Agreement on the Conservation of Albatrosses and Petrels

An update on the status and trends of albatrosses and petrels listed under Annex 1 of ACAP

ACAP Secretariat

INTRODUCTION

There are many species of seabirds that have been recorded as bycatch in pelagic longline fisheries. The majority of these, both in terms of species and numbers caught, are albatrosses and petrels (Anderson *et al*. 2011; Ryan *et al*. 2002). Of the 22 species of albatrosses found globally, 18 overlap in distribution with the Southern Bluefin Tuna (SBT) fishery, as do seven of the eight petrel species also listed under the Agreement on the Conservation of Albatrosses and Petrels (ACAP). This paper provides a summary of the status and trends of albatross and petrel species listed under Annex 1 of ACAP that breed or forage in areas where Southern Bluefin tuna are fished.

CONSERVATION STATUS

Of the 18 species of albatrosses with distributions that overlap with the SBT fishery, the International Union for Conservation of Nature (IUCN) lists:

- two as *Critically Endangered* (CR),
- five as *Endangered* (EN),
- seven as *Vulnerable* (VU) and
- four as *Near Threatened* (NT).

Of the seven ACAP petrel species,

- four are listed as VU,
- one as NT and
- two as *Least Concern* (LC).

The IUCN status of all 25 species remains unchanged since 2012; however the ranking of four albatross and one petrel species is currently being reviewed by BirdLife International, which is the listing authority for birds included in the IUCN Red List of Threatened Species (see www.birdlife.org/globally-threatened-bird-forums/category/species-group/threatened-seabirds/).

STATUS OF KNOWLEDGE RELATING TO POPULATION SIZE AND TRENDS

Comprehensive knowledge of population size, trend and demographic parameters are fundamental to many aspects of albatross and petrel conservation, and vital to monitoring the effectiveness of management actions. Although the size of most populations has been determined at some point in time, the trend and current demographic statistics for many populations are not known, due to the high level of resources required to access remote sites at appropriate intervals. Determination of global trends can also be difficult because populations of the same species at different sites may show different trajectories.

Estimates of bycatch in global longline fisheries indicate that 160,000 – 320,000 seabirds, mostly albatrosses, petrels and shearwaters, are killed each year (Anderson *et al.* 2011). These estimates may be understated by as much as 50% or more due to lack of observer data, under-estimates in observer data, or under-reporting (Brothers *et al.* 2010, Anderson *et al.* 2011). Such levels of incidental mortality are known to have resulted in or are contributing to population declines for a number of these species (e.g. Wanless *et al.* 2009; Weimerskirch *et al.* 1997).

In 2013, ACAP's Population and Conservation Status Working Group examined the current (1992-2012) global trends of species listed under the Agreement (**Table 1**). The approach combines census information submitted to the ACAP database (data.acap.aq) and results of published population models. The time span of two decades was considered appropriate to reflect the trend of these long lived species, some of which breed only every two years, and which may show high annual variation in breeding numbers. The confidence of the assigned trend reflects both the accuracy and extent of the population data. The Working Group envisages that the trends will be reviewed on a triennial basis or sooner if significant new information becomes available for any of the species.

Further information can also be found in the species assessments developed by ACAP (www.acap.aq/index.php/species-assessments) which provide comprehensive information on the distribution, biology and threats facing all ACAP species.

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Table 1. 2013 summary of status and trends of ACAP species breeding/foraging in the SBT fishery area.

