

# **Government Gazette**

# REPUBLIC OF SOUTH AFRICA

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# GOVERNMENT NOTICE

# DEPARTMENT OF ENVIRONMENTAL AFFAIRS AND TOURISM

26 March 2004

SEA BIRDS AND SEALS PROTECTION ACT, 1973 (ACT NO. 46 OF 1973)

# DRAFT POLICY FOR SEALS, SEABIRDS AND SHOREBIRDS IN SOUTH AFRICA

The Minister of Environmental Affairs and Tourism has released a draft policy for seals, seabirds and shorebirds in South Africa.

Members of the public are hereby invited to submit written comment on this draft policy. The draft policy is available at <u>www.deat.gov.za</u>. Hard copies are available at the Department of Environmental Affairs and Tourism: Branch Marine and Coastal Management, 5<sup>th</sup> Floor, Foretrust Building, Martin Hammerschlag Way, Foreshore Cape Town.

Members of the public must submit written comment by no later than 16h00 on 31 May 2004. Comments should be titled as follows:

# Draft Seals, Seabirds and Shorebirds Policy: 2004 The Deputy Director-General: Marine and Coastal Management

Comments may be -

No. 401

- Hand delivered to the offices of Marine and Coastal Management at the above address;
- Posted by registered mail to Private Bag X2, Roggebaai, 8012;
- E-mailed to staveree@deat.gov.za; or
- Faxed to (021) 425-7324.

Should you have any telephonic enquiries, please do not hesitate to contact the Department at (021) 402-3911, alternatively (021) 402-3192. Your enquiries may be directed at Ms. Linda Staverees.

# DRAFT NATIONAL POLICY FOR SEALS, SEABIRDS AND SHOREBIRDS IN SOUTH AFRICA

# INTRODUCTION

South African seabirds and seals are at present administered in terms of the Sea Birds and Seals Protection Act (SBSPA) No. 46 of 1973, as well as other acts (e.g. National Parks Act No. 57 of 1976) and provincial ordinances (e.g. Nature Conservation Ordinance 19 of 1974 (Cape)).

In the SBSPA, seabird has a broad definition, including not only seabirds *per se* (Sphenis-cidae, Phalacrocoracidae, Laridae, Sternidae and other families), but also members of the families Threskiornithidae, Haematopodidae, Charadriidae and others. Seals are defined as any Cape Fur Seal *Arctocephalus pusillus pusillus*, Antarctic Fur Seal *Arctocephalus gazella*, Subantarctic Fur Seal *A. tropicalis*, Southern Elephant Seal *Mirounga leonina*, Leopard Seal *Hydrurga leptonyx*, Weddell Seal *Leptonychotes weddelli*, Crabeater Seal *Lobodon carcinophagus* and Ross Seal *Ommatophoca rossi*.

In 2 (1) (a) of SBSPA, control over seabirds and seals is exercised "within the Republic and the territorial waters and fishing zone of the Republic as defined in sections 2 and 3, respectively, of the Territorial Waters Act, 1963 (Act No. 87 of 1963), on any island specified in Schedule 2 and, in respect of South African citizens, in Antarctica". Schedule 2 refers to Marion Island and Prince Edward Island. *Territorial Waters Act*, 1963, *Territorial Waters Amendment Act*, 1977 and *Territorial Waters Act*, 1978 were repealed in whole by *Maritime Zones Act No.* 15 of 1994. The latter Act defines territorial waters as "The sea within a distance of twelve nautical miles from the baselines" and exclusive economic zone as "The sea beyond the territorial waters ... but within a distance of 200 nautical miles from the baselines."

At islands, below the high-water mark and within territorial waters and the fishing zone (exclusive economic zone), SBSPA prohibits the killing, capture or wilful disturbance of seals and seabirds, damaging of their eggs or collection of their eggs, feathers or guano, unless sanctioned in terms of a permit issued (at present) by the Minister of Environmental Affairs and Tourism (or his/her delegated representative).

Seabirds (sensu stricto) are often taken to be those birds that obtain a portion of their food from the sea (excluding the intertidal zone). Adopting this definition, there are 15 species of seabird that breed in continental South Africa (including its coastal islands, excluding Australian Gannet *Morus serrator* which hybridises with Cape Gannet) and at least 28 that breed at the Prince Edward Islands (excluding Lesser Sheathbill *Chionis minor*). Only Kelp Gulls *Larus dominicanus* breed in continental South Africa and at the Prince Edward Islands (as two distinct subspecies). Therefore, at least 42 seabirds breed on South African territory. Additionally, at least 62 other species of seabird visit southern African waters (Ryan, P.G. and Rose, B. 1979. Migrant seabirds. In: *Oceans of Life off Southern Africa*. Payne, A.I.L. and Crawford, R.J.M. (Eds), pp. 274–287. Vlaeberg; Cape Town), so that South Africa supports well over 100 species of seabird *sensu stricto*. South Africa is a range state for 15 of the 30 species of oceanic seabirds that are seriously at risk from being killed by long-line fisheries throughout the world's oceans.

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Of the 15 species of seabird that breed in continental South Africa, seven are endemic to southern Africa (including southern Angola). The nominate race of Swift Tern (*Sterna b. bergii*) and the race of Kelp Gull *L. d. vetula* also are endemic to this region. For the conservation of these endemic taxa, southern African states have sole responsibility. About 90% of the global populations of African Penguins *Spheniscus demersus*, Cape Gannets *M. capensis* and Hartlaub's Gulls *L. hartlaubii* breed in South Africa. Substantial proportions of the overall populations of Cape *Phalacrocorax capensis*, Bank *P. neglectus* and Crowned *P. coronatus* cormorants also breed in South Africa (Table 1). Of the 15 seabirds that breed in continental South Africa, nine are listed as Threatened or Near-threatened in terms of criteria of The World Conservation Union (IUCN) (Barnes, K. N. 2000. *The Eskom Red Data Book of Birds of South Africa, Lesotho and Swaziland*. BirdLife South Africa; Johannesburg).

Table 1:Estimates of the conservation status and the population sizes of seabirds that breed in<br/>southern Africa and South Africa. The proportions of the southern African and global<br/>populations of each species that breed in South Africa are indicated

Species	Conservation	Southern	South African	Proportion of	Proportion of
	status	African	population	southern	global
		population	(breeding	African	population in
		(breeding	pairs)	population in	South Africaa
		pairs)		South Africa	
African Penguin (b)	Vulnerable	62 300g	56 900	0.91	0.91
Leach's Storm Petrel (b)	Endangered	25	25	1.00	0.00
Great White Pelican (c)	Near-	7 350	3 650	0.50	0.08
Cape Gannet (b)	threatened	166 200g	148 000	0.89	0.89
Cape Cormorant (b)	Vulnerable	215 500g	94 200	0.44	0.44
Bank Cormorant (b)	Near-	3 132g	971	0.31	0.31
Crowned Cormorantb	threatened	2 922g	1 850	0.63	0.63
White-breasted	Endangered	4 100	1 949	0.48	0.03
Cormorant (c)	Near-				
Kelp Gull (b)	threatened	23 000	18 600	0.81	0.02
Hartlaub's Gull (b)	Least Concern	7 325g	6 561	0.90	0.90
Grey-headed Gull (b)		3 255	2 649	0.81	0.26
Caspian Tern (d)	Least Concern	500	435	0.87	0.01
Roseate Tern (e)	Least Concern	250	250	1.00	0.01
Swift Tern (f)	Least Concern	6 686	6 336	0.95	0.06
Damara Tern (e)	Least Concern	4 620g	120	0.03	0.03
	Vuinerable	-			
	Least Concern				
	Near-				
	threatened				

a Information on global populations was obtained from D0.0elany, S. and Scott, D. 2002. Waterbird population estimates, third edition, Wetlands International Global Series 12, Wageningen; The Netherlands and from Hockey, P. A. R. et al. (Eds). Roberts' Birds of Southern Africa, seventh edition (in press).

b Estimates from Du Toit, M. et al. (Eds) 2003. Conservation Assessment and Management Plan for Southern African Coastal Seabirds. Cape Town; Avian Demography Unit and IUCN/SSC Conservation Breeding Specialist Group.

