

Action Statement

Flora and Fauna Guarantee Act 1988

No. 188

Incidental catch (or by-catch) of seabirds during longline fishing

Description and occurrence

There are a number of different longline fishing techniques, however, they generally include a single mainline to which are attached individual hooks on branchlines. Longline methods can be grouped into mid-water set and bottom set lines. Mid-water set longlining is used to target pelagic finfish using a single mainline up to 130km in length holding between 600 and 3 000 baited hooks. Buoys are used to make the mainline neutrally buoyant and allow it to be suspended in the water column. Bottom-set longlines are principally used to target finfish and sharks. Different styles of bottom-set lines (such as droplines, trotlines and trolls) can be oriented vertically or horizontally and range in length and number of hooks depending on the species being targeted, the location and surrounding seabed features. They are generally weighted to ensure that the line is suspended near the seabed.

Internationally, large, oceanic-scale longline fishing occurs in the southern oceans on the high seas and in the territorial waters of Australia, New Zealand and southern African and American countries. In the Australian Fishing Zone (from the shore to 200 nautical miles), longlining is used by domestic vessels in the mid-water set Commonwealth managed Tuna and Billfish Fisheries and the bottom set Gillnet, Hook and Trap Fishery.

Within Victorian territorial waters, small-scale longline operations targeting finfish species occurs in three fisheries. These are:

- *The Port Phillip/Westernport Bay Access Fishery* - consisting of 52 licences, all with longline access to Westernport with a 1000 hook limit, of which 44 have longline access to Port Phillip Bay with a 200 hook limit.

- *The Corner Inlet Access Fishery* - consisting of 20 licences, which include access for mid-water set longline and bottom-set (dropline) methods.
- The longline effort in the Corner Inlet Fishery is small and a 400 hook limit applies.
- *The Oceans Access Fishery* - consisting of 485 licences with access for longlining methods with a 200 hook limit.

Nature of threat

In 1995 the incidental catch (or by-catch) of seabirds during oceanic longline fishing was listed as a Key Threatening Process by the Commonwealth under the *Endangered Species Protection Act 1992*. The listing occurred after declining seabird populations in the southern oceans was attributed to incidental by-catch occurring in oceanic longline fishing operations.

Seabirds drown after being caught on the hook and pulled under water by the weight of the mainline. Species that are most likely to be caught are typically large seabirds that naturally feed on fish and squid in surface waters. These species forage over large distances in the open ocean where longlining occurs, and generally dive for and aggressively attack their prey, increasing the likelihood of being hooked when attacking baited hooks that are on the surface or within diving range (Environment Australia, 1998). The birds are also attracted to offal that is discarded from the vessels and sinks near the mainline, drawing them to where the baited hooks have been set. These species are particularly susceptible to mid-water longlines, which because of their design tend to sink slowly, making the baits available to attack for longer periods.

The seabirds most affected by increases in mortality are albatrosses

and giant petrels due to their limited population sizes, long life spans and low reproductive rates. Some individuals are known to live for more than 60 years, most achieve sexual maturity at only 5-12 years of age and mate for life. While some species breed annually, others breed only every second or third year. Depending on the species, only one chick may be produced.

Studies have shown that populations of several albatross species are declining (Croxall *et al.* 1990 in Klaer & Polacheck 2000). Since the 1980s, longline fishing has been implicated in this decline (Weimerskirch & Jouventin 1987). Bergin (1997) reported that some populations of albatross have declined by nearly 90% and some species face extinction if bycatch rates are not reduced. This is particularly relevant to waters around Australia as over 40 species of albatrosses and petrels breed in this area and a further 40 visit or pass through these waters each year.

Status of threat

In Australia, the incidental catch (or by-catch) of seabirds during longline fishing is listed as a Key Threatening Process under the *Environment Protection and Biodiversity Conservation Act 1999*.

