



**FLORA & FAUNA  
GUARANTEE**

## FLORA AND FAUNA GUARANTEE - SCIENTIFIC ADVISORY COMMITTEE

### FINAL RECOMMENDATION ON A NOMINATION FOR LISTING

#### Incidental catch (or by-catch) of seabirds during longline fishing operations (Potentially Threatening Process)

**Date of receipt of the nomination:** 25 July 1996  
**Date of preliminary recommendation:** 18 June 1998  
**Date of final recommendation:** 18 August 1998

**File No.:** 96/19-3750

#### Validity:

The nomination is for a valid item and the prescribed information was provided.  
 In the opinion of the SAC the process is adequately defined and described.

The nominated process is "Incidental catch (or by-catch) of seabirds during longline fishing operations".

Longline fishing (or drifting longlines) is the practice by which vessels set a *main line* horizontally in the water at a predetermined depth by buoy lines with floats spaced at regular intervals along its length. *Branch lines* are attached at regular intervals along the main line. Each line has a baited hook and fishes at different depth depending on its position and the amount of slack in the main line between floats. The main line can range from 10-100 km long and can carry from 200-3 500 hooks. Drifting longlines are used off every Australian State, except the Northern Territory, by both Japanese and Australian vessels operating under access agreements with the Australian Government. This fishing technique is used to target pelagic and demersal finfish and shark species. Species taken include tunas such as yellowfin, bigeye and southern bluefin, striped and broadbill swordfish (Kailola *et al.* 1993, Environment Australia 1997).

Longline by-catch is one of the greatest threats to seabirds (Birdlife International 1995). By-catch during longline fishing occurs when seabirds are attracted to fishing vessels by discards and baits and ingest hooks during the setting or, less commonly, hauling of the longline. The hooked birds are subsequently pulled underwater by the weight of the line and drown. Fourteen species of seabirds have been identified as being affected by this process when it was listed under the Endangered Species Protection Act in July 1995. The affected species are typically large seabirds which naturally feed on fish and squid on or close to the surface. They all exhibit behaviours which make them susceptible to being caught on longlines. The worst affected group are the albatrosses because of their limited population sizes and low reproductive rates (Environment Australia 1997).

The range of flora or fauna affected or potentially affected was adequately stated in the nomination.

Significance of the threat which the potentially threatening process poses or has the potential to pose was adequately stated in the nomination.

#### Eligibility for listing as a potentially threatening process under the Flora and Fauna Guarantee

The nominated item satisfies at least one criterion of the set of criteria prepared and maintained under Section 11 of the Flora and Fauna Guarantee Act 1988, and stated in Schedule 1 of the Flora and Fauna Guarantee Regulations 1991.

#### **Evidence that criteria are satisfied:**

**Sub-criterion 5.2.1** *The potentially threatening process poses or has the potential to pose a significant threat to the evolutionary development of two or more taxa.*

#### *Evidence:*

Taxa at risk from longline fishing operations are Wandering Albatross *Diomedea exulans chionoptera*, Shy Albatross *Diomedea cauta*, Black-browed Albatross *Diomedea malanophrys*, Sooty Albatross *Phoebetria fusca*, various petrel and shearwater species and other marine fauna.

**Additional Information**

- Death after capture by long-line trawlers fishing for Southern Bluefin Tuna *Thunnus maccoyii* and other fish has been confirmed as a threat to several species of Albatross in Australia (Garnett 1992) and is a major cause of albatross mortality (Alexander *et al.* 1997, Brothers 1991, Brothers *et al.* 1998, Gales *et al.* 1998).
- On 24 July 1995 "Incidental catch (or by-catch) of seabirds during oceanic longline fishing operations" was declared by the Commonwealth Government to be a "key threatening process" to seabirds under section 18.(1) of the **Endangered Species Protection Act 1992**. A *Threat Abatement Plan* has been compiled for bycatch of seabirds by the Commonwealth Government (Environment Australia 1997).
- Longline fishing is the only identified cause of decline of populations of albatrosses, giant petrels, petrels and shearwaters (Hayes 1997, Gales *et al.* 1998). Sixteen seabird species killed on longlines in the Australian Fishing Zone Have been identified and 74% of birds killed were albatrosses (Gales *et al.* 1998).
- The species composition of the bycatch varied with seasons and areas and most species of birds killed were characterised by unequal representation of sex and age cohorts (Gales *et al.* 1998).

**Advertisement for public comment**

In accordance with the requirements of Section 14 of the **Flora and Fauna Guarantee Act 1988**, the preliminary recommendation was advertised for a period of at least 30 days.

The preliminary recommendation was advertised in:

"The Age" - on 12 August 1998

"The Weekly Times" - on 12 August 1998

The *Government Gazette* - on 13 August 1998

Submissions closed on 18 September 1998.