- Estimates include birds breeding inland in southern or South Africa and are from information in с Hockey, P. A. R. et al. (Eds). Roberts' Birds of Southern Africa, seventh edition (in press).
- d Estimates from Cooper, J. et al. 1992. Distribution, population size and conservation of the Caspian Tern in southern Africa. Ostrich 63: 58-67.
- From information in Delany, S. and Scott, D. 2002. Waterbird population estimates, third e edition, Wetlands International Global Series 12, Wageningen; The Netherlands.
- f From information in Hockey, P. A. R. et al. (Eds). Roberts' Birds of Southern Africa, seventh edition (in press) and Ministry of Fisheries and Marine Resources, Namibia.
- The southern African population is also the global population. g

Of the seabirds that breed at the Prince Edward Islands, 14 are listed as Threatened or Near-threatened, as also is Lesser Sheath-bill (Barnes, K. N. 2000. The Eskom Red Data Book of Birds of South Africa, Lesotho and Swaziland. BirdLife South Africa; Johannesburg). For some of the seabirds that breed at Prince Edward Islands, South Africa supports a substantial proportion of the global populations, e.g. Wandering Albatross Diomedea exulans (Table 2).

Table 2:	Estimates of the conservation status and the population sizes of surface-nesting seabirds
	at the Prince Edward Islands (South African territory). The proportions of the global
	populations of each species that breed at the Prince Edward Islands are indicated

Species	Conservation status (a)	Annual breeding population at Prince Edward Islands (pairs) (b)	Proportion of global population at the Prince Edward Islands (b)
King Penguin	Least Concern	221 000	0.13
Gentoo Penguin	Near-threatened	1 319	<0.01
Macaroni Penguin	Near-threatened	372 000	0.04
Eastern Rockhopper Penguin	Near-threatened	112 000	0.17
Wandering Albatross	Vulnerable	3 719	0.44
Grey-headed Albatross	Vulnerable	9 229	0.10
Indian Yellow-nosed Albatross	Vulnerable	7 500	0.21
Dark-mantled Sooty Albatross	Near-threatened	1 584	0.10
Light-mantled Sooty Albatross	Near-threatened	329	0.02
Northern Giant Petrel	Near-threatened	595	0.05
Southern Giant Petrel	Near-threatened	2 830	0.09
Crozet Shag	Endangeredb	394	0.33
Subantarctic Skua	Least Concern	796	0.11
Kelp Gull	Least Concern	54	<0.01
Antarctic Tern	Least Concern	<15	< 0.01
Kerguelen Tern	Endangered	ca 60	0.03

a From Barnes, K. N. 2000. The Eskom Red Data Book of Birds of South Africa, Lesotho and Swaziland. BirdLife South Africa; Johannesburg.

b

From Crawford, R. J. M. and Cooper, J. 2003. Conserving surface-nesting seabirds at the Prince Edward Islands: the roles or research, monitoring and legislation. Afr. J. mar. Sci. 25: 415-426.

SBSPA considers not only seabirds, but also shorebirds, including Haematopodidae and Charadriidae, which breed in or visit South Africa, the Lesser Sheathbill (Chionidae), and groups such as ibis and flamingos. How-ever, many species of shorebird fall outside the ambit of current legislation but breed within South African territory or visit South

African waters and constitute an ecologically important component of estuaries and the coastline. There is concern that many of these shorebird species are negatively impacted by habitat loss and disturbance within South Africa and that, in particular, migrant shorebird species are likely to be adversely affected by global climate change. South Africa has acceded to the African-Eurasian Migratory Waterbird Agreement (AEWA), and therefore has an international responsibility for the conservation of species listed in the Appendix to AEWA. Further, South Africa is a signatory of the Ramsar Convention on Wetlands of International Importance. Several of the registered Ramsar wetlands in South Africa are located in the 'coastal zone' and shorebirds were the motivation for registering these wetlands.

There is only one species of seal which breeds in continental South Africa, namely the Cape Fur Seal. It is endemic to southern Africa, with a population of 1.5–2 million individuals. On the Prince Edward Islands there are three breeding species of seals: the Antarctic Fur Seal, the Subantarctic Fur Seal and the Southern Elephant Seal.

In the absence of policy guidelines within SBSPA, its long title may be taken to indicate policy, namely: "To provide for the control over certain islands and rocks; for the protection and the control of the capture and killing, of sea birds and seals; and for the disposal of the products of sea birds and seals and for matters incidental thereto ...". Thirty years have elapsed since SBSPA was promulgated and it is necessary to have an updated and more comprehensive national policy for seabirds (including shorebirds) and seals in South Africa. Such an updated policy is presented in section B. It is envisaged that this policy will be used to revise SBSPA.

The policy was developed during and following a meeting that was convened by the Marine and Coastal Management (MCM) branch of the Department of Environmental Affairs and Tourism (DEAT), at Sea Point, Cape Town, from 11–13 February 2002, to draft guidelines for a national policy for seabirds and shorebirds. The meeting also considered aspects of policy with regard to seals. It was attended by representatives of:

Department of Environmental Affairs and Tourism Western Cape Nature Conservation Board KwaZulu Natal Wildlife Robben Island Museum South African National Parks South African National Defence Force Avian Demography Unit, University of Cape Town BirdLife South Africa Percy FitzPatrick Institute of African Ornithology, University of Cape Town Southern African Foundation for the Conservation of Coastal Birds Overstrand Municipality.

Representatives from the conservation departments of Northern Cape and Eastern Cape were invited to the meeting but were unable to attend. Representatives from the following NGOs were invited but also were unable to attend:

Endangered Wildlife Trust IUCN (The World Conservation Union) – South Africa

Society for the Prevention of Cruelty to Animals University of Port Elizabeth Wildlife and Environmental Society of Southern Africa Worldwide Fund for Nature – South Africa.

# DRAFT POLICY FOR SEALS, SEABIRDS AND SHOREBIRDS IN SOUTH AFRICA

#### **1. Scope of the policy**

This policy will apply to seals, seabirds and shorebirds that breed within South Africa's 'coastal zone', that occur within its exclusive economic zone (EEZ) or 'coastal zone' on passage between breeding and non-breeding areas and that utilize the EEZ or 'coastal zone' as a non-breeding area. The boundaries of this 'coastal zone' are deemed to extend as far inland and out to sea as necessary for the conservation and sustainable non-consumptive utilization of seals, seabirds and shorebirds and include estuaries, coastlands, coastline, offshore islands, the Prince Edward Islands, inland waters, coastal waters and the EEZ.

Schedule 1 of SBSPA should be expanded to include all islands and islets along the South African coast where breeding by seals, seabirds or shorebirds takes place, as well as mainland breeding sites for seals and penguins. The schedule should include all nonbreeding locations, haulout sites and roosts for seals and seabirds, whether on islands or on land, that are important for maintaining the populations of these animals. The policy will also apply to activities of South African citizens in Antarctica.

All species of seal listed in SBSPA should be covered by this national policy, as well as species of seabird and shorebird listed in Appendix 1 and Appendix 2, respectively.

#### 2. Purpose of the policy

This policy serves the purpose of outlining an updated framework of principles and approaches, which will guide and direct the responsible and orderly management of seals, seabirds and shorebirds for the benefit of present and future generations in South Africa. It is based on the best available knowledge of the status of the populations of the species that it deals with and their natural environment and habitats. Simultaneously, it will guide and direct the drafting of revised adequate legislation that will govern and regulate activities associated with the subject species in terms of this policy.

