

# Seabird Bycatch Mitigation in the Eastern Pacific Ocean

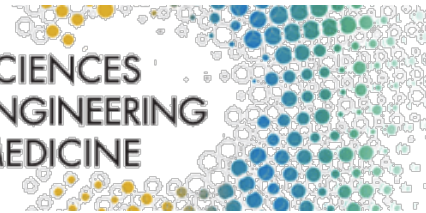
Trevor W. Joyce <sup>1,2</sup>, Mi Ae Kim <sup>3</sup>, Igor Debski <sup>4</sup>, and Lisa T. Ballance <sup>2</sup>

1. National Research Council, National Academies of Science, Engineering, and Medicine, Washington, D.C., USA
2. Southwest Fisheries Science Center, NOAA/NMFS, La Jolla, California, USA
3. Office of International Affairs and Seafood Inspection, NOAA/NMFS, Silver Spring, Maryland, USA
4. Aquatic Unit, Department of Conservation, Wellington, New Zealand



*The National  
Academies of*

SCIENCES  
ENGINEERING  
MEDICINE



# Objectives:

- Reiterate ACAP “best practices” recommendations
- Highlight divergence of current IATTC regulations (Resolution C-11-02) from “best practices”
- Update on bycatch mitigation changes adopt by WCPFC in 2018



COMMISSION  
FIFTEENTH REGULAR SESSION  
Honolulu, Hawaii, USA  
10 – 14 December 2018

---

CONSERVATION AND MANAGEMENT MEASURE TO MITIGATE THE  
IMPACT OF FISHING FOR HIGHLY MIGRATORY FISH STOCKS ON  
SEABIRDS

---

**Conservation and Management Measure 2018-03**

*The Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean*

*Concerned* that some seabird species, notably albatrosses and petrels, are threatened with global extinction;

*Noting* advice from the Commission for the Conservation of Antarctic Marine Living Resources that together with illegal, unreported and unregulated fishing, the greatest threat to Southern Ocean seabirds is mortality in longline fisheries in waters adjacent to its Convention Area;

*Noting* scientific research into mitigation of seabird bycatch in surface longline fisheries has showed that the effectiveness of various measures varies greatly depending on the vessel type, season, and seabird species assemblage present;

*Noting the advice of the Scientific Committee* that combinations of mitigation measures are essential for effective reduction of seabird bycatch;

*Recognising* the sovereign rights of coastal States for the purpose of exploring and exploiting, conserving and managing highly migratory fish stocks within areas under national jurisdiction;

*Recalling* Article 5 of the Convention, which in giving effect to members duty to cooperate in accordance with the 1982 Convention and the UNFSA, requires members of the Commission under Article 5(e) to adopt measures to minimise, *inter alia*, catch of non-target species; and

*Further recognising* Article 30 of the Convention and the need to ensure that conservation and management measures do not result in transferring, directly or indirectly, a disproportionate burden of conservation action onto developing States Parties, and territories and possessions.

