

# **THREAT ABATEMENT PLAN 2006**

**for the incidental catch (or bycatch) of seabirds  
during oceanic longline fishing operations**



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during oceanic longline fishing operations**



**Australian Government**  
**Department of the Environment  
and Water Resources**  
Australian Antarctic Division

This threat abatement plan can be obtained from:

[www.aad.gov.au/default.asp?casid=20587](http://www.aad.gov.au/default.asp?casid=20587)

or by writing to the  
Australian Antarctic Division,  
Department of the Environment and Water Resources  
203 Channel Highway, Kingston, Tasmania 7050

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# Contents

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<b>Background</b>	<b>3</b>
Objective: (EPBC Act 271(2)(a))	7
<hr/>	
<b>Actions to Achieve the Objectives (EPBC Act 271(2)(c))</b>	<b>9</b>
Mitigation	9
Education and Compliance	11
Research and Development	11
Innovation	11
<hr/>	
<b>Other Actions</b>	<b>13</b>
Data Collection and Analysis	13
<hr/>	
<b>Criteria to Measure Performance of the Plan (EPBC Act 271(2)(b))</b>	<b>15</b>
Major Ecological Matters that will be affected by the Plan (EPBC Act 271(2)(f))	15
<hr/>	
<b>Duration and Cost of the Threat Abatement Plan (EPBC Act 271(2)(d))</b>	<b>16</b>
<hr/>	
<b>Organisations/Persons Involved in Evaluating the Performance of the Threat Abatement Plan (EPBC Act 271(2)(e))</b>	<b>16</b>
<hr/>	
<b>Definitions and Acronyms</b>	<b>17</b>
<hr/>	
<b>Annex 1: Summary of the albatross species affected by pelagic longline fishing bycatch in the AFZ.</b>	<b>21</b>
<hr/>	
<b>Annex 2: Summary of other species affected by pelagic longline fishing bycatch in the AFZ.</b>	<b>26</b>



# Background

Oceanic longline fishing is a technique used to target pelagic and demersal finfish and shark species. Longline fishing commenced in the southern oceans and operates in almost all Australian waters today. The impact of longline fishing activities on seabirds was not fully realised until the 1980's when seabird bycatch was first reported and then documented.

The incidental catch (or bycatch) of seabirds during oceanic longline fishing operations was listed as a key threatening process on 24 July 1995. As required under Commonwealth legislation (now the *Environment Protection and Biodiversity Conservation Act 1999* — EPBC Act), a *Threat Abatement Plan for the Incidental Catch (or By-catch) of Seabirds During Oceanic Longline Fishing Operations* was prepared and approved by the Minister for the Environment on 2 August 1998. The Threat Abatement Plan (TAP) expired in August 2003, necessitating a review under subsection 279(2) of the EPBC Act. The provisions of the current TAP continue to apply to all fisheries managed by the Australian Government until such time as the new TAP is in place.

This threat abatement plan (2006) is a result of that review. It was prepared to meet the requirements of the EPBC Act and to coordinate national action to alleviate the impact of longline fishing activities on seabirds in Australian waters. It applies to all fisheries under Commonwealth jurisdiction.

Over the life of the first plan, substantial progress toward reducing the key threatening process has been achieved. A number of fisheries recorded incidental catch rates well below 0.05 birds per 1000 hooks, the maximum permissible level set by the plan as a performance indicator. The draft prescriptions

in this Plan recognise this success and seek to further reduce the incidental capture of seabirds.

Despite considerable effort involving trials of various weighting regimes and other mitigation measures in the Eastern Tuna and Billfish Fishery (ETBF), areas of this fishery recorded seabird bycatch levels that exceeded 0.05 birds per 1000 hooks. This occurred until 2004/2005, when it fell below 0.05 birds per 1000 hooks. However, bycatch in this fishery appears variable across years, and the 2004/2005 levels may not be indicative. The original prescription of allowing night setting throughout the year in isolation of other mitigation measures was not sufficiently effective for flesh-footed shearwaters in particular, although it dramatically reduced the capture of albatrosses.

