



Albatrosses

All but seven of the world's 22 species of albatross are threatened with extinction, mainly because of commercial fishing activity. British Antarctic Survey science and technology underpins international efforts to conserve these charismatic birds.

Why are albatross populations declining?

Each year, tens of thousands of albatrosses are drowned as they scavenge behind fishing boats. Both trawling and long-lining – where fishing vessels release lines containing thousands of baited hooks – attract seabirds looking for food. Many albatrosses are dragged to their death as they swallow these baited hooks. Others collide with trawler cables, break their wings and fall into the sea. Plastic waste ingested at sea, and past introductions of non-native species onto breeding islands pose additional hazards.

How serious is the problem?

Fifteen of the world's 22 albatross species are threatened with extinction, and the other seven are considered to be 'Near-threatened' by the World Conservation Union (IUCN). Three species – the waved, Tristan and Amsterdam albatross – are critically endangered. Less than 200 mature Amsterdam albatrosses, which live in the southern Indian Ocean, survive today. However, the populations that are declining most rapidly are those breeding on the UK Overseas Territories in the South Atlantic. On the subantarctic island of South Georgia, for example, the three species of albatrosses monitored by British Antarctic Survey (BAS) are declining at between 2% and 4% a year.

How do we know?

Since the early 1960s, BAS scientists have monitored albatross populations at Bird Island, South Georgia – home to some of the largest, and best studied, albatross colonies in the world. During this time a range of innovative techniques and technologies have been developed and used to monitor breeding and foraging ecology. The return rates of ringed birds give scientists an indication of breeding frequency and survival rates, while tiny satellite-tracking, GPS and geolocator devices give an accurate picture of the vast areas of ocean covered by these birds in search of food. Pioneering satellite tracking studies by BAS scientists in the early 1990s gave the first real evidence that some albatrosses spend substantial amounts of time foraging behind commercial fishing vessels.

Why are albatross populations so vulnerable?

As well as being the largest of all seabirds, albatrosses are also the longest lived, some surviving for more than 60 years. They take many years to reach sexual maturity, not breeding until they are around 10 years old. Although most breed annually, nine species – including the wandering albatross – lay only one egg every two years, and it takes the best part of a year for a young albatross to leave the nest. Because chick production is so slow, even small increases in death rates among adults will cause populations to decline.

What action is being taken to save the albatross?

The international Agreement on the Conservation of Albatrosses and Petrels came into force in 2004 and is a significant step forward in terms of acknowledging and addressing the conservation problems faced by these birds. Thirteen countries; Argentina, Australia, Brazil, Chile, Ecuador, France, New Zealand, Norway, Peru, South Africa, Spain, the UK and Uruguay have ratified the treaty, thereby agreeing to take specific actions to reduce 'by-catch', pollution and to remove introduced species from nesting islands.

But what are fishing companies doing about it?

Many commercial fishing companies have introduced measures to reduce the number of birds killed by vessels. On long-liners, these include: fitting streamer lines, which flap behind boats and deter birds from trying to feed on baited hooks; weighting hooks so they sink quickly beyond the reach of birds; setting baits underwater; setting lines at night, when albatrosses are not feeding; keeping waste bait and offal on board; and introducing closed seasons for fishing.

Are these measures making a difference?

Yes, to some extent. For example, the Government of South Georgia and South Sandwich Islands applied the scientific evidence and advice provided by BAS scientists to introduce mandatory mitigation measures for its commercial fishery. During the late 1990s, 6,000 seabirds were killed each year by fishing vessels around South Georgia. The introduction of these measures has been so successful that bycatch has been reduced to negligible levels in this fishery since 2006.

What more needs to be done?

Even though albatrosses may be safe around South Georgia, the birds range so far in search of food (sometimes flying over 1,000 miles a day) that they will inevitably encounter fisheries that do not currently use mitigation measures. As a result, South Atlantic albatross populations are still falling. The challenge now is to persuade the national and international bodies responsible for managing fisheries within the nonbreeding areas of these birds to introduce and enforce mitigation measures.

FACTFILE

- Albatrosses belong to a group of birds known as *Procellariiformes*, or 'tube noses'. Tubes on their beaks allow them get rid of excess salt – a crucial adaptation that means albatrosses can spend most of their lives at sea, free from the need to find fresh water.
- Three of the world's 22 albatross species live in the North Pacific and there is a tropical species that breeds on the Galapagos Islands. There are no breeding albatrosses in the North Atlantic.
- BirdLife International estimates that fishing fleets kill around 100,000 albatrosses each year.
- Albatrosses cover vast distances when foraging for food. Even during the breeding season, wandering albatrosses range from sub-tropical to Antarctic waters on trips covering up to 10,000km in 10-20 days. Outside the breeding season, many species (including wandering and grey-headed albatrosses from South Georgia) migrate long distances, some travelling right around Antarctica.
- With wing spans of up to 3.5m, albatrosses have the longest wings of all birds. They are also amongst the longest lived.
- *'By-catch' is the term used to describe the non-target species such as seabirds, turtles, fish and marine mammals caught by fishing vessels.



A pair of grey-headed albatrosses (*Thalassarche chrysostoma*) on Bird Island

