

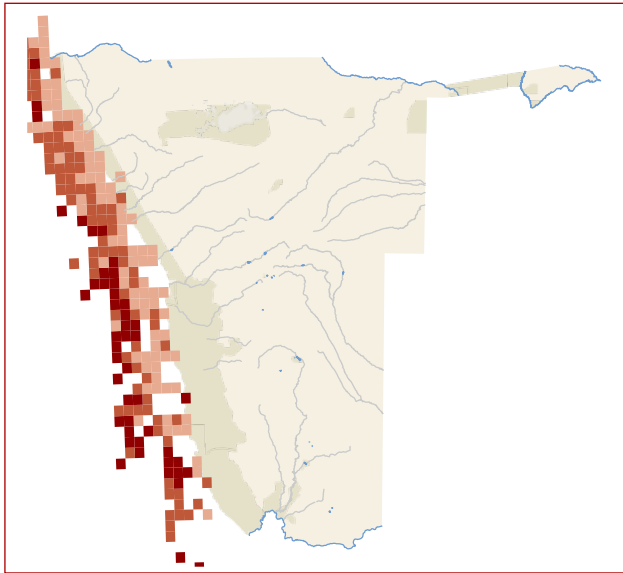
# ATLANTIC YELLOW-NOSED ALBATROSS (YELLOW-NOSED ALBATROSS) | *Thalassarche chlororhynchos* (*Diomedea chlororhynchos*)

D Boyer; H Boyer; RE Simmons | Reviewed by: J Paterson; R Wanless



© John Paterson

|                                |                                                                                                                                                                       |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Conservation Status:</b>    | Endangered                                                                                                                                                            |
| <b>Southern African Range:</b> | Waters off Namibia, South Africa                                                                                                                                      |
| <b>Area of Occupancy:</b>      | Unknown                                                                                                                                                               |
| <b>Population Estimate:</b>    | Between 14,000 and 21,000 breeding pairs globally                                                                                                                     |
| <b>Population Trend:</b>       | Declining at 1.2% per year                                                                                                                                            |
| <b>Habitat:</b>                | Near-shore waters to open ocean, especially productive shelf waters                                                                                                   |
| <b>Threats:</b>                | Bycatch in pelagic longline tuna, swordfish and shark fisheries, demersal longline hake fishery and pelagic and demersal trawl fisheries, unexplained chick mortality |



## DISTRIBUTION AND ABUNDANCE

This species is one of several small southern ocean albatrosses or mollymawks. It was split recently from the Indian Yellow-nosed Albatross *T. carteri*, based on morphological differences and non-overlapping breeding ranges (Robertson & Nunn 1998). The species is confined to the Atlantic Ocean between the coasts of South America, southern Angola, Namibia and South Africa, covering almost 17 million km<sup>2</sup> (BirdLife International 2004).

Within southern African waters, the Atlantic Yellow-nosed Albatross occurs most commonly off South Africa's west coast (7,000 to 10,000 birds), off northern Namibia (6,000 to 8,500 birds) and off southern Namibia (800 to 1,100 birds), depending on the season (Crawford *et al.* 1991). Birds are more common off the African coast in winter during the non-breeding season, when they are recorded twice as frequently as during summer (Crawford *et al.* 1991, Boyer & Boyer 2005); they are found more commonly in near-shore waters than farther offshore (Boyer & Boyer 2005).

In the 1970s and 1980s, it was the least common of the three albatrosses that regularly occur within southern African waters (Crawford *et al.* 1991), but was the most commonly recorded albatross in Namibian waters during surveys conducted from 1989 to 2002 (Boyer & Boyer 2005). Sightings of this species in Namibian waters fell three-fold in the period between 1995 and 2002 (mean relative abundance index of 0.14), relative to the preceding six years (mean relative abundance index of 0.47) for unexplained reasons (Boyer & Boyer 2005), possibly due to a change in distribution following the 1995 Benguela Niño. This trend was common to all three main albatross species observed in Namibian waters (Boyer & Boyer 2005). Altogether, 57 bird density counts were conducted during three demersal trawl trips conducted in July 2009, January

2010 and May 2010. Atlantic Yellow-nosed Albatrosses were recorded in 98.3% of the counts, at an average rate of 35.4 birds per count, and accounted for 72% of all mollymawk sightings (Albatross Task Force unpubl. data)

The global breeding population of Atlantic Yellow-nosed Albatross was estimated to number 27,000 to 46,000 breeding pairs in the 1970s (Croxall & Gales 1998) and 21,000 pairs in 1997 (Ryan 1997b). Recent trends suggest that the current breeding population may number as few as 14,000 pairs (IUCN 2012a). Evidence from breeding adults on Gough Island and the Tristan da Cunha archipelago in the mid south Atlantic, the birds' only breeding localities, indicate an annual decline of 1.2% (Cuthbert *et al.* 2003b).



## ECOLOGY

This species breeds annually and is resident around its breeding islands and surrounding waters from late August to April (R Wanless unpubl. data). A single egg is laid in September or October and nestlings fledge between March and April (Gales 1998, R Wanless unpubl. data). Adults are long-lived and form long-term pair bonds (Robertson & Gales 1998).

