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**UPDATED SEABIRD BEST HANDLING AND RELEASE PRACTICE GUIDELINES**

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This document was originally developed in 2025 as part of the workplan to adopt best handling and release practices (BHRP) for all vulnerable species and in support of the IATTC Seabird Action Plan. This version of the seabird BHRPs provides updates to the recommendations in document EB-03-06 following an extensive comment and review period with subject matter experts as well as the 1<sup>st</sup> IATTC Workshop to Advance BHRP Guidelines in January 2026.

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**SUMMARY**

The Ecosystem and Bycatch Working Group (EBWG) has recommended updates to the Inter-American Tropical Tuna Commission (IATTC) seabird conservation measure (Resolution [C-11-02](#)), adopting a Seabird Action Plan (SAP) to refine bycatch mitigation strategies and address data gaps. Recently, a five-year workplan for developing Best Handling and Release Practice (BHRP) guidelines for vulnerable species captured in IATTC fisheries was also created and endorsed by EBWG-2, with seabirds prioritized for 2025. While Resolution [C-11-02](#) encourages live release and mitigation of harm, specific safe handling and release guidelines are needed to maximize seabird post-release survival. The proposed BHRP guidelines provided herein are an update to document EB-03-06 presented to the EBWG-3. They offer science-based handling and tool recommendations for seabirds captured in IATTC purse seine, hook and line (e.g. longline), gillnet and set-net fishing gears.

This version of the seabird BHRP guidelines have had the benefit of extensive review and consultation from subject matter experts (SMEs), industry representatives and biologists identified by CPCs in response

to Memorandum 0601-410, the EBWG-3, as well as the during the 1<sup>st</sup> IATTC Workshop for Advancing Shark, Sea turtle and Seabird BHRP Guidelines in 2026. The staff recommends the Commission consider adopting the seabird BHRPs guidelines as well as providing resources for these guidelines to be accompanied by illustrated figures to assist CPCs with training and provide fishers with instructional media and placards for posting on vessels.

## 1. BACKGROUND

The second meeting of the Ecosystem and Bycatch Working Group (EBWG) in 2024 made several recommendations to the Scientific Advisory Committee (SAC) and the 102<sup>nd</sup> Commission to the IATTC regarding seabird conservation and bycatch mitigation. First, it endorsed a [Seabird Action Plan \(SAP\)](#) requiring the IATTC scientific staff to review the bycatch mitigation options currently in place and address several data gaps and concerns regarding seabird catches in the EPO. The overarching goal of the SAP is to support an update to Resolution [C-11-02](#) with scientifically relevant and spatially significant bycatch mitigation options. Concurrently, the scientific staff also presented a workplan towards the development of best handling and release practice (BHRP) guidelines for all vulnerable taxa, including seabirds, over the next five years ([EB-02-03](#)). The BHRP workplan included a framework for BHRP guideline adoption along with a timeline for each taxa, where seabirds were planned for 2025 aligning with the timeline of the SAP and the potential inclusion of BHRP guidelines in an updated Resolution.

The adoption and implementation of BHRPs into fishing operations is widely regarded as one of the most practical and accessible approaches to reducing bycatch mortality. By making modest adjustments to how fishers handle and release incidentally caught species — and leveraging tools already found on most vessels — these practices can meaningfully improve survival outcomes for vulnerable taxa. When fleets are properly trained on both recommended techniques and common harmful practices to avoid, BHRPs have demonstrated measurable improvements in post-release survival rates.

At present, the seabird conservation Resolution [C-11-02](#) contains content relating to the use of BHRPs for ensuring survival of seabirds bycaught in longline fisheries (paragraph 9), which states:

*CPCs are encouraged to adopt measures aimed at ensuring that seabirds captured alive during longline fishing operations are released alive and in the best condition possible, and that, whenever possible, hooks are removed without jeopardizing the life of the seabird.*

But the Resolution does not identify the practices that help to release seabirds in the ‘best condition possible’ to reduce mortality, nor does it provide guidance on hook removal or provide requirements for the use of BHRPs in other fishing gears that may also interact with seabirds. Thus, there is ample opportunity for strengthening the seabird measure by adopting BHRPs for all fishing gears used in the IATTC Convention.

