



Agreement on the Conservation  
of Albatrosses and Petrels

## Tenth Meeting of the Seabird Bycatch Working Group

*Virtual meeting, 17 - 19 August 2021 (UTC+10)*

### Mitigation Factsheets Update

**Rory Crawford**

#### SUMMARY

Progress has been made in writing text for the Introductory Factsheet and creating a new 'Improving Safety When Hauling Branchlines' Factsheet; both are presented as annexes to this paper for comment. Plans to complete the Bird Scaring Line sheets have not been fulfilled, primarily because some of the details are still to be confirmed to ensure that the sheets are clear and effective, but also because there have been some capacity limitations in both the Secretariat and BirdLife. Regardless, completion of these sheets will be taken forward as a priority post-SBWG10. The Working Group is also invited to provide thoughts on which of the best practice mitigation measures should be the next priorities for update (bearing in mind budgetary restrictions) and to consider assisting in completing translations and proofreading of the Factsheets.

#### RECOMMENDATIONS

The Seabird Bycatch Working Group is asked to:

1. Review the **content** of the draft Improving Safety when Hauling Branchlines and Introductory Factsheet
2. **Provide feedback** on the next priorities for factsheet updates
3. Consider assisting with in kind support for translations and proofreading

## Actualización de las hojas informativas sobre medidas de mitigación

#### RESUMEN

Se ha avanzado en la redacción de la hoja informativa introductoria y en la creación de una nueva hoja informativa sobre la "Mejora de la seguridad en el virado de brazoladas". Ambas se presentan como anexos a este documento para que se formulen comentarios. No se han cumplido los planes de completar las hojas sobre líneas espantapájaros, principalmente porque todavía hay detalles por confirmar a fin de ofrecer información clara y eficaz, y además debido a algunas limitaciones de capacidad tanto en la Secretaría como

en BirdLife. De todos modos, se dará prioridad a la finalización de estas hojas después de la reunión GdTCS10. También se invita al Grupo de Trabajo a comentar sobre cuáles medidas de mitigación de las mejores prácticas deberían ser las siguientes prioridades de actualización (teniendo en cuenta las restricciones presupuestarias) y a considerar la posibilidad de prestar asistencia para traducir y revisar las hojas informativas.

### RECOMENDACIONES

Se solicita al Grupo de Trabajo sobre Captura Secundaria de Aves Marinas que tenga a bien:

1. Revisar el **contenido** de la versión preliminar de la hoja informativa sobre la “Mejora de la seguridad en el virado de brazoladas” y la hoja informativa introductoria.
2. **Formular comentarios** sobre las siguientes prioridades de actualización de las hojas informativas.
3. Considerar la posibilidad de ayudar en especie con la traducción y la revisión.

## Mise à jour des fiches pratiques sur l’atténuation des captures accessoires

### RÉSUMÉ

La rédaction de la fiche d’introduction et la création de la nouvelle fiche « Amélioration de la sécurité lors du virage des lignes secondaires » ont avancé ; elles sont présentées en annexe du présent document et soumises à observation. Les fiches sur les lignes d’effarouchement des oiseaux n’ont pas pu être terminées ; principalement parce que certaines informations doivent encore être confirmées afin de garantir l’exactitude et l’utilité des fiches, mais aussi en raison des capacités réduites du Secrétariat et de BirdLife. Néanmoins, leur achèvement constituera une priorité après la dixième réunion du GTCA. Le groupe de travail est également invité à réfléchir aux mesures de bonnes pratiques pour l’atténuation de la capture accessoire à mettre à jour en priorité (en tenant compte des restrictions budgétaires) et à examiner la possibilité de contribuer à la traduction et à la relecture des fiches pratiques.

### RECOMMANDATIONS

Le Groupe de travail sur la capture accessoire des oiseaux marins est invité à :

1. réviser le **contenu** du projet de la fiche pratique sur l’amélioration de la sécurité lors du virage des lignes secondaires et de la fiche d’introduction ;
2. **faire part de ses retours** concernant les prochaines priorités pour les mises à jour des fiches pratiques ;
3. examiner la possibilité d’apporter une aide en nature pour la traduction et la relecture.

