endangered**	
VU	**=**	**Vulnerable**	
LR	=	Lower Risk	
cd	=	Conservation Dependent	
nt	=	Near Threatened	
lc	=	Least Concern	
DD	=	Data Deficient	
NE	=	Not Evaluated	

Conservation status based on: Indicate which of the IUCN Red List criteria in the IUCN Red List Categories document, Appendix III) were used to assign a category of threat. Be sure to list every specific criterion that applies (for example, A1b, B3c, E):

PR	=	Population reduction (A1a, or A2b, etc.)
RD	=	Restricted distribution (B1, or B2a, B3c, etc.)
PE	=	Population estimates (C1, or C2a, etc.)
NM	=	Number of mature individuals (D)
PX	=	Probability of extinction (E)

CITES and other legislation: List CITES Appendix on which the species is listed, if appropriate.

List the status of the taxon if included in any other national or international legislation or Red Data Book

Other: List whether the species has been assigned threatened status in other venues, e.g., nationally or in other conservation assessments.

Known presence in protected areas: Please list all the protected areas in which the taxon is found.

Nationally or regionally endorsed protection plans: Indicate if the taxon is under any kind of protection either nationally or locally.

PART THREE

14. Research recommendations: Based on the threats to the taxa and lacunae areas of study, research recommendations form a part of species recovery program. Indicate the areas of research needed to understand the taxon. The categories within this section are:

Survey
Genetic research/studies
Taxonomic research/studies
Limiting factor research
Life history studies
Epidemiological studies
Husbandry research
Trade
Other (record in detail on Taxon Data Sheet)

14A. Note whether a **Population and Habitat Viability Assessment** is recommended for the taxon.

15. Management recommendations: It should be noted that there is (or should be) a clear relationship between threats and subsequent outlined research management actions. The "Management recommendations" column provides an integrated view of actions to be taken, based on the listed threats. Adaptive management recommendations can be defined as a management program which includes a strong feedback between management activities and an evaluation of the efficacy of the management, as well as response of the species to that activity. The categories within the column are as follows:

Habitat management
Translocations
Monitoring
Wild population management
Limiting factor management
Public awareness/education
Sustainable utilization
Genome research banking

Captive breeding/cultivation
Work with local communities
Other (record in detail on Taxon Data Sheet)

16. Captive breeding/cultivation recommendation: If captive breeding/cultivation is recommended in section 15, indicate whether this program is required for any particular reason such as:

Species recovery
Education
Reintroduction/translocation
Benign introduction
Research
Husbandry
Preservation of live genome
Others (record in detail on Taxon Data Sheet)

17. Captive/cultivated stocks: Indicate if there are any captive or cultivated stocks of the taxon. If so list the facilities in 17A, and the number in captivity in 17B. Indicate if a species management program exists (17C) or if such a program is recommended (17D).

18. Captive breeding/cultivation recommendation: If captive breeding/cultivation is recommended, indicate the action to be taken from among these:

Ongoing captive breeding/ cultivation program intensified or increased
Ongoing captive breeding/ cultivation program decreased
Initiate captive breeding/ cultivation program within three years
Initiate captive breeding/ cultivation program after three years
Pending recommendation from a PHVA workshop
No captive breeding/ cultivation required for the taxon.

19. Are techniques established for propagating the taxon in captivity/cultivation: Indicate the appropriate choice:

- Techniques available or in place for breeding/ cultivating the taxon or similar taxa *ex situ*
- Techniques partially known or in place for breeding/ cultivating the taxon or similar taxa *ex situ*
- Techniques not known for breeding/ cultivating taxon or similar taxa *ex situ*
- Information not available about breeding/ cultivating techniques for the taxon among the group of compilers

20. Other Comments: Note any additional information that is important with respect to the conservation of the taxon.

21. Sources: List complete sources used for information for the above data. (Author name, year, title of article or book, journal, issue, and page numbers).

22. Compilers: List the names of the people who contributed information for this Taxon Data Sheet (including people who sent Biological Information Sheets, if they were used.).

23. Reviewers: List the names and affiliations of Taxon Data Sheet Reviewers.