Many species of albatross feed on squid (cephalopods) and fish, but the Atlantic Yellow-nosed Albatross takes more fish than other species (Cherel & Klages 1998). It often feeds with Cory Shearwaters *Calonectris diomedea* on epipelagic fish such as Sauri *Scomberesox saurus* (Ryan & Rose 1989), and in association with game fish or cetaceans that drive fish to the surface (Enticott 1986, Crawford *et al.* 1991). Large feeding flocks tend to follow trawlers, scavenging offal discarded from the processing of catches, and demersal and pelagic longline vessels, where they are attracted by baited hooks and discarded offal. Although fishing activities may have benefited albatrosses by increasing the availability of food from the large-scale fishing operations that have developed in Namibian (and South African) waters during the past half-century, these activities also impact negatively on the species (below).



## THREATS

As with most species of albatross, the main threat is fisheries-related mortality, primarily through bycatch during longline operations, where birds are killed when they attempt to pull bait off large hooks placed on kilometres of fishing line as the line enters the water. Hooks then catch in the birds' throats or bills, pull them under water and drown them (Ryan *et al.* 2002).

The number of mortalities from Japanese and South African longline fisheries in South African waters is reasonably well-documented, but the effect of other operators (especially Taiwanese) is poorly known. It is estimated that between 19,000 and 30,000 birds, of which 70% are albatrosses, are killed each year off southern Africa by the tuna longline fishery alone, given that about 12 million hooks are set

there annually by this industry (Ryan *et al.* 2002); these are minimum estimates because mortality often goes unrecorded as birds may also swallow hooks and die away from the vessel. The number of Atlantic Yellow-nosed Albatrosses killed is unknown, but probably numbers several hundred individuals in South African waters alone.

Longline fisheries in Namibian waters include pelagic longlining for tuna, swordfish and sharks and demersal longlining for hake. There are no data available to support a robust mortality estimate for the pelagic longline fishery, but it is thought to affect this species more than others (Voges 2005). During one 38-day trip aboard a pelagic longline vessel, six Yellow-nosed Albatrosses were caught, a rate of one albatross killed every 6.3 days. Extrapolating this figure suggests that several hundred individuals are killed each year in Namibia during pelagic longline operations.

During 14 trips aboard demersal longline vessels in Namibia between July 2010 and August 2012 a total of 3,377,138 hooks were set and 613 birds were observed killed, including 43 Atlantic Yellow-nosed Albatrosses, or 7.5% of all mortalities (Paterson *et al.* in prep.). Up to 37,900 seabirds are thought to be killed annually by the demersal longline fishery in Namibia (Paterson *et al.* in prep.).

Trawlers pose another source of mortality. Birds are killed by colliding with trawl warps, the steel cables used to tow trawl nets. In Namibian demersal trawl operations, it is estimated that 8,326 birds are killed every year, of which 63% are albatrosses (Paterson *et al.* in prep.).

The loss of a breeding adult of a long-lived species exhibiting delayed maturity and low reproductive rates, such as the Atlantic Yellow-nosed Albatross, can have significant secondary consequences. A breeding attempt during which one partner dies will fail because both parents are required to successfully raise a chick (R Wanless pers. obs.). In addition, long-term productivity is reduced, because of the time required by the remaining partner to find and bond with a new mate.

The causes of episodic die-offs of large chicks at the breeding localities (R Wanless pers. obs.), have to date not been identified. Disease epidemics are known to have impacted the Indian Yellow-nosed Albatross (Weimerskirch 2004) and the role of disease in contributing to Atlantic Yellow-nosed Albatross chick mortality is being investigated on Gough Island (R. Wanless pers. comm.).



## CONSERVATION STATUS

Population trends of the Atlantic Yellow-nosed Albatross on Gough Island and the Tristan da Cunha island group resulted in a change in conservation status in 2003 from *Near Threatened* to *Endangered* (IUCN 2012a); it is also listed in South Africa as *Endangered* (Taylor *et al.* in press). Because

it is common in Namibian waters and suffers mortality through interaction with fishing operations, this albatross is categorised as *Endangered* in Namibia. This category may change to *Critically Endangered* if the threats do not abate (BirdLife International 2004). Any revised or new Namibian Parks and Wildlife legislation needs to provide *Specially Protected* status to this species. 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).



## ACTIONS

Surveys conducted in the Namibian hake fishery between 2009 and 2012 indicate particularly high levels of seabird bycatch (Paterson *et al.* in prep.). It is therefore imperative that the National Plan of Action (NPOA) for seabirds and its regulations are endorsed by the Namibian government and are strictly enforced. Recommended measures for reducing bycatch of birds for longline and trawl vessels outlined in the NOPA should be implemented immediately and every boat operating in Namibian waters should carry a trained observer to ensure that these actions are implemented. These measures are known to be effective (e.g. Petersen *et al.* 2008c, Paterson *et al.* in prep.) and include:

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

In addition to local actions, a concerted effort by all countries fishing the waters foraged over by these long-distance fliers is required to ensure the survival of the albatrosses. The establishment of international agreements between the range states of albatrosses since 2000 under the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) has heightened awareness of the bycatch problem. The main area of concern off Namibia (outside territorial waters) is covered by the International Commission for the Conservation of Atlantic Tuna (ICCAT) and the South East Atlantic Fisheries Organisation (SEAFO), but seabird bycatch mitigation legislation is lacking.