## **1. CURRENT STATUS**

At SBWG9/AC11, there was agreement to adopt the new simplified factsheet design, and the new night setting, pelagic longline line weighting and hook shielding factsheets were finalised and with FAO funding support were translated and uploaded to the ACAP website in English, French, Portuguese, Spanish, Bahasa Indonesia, Japanese, Korean, simplified and traditional Chinese.

The next priorities for update were the longline bird-scaring line sheets (it was subsequently considered optimal to maintain separate sheets for demersal and pelagic vessels), as well as an introductory factsheet and one on improving crew safety during branchline hauling. Unfortunately, capacity issues (coupled with some of the complexities of simplifying the bird-scaring line text for the new factsheets format) mean that the bird-scaring line sheets are not ready to be reviewed at SBWG10. Planned next steps are outlined identified below.

## **2. NEXT STEPS**

### **2.1 Introductory sheet**

A new introductory factsheet has been drafted and is included here in **ANNEX 1** for SBWG review. This sheet highlights the purpose/scope of the factsheets and describes the context of fisheries impacts and mitigation for seabirds. Two illustrations are envisaged – the generic back page of the line weighting and hook-shielding devices showing longline mitigation, and an additional illustration for trawl, which could include offal management and BSLs to deter birds from trawl gear.

### **2.2 Improving safety when hauling branchlines sheet**

A new simplified sheet has been developed on this topic to supplement the best practice advice that has been drafted (see **ANNEX 2**); reviews of the content of the sheet are welcome. It should be noted that the sheet was converted to the new simplified format only shortly before the document submission date, so an old illustration was used for illustrative purposes and will be replaced. Comments are welcome on what other illustrations would be best to include in the next iteration, and whether the ‘back sheet’ – used on all the Mitigation Factsheets – is still deemed relevant on this new sheet.

### **2.3. Bird scaring line factsheets**

Discussion among SBWG members after SBWG9 highlighted the need for the bird-scaring line factsheets to strike a balance between identifying the best practice design specifics and the practical reality of available materials and conditions at-sea. It has not been possible to strike this balance in the text for sheets in advance of this meeting, but it is anticipated that this will be achievable intersessionally with dedicated time from Secretariat and BirdLife staff. One decision which should help to create space and achieve a balanced, practical output is the maintenance of four separate sheets, covering larger and smaller and vessels separately for each of the demersal and pelagic longline gear types.

### **3. FUTURE PRIORITIES**

Once the bird-scaring line, crew safety during hauling and introductory sheets are completed in English, these will need to be translated into all the relevant languages. We are producing most of the Factsheets in eight languages, so we would be grateful for any offers of in-kind support to assist with translations and proofreading.

The Secretariat and BirdLife would appreciate SBWG feedback on the next update priorities for the factsheets, noting that there might be budgetary constraints in terms of the number of Factsheets that can be finalised within any year. The outstanding best practice factsheets that are yet to be converted into the new simplified format are:

- Demersal longline line weighting (currently separate sheets for external weights, integrated weights and Chilean system)
- Trawl warp strike
- Trawl net entanglement

It is worth noting that the current longline sheets focus on the mitigation measures *per se*, while the two trawl sheets encompass types of seabird interaction with fishing gear, and contain numerous mitigation measures within. In order to maintain the simplified, concise format of the sheets – and depending on the level of detail required – separation of the measures into individual sheets may be merited.

