

USING BIRD SCARING (TORI) LINES - AUTO-LONGLINE HOOK FISHING METHOD

Seabird Threat Abatement Plan

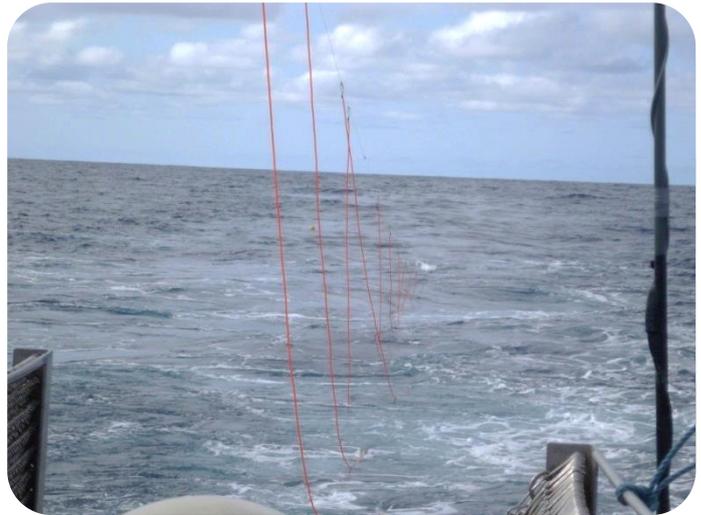
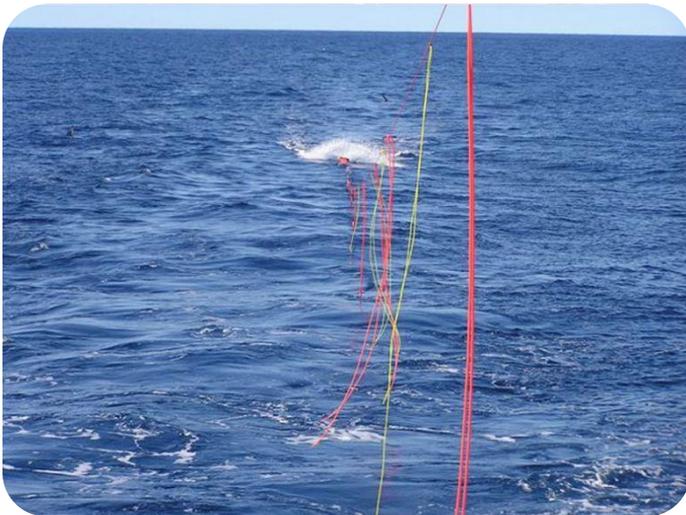
The incidental catch (or bycatch) of seabirds during longline fishing operations is listed as a key threatening process under the Environment Protection and Biodiversity Conservation Act 1999. AFMA has applied a Seabird Threat Abatement Plan (TAP) for this fishing method since 1998. Under the TAP, seabird bycatch in the auto-longline hook fishing sector needs to be less than 0.01 birds per 1000 hooks in each season.

Bird scaring lines, known as tori lines, are a proven method for minimising seabird bycatch while fishers are setting their longline gear. If you are fishing using auto-longlines you must use a tori line during all line setting operations. This is a condition on your fishing permit. Minimising seabird interactions protects your fishing rights, seabirds and the environment upon which you depend for your economic livelihood.

Consumers are also becoming more aware of environmental factors when choosing the seafood they buy.

The Problem

Fishing operations and seabird foraging zones overlap. Seabirds recognise fishing boats as a source of food and are attracted to them. Seabirds can get caught during both setting and hauling. During line setting seabirds may attack baits at the surface or underwater to about 10 metres, become hooked or ensnared in the fishing gear and drown. During line hauling seabirds may attack leftover baits as the catch is brought on board. Birds may become hooked or entangled, and injured or killed. Mortality of seabirds during both setting and hauling must be minimised to prevent potential population declines.



Examples of effectively designed and deployed tori lines (Photos: AFMA observers)

Your legal obligations

As an auto-longline fisher it is your responsibility to meet a number of requirements as a condition of your fishing permit. You must ensure tori lines:

- are assembled, complete and carried on board even when you are not fishing
- are a minimum of 150 m in length
- are attached to a fixed point at a minimum of 10m above sea level when measured at the stern of the vessel
- are deployed over the area where the hooks enter the water, before longlines are set
- have an aerial section that remains above the water surface for at least 100 m from the stern of the boat when deployed
- have streamer pairs that are no more than 7 m apart with the pair closest to the boat less than 10 m from the stern
- have streamers that are as close to the water surface as possible.

The Solution

You can minimise seabird bycatch when setting your auto-longline gear by using AFMA approved tori lines. Tori lines form a physical and visual barrier around the area where line setting occurs that prevents seabirds from accessing baited hooks.

Tori lines have been shown to significantly reduce seabird bycatch during setting operations. Mitigation is most effective when used in combination with other measures including line weighting to ensure that the hooks sink more quickly, and setting at night when seabirds are less active.