## Background: Species vulnerable to bycatch



## Background: Species vulnerable to bycatch

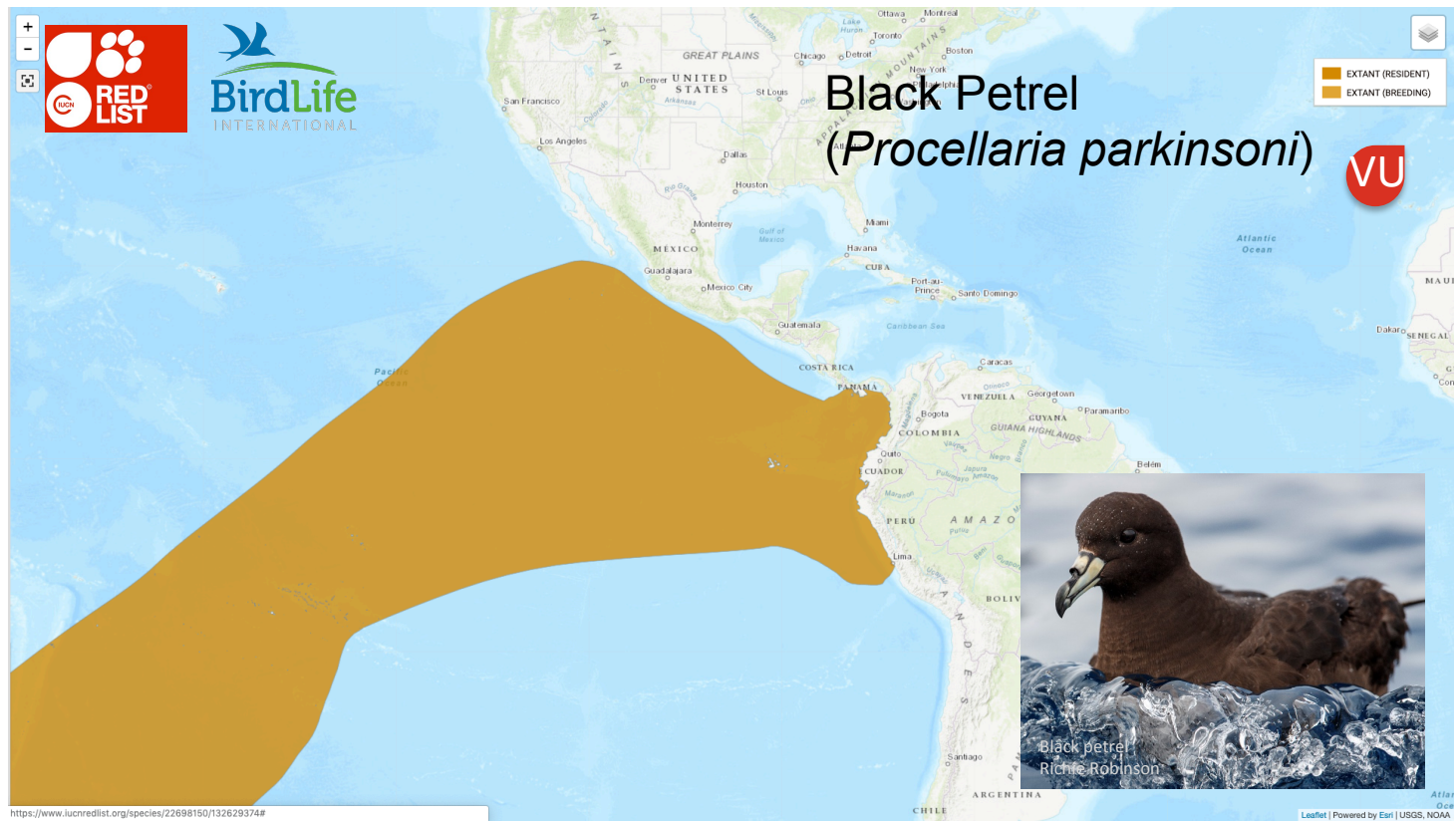




## Background: Species vulnerable to bycatch



## Background: Species vulnerable to bycatch

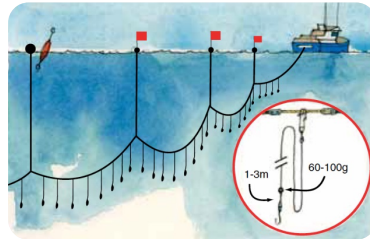


# Background: ACAP Bycatch Mitigation “Best Practices”

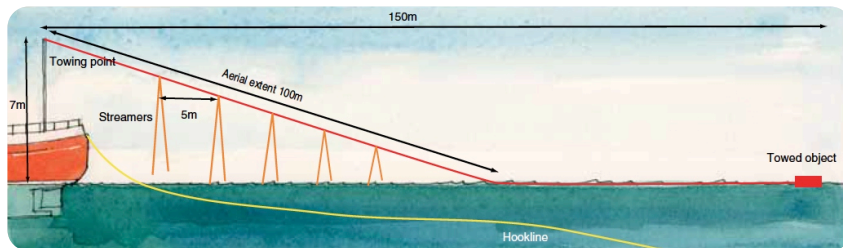
1) Combination of:



Night Setting

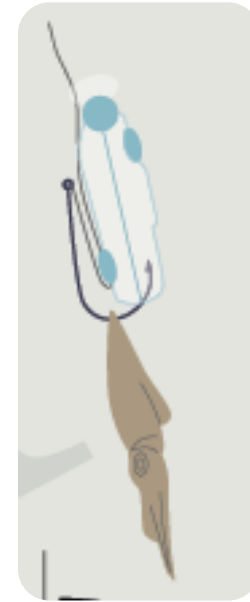


Branch-line Weighting



Bird Scaring Lines (“Tori” Lines)

