

Title **Changes to the CCAMLR Conservation Measure Relating to Minimisation of Incidental Mortality of Seabirds in the Course of Longline Fishing or Longline Fishing Research in The Convention Area**

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Abstract

In 2003 a number of changes were made to the Conservation Measure relating to minimisation of incidental capture of seabirds in CCAMLR waters. Of particular interest to the ERSWG are changes to the tori lines specifications, and use of a device to deter seabirds during hauling. These changes are described in this paper.

Background

Since 1991 the Commission for the Conservation of Living Marine Resources (CCAMLR) has had a conservation measure in place that minimises the incidental capture of seabirds in longline fishing. Amongst other things, the measure requires vessels to use a tori line at all times, only set lines at night and it prohibits the dumping of offal during setting. The measure also provides minimum specifications for the design of tori lines.

The conservation measure is periodically updated to reflect the latest developments in mitigation measures. This allows the Commission to continue to reduce the numbers of seabirds incidentally caught each year.

Key Changes to the Conservation Measure of Relevance to ERSWG

At the 2003 meeting of CCAMLR, a revised Conservation Measure was adopted to take account of advances in the design of tori lines, and to address the problem of seabirds becoming hooked during line hauling. The key changes are:

1. The conservation measure emphasises that the aerial section is the effective component of the tori line and that this should be as long as possible.
2. One of the main factors influencing the length of the aerial section is attachment height of the tori line to the vessel. This has been increased from 4.5m to 7m. This attachment height is practical for the class of vessels that fish in CCAMLR waters.

3. The importance of maintaining the tori line directly over the hook line, including in cross winds has been included in the Conservation Measure.
4. The Conservation Measure encourages vessels to use a second streamer line. The measure states that the tori lines could be towed from attachment points either side of the hookline. This change to the Conservation Measure was included because experiments undertaken in the Alaskan sablefish and Pacific cod fisheries found that two tori lines reduced incidental capture of seabirds by 88-100% compared to 71-91% using one tori line.
5. Vessels fishing in average to high or high risk areas for seabirds are now required to use a device designed to discourage birds from accessing baits during the haul of lomglines. The Conservation Measure does not specify the design of the device, but several designs such as the brickle curtain described in Brothers et al (1999) have been used by vessels in CCAMLR waters in recent years.
6. Several prescriptions for tori line design have been removed (e.g. diameter of the line, and position of swivels in the line). This reflects the Commissions move towards a performance based conservation measure.

Recommendations

1. ERSWG consider whether prescriptive or performance based advice be provided to the Commission for tori lines.
2. ERSWG provide advice to the Commission on ways to reduce the incidental capture of seabirds during line hauling.
3. At each meeting, ERSWG review any new information on the performance or design of existing mitigation measures and discuss the applicability of any advances for the CCSBT fleet.

References

Brothers, N.P; Cooper, J; Lokkeborg, S; 1999: The Incidental Catch of Seabirds by Longline Fisheries: Worldwide review and technical guidelines for Mitigation. *FAO Fisheries Circular No. 937*. FAO, Rome.

CONSERVATION MEASURE 25-02 (2003)^{1,2}
Minimisation of the Incidental Mortality
of Seabirds in the Course of Longline Fishing or
Longline Fishing Research in the Convention Area

Species	seabirds
Area	all
Season	all
Gear	longline

The Commission,

Noting the need to reduce the incidental mortality of seabirds during longline fishing by minimising their attraction to fishing vessels and by preventing them from attempting to seize baited hooks, particularly during the period when the lines are set,

Recognising that in certain subareas and divisions of the Convention Area there is also a high risk that seabirds will be caught during line hauling,

Adopts the following measures to reduce the possibility of incidental mortality of seabirds during longline fishing.

1. Fishing operations shall be conducted in such a way that hooklines³ sink beyond the reach of seabirds as soon as possible after they are put in the water.
2. Vessels using autoline systems should add weights to the hookline or use integrated weight hooklines while deploying longlines. Integrated weight (IW) longlines of a minimum of 50 g/m or attachment to non-IW longlines of 5 kg weights at 50 to 60 m intervals are recommended.
3. Vessels using the Spanish method of longline fishing should release weights before line tension occurs; weights of at least 8.5 kg mass shall be used, spaced at intervals of no more than 40 m, or weights of at least 6 kg mass shall be used, spaced at intervals of no more than 20 m.
4. Longlines shall be set at night only (i.e. during the hours of darkness between the times of nautical twilight⁴)⁵. During longline fishing at night, only the minimum ship's lights necessary for safety shall be used.
5. The dumping of offal is prohibited while longlines are being set. The dumping of offal during the haul shall be avoided. Any such discharge shall take place only on the opposite side of the vessel to that where longlines are hauled. For vessels or fisheries where there is not a requirement to retain offal on board the vessel, a system shall be implemented to remove fish hooks from offal and fish heads prior to discharge.
6. Vessels which are so configured that they lack on-board processing facilities or adequate capacity to retain offal on board, or the ability to discharge offal on the opposite side of the vessel to that where longlines are hauled, shall not be authorised to fish in the Convention Area.
7. A streamer line shall be deployed during longline setting to deter birds from approaching the hookline. Specifications of the streamer line and its method of deployment are given in the appendix to this measure.
8. A device designed to discourage birds from accessing baits during the haul of longlines shall be employed in those areas defined by CCAMLR as average-to-high or high

(Level of Risk 4 or 5) in terms of risk of seabird by-catch. These areas are currently Statistical Subareas 48.3, 58.6 and 58.7 and Statistical Divisions 58.5.1 and 58.5.2.

9. Every effort should be made to ensure that birds captured alive during longlining are released alive and that wherever possible hooks are removed without jeopardising the life of the bird concerned.

¹ Except for waters adjacent to the Kerguelen and Crozet Islands

² Except for waters adjacent to the Prince Edward Islands

³ Hookline is defined as the groundline or mainline to which the baited hooks are attached by snoods.

⁴ The exact times of nautical twilight are set forth in the Nautical Almanac tables for the relevant latitude, local time and date. A copy of the algorithm for calculating these times is available from the Secretariat. All times, whether for ship operations or observer reporting, shall be referenced to GMT.

⁵ Wherever possible, setting of lines should be completed at least three hours before sunrise (to reduce loss of bait to/catches of white-chinned petrels).

APPENDIX TO CONSERVATION MEASURE 25-02

1. The aerial extent of the streamer line, which is the part of the line supporting the streamers, is the effective seabird deterrent component of a streamer line. Vessels are encouraged to optimise the aerial extent and ensure that it protects the hookline as far astern of the vessel as possible, even in crosswinds.
2. The streamer line shall be attached to the vessel such that it is suspended from a point a minimum of 7 m above the water at the stern on the windward side of the point where the hookline enters the water.
3. The streamer line shall be a minimum of 150 m in length and include an object towed at the seaward end to create tension to maximise aerial coverage. The object towed should be maintained directly behind the attachment point to the vessel such that in crosswinds the aerial extent of the streamer line is over the hookline.
4. Branched streamers, each comprising two strands of a minimum of 3 mm diameter brightly coloured plastic tubing⁶ or cord, shall be attached no more than 5 m apart commencing 5 m from the point of attachment of the streamer line to the vessel and thereafter along the aerial extent of the line. Streamer length shall range between minimums of 6.5 m from the stern to 1 m for the seaward end. When a streamer line is fully deployed, the branched streamers should reach the sea surface in the absence of wind and swell. Swivels or a similar device should be placed in the streamer line in such a way as to prevent streamers being twisted around the streamer line. Each branched streamer may also have a swivel or other device at its attachment point to the streamer line to prevent fouling of individual streamers.
5. Vessels are encouraged to deploy a second streamer line such that streamer lines are towed from the point of attachment each side of the hookline. The leeward streamer line should be of similar specifications (in order to avoid entanglement the leeward streamer line may need to be shorter) and deployed from the leeward side of the hookline.

⁶ Plastic tubing should be of a type that is manufactured to be protected from ultraviolet radiation.

Streamer Line