# Practical information on measures to mitigate seabird bycatch in fisheries

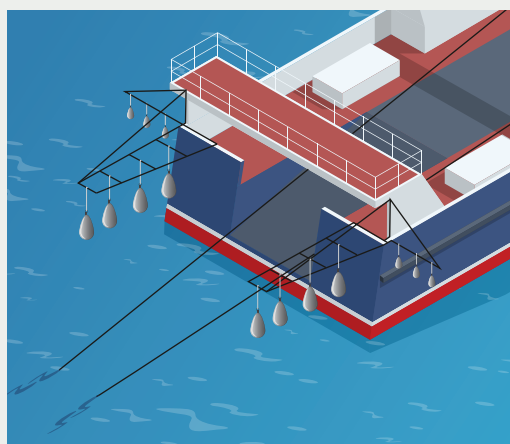
## INTRODUCTION

### Factsheet

Draft May 2021

This series of Seabird Bycatch Mitigation Factsheets describes the range of potential mitigation measures available to reduce seabird bycatch in longline and trawl fisheries. Each Factsheet describes how the mitigation measure works, its effectiveness in reducing bycatch, outlines problems and troubleshooting associated with the measure, and provides recommendations on best practice use. They are designed to help facilitate practical use of the most effective measures to reduce seabird bycatch.

The Factsheets are in the process of being updated and modified into a simpler design format. This process is being progressed in a phased manner, starting with those bycatch mitigation measures that are considered by ACAP to represent best practice. The Factsheets currently available in the new simplified design format are listed in the table below. The Factsheets currently cover seabird bycatch mitigation measures for longline and trawl fisheries, but will be extended to other gear types, such as purse-seine fisheries, in due course.



### The threat to seabirds

Fisheries bycatch is the single greatest threat facing many seabird populations. Albatrosses, in particular, are under extreme pressure from this threat. Seabird bycatch is unnecessary and preventable. In fact, it not only has disastrous consequences for the birds, but also renders fishing operations less efficient. Fortunately, there are simple and effective solutions that can help prevent seabird bycatch.

### Seabird bycatch in fisheries

Seabirds interact with fishing vessels, particularly as they forage for bait, discards or offal. Longline, trawl, purse-seine and gillnet fishing operations can all lead to seabird mortalities.

Incidental capture, or bycatch, in longline fisheries occurs when birds attack baited hooks, mostly during the setting of the line, become hooked and drown as the line sinks to fishing depth.

In trawl fisheries, birds foraging on discards behind the vessel may collide with net-monitoring cables, warp cables and paravanes, and become injured, or in the case of collisions with warp cables, be dragged underwater when their wings become entangled around the warp; birds can also become entangled in nets during shooting and hauling.

Incidental capture in purse-seine and gillnet fisheries is due mostly to birds becoming entangled in nets when they dive for prey.

### Mitigation Measures

There is a range of effective mitigation measures that have been developed that, when used conscientiously, can reduce the number of seabirds killed. These are most advanced and well established in longline and trawl fisheries, with more recent developments in purse-seine fisheries. Research into options for mitigating seabird bycatch in gillnet fisheries is underway.

A mitigation measure is generally a modification to gear design or fishing operation that reduces the likelihood of catching and killing seabirds. Each fishery, and gear type, has different operational characteristics, and overlaps with different assemblages of seabirds, which may vary in their susceptibility to capture. Consequently, mitigation measures need to be carefully tailored to each fishery and gear type.

In longline and trawl fisheries, mitigation measures are designed to reduce the attractiveness of vessels for scavenging seabirds and to deter any birds that do attend the vessel away from the danger areas. In most cases, it is necessary to use multiple mitigation measures in combination to minimise seabird bycatch. For example, in pelagic longline fisheries, the combined use of night setting, fast sinking weighted branch lines and bird scaring lines provides an effective approach to reduce seabird bycatch.

The Seabird Bycatch Working Group of ACAP routinely reviews the efficacy of seabird bycatch mitigation measures and provides advice appropriate to each gear type. The updated advice and detailed technical specifications of mitigation measures are provided in review and summary advice documents available at:  
[www.acap.aq/resources/bycatch-mitigation/mitigation-advice](http://www.acap.aq/resources/bycatch-mitigation/mitigation-advice)

The Seabird Bycatch Mitigation Factsheets are informed by the review process and documents but use a simplified illustration-based format to provide practical information on their use.