In Victoria, incidental catch (or by-catch) of seabirds during longline fishing operations is listed as a Potentially Threatening Process under the *Flora and Fauna Guarantee Act 1988*. In its final recommendation for the listing of 'The incidental catch (or by-catch) of seabirds during longline fishing operations' as a Potentially Threatening Process, the Scientific Advisory Committee (SAC 1998) determined that; in the absence of appropriate management, the incidental catch (or by-catch) of seabirds in Victorian marine waters poses or has the potential to pose a significant threat to the survival of a range of seabird species. This listing complements separate listings of nine threatened albatross and giant-petrel species (SAC 1999; 2000a, b; 2002a, b, c, d, e, f).

Management Issues

The incidence of seabird by-catch is greatest where vulnerable species are present and where oceanic longline fishing (particularly mid-water set) methods are used. The greatest areas of risk are therefore in the southern oceanic waters where large seabirds forage and where longline fishing methods are used to target pelagic species.

The principle seabird by-catch threats in waters adjacent to Victoria occur in the Eastern Tuna and Billfish Fishery that use the mid-water set longlines

and to a lesser extent, the Gillnet, Hook and Trap Fishery that use bottom set longlines. The fish species being targeted usually favour waters off the continental slope and ocean floor (deeper than 200 meters) that are well beyond Victorian territorial waters which extend 3 nautical miles from the shoreline. Through the Offshore Constitutional Settlement between the Commonwealth and Victoria, these fisheries and associated seabird bycatch issues are managed by the Commonwealth both within Victorian and the Australian territorial waters out to 200 nautical miles

While longlining does occur in Victorian managed fisheries in Victorian territorial waters, its risk to seabirds is low. The seabird species at risk spend most of their lives foraging far offshore and nesting on islands in the southern ocean and relatively few are encountered in Victorian territorial waters. The risk is also low due to the fishing methods used. Fishing occurs only at night when few seabirds forage and are seldom present and bottom-set methods that limit the time that baited-hooks are available to attack near the surface, are mostly used.

As the fisheries managed by Victoria pose a low risk to seabirds, particularly those considered to be most at risk, this action statement focuses on supporting national and international approaches to ensure that seabirds are not threatened by longlining activity.

Existing Management Measures

Since the 1980s, international agreements have been put in place to encourage nations to reduce seabird bycatch. In Australia, these agreements have been incorporated into domestic arrangements and a range of actions have been taken to minimise the impact of longlining on seabird populations. International and national arrangements currently in place are outlined below.

International Arrangements

United Nations Convention on the Law of the Sea is an international treaty signed in 1982 to protect and preserve the marine environment. This Convention principally related to fisheries and the United Nations General Assembly Resolution 49/118 called upon States (sovereign nations) to take into consideration the effects on associated or dependent species when establishing conservation and management measures for target fisheries. As a result of this resolution, the United Nations Food and Agriculture Organisation developed a Code of Conduct for Responsible Fisheries to address fisheries by-catch in 1995.

International Plan of Action for Reducing the Incidental Catch of Seabirds in Longline Fisheries

-an internationally endorsed plan which aims to manage compliance issues related to the Code of Conduct for Responsible Fisheries and was endorsed by the Food and Agriculture Organisation Council in 2000. All signatories are now required to develop a National Plan of Action to implement international objectives into local management arrangements.

United Nations Fish Stocks Agreement is an international agreement adopted in 1995 seeking to lay down a comprehensive regime for the conservation and management of straddling and highly migratory fish stocks. The Agreement includes: general principles; measures for strengthening regional and subregional cooperation; measures for monitoring, surveillance and enforcement; and the settlement of disputes. The Agreement includes reference to managing the impact on non-target species. Australia ratified this agreement and incorporated its provisions into Australian law.

Agreement on the Conservation of Albatrosses and Petrels, under the Convention for the Conservation of Migratory Species of Wild Animals, this agreement was opened for signature on June 2001. The main aim of this agreement is to establish a cooperative and comprehensive framework and process to restore albatrosses and petrels to a favourable conservation status. The agreement aims to stop or reverse population declines by coordinating action to mitigate known threats to albatross and petrel populations. Because seabirds have broad ranges and are often migratory, co-operative international action is required and therefore this agreement requires ratification from at least five countries to come into effect. To May 2003, only Australia and New Zealand have done so.