To date industry has largely funded the costs of the trials, with the major cost being the provision of observer coverage. There has been minimal research and development funded by non-industry sources, despite the public interest in this issue and the need to develop a technological solution to the seabird bycatch problem.

Despite the substantial progress made in the first plan, further work is required to solve the problem of seabird bycatch in fisheries. Whereas albatross species were once the principal species caught in the Australian Fishing Zone (AFZ), changes in the distribution of fishing effort in eastern Australian waters have since led to significant problems with bycatch of flesh-footed shearwaters in pelagic fisheries operating in these waters, and a similar situation is likely to exist in Western Australian waters.

Although there are a number of longline fisheries operating in the Australian Fishing Zone, only five have been identified

as having significant or potential seabird bycatch problems. These are the Eastern Tuna and Billfish Fishery, the Western Tuna and Billfish Fishery, the Antarctic Longline Fishery, the Coral Sea Fishery and the Southern and Eastern Scalefish and Shark Fishery (Scalefish Hook Sector).

Information on the level and nature of interactions between seabirds and fishing gear is still incomplete in all domestic pelagic tuna fisheries, the Coral Sea Fishery and the Southern and Eastern Scalefish and Shark Fishery (Scalefish Hook Sector). There are also longline fisheries for Patagonian toothfish in subantarctic waters with potential for seabird bycatch. Information on the level and nature of interactions between seabirds and fishing gear in these fisheries is extensive and well-documented.

Detailed background information on the key threatening process, the Australian longline fisheries that impact upon seabirds, and the species of seabirds impacted by longline fishing can be found at [www.aad.gov.au/default.asp?casid=20587](http://www.aad.gov.au/default.asp?casid=20587)

This Plan is closely linked to recovery plans for threatened seabirds which are caught on longlines and Australia's NPOA-Seabirds prepared to meet Australia's commitment to the *FAO International Plan of Action for Reducing the Incidental Catch of Seabirds in Longline Fisheries*. The Threat Abatement Plan relies on these recovery plans to collect specific data on population trends in the breeding populations of those threatened species found breeding in Australia. Of particular relevance is the *Recovery Plan for Albatrosses and Giant-Petrels* which can be found at [www.environment.gov.au/biodiversity/threatened/publications/recovery/albatross/index.html](http://www.environment.gov.au/biodiversity/threatened/publications/recovery/albatross/index.html)

This Plan represents Australia's domestic contribution to the global conservation of seabirds by managing the threat from longline fishing by-catch. However, conservation of migratory seabird species relies on more than Australian action. Mitigation strategies such as those outlined in the plan should be pursued in international waters and the Exclusive Economic Zones of other Southern Hemisphere nations. The Australian Government is actively pursuing such action through the *Agreement on the Conservation of Albatrosses and Petrels (ACAP)*, an international Agreement that aims to achieve and maintain a favourable conservation status for albatrosses and petrels. ACAP has been developed under the auspices of another international Agreement, the *Convention on the Conservation of Migratory Species of Wild Animals (CMS)*.

The following sets out the Threat Abatement Plan for this key threatening process.

## **Objective: (EPBC Act 271(2)(a))**

The ultimate aim of the threat abatement process is to achieve a zero bycatch of seabirds, especially threatened albatross and petrel species, in all longline fisheries. However, using currently available mitigation methods, this goal is not realistic in the short term.

Therefore the objective of this Plan is to significantly reduce the bycatch of seabirds during oceanic longline operations in the Australian Fishing Zone at current fishing levels.

As many seabird species have large distributional ranges actions by the Australian fishing industry alone may not be sufficient to prevent any decline in some populations. Hence Australian government agencies will pursue the global adoption of bycatch mitigation strategies through international conservation and fisheries management fora.

The TAP objectives are to be achieved through five key areas:

1. Mitigation — Effective measures will be put in place, both through legislative frameworks and fishing practices, to ensure the rate of seabird bycatch is continually reduced.
2. Education — Results from data analysis will be communicated throughout the community, stakeholder groups and international forums, and programs will be established that provide information and education to longline operators.
3. International initiatives — Global adoption of seabird bycatch mitigation targets and methods will be pursued through international conservation and fisheries management fora.