# 3. Objectives of the policy

# 3.1 CONSERVATION OF SEALS, SEABIRDS AND SHOREBIRDS

Recognising that 15 species of seabird and one species of seal breed in continental South Africa and its coastal islands, that an additional 27 species of seabird and three species of seal breed at the Prince Edward Islands, that more than 60 species of seabird that do not breed on South African territory migrate to South African waters, that many species of shorebird breed within South African territory or visit South African waters, and hence that South Africa enjoys a high diversity of seabirds and shorebirds and valuable seal resources;

Further recognising that most of the seabirds and the single seal species that breed in continental South Africa and its coastal islands are endemic to southern Africa or form

discrete, isolated populations, that South Africa supports substantial proportions of the global populations of several seabirds that breed at the Prince Edward Islands, that substantial numbers of some seabirds that do not breed in South Africa (including the Prince Edward Islands) may be at risk, e.g. from fishing activities, when visiting South African waters, that South Africa has acceded to several international agreements pertaining to the conservation of seals, seabirds and shorebirds and is thus obliged to conform with such policies, that many shorebird species are negatively impacted by habitat loss and disturbance within South African territory, and hence that South Africa has a vital role to play in the conservation of both breeding and migratory seals, seabirds and shorebirds.

Further recognising the poor conservation status of many of the seabirds and shorebirds that breed in continental South Africa and its coastal islands, and at the Prince Edward Islands:

Policy will have as its prime objective the conservation of seals, seabirds and shorebirds in South Africa [including coastal islands, estuaries, coastline and coastlands], its territories [offshore islands] and its waters.

Conservation of species will necessitate ensuring that recruitment into breeding populations balances losses from them. This may be achieved by minimizing mortality, increasing production, or by both.

# 3.1.1 Minimizing mortality

Mortality of seabirds and seals arises from a variety of sources, including:

3.1.1.1 Oiling — Policy will aim to minimize the numbers of seabirds and seals that are oiled (or orphaned through their parents being oiled or removed to prevent their becoming oiled), especially African Penguins and Cape Gannets that have proved particularly susceptible to oil spills in the past, but also rare or threatened species such as Bank Cormorants. It will also aim to have in place and support contingency plans, networks and/or rehabilitation facilities for the rescue and subsequent rehabilitation of birds that are oiled or orphaned.

In order to prevent the proliferation of rehabilitation facilities, and costs associated with their functioning, specific rehabilitation facilities should be identified to take the lead in the care and rehabilitation of seabirds. Policy will aim to assist with funding of such facilities.

For seals, which at present are not of conservations concern, government will not fund rehabilitation, but will encourage privately-funded rehabilitation facilities, which will be required to follow protocols determined by government.

3.1.1.2 Other forms of pollution — Seabirds and seals are at risk from other forms of pollution, e.g. ingestion of plastics, entanglement in discarded material, such as cords used to offload tuna from fishing vessels and accumulation of poisons (e.g. polychlorinated bi-phenyls, organo-chlorine pesticides and heavy metals such as mercury and lead). Lights on boats in the Antarctic, Subantarctic and at the Marion Island base have the potential to blind and disorientate seabirds causing them to crash into fixed structures, where they are either killed on impact or make

easy prey for predatory birds. Policy will aim to minimize these threats and may include control of the type and design of cords used to off-load tuna from fishing vessels.

- 3.1.1.3 Incidental capture by fisheries Policy will adopt plans of action for reducing the incidental mortality of seabirds and seals caused by fishing operations, such as the FAO National Plan of Action for Reducing Incidental Catch of Seabirds in Longline Fisheries (NPOA-Seabirds). Fishing with gill nets in the vicinity of seabird breeding colonies will be restricted. Provision will be made for training of crew aboard trawlers in the disentanglement of seals caught in nets so that they may be released alive. Restrictions will be implemented on the use or carrying of firearms, ammunition and explosives aboard fishing vessels, with a view to the control of the illegal shooting of seals at sea.
- 3.1.1.4 Losses to natural predators As humans have disrupted the natural functioning of marine ecosystems, e.g. by providing additional habitat for some species to breed, through decreasing the food of some species and through climate change, it is no longer satisfactory to view interactions between wild animals simply as natural processes. Policy will provide for interventive management to secure the future of threatened species, e.g. the culling of animals responsible for unsustainable levels of predation. In pursuing this objective the precautionary principle will be applied.

In cases where seals have been confirmed as preying on seabirds of conservation concern, either on land or at sea, and where the level of this predation is believed to pose a threat to the population status of the bird species or colony concerned, attempts should be made to identify and to cull the specific seals responsible for the predation but this would not preclude application of the precautionary principle.

- 3.1.1.5 Losses to introduced predators Predators, such as feral cats, have been introduced to several bird breeding localities. Policy will be to eliminate these predators and to minimize the risk of further introductions of such predators.
- 3.1.1.6 Mortality through disease Disease may cause high mortality and should be controlled. Policy will aim to minimize introductions of diseases to seal, seabird and shorebird populations (e.g. through the non-"return of seals and birds exposed to disease to localities where they may introduce disease) and to control the spread of disease (e.g. through burning carcasses of infected birds).
- 3.1.1.7 Potential mortality from fire Especially African Penguins are at risk from fire at breeding sites with abundant dry wood. Policy will aim to minimize the risk of fire (e.g. through removal of dead wood from breeding sites).
- 3.1.1.8 Mortality from traffic and other forms of development At some bird breeding localities mortality is caused by traffic, by birds becoming trapped in ditches, etc. Off-road vehicles may cause mortality of seal pups and of eggs and nestlings of species breeding on the mainland, e.g. Damara Terns Sterna balaenarum. Policy

will aim to limit such mortality, *inter alia* through ensuring reasonable driving speeds and precluding off-road driving in the vicinity of breeding sites.

- 3.1.1.9 Starvation Starvation is a major cause of mortality. Policy will aim to ensure sufficient availability of food in the wild to sustain populations (possibly through legislation to ensure adequate escapement of prey from commercial fisheries) and, for Threatened or Near-threatened species, to reduce mortality through the captive rearing of birds that otherwise would starve, e.g. orphaned chicks.
- 3.1.1.10 *Killing of seals and birds* Policy will generally prohibit the killing of seals and seabirds or shorebirds and the collection or destruction of their eggs and nests, except where this is necessary for conservation management (e.g. seals may be killed when they prey on threatened seabirds and some Anatids can be shot in instances where naturalized species threaten to interbreed with indigenous species), or for scientific, educational, safety (e.g. to prevent strikes on aircraft), economic (e.g. seals eating fish in set nets or cormorants eating fish in impoundments), health or humane reasons. Killing that will threaten the viability of South African populations of species will not be sanctioned. All killing, except that for humane reasons, should be controlled by permit. All killing should be humanely undertaken. Accurate records should be kept of numbers of seals and seabirds killed and eggs collected or destroyed. The killing of seals and seabirds for profit will generally not be sanctioned.
- 3.1.1.11 *Exploitation of eggs* Past utilization of seabirds in South Africa included the exploitation of large numbers of seabird eggs. Policy will preclude such exploitation for Threat-ened or Near-threatened species, or when disturbance of Threatened or Near-threatened species will ensue. The collection of live eggs for profit will generally not be sanctioned.
- 3.1.1.12 Rough water/spring tides New-born seal pups and bird nests containing eggs or chicks may be swept off certain islands by heavy seas or high tides. These seal pups are poor swimmers and may be carried to the mainland dead or barely alive. Policy should make provision for the humane euthanasing of such pups, when they are assessed by a veterinarian as unlikely to survive. Where possible, pups showing a potential to survive may be returned to the colony from which they came or are thought to have come. Chicks or eggs may be sent to a rehabilitation centre, but chicks should be euthanased if recommended by a veterinarian.