National Arrangements

National Plan of Action for Reducing the Incidental Catch of Seabirds in Longline Fisheries is currently being jointly finalised by the Commonwealth, States and Northern Territory and aims to implement local management arrangements that reflect international objectives.

Threat Abatement Plan for the Incidental Catch (or by-catch) of Seabirds during Oceanic Longline Fishing Operations (Environment Australia 1998) was released after this was listed as a key threatening process under the Endangered Species Protection Act 1992 in July 1995. The plan provides the framework for coordinating national action to reduce the impact of longline fishing activities on seabirds in Australian waters. The Plan now has statutory status through the

Environment Protection and Biodiversity Conservation Act 1999.

Recovery Plan for Albatrosses and Giant-Petrels (Environment Australia 2001) was released after these species were included on the 'threatened species' list under the *Environment Protection and Biodiversity Conservation Act 1999*. The overall objective of the Recovery Plan is to "minimise (or eliminate) threats due to human activity to albatrosses and giant-petrels to ensure their recovery in the wild". The plan provides the framework for actions necessary to support the recovery of these species and to maximise their chances of longterm survival.

National Policy on Fisheries By-catch (AFFA 1999) was released after all Australian Governments agreed to develop a by-catch policy to address by-catch in all fisheries. By-catch arrangements are being incorporated into Fishery Management Plans for each Victorian managed fishery. The Commonwealth Government subsequently released the *Commonwealth Policy on Fisheries By-catch*, which requires the development of By-catch Action Plans for all Commonwealth managed fisheries.

Management objectives

Longterm objective

To minimise the potential for the incidental catch (or by-catch) of seabirds during longline fishing operations in Victorian territorial waters.

Objectives of this action statement

1. To support national approaches for minimising threats posed by oceanic longline fishing operations.
2. To implement arrangements, where applicable to Victoria, consistent with national approaches to minimise impacts on seabirds in Victorian territorial waters.

Intended Management Actions

In implementing the actions listed below, it is recognised that the greatest impact of longline fishing operations on seabird populations generally occurs outside Victorian territorial waters. It is recognised that Australian oceanic longlining activity is managed by the Commonwealth through the *Threat Abatement Plan for the Incidental Catch (or by-catch) of Seabirds during Oceanic Longline Fishing Operations* and that international longlining activity occurring in international waters is managed by the country of origin. International cooperation is therefore necessary to minimise the threat to seabird populations. The management actions are thus intended to support and be

consistent with international and national developments to protect seabirds.

1. Encourage recreational and commercial fishers to report interactions with seabirds in Victorian territorial waters.

Responsibility: Department of Primary Industries

2. Support national approaches to minimise threats posed by by-catch in longline fisheries as specified in the Threat Abatement Plan for the Incidental Catch (or by-catch) of Seabirds during Oceanic Longline Fishing Operations.

Responsibility: Department of Primary Industries, Department of Sustainability and Environment

3. Support the finalisation and implementation of the National Plan of Action for Reducing the Incidental Catch of Seabirds in Longline Fisheries.

Responsibility: Department of Primary Industries, Department of Sustainability and Environment

4. Support the Commonwealth's participation in international fora for minimising longline impacts on seabirds.

Responsibility: Department of Primary Industries, Department of Sustainability and Environment

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SAC (2002b) Final Recommendation on a nomination for listing: Indian Yellow-nosed Albatross *Thalassarche carteri* (Nomination no. 545). Scientific Advisory Committee, Flora and Fauna Guarantee. Department of Natural Resources and Environment: Melbourne.

SAC (2002c) Final Recommendation on a nomination for listing: Grey-headed Albatross *Thalassarche chrysostoma* (Nomination no. 546). Scientific Advisory Committee, Flora and Fauna Guarantee. Department of Natural Resources and Environment: Melbourne.

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Further information can be obtained from Department of Sustainability and Environment Customer Service Centre on 136 186.

Flora and Fauna Guarantee Action Statements are available from the Department of Sustainability and Environment website: <http://www.dse.vic.gov.au>

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