The draft BHRP guidelines presented in this document were developed using the strategic framework established in the workplan for BHRP development ([EB-02-03](#)) and following the advice from EBWG-2 and SAC-15 to ensure CPCs and industry personnel are actively engaged in the development of BHRPs. This process began in 2023 with a data review of all known information on handling effects on post release survivorship across vulnerable species, including seabirds, and fishing gears under the Antigua Convention ([EB-01-01](#)). Then proceeded with a request for CPCs to provide their regional BHRP guidelines, national regulations and the identification of subject matter experts and industry personnel that could help inform the process (Memorandum 0601-410) in November 2024. In January of 2025 two workshops were conducted soliciting advice from experts and industry personnel, during the [Inter-sessional meeting of the EBWG](#) on the IATTC staff’s progress towards the SAP and the annual IATTC seminar for purse seine industry personnel (skipper workshops). Draft seabird BHRP guidelines were developed for all fisheries under IATTC purview and circulated for review and comment prior to the EBWG-3. The draft was

distributed to subject matter experts (SMEs) and industry personnel identified by the CPCs in response to Memorandum 0601-410, as well as seabird biologists and other SMEs specializing in seabird bycatch and biology. Feedback and revisions were incorporated into the resulting document ([EB-03-06](#)), and the finalized BHRP guideline recommendations were presented at EBWG-3. c.

Readers should consult the first version of the seabird BHRP guidelines ([EB-03-06](#)) and the PRS review document for vulnerable species ([EB-01-01](#)) for an extensive review of relevant literature on seabird mortality in fisheries, which informed the guidance below.

For current information regarding Avian flu please refer to the Agreement on the Conservation of Albatrosses and Petrels' (ACAP's) comprehensive epidemiological insights here: <https://acap.aq/resources/disease-threats/avian-flu>, where the guidance is regularly updated in alignment with emerging evidence, ensuring that interventions are continually updated and optimized to mitigate impacts on human health, wildlife populations and ecosystems (Serafini et al. 2024).

## **2. BEST HANDLING AND RELEASE PRACTICE GUIDELINES FOR SEABIRDS**

Multiple studies have demonstrated that some handling practices can lead to injury and mortality while other practices are non-injurious with measurable improvements to post release survival rates across taxa (e.g., Gianuca et al. 2020). For vulnerable seabird species, often endangered, ensuring that poor handling practices are avoided is increasingly imperative as some populations continue to decline due to fishing related mortalities and other impacts. According to the BHRP framework established in EB-02-03 and endorsed by the EBWG-2, harmful practices should be identified and banned within the Resolution text. Thus, the draft BHRP guidelines provided below are formulated to identify the best practice in the 'Do' subsections and harmful practices in a 'Do not' subsection. Maintaining consistency with the format of BHRP guidelines developed for other taxa (e.g. sharks [SAC-17-08] and sea turtles [EB-04-04]) the guidance begins with recommendations that apply to all IATTC fishing gears and then further delineated by those specific to purse seine, hook and line, followed by gillnet or set-net fishing gears.

Several CPCs and other subject matter experts suggested that any mitigation methods, including the BHRP guidelines adopted by the IATTC, should be aligned with the advice of the ACAP, and to the extent possible, the Western Central Pacific Fisheries Commission (WCPFC). The ACAP provides bycatch mitigation measure reviews and advice for trawl fisheries, demersal longline fisheries and pelagic longline fisheries (ACAP, 2024). The ACAP also provides guidelines for hook removal in longline fisheries along with infographics for the recommended techniques (ACAP, 2024). Seabird safe rescue and handling onboard purse seine fisheries have also recently been developed (Suazo et al. 2024). To this end the staff, integrated the ACAP (2024), resuscitation and release into the draft BHRP guidelines for all fisheries and the ACAP advice for hook removal into the hook and line fisheries section. The ACAP does not provide detailed best handling and release practice advice beyond the hook removal guidelines for longline fisheries, so the recommendations drafted originally in document EB-03-06 and updated below have been adopted from the content provided by CPCs in response to Memorandum 0601-410, from the BHRP guidance available from the International Seafood Sustainability Foundation (ISSF), National guidelines across CPCs and refined during the EBWG-3 in 2025 and IATTC Workshop for the Advancement of BHRP Guidelines in 2026.

### **2.1. For All Fisheries**

In addition to incidental captures, seabirds may also land on a vessel seeking refuge from storms, exhaustion, or they may be attracted by the deck lights. Fishers are encouraged to allow seabirds to recover onboard and to ensure they are kept away from potentially harmful fishing gear where they may become injured or come into contact with grease or oil.

Seabirds maintain their waterproofing through the intricate layering of their feathers, particularly on their

backs, which causes water to bead and roll off. Beneath this outer layer, a soft layer of down feathers insulates the bird by trapping warm air close to the body, which also aids in buoyancy. When a seabird is exposed to oil or grease, however, this feather structure becomes compromised. The oil mats the feathers, allowing water to penetrate to the skin, making it difficult for the seabird to regulate its body temperature or remain afloat — significantly increasing the risk of hypothermia and drowning. Waterlogged seabirds are also unable to fly, even a small amount of oil — no larger than a coin — can be fatal. Seabirds must be completely dry and waterproof prior to release to survive. For this reason, it is essential that seabirds be kept clear of any grease or oil on deck (adapted from birdrescue.org).