# 3.1.2 Increasing production

Seal and seabird production may be impaired by several factors, including:

3.1.2.1 Insufficient food — Inadequate supplies of food may cause a reduction in the breeding success of seals and seabirds or may cause seabirds not to breed or to postpone breeding. Seals and some seabirds compete with fisheries for food. It is important that policy ensure adequate availability of food for seals and seabirds, which for some species will necessitate providing for sufficient escapement of food from fisheries on such food resources. Policy also should make provision for the prohibition of specified types of fishing in the vicinity of seal and seabird

breeding localities, where such fishing may reduce concentrations of fish available to the breeding seals and seabirds.

- 3.1.2.2 Displacement of birds from breeding sites Seabirds are frequently displaced from breeding sites by larger animals, e.g. seals. This has been accentuated by modification of islands, where seabirds traditionally bred, through removal of accumulated deposits of guano. For example, at some localities African Penguins can no longer burrow into guano to prevent their nests being overrun by seals. Smaller, ground-nesting seabirds may be prevented from breeding at islands by feral predators. Policy must ensure retention of breeding space for Threatened and Near-threatened seabirds. Where seals have encroached into bird breeding areas, they may be persuaded to leave by a programme of deliberate disturbance, or removed by a programme of culling or by the construction and placement of artificial barriers. Other methods of assisting breeding are by the establishment of artificial nesting sites and removal of feral predators from breeding localities.
- 3.1.2.3 Degradation of breeding habitat Degradation of breeding habitat of seabirds has arisen from activities such as removal of guano causing birds to breed in depressions that are subject to flooding, removal of shade, exclusion of birds from certain areas to facilitate collecting of eggs, etc. Habitat loss, particularly in estuaries, is a consequence of industrial and port development, waste discharge, sediment removal, bait collection, the development of recreational infrastructure and the construction of roads, bridges, marinas, etc. Islands should be protected from mineral mining too close to breeding or haulout areas. Policy should seek to maintain suitable breeding habitat, especially for Threatened and Near-threatened species, and that developers restore and/or create habitat to compensate for that lost to development.
- 3.1.2.4 Disturbance by humans Disturbance by humans (e.g. construction activities, tourism, collection of guano, illegal landings, off road motoring, low-flying aircraft) may cause seals to stampede, resulting in the death of young pups, or to desert their colony, and seabirds to leave nests, making eggs and chicks at risk to predators and discouraging young adults from breeding. Suitable restricted areas should be declared surrounding breeding islands and mainland colonies but provision should be made for sustainable tourism (see section 5 below). Overflying of breeding colonies should be regulated by controlling the route paths and altitude of aircraft. The speed of recreational vessels close to breeding colonies should be restricted. Eco-tourism vessels/vehicles must be subject to permit conditions and a code of conduct. Policy will aim to minimize unnecessary disturbance to seals, seabirds and shorebirds. Any disturbance to seals, seabirds and shorebirds, especially breeding animals, will be subject to the issuing of a permit.
- 3.1.2.5 Destruction of nests Some species of seabird, e.g. Hartlaub's Gull, have learnt to nest on the roofs of buildings or to build nests on private property (e.g. gardens), often causing damage to buildings (e.g. by blocking gutters) or irritation to residents (e.g. through noise). Policy will aim to discourage such nesting where possible, e.g. through exclusion fencing, laser technology and/or provision of

alternative safe breeding sites, and where desired. It will allow for the removal of nests and the captive rearing of affected eggs and chicks. However, such removal of nests will not be considered if it is likely adversely to affect the conservation status of the species concerned. Any discouragement or intervention (including the artificial rearing of eggs and chicks) will be at the expense of the landowner concerned.

3.1.2.6 Global climate change — Global climate change may render natural breeding sites of seals and seabirds less suitable for breeding, e.g. through rising sea levels, increased ambient temperatures, increased frequency of storms, or altering the distribution and abundance of prey. Policy will seek to monitor possible changes in the environment at seal, sea-bird and shorebird breeding localities and take such remedial action as may be possible, e.g. the provision of shade or establishment of captive-breeding programmes for threatened species.

# 3.2 RECOGNITION OF INTERNATIONAL AGREEMENTS

Recognising that South Africa is signatory to (or intending to ratify) a number of international agreements that in whole or in part concern the conservation of seals, seabirds and shorebirds:

Policy will conform with the requirements of such international agreements, including:

- African Convention on the Conservation of Nature and Natural Resources (Algiers Convention);
- Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA);
- Agreement on the Conservation of Albatrosses and Petrels (ACAP);
- Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR);
- Convention on Biological Diversity (CBD);
- Convention Concerning the Protection of the World Cultural and Natural Heritage (World Heritage Convention);
- Convention on the Conservation of Migratory Species of Wild Animals (CMS or Bonn Convention);
- Convention on the Conservation of Southern Bluefin Tuna (CCSBT);
- Convention for Co-operation in the Protection and Development of the Marine and Coastal Environment of the West and Central African Region (Abidjan Con-vention);
- Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES Convention);
- Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region (Nairobi Convention);
- Convention on Wetlands of International Importance, especially as Waterfowl Habitat (Ramsar Convention);
- Indian Ocean Tuna Commission (IOTC);
- International Plan of Action for Reducing Incidental Catch of Seabirds in Longline Fisheries of the Food and Agriculture Organization of the United Nations (FAO IPOA-Seabirds);
- Man and the Biosphere Programme of the United Nations Educational, Scientific and Cultural Organization (MAB);

MARPOL Convention.

Any sale of seals and seabirds to institutions outside South Africa will take cognisance of the provisions of these agreements, will preferably be made from captive populations, and will only be sanctioned if there is reasonable evidence that the prospective destination institutions will provide suitable facilities and care. Policy will preclude the passage through South Africa of seals and seabirds caught outside South Africa and its territories unless such capture is conducted legally, follows the best conservation practices and there is reasonable evidence that the prospective destination institutions will provide suitable facilities and care.

# **3.3 CO-OPERATIVE MANAGEMENT**

Recognising the migratory nature of many of the seabirds and shorebirds that breed on South African territory, or visit South African waters, and the interchange, at varying time scales, of seals and seabirds between breeding colonies within South Africa, and between breeding colonies in South Africa, Namibia and Angola or between the Prince Edward Islands and other Subantarctic localities:

Policy will have as its objective the co-ordinated management of seal, seabird and shorebird colonies within South Africa and the desirability of regional and international co-operation with regard to management of seals, seabirds and shorebirds breeding in or visiting southern Africa.

3.3.1 Co-ordinated management of South African seal and seabird colonies National, statutory or provincial departments with responsibility for conservation and management of seals and sea-birds or their habitat include DEAT, South African National Defence Force (SANDF), South African National Parks (SANP), Robben Island Museum (RIM) and the four coastal provinces. Additionally, regional councils and NGOs contribute to conservation and management. In terms of South Africa's Constitution (Act 108 of 1996), seals and seabirds as a marine resource (excluded from nature conservation in Schedule 4) fall within the functional area of national legislative competence. Hence national government will be responsible for determination and development of policy with regard to seals and seabirds. This is rational because seals and seabirds do not exist in isolation from their environment, but are influenced by other resources (e.g. availability of food and interactions with other marine predators) and fisheries that are managed at the national level. Further, there is interchange of animals between localities administered by different organizations.

National government may delegate management of certain localities to other tiers of government. However, through DEAT, national government will be responsible for the management of seals, seabirds and shorebirds at a national level. This will necessitate unrestricted access by staff of DEAT to breeding and haulout localities of seals, seabirds and shorebirds in order to conduct the necessary research and monitoring to fulfil this function (see section 4.3 below).

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The co-ordinated management of all interested parties is desirable and may best be achieved through a 'national advisory forum' or council, chaired by a representative of DEAT, on which all role players are represented and which advises the Minister through DEAT. In the case of seals, it is recommended that these be managed by DEAT alone because only DEAT scientists and technical staff have the necessary experience of working with seals and knowledge of the problematic interactions between seals and commercial fisheries.