2) Hook Shielding Device



e.g., Hookpod

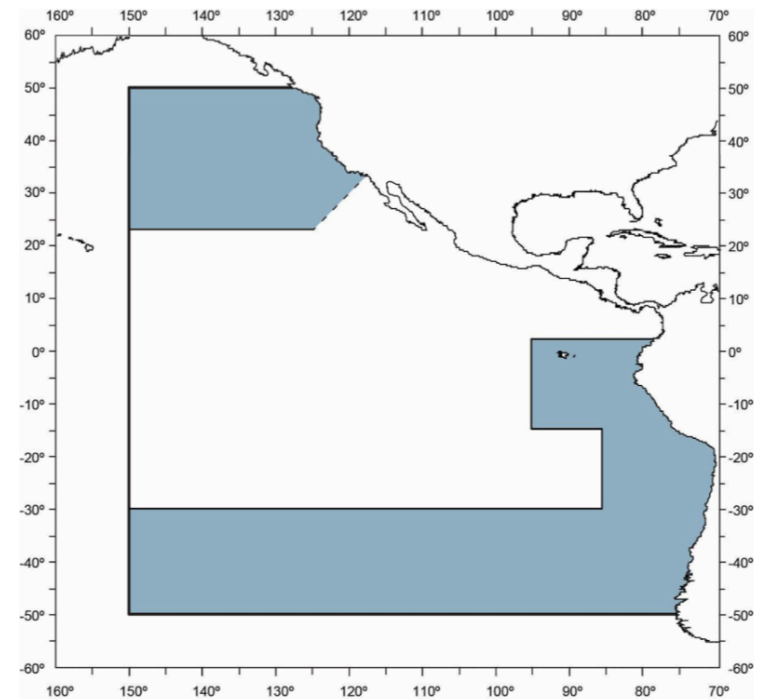
or

# Current Regulations: IATTC Resolution C-11-02



Long Line Vessel (> 20m)

Annex 1



Areas<sup>4</sup> (shaded) within the EPO in which the use of at least two mitigation measures for reducing seabird bycatch is required: north of 23°N (except in Mexican waters) and south of 30°S, plus the area bounded by the coastline at 2°N, west to 20°N-95°W, south to 15°S-95°W, east to 15°S-85°W, and south to 30°S.

## Current Regulations: IATTC Resolution C-11-02

**Table 1: Mitigation measures**

Column A	Column B
Side-setting with bird curtains and weighted branch lines <sup>2</sup>	<i>Tori</i> line <sup>3</sup>
Night setting with minimum deck lighting	Weighted branch lines
<i>Tori</i> line	Blue-dyed bait
Weighted branch lines	Deep-setting line shooter
	Underwater setting chute
	Management of offal discharge



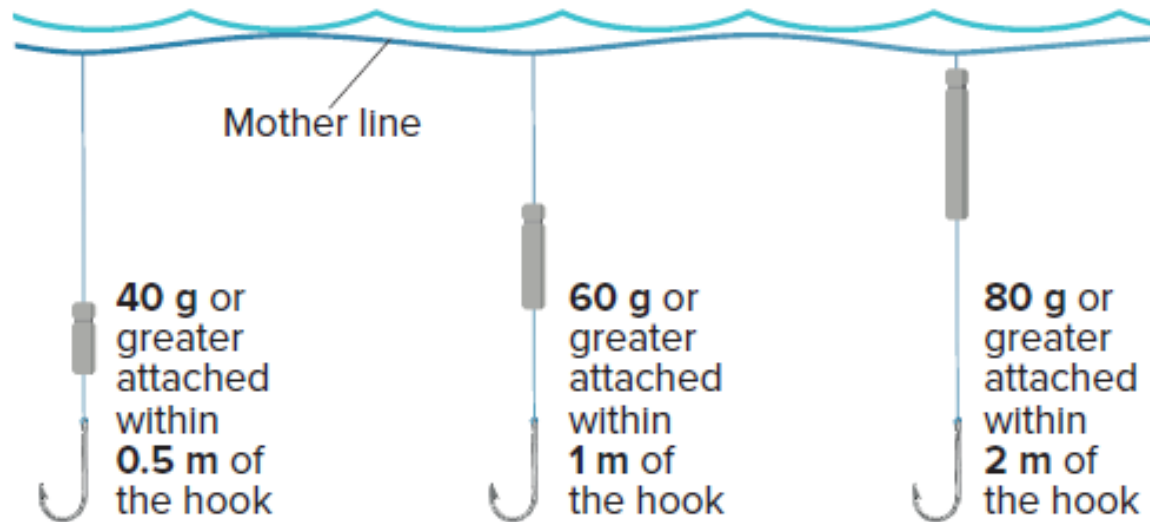
## Recommended Updates: IATTC Resolution C-11-02