4. Research and Development — Research into new mitigation measures and their development, trialling and assessment will be supported through the granting of individual permits and the potential certification of new measures to apply throughout a fishery.
5. Innovation — Potential individual accreditation of longline operators who are able to demonstrate ‘bird friendly’ fishing practices will be supported.

Data collection and analysis is another key action of this plan. Data will be collected and analysed to assess the performance of mitigation measures and to improve knowledge of seabird–longline interactions.

# **Actions to Achieve the Objectives (EPBC Act 271(2)(c))**

This Threat Abatement Plan requires that the government agencies identified below implement the following actions:

## **Mitigation**

1. AFMA will require all pelagic longline tuna fishers operating within the Eastern Tuna and Billfish Fishery south of latitude 25° South to adopt one of two options:
  - a line-weighting strategy that enables the bait to be rapidly taken below the reach of most seabirds; or
  - set all hooks during the night.

In both options vessels shall also employ at least one bird-scaring line constructed to a specified standard, not use bait that is still frozen and retain all offal during line setting.

2. AFMA will require all pelagic longline tuna fishers operating within the Western Tuna and Billfish Fishery south of latitude 30° South to set all hooks during the night. In addition vessels shall also employ at least one bird-scaring line constructed to a specified standard, not use bait that is still frozen and retain all offal during line setting.
3. AFMA will continue to require domestic and foreign longline vessels in all demersal fisheries operating within Australian jurisdiction to adopt proven mitigation measures that ensure the performance criteria for each fishery are achieved in all areas and seasons.
4. AFMA will implement an appropriate management response (described below) if data analysis indicates that the Criteria, defined elsewhere in this plan, have not

been met in any area, season and fishery, or that observer coverage has dropped below acceptable levels.

<b>Problem</b>	<b>Management Response within 3 months</b>
<p>Criterion for a longline fishery exceeded in an area during one season</p>	<p>AFMA will:</p> <ol style="list-style-type: none"> <li>1. review mitigation currently deployed in area/season and the relevant circumstances — environmental conditions, fishing practices — within 1 month of the criteria being exceeded.</li> <li>2. implement a revised mitigation regime to address bycatch problem within 3 months of the criteria being exceeded.</li> </ol>
<p>Criterion for a fishery exceeded in an area during one season within 12 months of introduction of new arrangements</p>	<ol style="list-style-type: none"> <li>3. AFMA will close the area/fishing season until the Minister for the Environment and Heritage is satisfied that mitigation methods are available for implementation to enable the Criteria to be achieved. In areas where there are less than 3 operators, consideration will be given to limiting closure of an area/ fishing season to individual vessels.</li> </ol>
<p>Observer coverage of a fishery in an area and/or season does not meet coverage levels in Action 5 (below).</p>	<ol style="list-style-type: none"> <li>4. AFMA will increase observer levels to meet specified levels.</li> </ol>

## **Education and Compliance**

5. AFMA and DEH will report as appropriate to key stakeholders on the analysis of bycatch data and seabirds collected in relation to achieving the objectives of the Threat Abatement Plan.
6. AFMA will implement extension and training programs for longline fishers where appropriate.
7. AFMA will implement a risk based compliance strategy to ensure that requirements relevant to the mitigation of seabird bycatch are complied with.
8. DAFF and AFMA will communicate the results of implementing the Threat Abatement Plan and promote seabird bycatch mitigation to foreign fishers through international fisheries forums.
9. DEH will communicate the results of implementing the Threat Abatement Plan and will promote bycatch mitigation through relevant international conservation forums including ACAP and CMS.

## **Research and Development**

10. AFMA, DAFF and DEH will promote and support research and development of new mitigation measures by facilitating access to and awareness of fisheries research funding programs.

## **Innovation**

11. AFMA will support the trialling of new mitigation measures and devices under operational conditions by granting individual scientific permits to operators. AFMA will ensure the experimental design of trials will be robust and properly complied with. Measures will be tested across all seasons, on different boats and for a minimum

number of hooks. Once a new measure or device has been demonstrated to consistently and effectively meet the TAP criteria, it may be included in the management arrangements for fisheries.