#### ACAP-BirdLife Seabird Bycatch Mitigation Factsheets available:

TARGET FISHERIES	MITIGATION MEASURES
Demersal longline	Streamer lines
Demersal longline	Line weighting – external weights
Demersal longline	Integrated weight longlines
Demersal longline	Line weighting – Chilean system
Demersal and pelagic longline	Night-setting
Demersal longline	Underwater setting chute
Pelagic longline	Streamer lines (vessels ≥ 35 m)
Pelagic longline	Streamer lines (vessels < 35 m)
Pelagic longline	Line weighting
Pelagic longline	Side-setting
Pelagic longline	Blue-dyed bait (squid)
Pelagic longline	Bait caster and line shooter
Pelagic longline	Hook-shielding devices
Pelagic longline	Haul mitigation
Demersal and pelagic longline	Haul mitigation
Trawl	Warp strike
Trawl	Net entanglement
Pelagic longline	Improving safety when hauling branchlines

Highlighted rows indicate Factsheets in the revised format

[www.acap.aq/resources/bycatch-mitigation/bycatch-mitigation-fact-sheets](http://www.acap.aq/resources/bycatch-mitigation/bycatch-mitigation-fact-sheets)

The mitigation measures recommended by ACAP are those that have been evaluated to meet the criteria of

- 1) reduce the rate of seabird incidental mortality to the lowest achievable levels,
- 2) have clear and proven specifications and minimum performance standards for their deployment and use,
- 3) be demonstrated to be practical, including aspects concerning safe fishing practices, cost effective and widely available,
- 4) maintain catch rates of target species,
- 5) not increase the bycatch of other animals, such as sea turtles, sharks and marine mammals, and
- 6) have minimum performance standards and methods of ensuring compliance

*Night setting helps to limit bycatch as there are fewer birds around.*

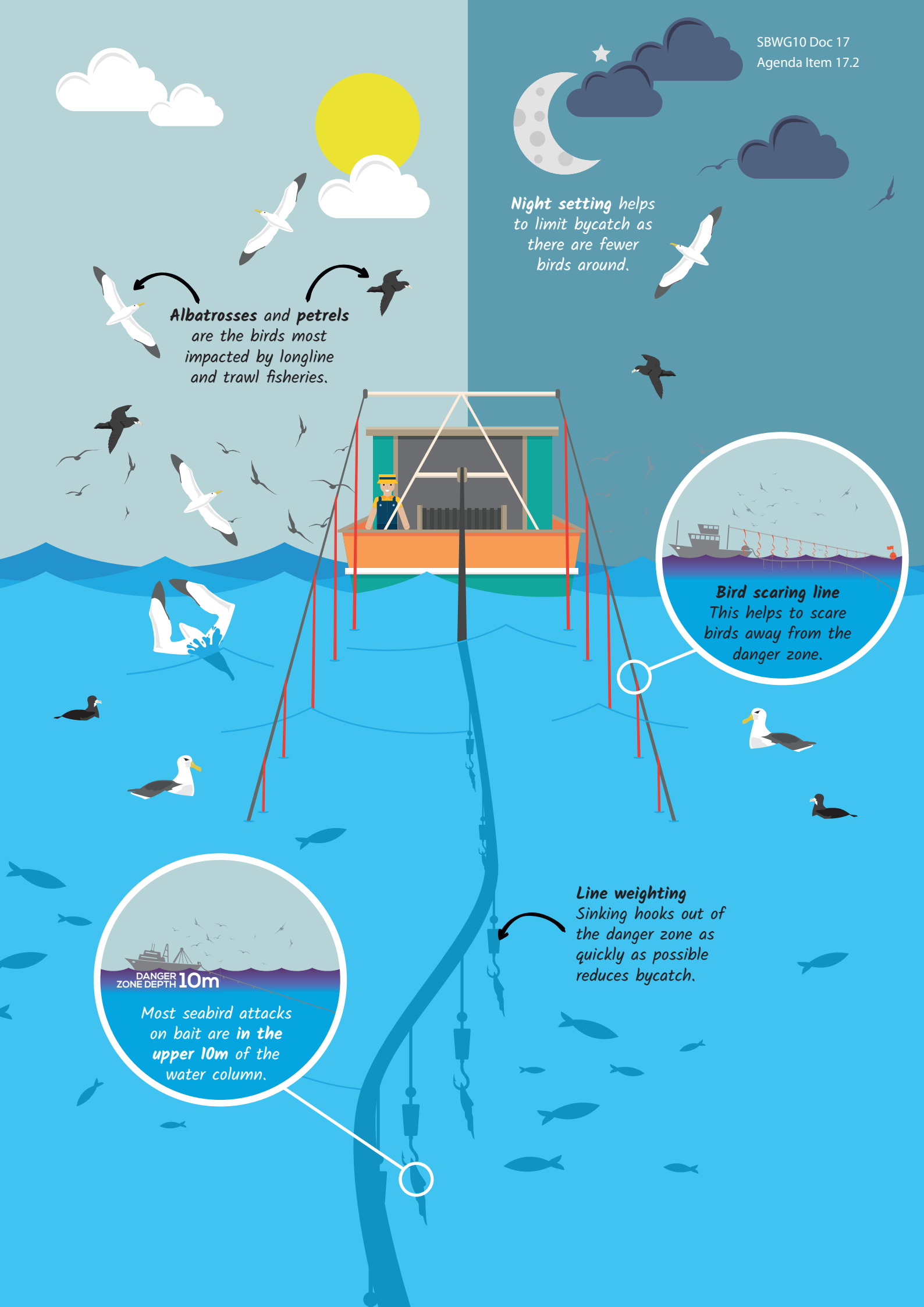
*Albatrosses and petrels are the birds most impacted by longline and trawl fisheries.*