The management of coastal islands and other localities where seals and seabirds breed is fragmented and in certain instances is inadequate. The legal situation regarding which department is responsible for management of islands and their resources (other than those administered by SANDF, SANP) is also not clear. Staatspresidents-minute 1109 of 23 November 1989 assigns some functions under the Sea Fisheries Act of 1973, which however had been repealed by the Sea Fisheries Act of 1988, to the Administrator of the Cape of Good Hope. These functions included the harvesting of guano and seal pelts. The later President's Minute 29 of 5 July 1994 assigns administration of the Sea Birds and Seals Protection Act to the Minister of Environmental Affairs and Tourism. Policy needs to clarify which department is responsible for managing each seal or seabird breeding locality and make provision for the adequate administration of all breeding localities. A solution may be for DEAT to manage islands that provinces are unable (e.g. through financial constraints) to administer and for provinces to continue managing islands that they are both able and willing to administer, unless the ensuing cost to national government is too great. In this instance, administration of such islands should be assumed by DEAT.

## 3.3.2 Regional management of seals and seabirds

The Cape Fur Seal and many of the seabirds breeding in continental southern Africa and its coastal islands are endemic to the region. There is movement (both shortterm and long-term) of several species between states, so that conservation will be enhanced by regional agreements, e.g. development of a memorandum of understanding between national management and research institutes or in terms of the Bonn Convention. Further to this, the establishment of a Southern African AEWA Seabird and Shorebird Working Group could have included in its terms of reference the harmonization of species action plans within southern Africa.

#### 3.3.3 International co-operation

International co-operation can be implemented in terms of agreed conventions (see section 3.2). International co-operation should be encouraged to monitor impacts on seals and seabirds that breed within South African territory and are at risk from the activities of other states (either within their exclusive economic zone or operating on the high seas) and vice versa. Research and development (e.g. measures to decrease incidental catches of seals and sea-birds) can be enhanced through interaction with specialists in other countries.

### **3.4 ECOTOURISM**

Recognising the rapidly increasing interest in tourism to seal and seabird colonies, and the desirability of economic development in South Africa:

Policy will have as its objective the sustainable, non-consumptive use of seals, seabirds and shorebirds for ecotourism, provided provision is made for regulating access to colonies and preventing or controlling disturbance to seals and birds so as to ensure sustainable utilization.

Tourism to seal and seabird colonies has exhibited remarkable growth in South Africa in recent years. Together with the proposed inclusion of shorebirds in plans for the development of tourism in the coastal zone, this highlights the need to cater for an expanding industry and to seek its sustainability through ensuring (i) that it has no long-term negative impact on seal, seabird and shorebird colonies and (ii) client satisfaction. There also is need to cater for tourism by persons of different income levels. A coordinated plan for development of tourism to seal, seabird and shorebird colonies nationwide seems desirable.

#### 3.5 EXPLOITATION

Recognising the past utilization of seals and seabirds in South Africa for economic gain and the potential future use of seal and seabird products, but at the same time bearing in mind the poor conservation status of South Africa's seabirds:

Policy will have as its primary objective the conservation of seals, seabirds and shorebirds and will not sanction the exploitation of seal and seabird products other than the collection of guano at artificial sites or the use of non-viable products (such as abandoned eggs), where these will not be detrimental to the conservation status of species.

From early in the 17<sup>th</sup> century until late in the 20<sup>th</sup> century, there was utilisation of seal and seabird products. This included the exploitation of skins, blubber oil and genitalia of seals and seabird guano, penguin eggs and feathers. Decreases in demand for seal products and in seabird numbers led to decreases in these products.

After World War 2, the introduction of artificial fertilisers reduced the demand for guano. However, from the 1990s there was renewed demand for natural fertilisers. Guano is still a sought-after commodity and potential resource. Its collection sometimes contributes to maintenance activities at certain facilities, e.g. removal of guano from the breakwater at Robben Island. Management policy will prohibit the collection of guano at breeding colonies where guano forms an integral part of the seabird's life cycle and breeding success (e.g. African Penguin, Cape Gannet). However, the commercial exploitation of guano, e.g. through the construction of seabird breeding platforms, may be sanctioned if deemed to have beneficial influences for the species concerned and provided an environmental impact assessment is conducted and indicates that such an operation will have no harmful environmental effects.

It is possible that collection of eggs may be sanctioned to limit the growth of some seabird species, e.g. Kelp Gulls. Such eggs could provide employment through product enhancement and sale but would need to be collected in such manner as not to cause excessive disturbance to breeding colonies. However, generally the exploitation of seal and seabird products is contrary to the policy of seal and seabird conservation and will not be sanctioned.

The capture of wild seabirds and shorebirds for trade is not encouraged. The preferred mechanism for providing approved institutions in other countries with seabirds is to source them from captive populations.

In the case of seals, capture of animals for sale will only be sanctioned under permit and only at the Kleinsee mainland colony. The conditions and timing of such captures should be controlled.

#### **3.6 JOB CREATION**

The requirement to create jobs in South Africa needs to be borne in mind. With regard to seabirds and shorebirds, their generally poor conservation status dictates that their sustainable use will primarily be centred on tourism. A limited number of jobs will be created for guides but benefits will accrue to associated industries, such as those dealing with catering, accommodation and transport. The possibility exists of establishing seabird guano platforms, at which guano may be exploited. For seals, it is also expected that utilization will be primarily through tourism.

Another important avenue for the creation of jobs will be the introduction of an observer programme on fishing vessels to monitor the by-catch of birds and seals and the compliance of vessels with mitigation measures to reduce the by-catch, especially of birds.

#### 3.7 COMPATIBILITY OF LEGISLATION

Recognising the existence of other South African legislation relating to seabirds and seals:

The aim of policy will be to achieve compatibility of any revision of SBSPA with such other legislation to the extent that this is feasible and desirable.

The revision of SBSPA should have precedence over other legislation with regard to matters pertaining to seals, seabirds and shorebirds.

# 4. Other considerations

# **4.1 CAPTIVE POPULATIONS**

Several populations of captive seals and seabirds exist in South Africa, many of which serve education or humanitarian functions. The proliferation of captive populations should be managed.

Policy will require permits for the holding of seals and seabirds in captivity. Policy will further require permits for the feeding of wild seals and seabirds and for possession of seals and seabirds or parts thereof.

A permit system for the transportation of seals within South Africa should be introduced. The desirability of requiring permits for the transportation of seabirds should also be addressed.

Captive breeding programmes play a role in the conservation of Threatened species, and may need to be implemented in South Africa for some seabirds (e.g. Bank Cormorant) before their conservation status deteriorates further. Such programmes will have increased probability of success if conducted co-operatively with international agencies having experience in captive breeding for conservation purposes.

Policy should make provision for captive breeding programmes for Threatened species, if deemed desirable, both within and outside South Africa.

The Scientific Committee on Antarctic Research states that rehabilitated, vagrant seabirds cannot be released back into their normal breeding sites, because of the risks of disease transmission.

Policy should permit the rehabilitation and release (within the South African EEZ) of vagrant seals and seabirds provided that they are isolated from local seals and birds and test negative for routine diseases, as certified by a qualified veterinarian.

# **4.2 PUBLIC INVOLVEMENT**

The public contributes substantially to conservation of seals, seabirds and shorebirds, e.g. by collecting or reporting oiled, sick or injured individuals, reporting tag and ring numbers found on seals and seabirds and assisting during times of crisis.

Occasionally well-meaning involvement is misplaced, e.g. removal from the wild to a rehabilitation centre of a seal that has naturally hauled out or a bird that is naturally moulting. Liability for injuries incurred to volunteers rendering assistance may need to be addressed.