**Table 1: Mitigation measures**

Column A	Column B
Side-setting with bird curtains and weighted branch lines <sup>2</sup>	<i>Tori</i> line <sup>3</sup>
Night setting with minimum deck lighting	Weighted branch lines
<i>Tori</i> line	<del>Blue-dyed bait</del>
Weighted branch lines	<del>Deep-setting line shooter</del>
Hook Shielding Device (e.g., Hookpod)	<del>Underwater setting chute</del>
	Management of offal discharge

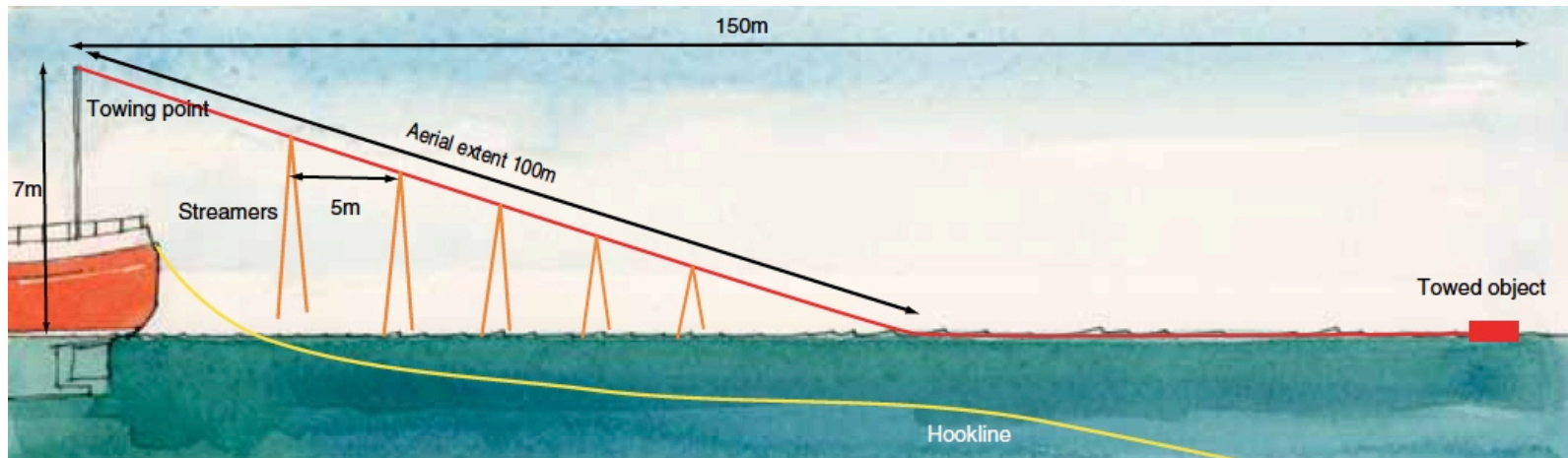
## Recommended Updates: IATTC Resolution C-11-02