12. AFMA will support innovation and/or effective bycatch mitigation practices through individual accreditation of longline operators able to demonstrate mitigation measures that consistently and effectively achieve the TAP criteria on their vessels. This will be done through a formally agreed set of criteria under which approval to operate would be granted. The basis for the criteria would be to demonstrate an ability to meet bycatch standards on their vessel.

# Other Actions

## Data Collection and Analysis

13. AFMA will collect data on the bycatch of seabirds on longline vessels using observer programs. The level of observer effort shall be commensurate with the nature and level of bycatch in each area, season and fishery and shall be in accordance with the guidelines below:
  - ETBF and WTBF 5% of all hooks set and hauled in all areas;
  - SESSF 10% of all hooks set and hauled;
  - Coral Sea Fishery 10% of all hooks set and hauled;
  - Antarctic Fisheries 20% of all hooks set and 40% of all hooks hauled.
14. AFMA will continue to require that all seabirds killed on pelagic or demersal longlines in the AFZ are:
  - brought aboard the vessel;
  - reported to AFMA;
  - reported to the Australian Bird and Bat Banding Schemes if banded;
  - collected for scientific analysis and stored on board the vessel in a manner which will limit decay of the specimen and meet AQIS requirements; and
  - transported to a storage and analysis facility nominated by DEH.

DEH will provide seabird collection kits to facilitate appropriate handling of dead seabirds in preparation for analysis.

DEH will analyse the collected seabirds to determine species, subspecies, provenance (where possible), age, sex and breeding status.

15. AFMA and DEH will analyse and review the seabird–fisheries interactions data to assess seabird bycatch levels by area, season, fishery and fishing method to monitor compliance with the Criteria. These analyses will be prepared annually and show, for each area and season, the bycatch rate with confidence intervals, together with the species composition of any bycatch.
16. AFMA will ensure that all longline fisheries’ logbooks and VMS information collection procedures accurately record:
  - the number of seabirds caught;
  - the species of seabirds caught;
  - the life status of seabirds caught;
  - the type of bait used;
  - the fishing gear and mitigation measures used and stage of operation when the catch occurred;
  - the time of day/night of the line setting and haul;
  - the date and location of the catch; and
  - external factors (weather conditions, moon phase) that may influence bycatch.
17. AFMA will use longline observer programs to validate seabird bycatch data collected by the logbook system and identify deficiencies in existing programs.
18. DEH, AFMA, DAFF, relevant experts and representatives of key stakeholders will collaborate to assess the impact of TAP actions on other marine species.

## **Criteria to Measure Performance of the Plan (EPBC Act 271(2)(b))**

Seabird bycatch in all fishing areas and seasons is less than the following bycatch rates:

- Eastern Tuna and Billfish Fishery  
0.05 birds per 1000 hooks;
- Western Tuna and Billfish Fishery  
0.05 birds per 1000 hooks;
- Southern and Eastern Scalefish and Shark Fishery  
(Scalefish Hook Sector)  
0.01 birds per 1000 hooks;
- Antarctic Fishery 0.01 birds per 1000 hooks; and
- all other fisheries (including new and developing fisheries)  
0.01 birds per 1000 hooks.

These criteria have been set on the basis of annual fishing levels at the time this Plan is approved. Trends in fishing effort will be reviewed annually and, if fishing levels increase or decrease significantly (>20%), DEH and AFMA will review the bycatch rates identified above, taking into account spatial and temporal trends, and the vulnerability of seabird species encountered.

## **Major Ecological Matters that will be affected by the Plan (EPBC Act 271(2)(f))**

This threat abatement plan is unlikely to affect other ecological matters, but all actions undertaken will take into account any impacts on the conservation status of non-seabird species including fish, sharks, marine mammals and marine reptiles.

## **Duration and Cost of the Threat Abatement Plan (EPBC Act 271(2)(d))**

This plan was approved by the Minister for the Environment and Heritage on 18 July 2006 and should be reviewed in five years time.