## 4.3 RESEARCH AND MONITORING

Recognising the desirability of basing management of seals, seabirds and shorebirds on sound scientific advice:

Policy will provide for the necessary research and monitoring to be undertaken to ensure the sound management and conservation of seal, seabird and shorebird populations, and for the sustainable non-consumptive utilisation of seals, seabirds and their products.

Policy must make provision for research aimed at monitoring the status of South Africa's seals, seabirds and shorebirds, especially those breeding in continental South Africa, its coastal islands and at the Prince Edward Islands, but also seabirds breeding in proximity to South Africa's base in Antarctica as well as seabirds migrating to South African waters at risk from South African activities. It must also seek to understand factors influencing the status of seals, seabirds and shorebirds so that, where this is deteriorating, remedial measures can be considered for implementation. Further, research needs to be conducted to ensure that utilization of seals and seabirds (e.g. for tourism) is undertaken

in a sustainable manner. Seals and seabirds are frequently long-lived animals (e.g. seals may live for 30 years in captivity and Wandering Albatrosses 50 years or more in the wild). Hence long-term research is often needed to understand the dynamics of seal and seabird populations. Long-term research is also required to investigate the type, the extent and the impact of interactions between seals and commercial fisheries.

The monitoring of both breeding and visiting shorebirds along South Africa's coastal zone would contribute data to international programmes aimed at determining population trends through surveys in non-breeding areas. Conducting research into the possible negative impacts of global climate change on migrant shorebirds could ensure that mitigating measures are timeously implemented.

For seals and many species of seabird there is interchange of individuals between different breeding colonies administered by various South African agencies. For example, during the last decade seals moved northward to Kleinsee in South Africa and to Cape Frio in Namibia, and African Penguins emigrated from Dyer Island to Robben Island, Boulders and Betty's Bay, each of these four localities administered by a different authority. Swift Terns and Hartlaub's Gulls frequently breed at different localities. Therefore, monitoring and research at the population level will best be co-ordinated at the national level. The long-term nature of much of the required monitoring suggests that it is primarily the responsibility of national government. Universities and other management agencies provide complementary skills, again suggesting the desirability of a council on which all role players are represented.

# 4.4 SEABIRDS AND SHOREBIRDS AS INDICATORS

Recognising the usefulness of seabirds in providing information on the state of fish and other resources on which they feed and on the general health of marine ecosystems:

Policy will provide for the collection of such information as is deemed desirable for monitoring the state of fish stocks and marine ecosystem health, provided such monitoring does not adversely impact seabird populations.

Indices derived from seabirds have proved valuable in the validation of survey estimates of fish stock abundance. Being near the apex of the food web, seabirds integrate changes lower down the food web. Further, they are susceptible to factors such as pollution. These attributes make them useful monitors of fish stock abundance and marine ecosystem health, both of which are necessary to attain the objectives of the *Marine Living Resources Act No. 18 of 1998*.

Undertaking research into the natural history of shorebirds, the threats that impact them, their migration routes and their role in ecosystem functioning should provide valuable indices of the health of the coastal zone, particularly at the level of the individual estuary.

Recognising that the Prince Edward Islands fall within the scope of CCAMLR, and that seal and seabird monitoring at these islands makes a key contribution to Southern Ocean indices:

Policy will recognize that South Africa needs to continue its monitoring obligations at the Prince Edward Islands and to expand them as appropriate.

#### **4.5 EDUCATIONAL VALUE**

Recognising the value of seals and seabirds for education:

Policy will promote the public understanding of seals and seabirds and their role in marine ecosystems and provide for the use of seals and seabirds or their products for educational purposes, provided such use does not adversely impact seal and seabird populations.

Seals and seabirds have considerable public appeal, which should be enhanced through increased media exposure. Seals and seabirds have significant potential for education from a variety of perspectives, including:

- museums depicting the history of utilization of seals and seabirds and their products;
- conservation displays at breeding colonies, zoos and aquaria;
- their use for post-graduate studies and academic research. Large databases, e.g. of tagged and banded individuals, exist and provide useful tools for conservationorientated research.

To ensure that this potential is realised and that awareness of marine conservation issues is highlighted, guides at seal and seabird breeding colonies should be well informed about their subjects. Educational material (e.g. signage and pamphlets) should be developed and made readily available. Television and international marketing could be used further to enhance environmental awareness.

Private collections of seabirds and their products (e.g. eggs) exist. These private collections should be registered and have a detailed inventory to prevent illegal additions.

Policy should be to sanction existing private collections of seabird specimens and eggs through permit, to preclude the sale or trade of existing specimens and to prohibit future collections other than those approved by permit, issued in advance.

There is a need to educate fishers and other users of the marine environment on the harmful effects of some forms of fishing on seals and seabirds.

Policy should aim to further conservation of seals and seabirds through targeted education programmes. Provision should be made to allow DEAT to issue permits to control the making of educational films and documentaries on seals and seabirds. A requirement that an official guide or observer be present during filming may be a permit condition.

# 4.6 MANAGEMENT OF ADVERSE INTERACTIONS

Recognising that various marine predators may adversely impact seabirds of conservation concern, by direct predation or displacement from breeding areas:

Policy will make allowance for the management of interactions between Threatened or Near-threatened seabirds and other species (including other seabirds) which may influence the conservation status of seabirds adversely. Interventive management may include the culling, removal or relocation of predators. This preferably will be preceded by the collection and evaluation of relevant scientific data that show a demonstrable adverse effect of the predator on the numbers or breeding success of the seabird. However, the precautionary principle will be adopted and even in the absence of conclusive data, the decision to cull, remove or relocate may still be invoked.

In cases where culling, removal or relocation is advocated, a motivated proposal to a properly constituted ethics committee must be submitted.

Where abundant seabirds have adverse impacts on Threatened and Near-threatened seabirds, it will be necessary to manage the harmful impacts of the abundant species. Policy will aim to maintain the diversity of South Africa's seabird assemblage.

# 4.7 CONFLICT WITH DEVELOPMENT

Whenever initiatives or activities undertaken would seem to cause conflict with animals encompassed by this policy, the onus is on the developer to fund such measures as would prevent this conflict.

# 4.8 FUNDING

Recognising the cost of the above activities:

Policy will make provision for appropriate funding for monitoring, research and management of South Africa's seals, seabirds and shorebirds.

Possible sources of income include:

• a levy on tour operators (for management of breeding colonies);

• a tax on shipping (for structures to combat the harmful effects of oiling);

• support from the Marine Living Resources Fund (for conservation activities, because the poor conservation status of South Africa's seabirds and regional declines in seal populations, e.g. in the eastern Cape, have in large part resulted from competition with fisheries for food and alteration of ecosystem functioning through fishing activities);

support from Antarctic research programmes;

• ad hoc contributions from business and industry, who are offered tax breaks as incentives;

- foreign aid;
- film making.

Any funds collected should be specifically earmarked for research and management of seals, seabirds and shorebirds. The procurement and management of funds for the various activities should be centrally co-ordinated by a national advisory forum.