**Branch-line weighting** specification: more weight closer to the hook



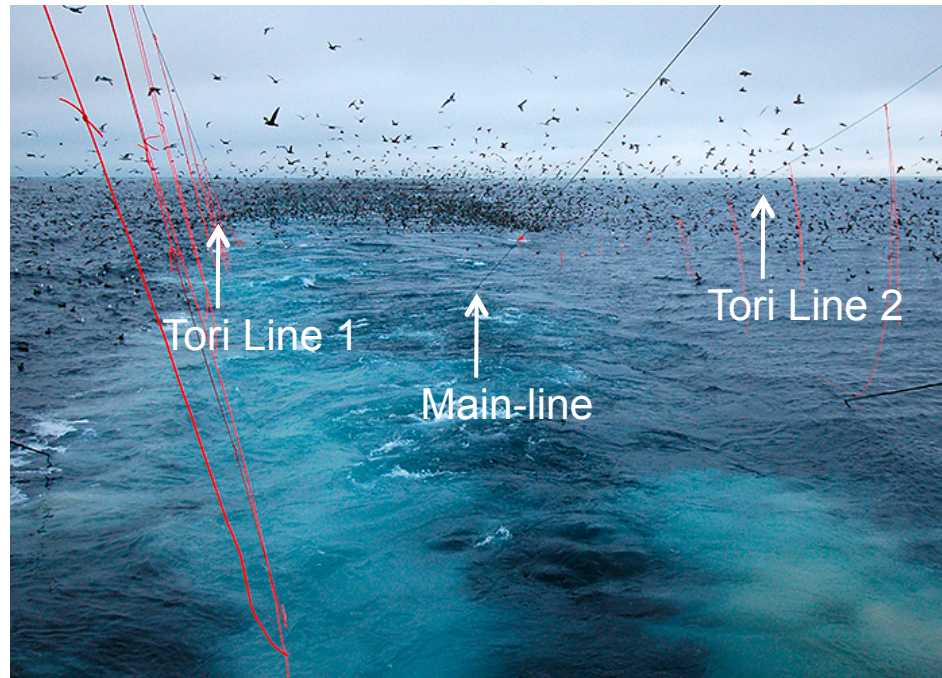
## Recommended Updates: IATTC Resolution C-11-02

**Bird Scaring Lines (Tori Lines): Vessels  $\geq 35$  m – Dual Lines**



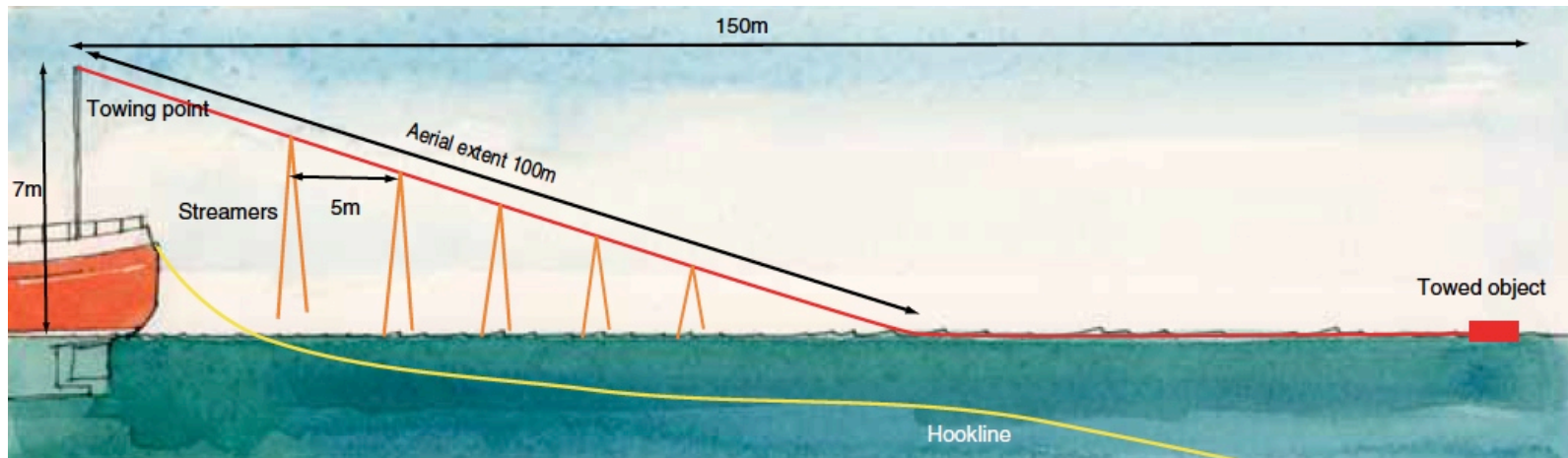
## Recommended Updates: IATTC Resolution C-11-02

