

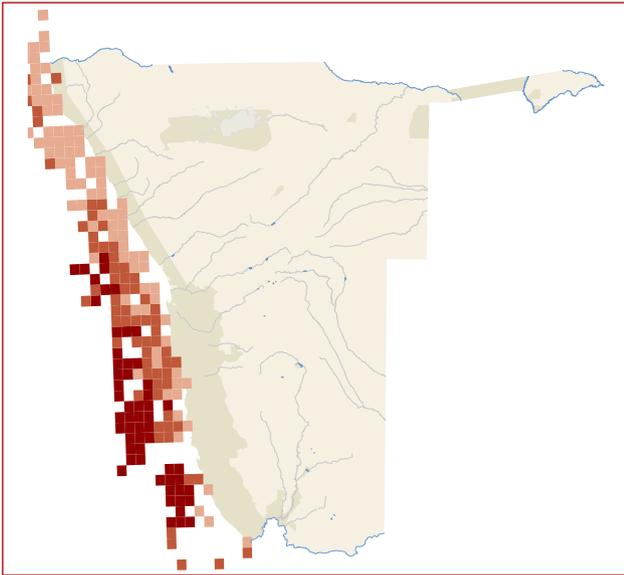
# BLACK-BROWED ALBATROSS | *Thalassarche melanophris* (*Diomedea melanophris*)

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<b>Conservation Status:</b>	Endangered
<b>Southern African Range:</b>	Waters off Namibia, South Africa, southern Mozambique
<b>Area of Occupancy:</b>	Unknown
<b>Population Estimate:</b>	Approximately 602,000 breeding pairs globally
<b>Population Trend:</b>	Declining worldwide by 65% in three generations
<b>Habitat:</b>	Open ocean, especially productive shelf waters
<b>Threats:</b>	Bycatch in the pelagic longline tuna, swordfish and shark fishery, demersal longline hake fishery and in the demersal and pelagic trawl fisheries, severe storms



## DISTRIBUTION AND ABUNDANCE

Like the Yellow-nosed Albatross *T. chlororhynchos*, this is one of several small to medium-sized mollymawk species. It was split recently from the Campbell Albatross *T. impavida* (Robertson & Nunn 1998). Nearly all Black-browed Albatrosses occur on the Falkland Islands and South Georgia Island (79%), and off the Chilean coast (20%); less than 1% are found on subantarctic islands belonging to Australia, New Zealand and France (ACAP 2009a). Non-breeding birds forage throughout the southern oceans, over an area covering 113 million km<sup>2</sup>.

Of the three albatross species that regularly occur on the continental shelf of southern African waters, the Black-browed Albatross was the most commonly seen species in Namibian waters with an estimated 9,500 (summer) to 38,000 (winter) birds recorded in the 1970s and 1980s (Crawford *et al.* 1991). Most of these birds (33,500) were recorded in northern Namibian waters in winter (Crawford *et al.* 1991). Data collected between 1989 and 2002 indicate that it is now less common in Namibian waters than the Atlantic Yellow-nosed Albatross, that it occurs mainly on the shelf-break in central and southern Namibia and that it is five times more likely to be recorded in winter than summer (Boyer & Boyer 2005). During 57 bird density counts on three demersal trawl trips in July 2009, January 2010 and May 2010, Black-browed Albatrosses were recorded at an average rate of 6.1 birds per count in 68% of the counts and accounted for 12.4% of all mollymawks counted (Albatross Task Force unpubl. data). In 2010 and 2011, they were reported in 30.8% of the counts, at an average rate of 25.5 birds per count, during 26 seabird counts on demersal longline vessels (Albatross Task Force unpubl. data).

The global breeding population declined in recent years from 680,000 breeding pairs in 1998 (Croxall and Gales 1998) to 602,000 pairs by 2009 (ACAP 2009a). This agrees with the findings of Boyer & Boyer (2005), who reported a drop in relative abundance from a mean relative abundance index of 0.25 between 1989 and 1994 to an index of 0.08 between 1995 and 2002. This sudden three-fold drop in abundance was unexplained, but coincided with declines in all three albatross species in Namibian waters (Boyer & Boyer 2005), suggesting that it was at least partially caused by a change in distribution following the intense Benguela Niño of 1995 (Gammelsrød *et al.* 1998).



## ECOLOGY

This species breeds annually on 14 islands or archipelagos off the South American coast, including the Falklands, South Georgia and around the globe into Australasian waters (Croxall & Gales 1998, ACAP 2009a). Depending on the location, a single egg is laid from September to October. Chicks fledge between April and May (Gales 1998). Breeding success is highly variable, apparently dependent on the availability of krill (Croxall *et al.* 1998). While it is, in most cases, an annual breeder, about 25% of successful breeders and 67% of unsuccessful breeders at South Georgia do not attempt to breed again the next year (Croxall *et al.* 1998).

Foraging takes place most often in shelf waters around the southern oceans, with populations from different breeding islands tending to favour different feeding areas (Gales 1998, Prince *et al.* 1998). Ring recoveries suggest that most birds in southern African waters originate from South Georgia (Morant *et al.* 1983); 85% of 262 recoveries of birds ringed in South Georgia were made off South Africa, whereas only 12% of recoveries of birds originating from the Falkland Islands stemmed from southern African waters (Prince *et al.* 1998).