Common name	Scientific name	Number of sites[1]	Single Country Endemic	Breeding Frequency [2]	Annual breeding pairs (latest census year)[1]	Current Trend 1992-2012[3]	Trend Confidence	IUCN Status 2013[4]	IUCN Status Justification[4]
Amsterdam Albatross[5]	*Diomedea amsterdamensis*	1	France	B	30 (2009)	↑	High	CR	Extremely small population, confined to a tiny area on one island. Although numbers have recently been increasing, a continuing decline is projected owing to the impact of a disease which is probably already causing chick mortality.
Tristan Albatross	*Diomedea dabbenena*	1	UK	B	1,748 (2013)	↓	High	CR	Extremely small breeding range essentially restricted to Gough Island and a projected extremely rapid population decline over three generations (70 years). Modelled population declines are a consequence of very low adult survival owing to incidental mortality in longline fisheries, compounded by low fledging success caused by predation of chicks by introduced mice.
Atlantic yellow-nosed Albatross	*Thalassarche chlororhynchos*	6	UK	A	33,650 (1974-2011)	↔	Low	EN	Very small breeding range and is estimated to be undergoing a very rapid ongoing decline projected over three generations (72 years) owing to incidental mortality in longline fisheries.
Black-browed Albatross[5]	*Thalassarche melanophris*	65		A	673,048 (1982-2013)	↑	High	EN	Estimated to be declining at a very rapid rate over three generations (65 years) on the basis of current rates of decline at some large breeding colonies in the south-west Atlantic. These declines have been attributed to the impact of incidental mortality in longline and trawl fisheries.
Indian yellow-nosed Albatross	*Thalassarche carteri*	6		A	39,319 (1984-2009)	↓	Medium	EN	Estimated very rapid ongoing decline over three generations (71 years), based on data from the population stronghold on Amsterdam Island. This decline is the result of adult mortality and poor recruitment owing to interactions with fisheries and disease.
Northern royal Albatross	*Diomedea sanfordi*	5	NZ	B	5,782 (1995-2013)	?	-	EN	Restricted to a tiny breeding range in which severe storms in the 1980s resulted in a decrease in habitat quality, which led to poor breeding success. Based on this low breeding success, the population is estimated and projected to be undergoing a very rapid decline over three generations (1985-2069). Evidence suggests that the number of breeding pairs may have remained relatively stable, thus the species might qualify for downlisting in the near future.

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Sooty Albatross	*Phoebetria fusca*	15		B	12,177 (1974-2013)	↓	Very Low	EN	Very rapid decline over three generations (90 years), probably owing to interactions with fisheries. Since 1980, three sites (Crozet, Marion and Gough) have witnessed severe declines, although the population at Prince Edward may have increased between 2002-2009. However, high variability in population counts between years necessitates caution and further data are required before a change in status should be considered.
Antipodean Albatross	*Diomedea antipodensis*	6	NZ	B	8,274 (1995-2010)	↓	Medium	VU	Largely confined to three small islands when breeding and is therefore highly susceptible to stochastic effects and human impacts. Recent data (2005-2008) from the Auckland Islands indicate declines in adult survival, productivity and recruitment, which, if confirmed by further monitoring, could result in a reclassification of EN or CR.
Black Petrel	*Procellaria parkinsoni*	2	NZ	A	1,000 (1998-2011)	↓	Medium	VU	Breeds on just two very small islands where introduced predators are a potential threat. The population is assumed to be stable, but if a decline is detected, the species should be uplisted to EN.
Campbell Albatross	*Thalassarche impavida*	2	NZ	A	22,093 (1998)	?	-	VU	Breeding is restricted to a single location, where it is susceptible to potential human impacts and stochastic events. Although numbers decreased steeply between the 1970s and 1980s owing to interactions with fisheries, the population is now thought to be increasing, although there has not been a census since 1996. *[However assessment information also later refers to census data from the 1997/1998 season, i.e. 1998 in the ACAP database].*
Chatham Albatross	*Thalassarche eremita*	1	NZ	A	5,245 (2011)	↔	Medium	VU	Very small breeding range (restricted to one breeding site) rendering it susceptible to stochastic events and human impacts.
Grey-headed Albatross[5]	*Thalassarche chrysostoma*	29		B	93,588 (1982-2013)	↓	Medium	VU	Declining at a rapid rate over three generations (90 years), probably largely owing to incidental mortality on longline fisheries. If the severe declines observed at some sites also occur elsewhere, the species would warrant uplisting to EN.
Salvin's Albatross	*Thalassarche salvini*	12	NZ	A	42,219 (2010-2011)	↔	Very Low	VU	May have undergone a rapid decline, but different census methods make a comparison of the available data potentially misleading. However, breeding is largely restricted to one tiny island group, where it is susceptible to stochastic events.
Southern royal Albatross	*Diomedea epomophora*	4	NZ	B	7,941 (1991-2008)	↔	Medium	VU	Although current population trends are assumed to be stable, this species has a very small range, breeding on four islands, although largely confined to just one, therefore highly susceptible to stochastic effects and human impacts.