The cost of this plan should be covered under the core business expenditure of the affected organisations.

## **Organisations/Persons Involved in Evaluating the Performance of the Threat Abatement Plan (EPBC Act 271(2)(e))**

The Department of the Environment and Heritage, in consultation with relevant seabird experts and key stakeholders, will evaluate the performance of this plan and report the results of their review to the Minister for the Environment and Heritage, through the Threatened Species Scientific Committee.

# Definitions and Acronyms

**ACAP** — Agreement on the Conservation of Albatrosses and Petrels

**AFMA** — Australian Fisheries Management Authority

**Antarctic fishery** — fisheries defined by the *Heard Island and McDonald Islands Fishery Management Plan 2002*, the *Macquarie Island Management Plan 2005*, and new and exploratory fisheries operated under the framework of the *Convention for the Conservation of Antarctic Marine Living Resources (CCAMLR)*.

**Bycatch** — the unintentional catch of a species of animal during fishing operations

**CMS** — Convention for the Conservation of Migratory Species of Wild Animals, or Bonn Convention.

**Coral Sea Fishery** — a fishery defined under the *Fisheries Management Regulations 1992*.

**DAFF** — Dept of Agriculture, Fisheries and Forestry

**Dead seabird** — a seabird caught by a longline shall be considered to be dead if:

1. it is obviously dead (i.e. shows no muscle movement or corneal reflex); or
2. is landed alive but displays any of the following pathologies that may lead to death on its release:
  - fracture of a wing bone, a leg bone or beak;
  - more than two primary feathers on either wing that have broken feather shafts;

- substantial damage to the patagial tendon (indicated by a drooping wing or the inability to fly upon release);
- an open wound (other than superficial injuries in which there is no subcutaneous muscle damage);
- waterlogged or hydrocarbon-soiled plumage;
- or
- any bird released with a hook in situ.

**DEH** — Department of the Environment and Heritage<sup>1</sup>,  
Australian Antarctic Division

**ETBF** — Eastern Tuna and Billfish Fishery, a fishery defined in the *Eastern Tuna and Billfish Fishery Management Plan 2005*.

**Fishing areas** — areas divided, for the purposes of the Criteria, into 5 degree latitudinal bands within the AFZ. This means that the bycatch rates will apply separately to each of these bands. For the ETBF the waters between 30 and 35 degrees latitude south will be further divided into two zones by the meridian of longitude 156 degrees east.

**Fishing seasons** — seasons defined, for the purposes of the Criteria, into two: Summer 1 September — 30 April; Winter 1 May—31 August.

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1 Note: Since the TAP entered into force, the department name has changed to “Department of the Environment and Water Resources”

**Interaction** — an interaction with a seabird where a bird is observed caught under one of the following situations:

1. Dead not landed on board – birds observed to be killed by direct interaction with fishing gear but not landed on the fishing vessel.
2. Dead landed on board – birds landed on the vessel that are dead.
3. Alive landed on board following direct interaction with fishing gear
  - injured, or
  - released uninjured.

**Longline fishing** — the setting of one or more single lines (mainline) containing many individual hooks on branch lines or snoods. The mainline can either be anchored or drifting. It can be oriented vertically or horizontally and vary considerably in length and number of hooks.

**Night** — the time between nautical dusk and nautical dawn.

**Night setting** — the setting of all hooks deployed by a vessel during the night.

**Observer programs, observer coverage and observer levels** — includes the use of appropriate video technology capable of independently monitoring fishing activities.

**Operator** — a person who holds a fishing concession as defined under the *Fisheries Management Act 1991*.

- Seabird** — means, for the purposes of the Criteria, all species in the Class Aves that are caught by any part of the fishing gear and observed to be either dead or alive.
- SESSF** — Southern and Eastern Scalefish and Shark Fishery (Scalefish Hook Sector), a fishery defined in the *Southern and Eastern Scalefish and Shark Fishery Management Plan 2003*.
- WTBF** — Western Tuna and Billfish Fishery, a fishery defined in the *Western Tuna and Billfish Fishery Management Plan 2005*.