**Bird Scaring Lines (Tori Lines): Vessels  $\geq 35$  m – Dual Lines**



## Recommended Updates: IATTC Resolution C-11-02

### Bird Scaring Lines (Tori Lines): Vessels < 35 m – Single Line





# WCPFC Update: Changes adopted in CMM 2018 - 03

Hook Shielding Device



e.g., Hookpod



COMMISSION  
FIFTEENTH REGULAR SESSION  
Honolulu, Hawaii, USA  
10 – 14 December 2018

## CONSERVATION AND MANAGEMENT MEASURE TO MITIGATE THE IMPACT OF FISHING FOR HIGHLY MIGRATORY FISH STOCKS ON SEABIRDS

### Conservation and Management Measure 2018-03

*The Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean*

*Concerned* that some seabird species, notably albatrosses and petrels, are threatened with global extinction;

*Noting* advice from the Commission for the Conservation of Antarctic Marine Living Resources that together with illegal, unreported and unregulated fishing, the greatest threat to Southern Ocean seabirds is mortality in longline fisheries in waters adjacent to its Convention Area;

*Noting* scientific research into mitigation of seabird bycatch in surface longline fisheries has showed that the effectiveness of various measures varies greatly depending on the vessel type, season, and seabird species assemblage present;

*Noting the advice of the Scientific Committee* that combinations of mitigation measures are essential for effective reduction of seabird bycatch;

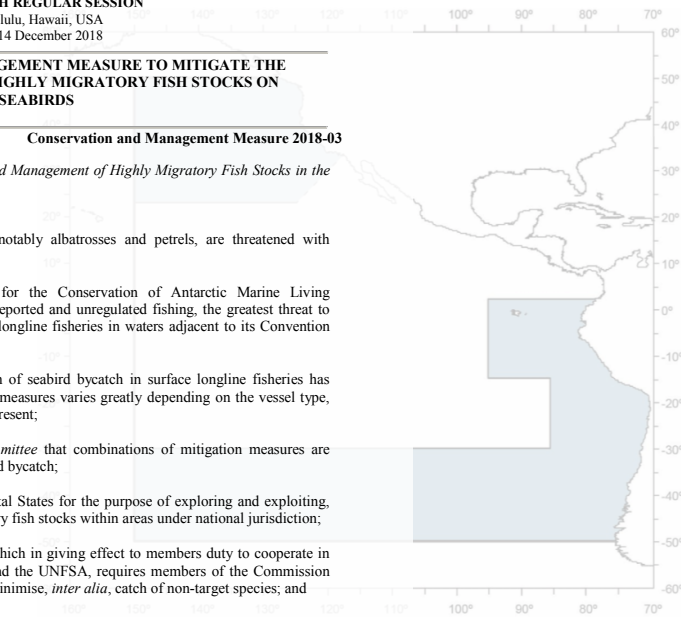
*Recognising* the sovereign rights of coastal States for the purpose of exploring and exploiting, conserving and managing highly migratory fish stocks within areas under national jurisdiction;

*Recalling* Article 5 of the Convention, which in giving effect to members duty to cooperate in accordance with the 1982 Convention and the UNFSA, requires members of the Commission under Article 5(e) to adopt measures to minimise, *inter alia*, catch of non-target species; and

*Further recognising* Article 30 of the Convention and the need to ensure that conservation and management measures do not result in transferring, directly or indirectly, a disproportionate burden of conservation action onto developing States Parties, and territories and possessions.

1. The coastline at 2°N, west to 20°N-95°W, south to 15°S-95°W, east to 15°S-85°W, and south to 30°S.

Areas of mitigation requirements:  
30°S



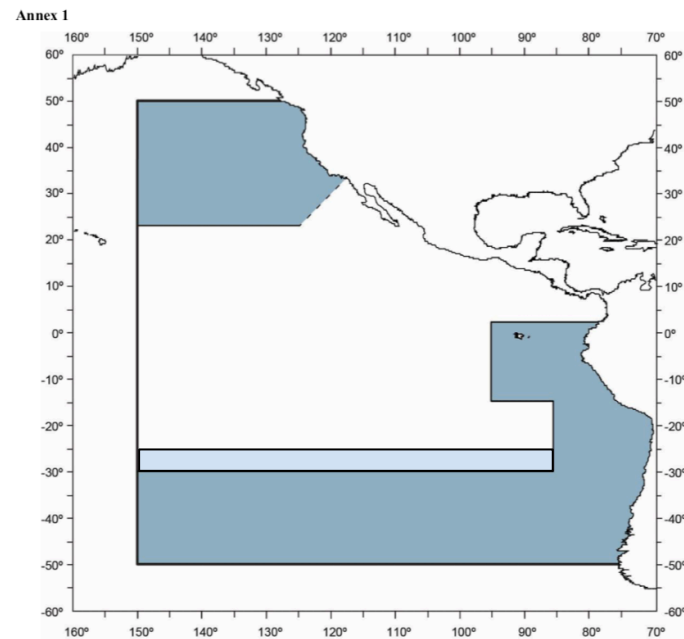
# WCPFC Update: Changes adopted in CMM 2018 - 03