Like the Atlantic Yellow-nosed Albatross, the Black-browed Albatross takes more fish and krill than most albatross species (Cherel & Klages 1998). It regularly scavenges behind fishing vessels, primarily trawlers, and although it has potentially benefited from the large-scale fishing operations that have developed in Namibian (and South African) waters during the past half-century, its apparent attraction to fishing vessels makes it particularly susceptible to threats associated with longline and trawl operations (below).



## THREATS

The main threat faced by this relatively common but declining species is mortality due to fishery bycatch. Even low bycatch rates of breeding adults of a species with a complex life history strategy that includes a low

reproductive rate can result in population declines (Gales 1998). The Black-browed Albatross is the most commonly caught albatross in longline fisheries worldwide (Prince *et al.* 1998). Mortalities in the longline fishery occur when albatrosses attempt to pull the bait off large hooks placed on kilometres of line as it enters the water. The hook catches in their throats or bills, pulls them under and drowns them (Ryan *et al.* 2002).

Data collected on tuna longline vessels in South African waters between 1998 and 2000 suggest that several thousand Black-browed Albatrosses are killed each year by longliners within the South African Exclusive Economic Zone (EEZ). They may also constitute the majority of birds killed south of the South African EEZ (Ryan & Boix-Hinzen 1998, Ryan *et al.* 2002). Subadults are more likely to be killed than adults, and females more likely than males (Ryan *et al.* 2002). Exact mortality figures are not available and estimates are likely to be too low because mortality often goes unrecorded.

Given that pelagic longliners are estimated to operate for almost 2,000 sea-days annually in Namibia and demersal longliners for 4,000 days, it is very likely that a significant number of birds are killed in Namibian waters. Of all birds observed caught in hake demersal longline fishing operations in Namibian waters between July 2009 and August 2012, 3.8% were Black-browed Albatross (Paterson *et al.* in prep.). Trawling has recently been identified as an additional major source of mortality. Albatrosses that are attracted to offal get crushed under the trawl warps (the steel cables that tow nets) or drown when they are trapped in the nets (Watkins *et al.* 2008). At least 5,000 Black-browed Albatrosses are estimated to be killed annually by deep-water hake trawlers in South African waters. No estimates exist for Namibia, but of about 8,350 birds killed annually by trawlers in Namibian waters, 63% are albatrosses (Paterson *et al.* in prep.).

Another threat is posed occasionally by severe storms, during which young and inexperienced birds are prone to being wrecked. Large numbers of recently fledged Black-browed Albatrosses were wrecked – many alive but exhausted – in South Africa in 1987 (Ryan & Avery 1987).



## CONSERVATION STATUS

The Black-browed Albatross was elevated to global *Endangered* status in 2003, based on the inference that the global population will have declined by 65% over three generations (65 years), given the current rates of decline (IUCN 2012a). Considering that bycatches in Namibian and South African waters may be responsible for most of the population decline in the South Georgia Islands, where decreases have

been greatest (Poncet *et al.* 2006), this species is also considered *Endangered* here, as well as in South Africa (Taylor *et al.* in press). It is listed in Appendix II of the Convention for the Conservation of Migratory Species of Wild Animals (CMS) and in Annex 1 of the Agreement on the Conservation of Albatrosses and Petrels (ACAP). Any revised or future Namibian Parks and Wildlife legislation needs to list this species under *Specially Protected* status.



## ACTIONS

Most of the actions required for this species are the same as that for the *Endangered* Atlantic Yellow-nosed Albatross. A collaborative project with BirdLife International's Albatross Task Force was initiated in 2008 to gather reliable statistics on the extent of fisheries-induced mortalities, particularly in the hake fishery, and to test mitigation devices to reduce these mortalities. The National Plan of Action (NPOA) for seabirds, outlines a number of measures for reducing seabird bycatch by fishing operations. The plan, as well as regulations pertaining to the mandatory implementation of mitigation measures, still need to be ratified, implemented and enforced by the Namibian government. The draft NPOA lists the following key seabird bycatch mitigation measures:

- Using bird-scaring lines with fluttering streamers ('tori' lines) next to baited longlines or trawl warps (the steel cables that tow nets).
- Using appropriate and adequate weights to ensure a fast sink rate for baited hooks.
- Setting lines after nautical dusk and before nautical dawn to avoid interactions with diurnal-foraging species.
- Reducing deck-lighting.
- Ensuring that offal is discarded without posing an additional bycatch risk.
- Using thawed bait to avoid baited hooks floating to the surface.
- Fitting, where feasible, a deck-delivery system that introduces the baited line directly into the ocean without exposure to foraging birds.

Only a concerted effort by all countries controlling the territorial and international waters over which the Black-browed Albatross forages can ensure its survival. It is essential that guidelines and/or legislation to reduce the bycatch of seabirds in international waters are adopted by the International Commission for the Conservation of Atlantic Tuna (ICCAT) and the South East Atlantic Fisheries Organisation (SEAFO), similar to international agreements established through the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR).