



Agreement on the Conservation
of Albatrosses and Petrels

ACAP 2026 Summary Best Practice Advice for Reducing the Impact of Demersal Longline Fisheries on Seabirds

*Reviewed at the Fifteenth Meeting of the Advisory Committee
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BEST PRACTICE MEASURES

ACAP recommends that the most effective way to reduce seabird bycatch in demersal longline fisheries is to use the following three best practice measures **simultaneously: branch line weighting, night setting and bird scaring lines**.

The simultaneous use of the three ACAP recommended mitigation measures optimise seabird bycatch reduction in demersal longline fisheries. All three recommended measures are demonstrated to be effective; however, each have limitations when used alone. There is a period of time when hooks are accessible to birds even when branch lines are weighted. Night setting used alone is less effective at reducing seabird bycatch for nocturnally active birds and during bright moon light conditions. Bird scaring lines used alone can rarely protect baited hooks beyond the aerial extent of the line. Consequently, the simultaneous use of the three ACAP recommended seabird bycatch mitigation measures compensate for these limitations.

Further mitigation measures that can be implemented by demersal longline fishing vessels include bird exclusion devices at the hauling bay, responsible offal management and avoiding peak areas and periods of seabird foraging activity.

Best practice mitigation measures and recommendations for demersal longline fisheries are detailed and categorised into: (1) general best practice measures; (2) best practice measures for line setting operations; (3) best practice measures for line hauling operations; and (4) other recommendations.

1. BEST PRACTICE MEASURES - GENERAL

1.1 Area and seasonal closures

The temporary closure of important foraging areas (e.g. areas adjacent to important seabird colonies during the breeding season when large numbers of aggressively feeding seabirds are present) to fishing will reduce incidental mortality of seabirds in fisheries in those areas.

2. BEST PRACTICE MEASURES - LINE SETTING

2.1 Line weighting

Lines should be weighted to sink baited hooks rapidly out of the range of feeding seabirds as close to the vessel as possible. Weights should be deployed before line tension occurs to ensure that the line sinks rapidly and consistently.

2.1a Externally weighted double lines without nets: Spanish system

For vessels using the Spanish double longline system of fishing, line weights should be set with a minimum of:

- 5 kg at 40 m intervals when using solid steel weights;
- 8.5 kg at 40 m intervals when using rock weights; or
- 6 kg at 20 m intervals when using concrete weights.

The use of steel weights is considered best practice, as they sink hooklines consistently.

2.1b Externally weighted double lines with nets: Chilean system (trotline with nets)

For vessels using the Chilean double longline system of fishing, line weights should conform to those for the Spanish system (see above).

2.1c Externally weighted or integrated weight single lines: autoline system

Where practical, Integrated weight (IW) lines are recommended over adding external weights because they sink faster and more consistently.

Recommended integrated weight (IW) longlines have a lead core of 50 g/m. As noted, their key characteristic is that they sink with a near-linear profile from the surface with minimal lofting in propeller turbulence, and are effective at sinking quickly out of reach of foraging seabirds. The mean sink rate of IW lines should be ≥ 0.24 m/s to 10 m depth.

If external weights are used instead of IW lines, the mean average sink rate should be 0.3 m/s to 10 m depth. A faster sink rate is necessary with this configuration to minimise the lofting of sections of line (baited hooks) between line weights in propeller turbulence. The stipulated sink rate can be achieved with a minimum of 5 kg at intervals of no more than 40 m.

2.2 Night setting

Setting longlines at night (defined as the time between the end of nautical twilight and before nautical dawn as set out in the Nautical Almanac tables for relevant latitude, local time and date) is highly effective at reducing incidental mortality of seabirds because the majority of vulnerable seabirds including albatrosses are inactive at night. However, night setting is not as effective for crepuscular/nocturnal foragers (e.g. White-chinned Petrels *Procellaria aequinoctialis* and Northern Fulmars (*Fulmarus glacialis*)). The effectiveness of this measure may be reduced during bright moonlight or when using intense deck lights. Night setting is impractical in high latitudes during summer, when the time between nautical dusk and dawn is limited.

Night setting is recognised as consistently defined, widely reflected in conservation and management measures and has benefit as a primary mitigation measure, as it has the potential for compliance monitoring through VMS and other tools.

2.3 Bird scaring lines (BSLs)

Properly designed and deployed bird scaring lines (BSLs) deter birds from sinking baits, dramatically reducing seabird attacks and related mortalities. A bird scaring line runs from a high point at the stern to a device or mechanism that creates drag at its in-water terminus. Drag created by the towed device or the in-water extent of the line, lifts the length of the line closest to the vessel into the air as the vessel travels forward setting gear. Brightly coloured streamers hanging from the aerial extent of the line scare birds from flying to and under the line, preventing them from reaching the baited hooks. It is essential that the aerial extent matches the distance astern that seabirds can access baited hooks. Weighted hooklines reduce this distance and make streamer lines more efficient at excluding foraging birds from hooks.

BSLs should be the lightest practical strong fine line. Lines should be attached to the vessel with a barrel swivel to minimise rotation of the line from torque created as it is dragged behind the vessel. Long streamers should be attached with a swivel to prevent them from rolling up onto the BSL. Towed objects should be attached at the terminus of the BSL to increase drag. Weak links (breakaways) should be incorporated into the in-water portion of the line for safety reasons and to minimize operational problems should lines become tangled.

It is also recommended to use a weak link to allow the BSL to break-away from the vessel in the event of an entanglement with the main line. A secondary attachment between the BSL and vessel allows an entangled BSL to be recovered during the haul.

Sufficient drag is essential to maximise aerial extent and maintain the line directly behind the vessel during crosswinds.

Given operational differences in demersal longline fisheries due to vessel size and gear type, BSL specifications have been divided into recommendations for vessels greater than 24 metres and those less than 24 metres in length.

2.3a Recommendations for vessels ≥ 24 m in length

Simultaneous use of two (paired) BSLs, one on each side of the sinking longline, provides maximum protection from bird attacks under different wind conditions. The setup for BSLs should be as follows:

- BSLs should be deployed to maximise the aerial extent, which is a function of vessel speed, height of the attachment point to the vessel, drag, and weight of bird scaring line materials.
- To achieve a minimum recommended aerial extent of 150 m, BSLs should be attached to the vessel such that they are suspended from a point a minimum of 7 m above the water at the stern.
- BSLs should contain a mix of brightly coloured long and short streamers placed at intervals of no more than 5 m. Long streamers should be attached to the line with swivels to prevent streamers from wrapping around the line. All long streamers should reach the sea-surface in calm conditions.
- Sufficient drag must be created to maximise aerial extent and maintain the line directly over sinking baited hooks and astern of the vessel during crosswinds. This may be achieved using a towed device.

2.3b Recommendations for vessels <24 m in length

One or two (paired) bird scaring lines should be used to provide maximum protection from bird attacks under different wind conditions. The setup for BSLs should be as follows:

- The attachment height should be a minimum of 6 m above sea level at the stern.
- The lines should achieve an aerial extent of at least 75 m when setting at ≥ 4 knots, or 50 m if setting at speeds < 4 knots.
- Streamers should be brightly coloured and reach the sea-surface in calm conditions, and placed at intervals of no more than 5 m. Streamers may be modified over the first 10 m to avoid tangling.
- Sufficient drag must be created to maximise aerial extent and maintain the line directly over sinking baited hooks and astern of the vessel during crosswinds. This may be achieved using a towed device.

2.4 Offal and discard discharge management

Seabirds are highly attracted to offal and discards discharged from vessels. To prevent large numbers of seabirds attending line setting operations, offal and discards should be retained onboard prior to and during line setting.

3. BEST PRACTICE MEASURES - LINE HAULING

3.1. Bird Exclusion Device (BED)

Seabirds can be accidentally hooked as gear is retrieved. A Bird Exclusion Device (BED) consists of a horizontal support several metres above the water that encircles the entire hauling bay. Vertical streamers are positioned between the horizontal support and water surface. The BED configuration can also include a line of floats on the water surface connected to the vertical streamers to stabilize movement in strong winds. This configuration is the most effective method to prevent birds entering the area around the hauling bay, either by swimming or by flying. BEDs are retrieved and stowed when not hauling. For small vessels (<20 m in length), where the application of mitigation devices requiring robust support structures and on-water sections can be challenging, the use of simple haul mitigation devices has been demonstrated to be both practical and effective at deterring birds from hauling points.

3.2. Offal and discard discharge management

During setting, offal and discards should always be retained onboard. During hauling, offal and discards should be retained on board or released from the opposite side of the vessel to the hauling bay.

All hooks should be removed from fish and retained on board before fish and fish parts are discarded from the vessel.

[ACAP's Review of Seabird Bycatch Mitigation Measures for Demersal Longline Fisheries](#) provides further information on all of these methods, as well as other considerations.

MITIGATION MEASURES THAT ARE NOT RECOMMENDED

ACAP considers that the following measures currently lack scientific substantiation as technologies or procedures for reducing the impact of demersal longline fisheries on seabirds:

Hook design - insufficiently researched.

Olfactory deterrents - insufficiently researched.

Acoustic deterrents - insufficiently researched.

Strategic management of offal discharge – operational difficulties.

Use of a line setter/shooter - insufficiently researched.

Underwater line setter - insufficiently researched.

Underwater setting chutes - insufficiently researched.

Lasers - High energy lasers are strongly discouraged due to ongoing concerns regarding safety to both humans and birds.

Mitigation measures to improve sink rates of baited hooks on floated longlines – insufficiently researched.