**Bird scaring line**  
*This helps to scare birds away from the danger zone.*

**DANGER ZONE DEPTH 10m**

*Most seabird attacks on bait are in the upper 10m of the water column.*

**Line weighting**  
*Sinking hooks out of the danger zone as quickly as possible reduces bycatch.*





# Preventing Seabird Bycatch in Pelagic Longline Fisheries

## IMPROVING SAFETY WHEN HAULING BRANCHLINES

### Factsheet

Draft May 2021

#### What is it, and how does it work?

Adding weights to branchlines helps sink baited hooks beyond the reach of diving seabirds during the set, reducing seabird bycatch. During the haul, branchline weights may increase the hazard from “flyback” events. A flyback event is when a fish breaks away under high line tension, and may occur in two ways:

1. a ‘bite off’ event in which the branchline is bitten through, or
2. a ‘tear out’ event in which the hook is torn out of the fish.



Fishermen can be injured by weights when the line suddenly breaks. Inset shows the Sliding Leads, a new weighting system developed to reduce the risk of injury.

When this happens, the tensioned branchline may flyback at *high velocity* and along a *straight path*. The member of crew hauling the fish is at risk of being hit by the recoiling branchline. This is rarely reported, but a small number of events have caused serious injury and even death. The hazard to crew is greater if the flyback occurs when the weight is at, or above the waterline.

To avoid or minimise the hazard of a flyback event, crew members can use simple techniques and technologies:

#### Personal protective equipment

Personal safety equipment, such as helmets and face screens can help to minimise risks as part of standard workplace hazard management procedures.

#### Angled hauling

During a flyback the branchline recoils along a straight path. Crew members can move out of the path of a flyback by hauling branchlines around an angle, such as around a pole or feature on the vessel bulwark. This changes the direction of line recoil away from crew members in the event of a flyback.

#### Sliding weights

Sliding leads are not tied into fishing gear, but instead grip monofilament line with enough force to stay in place during normal fishing practices. When monofilament line is stretched under tension, sliding weights lose grip and slip down the line.

Studies have shown that replacing fixed swivel weights with sliding weights, consistent with ACAP Best Practice line weighting, reduces the risk of both bite-offs and tear-outs. Sliding weights either drop off the end of the branchline or shear off the hook.

#### Hook shielding devices

Hook Pods grip monofilament line in the same way as a sliding weight and reduce hazard to crew in the event of a bite-off. Hook Pods are less effective in the event of a tear-out as they can break into fragments.



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