# Annex 1: Summary of the albatross species affected by pelagic longline fishing bycatch in the AFZ

Species name	International conservation status (BirdLife International 2004)	EPBC Act listing	Likely incidence in longline bycatch	Jurisdiction and location of breeding areas
Wandering albatross <i>Diomedea exulans</i>	Vulnerable	Vulnerable	Moderate	<b>Australia:</b> Macquarie Island  <b>France:</b> Kerguelen Island, Crozet Islands  <b>South Africa:</b> Marion Island, Prince Edward Island  <b>UK/Argentina:</b> South Georgia (Islas Georgias del Sur)
Antipodean albatross <i>Diomedea antipodensis</i>	Vulnerable (Croxall & Gales 1998)	Vulnerable	Low	<b>New Zealand:</b> Antipodes Island, Campbell Island
Gibson's albatross <i>Diomedea gibsoni</i>	Vulnerable (Croxall & Gales 1998)	Vulnerable	Moderate	<b>New Zealand:</b> Auckland slands (Adams Island, Disappointment Island, Auckland Island)
Tristan albatross <i>Diomedea dabbenena</i>	Endangered	Endangered	Low	<b>UK:</b> Gough Island, Tristan da Cunha
Amsterdam albatross <i>Diomedea amsterdamensis</i>	Critically Endangered	Endangered	Low	<b>France:</b> Amsterdam Island

Species name	International conservation status (BirdLife International 2004)	EPBC Act listing	Likely incidence in longline bycatch	Jurisdiction and location of breeding areas
Southern royal albatross <i>Diomedea epomophora</i>	Vulnerable	Vulnerable	Low	<b>New Zealand:</b> Campell Island, Enderby Island, Auckland Islands (Adams Island, Auckland Island)
Northern royal albatross <i>Diomedea sanfordi</i>	Endangered	Endangered	Low	<b>New Zealand:</b> South Island (Taiaroa Head) Chatham Islands (Big Sister Island, Little Sister Island, Forty- fours Island)
Black-browed albatross <i>Thalassarche melanophrys</i>	Endangered	Vulnerable	High	<b>Australia:</b> Heard Island, McDonald Islands, Macquarie Island (incl. Bishop and Clerk Islets)  <b>Chile:</b> Diego Ramirez Island, Ildefonso Island, Diego de Almagra Island  <b>France:</b> Crozet Islands, Kerguelen Island  New Zealand: Bollons Island, Campbell Island, Snares Island  <b>UK/Argentina:</b> South Georgia (Islas Georgias del Sur), Falkland Islands (Islas Malvinas)
Campbell albatross <i>Thalassarche impavida</i>	Vulnerable	Vulnerable	High	<b>New Zealand:</b> Campbell Island

Species name	International conservation status (BirdLife International 2004)	EPBC Act listing	Likely incidence in longline bycatch	Jurisdiction and location of breeding areas
Buller's albatross <i>Thalassarche bulleri</i>	Vulnerable	Vulnerable	Low	<b>New Zealand:</b> Snares Island, Solander Island, Little Solander Island
Pacific albatross <i>Thalassarche</i> nov. sp.	Vulnerable (Croxall & Gales 1998)	Vulnerable	Low	<b>New Zealand:</b> Three Kings Island, Chatham islands (Big Sister Island, Little Sister Island, Forty-fours Island)
Shy albatross <i>Thalassarche cauta</i>	Vulnerable (Croxall & Gales 1998)	Vulnerable	Moderate	<b>Australia:</b> Tasmania (Albatross Island, Mewstone, Pedra Branca)
White-capped albatross <i>Thalassarche steadi</i>	Vulnerable (Croxall & Gales 1998)	Vulnerable	Moderate	<b>New Zealand:</b> Auckland Islands (Adams Island, Auckland Island, Disappointment Island) Bollons Island
Salvin's albatross <i>Thalassarche salvini</i>	Vulnerable	Vulnerable	Low	<b>France:</b> Crozet Islands (Ile des Pingouins)  <b>New Zealand:</b> Bounty Island, Snares Island
Chatham albatross <i>Thalassarche eremita</i>	Critically Endangered	Endangered	Low	<b>New Zealand:</b> Chatham Island
Atlantic yellow-nosed albatross <i>Thalassarche chlororhynchos</i>	Endangered	Not listed	Low	<b>UK:</b> Gough Island, Tristan da Cunha (Tristan da Cunha Island, Nightingale Island, Inaccessible Island, Middle Island, Stoltenhoff Island)