# **APPENDIX 1**

# Seabirds that need to be protected in terms of a national policy and a revised Seals, Seabirds and Shorebirds Protection Act (compiled by P. A. R. Hockey and P. G. Ryan, Percy FitzPatrick Institute of African Ornithology

Family Scolopacidae [select species only] <u>Genus Phalaropus [select species only]</u> Red Phalarope Phalaropus fulicaria

Family Laridae [select species only] Genus Catharacta Subantarctic Skua Catharacta antarctica South Polar Skua Catharacta maccormicki Genus Stercorarius Pomarine Jaeger Stercorarius pomarinus Parasitic Jaeger Stercorarius parasiticus Long-tailed Jaeger Stercorarius longicaudus Genus Larus Kelp Gull Larus dominicanus Cape Gull Larus vetula Herring Gull Larus argentatus Lesser Black-backed Gull Larus fuscus Grey-headed Gull Larus cirrocephalus Hartlaub's Gull Larus hartlaubii Common Black-headed Gull Larus ridibundus Slender-billed Gull Larus genei Franklin's Gull Larus pipixcan Sabine's Gull Larus sabini Genus Rissa Black-legged Kittiwake Rissa tridactyla Genus Sterna Gull-billed Tern Sterna nilotica Caspian Tern Sterna caspia Royal Tern Sterna maxima Lesser Crested Tern Sterna bengalensis Swift Tern Sterna bergü Sandwich Tern Sterna sandvicensis Roseate Tern Sterna dougallii Black-naped Tern Sterna sumatrana Common Tern Sterna hirundo Arctic Tern Sterna paradisaea Antarctic Tern Sterna vittata Kerguelen Tern Sterna virgata Little Tern Sterna albifrons Damara Tern Sterna balaenarum White-cheeked Tern Sterna repressa Bridled Tern Sterna anaethetus Sooty Tern Sterna fuscata Genus Chlidonias [select species only] Black Tern Chlidonias niger Genus Anous Brown Noddy Anous stolidus

Lesser Noddy Anous tenuirostris

#### Family Phaethontidae

<u>Genus Phaethon</u> Red-billed Tropicbird Phaethon aethereus Red-tailed Tropicbird Phaethon rubricauda White-tailed Tropicbird Phaethon lepturus

# Family Sulidae

<u>Genus Morus</u> Cape Gannet Morus capensis Australian Gannet Morus serrator <u>Genus Sula</u> Red-footed Booby Sula sula Brown Booby Sula leucogaster

# Family Phalacrocoracidae [select species only]

Genus Phalacrocorax [select species only] Crowned Cormorant Phalacrocorax coronatus White-breasted Cormorant Phalacrocorax lucidus Bank Cormorant Phalacrocorax neglectus Cape Cormorant Phalacrocorax capensis Crozet Shag Phalacrocorax melanogenis

#### Family Pelecanidae [select species only]

<u>Genus Pelecanus</u> [select species only] Great White Pelican Pelecanus onocrotalus Family Fregatidae <u>Genus Fregata</u> Greater Frigatebird Fregata minor Lesser Frigatebird Fregata ariel

#### Family Spheniscidae

Genus Aptenodytes King Penguin Aptenodytes patagonicus <sup>®</sup>Emperor Penguin Aptenodytes forsteri <u>Genus Pygoscelis</u> Gentoo Penguin Pygoscelis papua <sup>®</sup>Adelie Penguin Pygoscelis adeliae <sup>®</sup>Chinstrap Penguin Pygoscelis antarctica <u>Genus Eudyptes</u> Macaroni Penguin Eudyptes chrysolophus Rockhopper Penguin Eudyptes chrysocome <u>Genus Spheniscus</u> African Penguin Spheniscus demersus Magellanic Penguin Spheniscus magellanicus

# Family Procellariidae

<u>Genus Macronectes</u> Southern Giant-Petrel Macronectes giganteus Northern Giant-Petrel Macronectes halli <u>Genus Fulmarus</u> Southern Fulmar Fulmarus glacialoides Genus Thalassoica Antarctic Petrel Thalassoica antarctica Genus Daption Pintado Petrel Daption capense Genus Pagodroma <sup>®</sup>Snow Petrel Pagodroma nivea Genus Aphodroma Kerguelen Petrel Aphodroma brevirostris Genus Pterodroma Great-winged Petrel Pterodroma macroptera White-headed Petrel Pterodroma lessonii Soft-plumaged Petrel Pterodroma mollis Atlantic Petrel Pterodroma incerta Genus Halobaena Blue Petrel Halobaena caerulea Genus Pachyptila Broad-billed Prion Pachyptila vittata Salvin's Prion Pachyptila salvini Antarctic Prion Pachyptila desolata Slender-billed Prion Pachyptila belcheri Fairy Prion Pachyptila turtur Genus Bulweria Bulwer's Petrel Bulweria bulwerii Genus Procellaria White-chinned Petrel Procellaria aequinoctialis Spectacled Petrel Procellaria conspicillata Grey Petrel Procellaria cinerea Genus Calonectris Cory's Shearwater Calonectris diomedea Streaked Shearwater Calonectris leucomelas Genus Puffinus Wedge-tailed Shearwater Puffinus pacificus Flesh-footed Shearwater Puffinus carneipes Great Shearwater Puffinus gravis Sooty Shearwater Puffinus griseus Manx Shearwater Puffinus puffinus Balearic Shearwater Puffinus mauretanicus Audubon's Shearwater Puffinus Iherminieri Little Shearwater Puffinus assimilis Mascarene Shearwater Puffinus atrodorsalis Genus Diomedea Wandering Albatross Diomedea exulans Tristan Albatross Diomedea dabbenena Southern Royal Albatross Diomedea epomophora Northern Royal Albatross Diomedea sanfordi Genus Phoebastria Laysan Albatross Phoebastria immutabilis Genus Thalassarche Black-browed Albatross Thalassarche melanophris Shy Albatross Thalassarche cauta Salvin's Albatross Thalassarche salvini Chatham Albatross Thalassarche eremita Grey-headed Albatross Thalassarche chrysostoma Indian Yellow-nosed Albatross Thalassarche carteri

Atlantic Yellow-nosed Albatross Thalassarche chlororhynchos Buller's Albatross Thalassarche bulleri Genus Phoebetria Dark-mantled Sooty Albatross Phoebetria fusca Light-mantled Sooty Albatross Phoebetria palpebrata Genus Oceanites Wilson's Storm-Petrel Oceanites oceanicus Genus Pelagodroma White-faced Storm-Petrel Pelagodroma marina Genus Garrodia Grey-backed Storm-Petrel Garrodia nereis Genus Fregetta Black-bellied Storm-Petrel Fregetta tropica White-bellied Storm-Petrel Fregetta grallaria Genus Hydrobates European Storm-Petrel Hydrobates pelagicus Genus Oceanodroma Leach's Storm-Petrel Oceanodroma leucorhoa Matsudaira's Storm-Petrel Oceanodroma matsudairae Genus Pelecanoides Common Diving-Petrel Pelecanoides urinatrix South Georgian Diving-Petrel Pelecanoides georgicus

<sup>@</sup> = Not recorded in South African waters outside Antarctica

## **Appendix 2**

Shorebirds that need to be protected in terms of a national policy and a revised Seals, Seabirds and Shorebirds Protection Act (compiled by P. A. R. Hockey and P. G. Ryan, Percy FitzPatrick Institute of African Ornithology)

## Family Dendrocygnidae

<u>Genus Dendrocygna</u> Fulvous Duck Dendrocygna bicolor White-faced Duck Dendrocygna viduata <u>Genus Thalassornis</u> White-backed Duck Thalassornis leuconotus

Family Anatidae [select species only] Genus Oxyura Maccoa Duck Oxyura maccoa Genus Alopochen Egyptian Goose Alopochen aegyptiacus Genus Tadorna South African Shelduck Tadorna cana Genus Plectropterus Spur-winged Goose Plectropterus gambensis Genus Sarkidiornis Comb Duck Sarkidiornis melanotos Genus Nettapus African Pygmy-Goose Nettapus auritus Genus Anas [select species only] Cape Teal Anas capensis African Black Duck Anas sparsa Yellow-billed Duck Anas undulata Cape Shoveler Anas smithii Red-billed Teal Anas erythrorhyncha Hottentot Teal Anas hottentota Genus Netta Southern Pochard Netta erythrophthalma

Family Alcedinidae [select species only] <u>Genus Alcedo</u> Half-collared Kingfisher Alcedo semitorquata Malachite Kingfisher Alcedo cristata

Family Dacelonidae [select species only] <u>Genus Halcyon</u> [select species only] Mangrove Kingfisher Halcyon senegaloides Family Cerylidae <u>Genus Megaceryle</u> Giant Kingfisher Megaceryle maxima <u>Genus Ceryle</u> Pied Kingfisher Ceryle rudis