Further, personal protective equipment (PPE) is recommended while handling seabirds to not only reduce the risk of injury, since large seabirds can inflict a serious bite but also to reduce the risk of contracting the avian flu. Recommended PPE includes: thick safety gloves, masks (to prevent influenza infection), eye protection, long sleeves composed of protective materials, and the help of a second crewmember.

Once a seabird is onboard, move slowly and quietly around it, keep the seabird's bill away from your face to avoid injury, cover the birds' eyes and head with a cloth to help calm it, making sure to keep the bill and nostrils exposed to air and keeping it warm, dry and away from grease or oil on deck.

### **2.1.1. Handling**

#### **Do:**

- Use personal protective equipment (PPE) when handling seabirds.
- Gently fold wings or flippers (penguins) towards the body to prevent injury while handling seabirds.
- Hold seabirds against your body near the waist (with one hand) and hold their bills away from your face (with the other hand) following the taxa specific guidance below (from Suazo et al. 2024):
  - Pelicans – place one hand higher up on bill (but not completely closing it so bill is slightly open)
  - Albatrosses – hold the bill closed using three fingers being sure not to cover the nostrils
  - Cormorants – using one gloved hand to hold the lower jaw and keeping the thumb on top of head while allowing the mouth to stay partially open
  - Shearwaters - hold the bill closed using two fingers, being sure not to cover the nostrils.
  - Petrels and other small seabirds – hold in one hand with its back in the palm of the hand and the neck between index and middle fingers.
- Allow birds to remain on the vessel to recover and follow the resuscitation and release guidelines below (Sections 2.1.2 and 2.1.3).

#### **Do not:**

- Restrict the bill or legs with tape, rope or bands.
- Cover the nostrils of species like albatrosses, petrels, and shearwaters.
- Completely close the bill in seabirds without nostrils like pelicans, boobies, and cormorants (these species require an open mouth to breath).
- Lift or handle seabirds by the wings or flippers (penguins) as this can break delicate bones or dislocate joints.
- Intentionally maim or disfigure the bill or any other body part of the seabird.

### **2.1.2. Resuscitation**

#### **Do:**

- Remove all or as much entangling fishing gear as possible.
- If birds are wet and exhausted, place them in a box with airholes for ventilation or in a safe area with a clean, dry, towel or blanket to recover.
- Make sure the seabird does not come into contact with oil or grease on deck. Seabirds cannot fly if their wings become waterlogged (exacerbated by contact with oils).
- Follow the release guidelines (2.1.3) below, ensuring the animal meets the 'release criteria' prior to release.

#### **Do not:**

- Try to feed them or give them water during resuscitation.
- Allow seabirds to come into contact with grease or oil on deck.

### **2.1.3. Release**

*A seabird can be released to sea surface when the following criteria are met:*

- i. Feathers are dry. (Approximately 1/2 to 4 hours), and;
- ii. Bird is alert and head is erect, and;
- iii. Breathes without difficulty and/or noise, and;
- iv. Wings can flap and retract onto back, and;
- v. Stands on both feet with toes forward.

If any of the above criteria are not met, allow the seabird additional time to recover on deck by temporarily placing them in a ventilated box with airholes or a clean, dry, safe area. Assess release criteria and seabird condition again after 4 hours to make sure it is ready for release. If they are not ready for release allow additional time onboard.

#### **Do:**

- Slow or stop vessel for the release.
- Set the bird on the deck railing, facing the prevailing wind direction and when wings open, allow it to fly off.
- If it does not fly off on its own, gently lower it over the side of the vessel by hand if you can reach the water surface or with a plastic basket or non-entangling net if you cannot. For vessels with a very high freeboard (i.e. > 5 m, such as purse seine vessels) release seabirds using the small boats (skiff or speedboat), while they are in the water.

For dead, moribund or seriously injured seabirds, follow your local guidelines for transport to a rehabilitation facility or for proper storage or discard.

### **2.1.4. Tools Required for All Fisheries**

- Clean towel or blanket
- Line cutters capable of cutting through all netting and lines used on the vessel

- Ventilated box or bin

## **2.2. Purse Seine Fisheries**

The presence of seabirds aboard purse seine fishing vessels can result from seabirds seeking refuge, interactions with fishing infrastructure or from bird strikes onto the deck (Suazo et al. 2024). In the case of interactions with the purse seine net during hauling, seabirds can become wet from contact and rubbing against the target catch, which disrupts their plumage architecture and thus waterproofing and may require time on the vessel for rest and recovery (Suazo et al. 2024).