**Documentation**

The published information and research data provided to the SAC have been assessed. Based on the available information, the SAC believes that the data presented are not the subject of scientific dispute and the inferences drawn are reasonable and well supported.

**Final Recommendation of the Scientific Advisory Committee**

The Scientific Advisory Committee (SAC) concludes that on the evidence available the nominated item is eligible for listing in accordance with Section 11 of the Act because sub-criterion 5.2.1 has been satisfied. The SAC also concludes that primary criteria 5.2 is also satisfied as a consequence of sub-criterion 5.2.1 being satisfied.

The Scientific Advisory Committee recommends that the nominated item be supported for listing on Schedule 3 of the **Flora and Fauna Guarantee Act 1988**.

**Selected references:**

Alexander, K., Robertson, G. & Gales, R. (1997) *The incidental mortality of albatrosses in longline fisheries*. A report on the workshop from the First International Conference on the Biology and Conservation of Albatrosses Australia - September 1995.

Birdlife International (1995) *Global impacts of fisheries on seabirds*. Paper prepared by Birdlife International for the London workshop on Environmental Science, Comprehensiveness and Consistency in Global decisions on Ocean Issues, UK.

Brothers, N. P. (1991) Albatross mortality and associated bait loss in the Japanese longline fishery in the Southern Ocean. *Biological Conservation* **55**: 255-268.

Brothers, N. P., Gales, R. P., Hedd, A. & Robertson, G. (1998) Foraging movements of the Shy Albatross *Diomedea cauta* breeding in Australia: implications for interactions with longline fisheries. *Ibis* **140**:446-57.

Environment Australia (1997) *Draft Threat Abatement Plan for the Incidental catch (or By-catch) of seabirds during oceanic longline fishing operations*. Biodiversity Group, Environment Australia, Canberra (available on the web - see addresses below).

- Evans, N. & Bache, S. (1997) Bycatch of endangered species: Jurisdiction and the management of fishing activities. *Env. and Planning Law J.* 14 (6): 468-73.
- Gales, R. P., Brothers, N. P. & Reid, T. (1998) Seabird mortality in the Japanese longline tuna fishery around Australia, 1988-1995. *Biol. Cons.* 86 (1): 37-56.
- Garnett, S. (1992) *The Action Plan for Australian Birds*. RAOU and Australian National Parks and Wildlife Service, Canberra.
- Hayes, E. (1997) *A review of the Southern Bluefin Tuna Fishery: Implications for ecologically sustainable management*. Traffic Oceania and World Wildlife Fund, Sydney.
- Kailola, P. J., Williams, M. J., Stewart, P. C., Reichelt, R. E., McNEE, A. & Grieve, C. (1993) *Australian Fisheries Resources*. p. 56. Bureau of Resource Sciences and the Fisheries Research and Development Corporation, Canberra.
- Klaer, N. & Polacheck, T. (1997) By-catch of Albatrosses and other Seabirds by Japanese Longline Fishing Vessels in the Australian Fishing Zone from April 1992 to March 1995. *Emu* 97: 150-67.
- Ross, G. J. B., Weaver, K. & Grieg, J. C. [eds] (1996) *The Status of Australia's Seabirds: Proceedings of the National Seabird Workshop*, Canberra, 1-2 November 1993. Biodiversity Group, Environment Australia, Canberra. vii + 237 pp.

**Selected web sites:**

- Bycatch - the non-target catch of fishing - <http://www.dpie.gov.au/resources.energy/fisheries/fishfacts/ff4.html>
- Seabirds and Fishing - <http://www.dpie.gov.au/resources.energy/fisheries/fishfacts/ff10.html>
- The Seabird Bycatch Project - <http://www.pond.net/~fish1ifr/bycatch4.htm>
- The Seabird Bycatch Project, Albatross Bycatch Bibliography - <http://www.pond.net/~fish1ifr/alb-bib1.htm>
- The incidental mortality of albatrosses in longline fisheries - <http://www.antdiv.gov.au/aad/sci/bio/albatross/albatross.html>
- Draft Threat Abatement Plan for the Incidental catch (or By-catch) of seabirds during oceanic longline fishing operations [http://www.biodiversity.environment.gov.au/plants/threaten/plans/threat\\_abatement\\_plans/catch\\_of\\_seabirds\\_by\\_longline\\_fishing/index.htm](http://www.biodiversity.environment.gov.au/plants/threaten/plans/threat_abatement_plans/catch_of_seabirds_by_longline_fishing/index.htm)

**Endorsement by the Convenor of the Scientific Advisory Committee**

**Date**



**Dr. David Macmillan**  
Convenor

**- 9 OCT 1998**