Species name	International conservation status (BirdLife International 2004)	EPBC Act listing	Likely incidence in longline bycatch	Jurisdiction and location of breeding areas
Indian yellow-nosed albatross <i>Thalassarche carteri</i>	Endangered	Vulnerable	Moderate	<b>France:</b> Amsterdam Island, St Paul Island, Kerguelen Islands, Crozet Islands  <b>South Africa:</b> Prince Edward Island
Grey-headed albatross <i>Thalassarche chrysostoma</i>	Vulnerable	Vulnerable	Moderate	<b>Australia:</b> Macquarie Island  <b>Chile:</b> Diego Ramirez Island, Isla Iledefonso  <b>France:</b> Kerguelen Islands, Crozet Islands  <b>South Africa:</b> Marion Is, Prince Edward Is.  <b>New Zealand:</b> Campbell Island  <b>UK/Argentina:</b> South Georgia (Islas Georgias del Sur)
Laysan albatross <i>Phoebastria immutabilis</i>	Vulnerable	Not listed	Low	<b>USA:</b> Hawaiian Leeward Islands  <b>Japan:</b> Bonin Islands (Mukojima)  <b>Mexico:</b> Isla Guadalupe, Isla Benedicto, Isla Clarion

Species name	International conservation status (BirdLife International 2004)	EPBC Act listing	Likely incidence in longline bycatch	Jurisdiction and location of breeding areas
<p>Sooty albatross</p> <p><i>Phoebetria fusca</i></p>	<p>Endangered</p>	<p>Vulnerable</p>	<p>Low</p>	<p><b>France:</b> Amsterdam Island, St Paul Island, Kerguelen Islands, Crozet Islands</p> <p><b>South Africa:</b> Prince Edward Island, Marion Island</p> <p><b>UK:</b> Gough Island, Tristan da Cunha</p>
<p>Light-mantled albatross</p> <p><i>Phoebetria palpebrata</i></p>	<p>Near Threatened</p>	<p>Not listed</p>	<p>Low</p>	<p><b>Australia:</b> Heard Island, McDonald Islands, Macquarie Island</p> <p><b>France:</b> Kerguelen Islands, Crozet Islands</p> <p><b>New Zealand:</b> Auckland island Campbell Island Antipodes Island</p> <p><b>South Africa:</b> Prince Edward Island Marion Island</p> <p><b>UK/Argentina:</b> South Georgia (Islas Georgias del Sur)</p>

## Annex 2: Summary of other species affected by pelagic longline fishing bycatch in the AFZ

Species name	International conservation status (BirdLife International 2004)	EPBC Act listing	Likely incidence in longline bycatch	Jurisdiction and location of breeding areas
Southern Giant Petrel  <i>Macronectes giganteus</i>	Vulnerable	Endangered	Low	<p><b>Australia:</b> Heard Island, McDonald Islands, Macquarie Island, Australian Antarctic Territory</p> <p><b>France:</b> Crozet Islands, Kerguelen Islands</p> <p><b>Norway:</b> South Sandwich, South Orkney, Bouvet Island</p> <p><b>South Africa:</b> Prince Edward Island, Marion Island</p> <p><b>UK/Argentina:</b> South Georgia (Islas Georgias del Sur)</p>
Northern Giant Petrel  <i>Macronectes halli</i>	Lower Risk - Near Threatened	Vulnerable	Low	<p><b>Australia:</b> Macquarie Island</p> <p><b>France:</b> Crozet Islands, Kerguelen Islands</p> <p><b>New Zealand:</b> Antipodes Islands, Auckland Island, Campbell Islands, Chatham Island, Stewart Island</p> <p><b>South Africa:</b> Prince Edward Island, Marion Islands</p>