The following guidance is for seabirds that may (on extremely rare occasions) become entangled in the purse seine net. For seabirds simply seeking refuge on the vessel, follow the Resuscitation guidelines in the 'All Fisheries' section (2.1).

### **2.2.1. For seabirds that have become entangled in the net during the net hauling procedure**

#### **Do:**

- Stop the net roll when the animal is at deck level and allow the crew to disentangle it or cut the net away from the seabird.
- Follow the handling guidelines in section 2.1.1 (gently folding wings towards their body and keeping seabirds bills away from fishers' face)
- Follow the resuscitation and release guidelines in section 2.1

#### **Do not:**

- Allow the seabird to be rolled through the power block.

## **2.3. Hook and Line Fisheries**

If a live seabird is discovered on the line, release the tension on the mainline by slowing the vessel and the winch speed (if applicable) to a stop to reduce drag on the line. Ease the bird to the side of the vessel by steadily bringing in the line. Do not make sudden jerks on the line as this may cause further injury.

### **2.3.1. Bring seabird aboard**

#### **Do:**

- Bring seabird onboard the vessel using a non-entangling net or basket to support its weight.
- Carefully fold the wings into the natural position on the bird's body.
- Wrap the bird in a towel/blanket (not too tightly).
- Cover the bird's eyes and head with a loose cloth to help calm it, making sure to keep nostrils and or bill exposed.
- For crew safety, hold the bill using a gloved hand, following the taxa specific guidance above, while assessing gear removal strategy. If the bird vomits, loosen grip on bill so the bird does not suffocate.
- Cut all lines away from the animal and follow the hook removal guidelines if necessary.

#### **Do not:**

- Pull the bird up on the line it is captured or entangled in, as this may cause further injury.
- Do not handle birds by the neck, head or wingtips as it can break the wing.

### **2.3.2. Hook Removal**

Adapted from ACAP Advice on hook removal (2019). See the illustrated guidelines in Appendix 1.

**Do:**

**2.3.2.a If the hook is visible**

- With one crew member holding the bird, another crew member can detach the fishing gear from the animal.
- Use pliers or bolt cutters to cut through the hook shaft and pull hook out of the bird. Flatten the barbs with pliers or cut off barbs with bolt cutters, if it is necessary to back the hook out and through tissue to remove it.

**2.3.2.b If the hook is swallowed and removal is possible**

- With one crew member holding the bird, another crew member can look for the hook and if they can find the hook position in the neck and it is possible, push the hook tip through the skin and remove it, ensuring that any line protruding from the mouth is cut prior to pulling it through the body.

**2.3.2.c If hook removal is not possible**

Either because removing the hook will cause further damage to the bird or the hook is too deeply ingested,

- Cut the line as close to the hook as possible and leave the hook in the bird.
- Untangle and cut away any line caught around the bird's wings, body or legs.

**Do not:**

- Extract an ingested hook backwards.
- Do not try and *pull* or rip the hook out from inside the bird.

**2.3.3. BHRP Tools for Hook and line fisheries**

In addition to the tools required in the All Fisheries section, the following tools should be carried aboard all IATTC hook and line vessels:

- Non-entangling net or basket with a handle equal in length to the distance from the waterline to the deck
- Bolt cutters capable of cutting through all hooks used on the vessel
- Pliers (preferably needle-nose)

**2.4. For Gillnet and Set-net Fisheries**

For seabirds that become entangled in gillnet or set-net fishing gear, every effort must be made to disentangle the seabird immediately.

**Do:**

- Bring the seabird onboard ensuring that the seabird is not subject to the weight of the net and the catch by supporting the weight of the fishing gear under the area where the seabird is entangled.
- Carefully disentangle and or cut the netting away from the seabird.
- Follow the handling, resuscitation and release guidelines in section 2.1.

### 2.4.1. BHRP Tools for Gillnet and Set-net Fisheries

In addition to the tools required in the All Fisheries section, the following tools should be carried aboard all gillnet and set-net vessels.

- Non-entangling net or basket with a handle equal in length to the distance from the waterline to the deck

## 3. CONCLUSIONS AND RECOMMENDATIONS

Effective mitigation of mortality in seabird bycatch across fisheries requires not only evidence-based technical solutions, but also practical implementation strategies that account for safety and other operational realities at sea. These BHRP guidelines have benefited from the reviews and constructive comments provided by CPCs, biologists, seabird specialists, industry personnel, ACAP and other subject matter experts. Given the recognized importance of handling and releasing practices for the survival of incidentally captured seabirds, and the clear guidance provided herein regarding required and prohibited methods, the IATTC staff recommends the Commission consider integrating these guidelines—as intended by the IATTC Seabird Action Plan—into the existing Seabird Resolution (C-11-02) as mandatory practices and tools during a future update or amendment.