Family Strigidae [select species only] <u>Genus Scotopelia</u> Pel's Fishing-Owl Scotopelia peli <u>Genus Asio</u> Marsh Owl Asio capensis

Family Gruidae [select species only] Genus Balearica Grey Crowned Crane Balearica regulorum

#### Family Heliornithidae

<u>Genus Podica</u> African Finfoot Podica senegalensis

Family Rallidae [select species only] Genus Sarothrura [select species only] Red-chested Flufftail Sarothrura rufa Genus Rallus African Rail Rallus caerulescens Genus Amaurornis Black Crake Amaurornis flavirostra Genus Porzana [select species only] Baillon's Crake Porzana pusilla Genus Porphyrio [select species only] African Purple Swamphen Porphyrio madagascariensis American Purple Gallinule Porphyrio " martinicus Genus Gallinula [select species only] Common Moorhen Gallinula chloropus Genus Fulica Red-knobbed Coot Fulica cristata

Family Scolopacidae [select species only] Genus Gallinago [select species only] African Snipe Gallinago nigripennis Genus Limosa Black-tailed Godwit Limosa limosa Bar-tailed Godwit Limosa lapponica Hudsonian Godwit Limosa haemastica Genus Numenius Common Whimbrel Numenius phaeopus Eurasian Curlew Numenius arquata Genus Tringa [select species only] Common Redshank Tringa totanus Marsh Sandpiper Tringa stagnatilis Common Greenshank Tringa nebularia Greater Yellowlegs Tringa melanoleuca Lesser Yellowlegs Tringa flavipes Wood Sandpiper Tringa glareola Genus Xenus Terek Sandpiper Xenus cinereus Genus Actitis Common Sandpiper Actitis hypoleucos Genus Arenaria Ruddy Turnstone Arenaria interpres Genus Calidris Red Knot Calidris canutus Sanderling Calidris alba

Little Stint Calidris minuta Red-necked Stint Calidris ruficollis Temminck's Stint Calidris temminckii Long-toed Stint Calidris subminuta White-rumped Sandpiper Calidris fuscicollis Baird's Sandpiper Calidris bairdii Pectoral Sandpiper Calidris melanotos Dunlin Calidris alpina Curlew Sandpiper Calidris ferruginea Genus Tryngites Buff-breasted Sandpiper Tryngites subruficollis Genus Limicola Broad-billed Sandpiper Limicola falcinellus Genus Philomachus Ruff Philomachus pugnax Genus Steganopus Wilson's Phalarope Steganopus tricolor Genus Phalaropus [select species only] Red-necked Phalarope Phalaropus lobatus

#### Family Rostratulidae

Genus Rostratula Greater Painted-Snipe Rostratula <sup>•</sup> benghalensis Family Jacanidae Genus Actophilornis African Jacana Actophilornis africanus Genus Microparra Lesser Jacana Microparra capensis

#### Family Chionididae

<u>Genus Chionis</u> Lesser Sheathbill Chionis minor Greater Sheathbill Chionis alba

# Family Burhinidae

<u>Genus Burhinus</u> Water Thick-knee Burhinus vermiculatus Spotted Thick-knee Burhinus capensis

Family Charadriidae [select species only] <u>Genus Haematopus</u> Eurasian Oystercatcher Haematopus ostralegus African Black Oystercatcher Haematopus moquini <u>Genus Himantopus</u> Black-winged Stilt Himantopus himantopus <u>Genus Recurvirostra</u> Pied Avocet Recurvirostra avosetta <u>Genus Pluvialis</u> Pacific Golden Plover Pluvialis fulva American Golden Plover Pluvialis dominica Grey Plover Pluvialis squatarola <u>Genus Charadrius</u> Common Ringed Plover Charadrius hiaticula Kittlitz's Plover Charadrius pecuarius Three-banded Plover Charadrius tricollaris Chestnut-banded Plover Charadrius pallidus Kentish Plover Charadrius alexandrinus White-fronted Plover Charadrius marginatus Lesser Sand Plover Charadrius mongolus Greater Sand Plover Charadrius leschenaultii Caspian Plover Charadrius asiaticus Genus Vanellus [select species only] Blacksmith Lapwing Vanellus armatus African Wattled Lapwing Vanellus senegallus

 Family Glareolidae [select species only]

 Genus Dromas

 Crab Plover Dromas ardeola

 Genus Glareola [select species only]

 Collared Pratincole Glareola pratincola

Family Laridae [select species only] <u>Genus Rynchops</u> African Skimmer Rynchops flavirostris <u>Genus Chlidonias</u> [select species only] Whiskered Tern Chlidonias hybridus White-winged Tern Chlidonias leucopterus

Family Acciptridae [select species only] <u>Genus Pandion</u> Osprey Pandion haliaetus <u>Genus Haliaeetus</u> African Fish-Eagle Haliaeetus vocifer <u>Genus Gypohierax</u> Palm-nut Vulture Gypohierax angolensis <u>Genus Circus</u> [select species only] African Marsh-Harrier Circus ranivorus

#### Family Podicipedidae

<u>Genus Tachybaptus</u> Little Grebe Tachybaptus ruficollis <u>Genus Podiceps</u> Great Crested Grebe Podiceps cristatus Black-necked Grebe Podiceps nigricollis

# Family Anhingidae

<u>Genus Anhinga</u> African Darter Anhinga rufa

Family Phalacrocoracidae [select species only] <u>Genus Phalacrocorax [select species only]</u> Reed Cormorant Phalacrocorax africanus

Family Ardeidae [select species only] <u>Genus Egretta</u> [select species only] Black Heron Egretta ardesiaca Little Egret Egretta garzetta Little Blue Heron Egretta caerulea

Yellow-billed Egret Egretta intermedia Great Egret Egretta alba Genus Ardea Grey Heron Ardea cinerea Black-headed Heron Ardea melanocephala Goliath Heron Ardea goliath Purple Heron Ardea purpurea Genus Bubulcus Cattle Egret Bubulcus ibis Genus Ardeola Squacco Heron Ardeola ralloides Rufous-bellied Heron Ardeola rufiventris Genus Butorides Green-backed Heron Butorides striatus Genus Nycticorax Black-crowned Night-Heron Nycticorax nycticorax Genus Gorsachius White-backed Night-Heron Gorsachius leuconotus Genus Ixobrychus [select species only] Little Bittern Ixobrychus minutus Genus Botaurus Eurasian Bittern Botaurus stellaris

# Family Scopidae

<u>Genus Scopus</u> Hamerkop Scopus umbretta

#### Family Phoenicopteridae

<u>Genus Phoenicopterus</u> Greater Flamingo Phoenicopterus ruber Lesser Flamingo Phoenicopterus minor

# Family Threskiornitidae [select species only]

<u>Genus Plegadis</u> Glossy Ibis Plegadis falcinellus <u>Genus Threskiornis</u> African Sacred Ibis Threskiornis aethiopicus <u>Genus Platalea</u> African Spoonbill Platalea alba

Family Ciconiidae [select species only] <u>Genus Mycteria</u> Yellow-billed Stork Mycteria ibis <u>Genus Ciconia</u> [select species only] Black Stork Ciconia nigra Woolly-necked Stork Ciconia episcopus <u>Genus Ephippiorhynchus</u> Saddle-billed Stork Ephippiorhynchus senegalensis

Family Passeridae [select species only] <u>Genus Motacilla [select species only]</u> African Pied Wagtail Motacilla aguimp Cape Wagtail Motacilla capensis <u>Genus Macronyx</u> [select species only] Rosy-throated Longclaw Macronyx ameliae Note: the following families/genera were considered and rejected *in toto*: Centropodidae (coucals) Hirundinidae (swallows and martins) Priniidae (cisticolas and prinias) Sylviidae (Old World warblers) *Ploceus* (weavers)