Species name	International conservation status (BirdLife International 2004)	EPBC Act listing	Likely incidence in longline bycatch	Jurisdiction and location of breeding areas
Great-winged Petrel  <i>Pterodroma macroptera</i>	Not listed	Not listed	Moderate	<p><b>Australia:</b> Western Australia (Recherche Arch., Bald Island, Coffin Island, Gull Island, Rabbit Island, Remark Island, Breaksea Island, Eclipse Island, Mistaken Island)</p> <p><b>France:</b> Kerguelen Islands, Crozet Islands</p> <p><b>New Zealand:</b> North Island (north-east coast)</p> <p><b>South Africa:</b> Prince Edward Island, Marion Islands</p> <p><b>UK:</b> Gough Island, Tristan da Cunha Islands</p>
White-chinned Petrel  <i>Procellaria aequinoctialis</i>	Vulnerable	Not listed	Moderate	<p><b>France:</b> Kerguelen Island, Crozet Islands</p> <p><b>New Zealand:</b> Antipodes Island, Campbell Islands, Auckland Islands</p> <p><b>South Africa:</b> Prince Edward Island, Marion Islands</p> <p><b>UK/Argentina:</b> South Georgia (Islas Georgias del Sur)</p>
Westland Black Petrel  <i>Procellaria westlandica</i>	Vulnerable	Not listed	Low	<p><b>New Zealand:</b> South Island (Punakaiki River)</p>
Black Petrel <i>Procellaria parkinsonia</i>	Vulnerable	Not listed	Low	<p><b>New Zealand:</b> Great Barrier Island, Little Barrier Island</p>

Species name	International conservation status (BirdLife International 2004)	EPBC Act listing	Likely incidence in longline bycatch	Jurisdiction and location of breeding areas
Grey Petrel  <i>Procellaria cinerea</i>	Near Threatened	Not listed	Moderate	<b>Australia:</b> Macquarie Island  <b>France:</b> Crozet Islands, Kerguelen Islands, Amsterdam Island  <b>New Zealand:</b> Campbell Island, Antipodes Islands  <b>South Africa:</b> Prince Edward Island  <b>UK:</b> Tristan da Cunha Islands
Wedge-tailed shearwater  <i>Puffinus pacificus</i>	Not listed	Not listed	Moderate	<b>Australia:</b> Numerous islands off NSW, QLD and Western Australia, Lord Howe Island, Norfolk Island, North Keeling Island  <b>Other:</b> extensive distribution throughout the tropical and sub-tropical Pacific and Indian Oceans.
Flesh-footed shearwater  <i>Puffinus carneipes</i>	Not listed	Not listed	High	<b>Australia:</b> Lord Howe Island, South Australia (Smith Island), Western Australia (numerous islands)  <b>France:</b> St Paul Island  <b>New Zealand:</b> North Island (north-east and west coasts), Cook Strait

Species name	International conservation status (BirdLife International 2004)	EPBC Act listing	Likely incidence in longline bycatch	Jurisdiction and location of breeding areas
Sooty shearwater  <i>Puffinus griseus</i>	Near Threatened	Not listed	Low	<b>Australia:</b> Numerous islands off NSW and Tasmania; Macquarie Island  <b>Chile:</b> Cape Horn  <b>New Zealand:</b> Numerous islands off North and South Islands; Solander Island, Snares Island, Antipodes Island, Auckland Island, Campbell Island, Chatham Island  <b>UK/Argentina:</b> Falkland Islands (Islas Malvinas)
Short-tailed shearwater  <i>Puffinus tenuirostris</i>	Not listed	Not listed	Low	<b>Australia:</b> Numerous islands off Victoria, Tasmania, South Australia and Western Australia
Southern Skua  <i>Catharacta antarctica</i>	Not listed	Not listed	Low	<b>Australia:</b> Macquarie Island, Heard Island  <b>Other:</b> extensive distribution throughout the sub-Antarctic