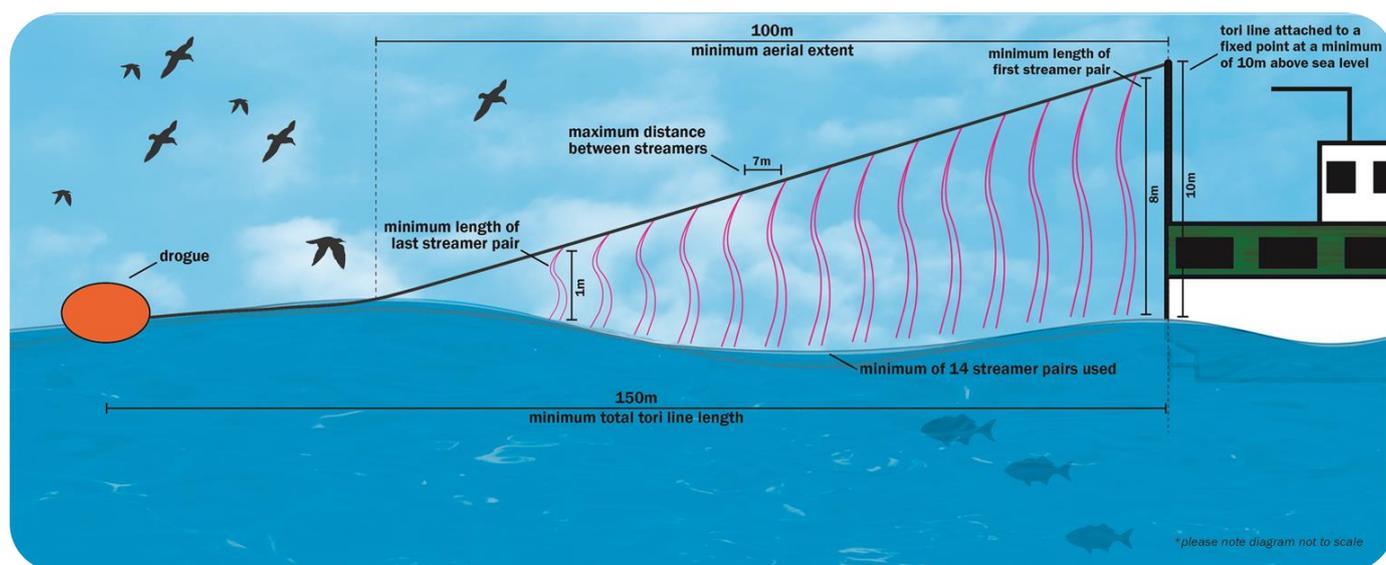
Making and using a tori line

It is easy for you to make or purchase a tori line. Your tori lines must consist of a line with streamers and a drogue attached at the end to create drag. The line must be towed from a high point near the stern of the vessel over the area where the baited hooks are deployed.

Your design should take into account weather conditions, setting speed and vessel design.

The specific design of tori lines will vary between vessels. Any design must ensure seabirds do not fly or swim into the setting area including the area in which the line is submerging behind the vessel. Tori lines must be able to attain a minimum 100 m aerial coverage from the stern of the vessel. Two effective options for achieving aerial coverage include: extending the length of the tori line so the additional line will create drag, or using a drogue or other heavy object at the end of the tori line to create drag.

An example of an effective tori line configuration is shown in the image below and is recommended in CCAMLR longline fisheries. Any improvement on the minimum requirements for tori lines contributes to minimising the risk that you will catch birds—for example, increasing the aerial coverage, decreasing the distance between streamers, and using two tori lines.



Minimum requirements for a tori line in the Auto-longline Sector of the Southern and Eastern Shark and Scalefish Fishery

Further Reading

A range of bycatch mitigation factsheets are available at the Agreement on the Conservation of Albatrosses and Petrels website:

http://www.acap.aq/index.php/en/bycatch-mitigation/cat_view/128-english/392-bycatch-mitigation/320-mitigation-fact-sheets

CM-CMLR conservation measure 15/09: on reducing incidental bycatch of seabirds in the SEAFO convention area.

www.seafo.org/ConservationMeasures/2009%20conservation%20measures/Conservation%20Measure%2015-09%20Seabirds.pdf

Melvin, E., Sullivan, B.J., Robertson, G. and Wienecke, B. (2004) A review of the effectiveness of streamer lines as a seabird by-catch mitigation technique in longline fisheries and CCAMLR streamer line requirements. CCAMLR Science 11: 189–201.

www.ccamlr.org/en/system/files/science_journal_papers/13melvin-et-al.pdf

Threat abatement plan 2006 for the incidental catch (or bycatch) of seabirds during oceanic longline fishing operations (2006) Australian Antarctic Division, Kingston, Tasmania www.antarctica.gov.au/science/southern-ocean-ecosystems-environmental-change-and-conservation/southern-ocean-fisheries/seabird-bycatch/threat-abatement-plan-seabirds