Hook Shielding Device



e.g., Hookpod

Boundaries of mitigation requirements:  
30°S → 25°S



Areas<sup>1</sup> (shaded) within the EPO in which the use of at least two mitigation measures for reducing seabird bycatch is required: north of 23°N (except in Mexican waters) and south of 30°S, plus the area bounded by the coastline at 2°N, west to 20°N-95°W, south to 15°S-95°W, east to 15°S-85°W, and south to 30°S.

# Recommendations: Revisions to IATTC Resolution C-11-02

- Add **hook shielding devices** (e.g., Hookpod) to approved mitigation measures (Column A)
- Remove ineffective mitigation measures (Column B)
  - **blue dyed bait**
  - **line shooters**
  - **underwater setting chutes**
- Adjust **branch-line weighting** specifications: move weights closer to hooks
- Adjust **bird scaring lines** specifications: dual lines on vessels > 35m
- Harmonization with WCPFC: adjust **boundaries of mitigation requirements** to 30°S → 25°S

INTER-AMERICAN TROPICAL TUNA COMMISSION
<b>82<sup>ND</sup> MEETING</b>
LA JOLLA, CALIFORNIA (USA)
4 – 8 JULY 2011

## RESOLUTION C-11-02

### RESOLUTION TO MITIGATE THE IMPACT ON SEABIRDS OF FISHING FOR SPECIES COVERED BY THE IATTC

The Inter-American Tropical Tuna Commission (IATTC), gathered in La Jolla, California (USA), on the occasion of its 82<sup>nd</sup> Meeting:

*Recognizing* that some threatened and endangered seabird populations are found in the eastern Pacific Ocean (EPO);

*Understanding* that bycatches of seabirds are known to occur in the longline fisheries operating in some areas of the EPO;

*Noting* that the Antigua Convention calls for the adoption of conservation and management measures and recommendations for species belonging to the same ecosystem and that are affected by fishing for the fish stocks;

*Reaffirming* the importance of implementing the FAO International Plan of Action for Reducing the Incidental Catch of Seabirds in Longline Fisheries ("IPOA-Seabirds");

*Recalling* that tuna Regional Fisheries Management Organizations responsible for other ocean areas have adopted measures to mitigate the accidental bycatch of seabirds in longline fisheries;

*Believing* that fisheries observer programs can greatly increase the understanding of the extent of interactions between seabirds and fisheries, and the evaluation of how seabird bycatch mitigation measures can be most effectively applied;

*Taking account* of the work of the IATTC, including the IATTC Technical Meeting on Seabirds held on 11 May 2009, that has showed that combining different mitigation measures is more effective than using a single measure in reducing bycatch of seabirds;

*Noting* that scientific research into mitigation of seabird bycatch in longline fisheries has shown that the effectiveness of measures depends on the type of vessel, the season, and the species of seabirds present; and

*Noting* that effective mitigation measures can reduce the loss of bait and therefore increase catches;

Agrees that;

1. Members and cooperating non-Members (CPCs) shall report to the IATTC on their implementation of the IPOA-Seabirds, including, as appropriate, the status of their National Plans of Action for reducing incidental catches of seabirds in longline fisheries.
2. CPCs shall require their longline vessels<sup>1</sup> of more than 20 meters length overall that use hydraulic, mechanical, or electrical systems and that fish for species covered by the IATTC in the EPO north of 23°N (except in Mexican waters as described in the minutes of the 81<sup>st</sup> meeting of the IATTC and as

<sup>1</sup> Vessels propelled by outboard motors are not subject to this resolution