Consider updating Resolution C-11-02 with the inclusion of the BHRP guidelines outlined herein (EB-04-05) for all IATTC fisheries.

Throughout the review process and during EBWG meetings and IATTC BHRP workshops, multiple subject matter experts noted that the guidelines outlined above would be more useful if accompanied by illustrated guidelines and training manuals. Funding for generating infographics, outreach materials and training efforts are key for continuous capacity building of the fleet and personnel. Specifically, resources are needed to develop clear, accessible educational materials tailored to diverse audiences, including infographics, videos, applications, posters, and placards for display on vessels and in port facilities, as well as the associated training activities. Ensuring fishers are well trained in the use of BHRPs and recommended tools in operational settings is the most effective means of improving post release survival for incidental seabirds.

In this context, the IATTC staff believes that support to create and deliver standardized “train-the-trainer” curricula is desirable. These programs can empower regional trainers, fisheries observers, and enforcement personnel with the knowledge and tools to ensure proper training on seabird BHRP to fishing crews and vessel operators. Organizing targeted training workshops, particularly in collaboration with local fisheries stakeholders, further enhances capacity building and promotes ownership and understanding of existing conservation measures. Sustained investment in these outreach and capacity-building components is critical to achieving long-term reductions in seabird mortality and ensuring success at scale (unfunded projects Q.3a). Furthermore, these efforts are critical for the successful implementation of BHRPs, building awareness, fostering cooperation, and enabling effective, on-the-water application of agreed BHRP. Therefore, the IATTC staff recommends that:

The Commission ensures the necessary funding to support capacity building, the development of training materials and a range of education and outreach activities (unfunded project Q.3a).

## 4. ACKNOWLEDGEMENTS

We are thankful for the considerable input from those CPCs which provided content in response to Memo: 610-410 to support this effort. We are also appreciative of the helpful comments and suggestions from those SMEs that reviewed previous versions of these guidelines, from the participants

of the IATTC workshop for Advancing BHRP Guidelines and to those SMEs that helped to improve the current draft.

## 5. REFERENCES

ACAP [Agreement on the Conservation of Albatrosses and Petrels. 2024. Hook Removal from Seabirds Guide](https://acap.aq/resources/bycatch-mitigation/hook-removal-guide/2178-hook-removal-from-seabirds-guide-a3/file) (<https://acap.aq/resources/bycatch-mitigation/hook-removal-guide/2178-hook-removal-from-seabirds-guide-a3/file>).

Suazo, C.G., Frere E., Rouxel, Y., & Yates O. (2024) Guidelines for the safe seabird rescue, handling, and recovery onboard purse seine fisheries. Twelfth Meeting of the Seabird Bycatch Working Group (SBWG12 Inf 11). Agreement on the Conservation of Albatrosses and Petrels (ACAP). Lima, Peru.

## 6. ANNEX

### 6.1. Additional resources

- A video about seabird dehooking is available from ISSF:

<https://www.youtube.com/watch?v=9Qsd3XAn05A>

- ACAP Hook Removal Guidelines

Espanol:

<https://acap.aq/es/resources/captura-incidenta/extraccion-de-anuelos-en-aves-marinas/3540-acap-extraccion-de-anuelos-en-aves-marinas-a3-print/file>

English:

<https://acap.aq/resources/bycatch-mitigation/hook-removal-from-seabirds-guide>

- Handling by seabird species infographics:

Suazo, C.G., Frere E., Rouxel, Y., & Yates O. (2024). Guidelines for the safe seabird rescue, handling, and recovery onboard purse seine fisheries. Twelfth Meeting of the Seabird Bycatch Working Group (SBWG12 Inf 11). Agreement on the Conservation of Albatrosses and Petrels (ACAP). Lima, Peru

[https://www.bmis-bycatch.org/system/files/zotero\\_attachments/library\\_1/EGC89QJT%20-%20Suazo%20et%20al.%20-%20Guidelines%20for%20the%20safe%20seabird%20rescue%2C%20handling%2C%20.pdf](https://www.bmis-bycatch.org/system/files/zotero_attachments/library_1/EGC89QJT%20-%20Suazo%20et%20al.%20-%20Guidelines%20for%20the%20safe%20seabird%20rescue%2C%20handling%2C%20.pdf)