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Spectacled Petrel	*Procellaria conspicillata*	1	UK	A	14,400 (2010)	↑	High	VU	Despite apparent population increases, significant numbers are caught as bycatch in longline fisheries, and, owing to its very small breeding range, it is highly susceptible to stochastic events and human activities.
Wandering Albatross	*Diomedea exulans*	41		B	8,132 (1981-2013)	↓	High	VU	Overall, past and predicted future declines amount to a rapid population reduction over a period of three generations. This species is undergoing a rapid decline in the South Atlantic, as well as on the Crozet and Kerguelen Islands. Longline fishing is believed to be a main cause of decline, causing reductions in adult survival and juvenile recruitment, and this threat is ongoing.
Westland Petrel	*Procellaria westlandica*	1	NZ	A	4,000 (2008)	↔	Low	VU	Restricted to one very small area when breeding, rendering the population highly vulnerable to stochastic events and other potential threats.
White-chinned Petrel[5]	*Procellaria aequinoctialis*	73		A	1,057,930 (1984-2012)	↓	Very Low	VU	Suspected rapid declines, although almost no reliable estimates of historical populations exist. Very high rates of incidental mortality in longline fisheries have been recorded in recent years; the probability that these circumstances will continue and its susceptibility to predation and the degradation of breeding habitat indicate that a rapid and on-going population decline is likely.
Buller's Albatross	*Thalassarche bulleri*	10	NZ	A	29,948 (1971-2012)	↑	Low	NT	Although the species is restricted to a tiny small area when breeding, the population is stable and the islands on which it breeds are moderately widely spread.
Grey Petrel	*Procellaria cinerea*	17		A	79,649 (1981-2012)	↓	Very Low	NT	Although there are no current trend data, this species is susceptible to introduced mammalian predators, and today it is the most commonly caught bycatch species in longline fisheries in New Zealand waters. Evidence from Gough Island, formerly thought to contain the largest population of this species, suggest that the species is likely to be subjected to considerable predation from introduced mice that are a major predator on other winter-breeding seabirds. The population on the Kerguelen Islands may also be in decline due to fishery bycatch. Based on these data a moderately rapid decline is suspected, but further data are urgently required in order to more accurately assess its population numbers and trends.
Light-mantled Albatross	*Phoebetria palpebrata*	71		B	12,082 (1954-2013)	↔	Low	NT	May be declining at a moderately rapid rate, owing to bycatch on longline fisheries and perhaps the impacts of introduced predators. Threats and population status both remain poorly known.
Shy Albatross	*Thalassarche cauta*	3	Australia	A	14,618 (2005-2013)	↑	Medium	NT	Breeds on just three islands and may be susceptible to stochastic events and human activities, although one nesting site is moderately widely separated from the other two.

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White-capped Albatross[5]	*Thalassarche steadi*	5	NZ	?	99,799 (1995-2013)	**?**	-	NT	Trend of this species is poorly known. Given its longevity and slow productivity, and a high rate of mortality recorded in longline and trawl fisheries, it may be declining at a moderately rapid rate.
Northern giant Petrel	*Macronectes halli*	50		A	10,318 (1973-2013)	↑	Medium	LC	Had been predicted to undergo a moderately rapid population decline in the near future but has instead shown a significant increase during the past two decades (probably owing to greater availability of carrion from expanding populations of fur seals, increased waste from commercial fishing operations, and the use of measures to reduce seabird bycatch around some breeding colonies).
Southern giant Petrel	*Macronectes giganteus*	119		A	47,043 (1958-2013)	↑	Medium	LC	Recent analysis of trend data for the global population over the past three generations (64 years) gives a best case estimate of a 17 % increase and a worst case scenario of a 7.2 % decline (Chown *et al.* 2008 unpubl. report to SCAR).

[1] ***Site:*** *usually an entire, distinct island or islet, or rarely, section of a large island (>3,000km^2).* ACAP database. <data.acap.aq>. 23 July 2013.

[2] ***Breeding Frequency:*** *A = Annual, B = Biennial*

[3] ***Trend:*** *↑ increasing, ↓declining, ↔ stable, ? unknown*

[4] ***IUCN Status:*** *CR = Critically Endangered, EN = Endangered, VU = Vulnerable, NT = Near Threatened, LC = Least Concern.* IUCN 2013. IUCN Red List of Threatened Species. Version 2013.1. <www.iucnredlist.org>. 23 July 2013.

[5] Species is currently being considered for uplisitng or downlisitng (shaded in yellow).