



SUMMARY OF TOOLS AND GUIDELINES AVAILABLE TO ASSIST OBSERVERS IN THE IDENTIFICATION OF SEABIRD SPECIES AND THE HANDLING OF BYCAUGHT INDIVIDUALS

ACAP & BirdLife International

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1. INTRODUCTION

The incidental mortality of seabirds in fisheries continues to be a serious global concern, especially for threatened albatrosses and petrels. There have been significant efforts internationally to develop mitigation measures to avoid or minimise the risk of incidental catch of seabirds in longline fisheries. In addition, efforts have been directed towards improving the quality of bycatch data collected by observer programmes.

To fully understand the impact of bycatch and the efficacy of mitigation measures, it is preferable that mortality estimates are derived for each species; the results can also then be aggregated to species groups or for all birds combined. Consequently, efforts should be directed towards encouraging the identification of all bycaught birds to species level (see CCSBT-ERS/1603/16). This could be achieved by, for example, (1) improving the capacities of on-board observers, (2) the development and provision of tools (e.g. guides) to assist with the identification of bycaught individuals, as well as (3) retaining carcasses, obtaining biological samples, and taking photographs for later processing and identification.

ACAP and BirdLife International are supporting the strengthening of observer programmes. This work includes the implementation of on-board training (e.g. via BirdLife International's Albatross Task Force), training national scientists (e.g. from Japan and the Fishing Entity of Taiwan), as well as supporting the collection and curation of samples and photographic material that can subsequently be used by land-based observers and researchers, and the development of tools and guidelines

to assist the identification of seabirds to species level. This paper was prepared to update the CCSBT on the products available to assist observers in the identification of seabirds, as well as the handling of bycaught individuals that are hauled alive.

2. TOOLS AND GUIDELINES FOR OBSERVERS

2.1. Seabird identification guides

The identification of seabird bycatch to species level (or the lowest taxonomic level possible) is essential to achieve a reliable analysis of the effectiveness of conservation measures in force. At the first meeting of the Joint Tuna RFMO Technical Working Group on Bycatch, which preceded Kobe III, ACAP offered to produce a consolidated seabird identification guide to assist with the harmonisation and improvement of data collected by RFMOs.

In 2014-15 ACAP, in collaboration with the Japan Fisheries Research Agency, produced a guide to assist observers in the identification of albatrosses and some commonly caught petrels and shearwaters killed in longline operations. This [Seabird Bycatch ID Guide](#) was developed to account for several difficulties associated with the identification of seabirds bycaught in fisheries: (1) coping with the increasing demands on observers to collect additional data, (2) accounting for the range in ability of observers to accurately identify seabird species, and (3) providing tools (pictures) to identify waterlogged carcasses as they are hauled back on deck (see Attachment 1). Understanding its potential to be used by a range of observer programmes, the ID guide is now available on the ACAP website in English, French, Spanish, Portuguese, Simplified Chinese, and Traditional Chinese. Other languages might be added in the future depending on need and resources available.

This seabird ID guide includes: (1) guidelines to assist on-board observers in taking record photographs (Attachment 2); and (2) guidelines to assist on-board observers in obtaining feather samples for DNA analysis (Attachment 3). These two sampling protocols are intended to allow the identification of bycaught birds to species level where this is not achievable aboard. ACAP is in the process of organising a register of organisations holding photographic material, as well as tissue and feather samples, in order to assist researchers wishing to make use of such resources.

The ID guide is available to adapt to generate more tailor-made products for particular fleets. The Fishing Entity of Taiwan, BirdLife International and the Chinese Wild Bird Federation (BirdLife partner), for example, are currently collaborating on an updated version in Traditional Chinese for use by on-board observers. This revised guide will incorporate some elements of existing Taiwan Observer Seabird ID Manuals and feedback from observers and will include species of albatrosses and petrels which are most at risk of accidental capture in Taiwanese longline fishing operations. The intention is to distribute in hard and soft copy to observers and to the observer training programme in 2017.

2.2. Hook removal Guide

A [Seabird de-hooking Guide](#) is available on the ACAP website in English, French and Spanish (Attachment 4). These guidelines are intended to assist fishery observers and crew in the proper handling of live seabirds bycaught in longliners, and improve their likelihood of survival. The development of guidelines for removing entangled seabirds from nets is programmed for the near future.

3. PROCESS TO UPDATE TOOLS AND GUIDELINES

The above described documents were prepared based on the best available information and evidence, and are meant to be living documents to be updated as and when needed. ACAP and BirdLife International would therefore welcome any inputs (including edits, new information and photographic material) from those who have used the guidelines to ensure that these tools are fit for purpose.

ATTACHMENT 1. Sample page of the Seabird ID Guide describing morphometric features for the species, distribution maps and showing pictures of bycaught individuals as they get hauled back on deck.

40 THALASSARCHE ALBATROSSES

Atlantic yellow-nosed Albatross

Thalassarche chlororhynchos

FAO CODE: DCR

ENDANGERED

Bill length: 107-122 mm
Wing length: 48-52 cm
Body length: 75 cm



Indian yellow-nosed Albatross

Thalassarche carteri

FAO CODE: THQ

ENDANGERED

Bill length: 111-124 mm
Wing length: 46-50 cm
Body length: 75 cm



- **Mostly black bill, yellow upper ridge only**
- White head and body, dark eye patch, black upper wings and back
- **Adults - greyer head and yellow stripe on upper bill rounded at base of bill on Atlantic vs. whiter head and yellow stripe pointed at base of bill on Indian**
- not always reliable (see also distribution)
- **Juveniles** similar to adults, all black bill (see p. 52), indistinguishable between the two species

Similar species: Distinguished from Grey-headed (p. 42) and Buller's (p. 44) by yellow on bill upper ridge only.

SEABIRD BYCATCH IDENTIFICATION GUIDE **41**

Atlantic yellow-nosed Albatross



Indian yellow-nosed Albatross





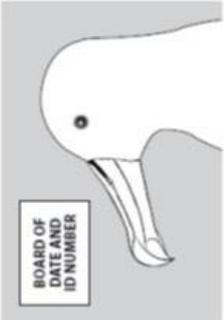


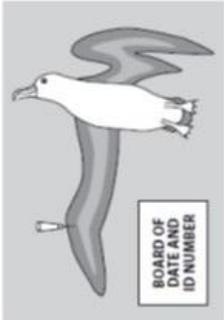
ATTACHMENT 2. Photographic guidelines for on-board observers to take record photographs that will assist in the subsequent land-based identification of bycaught birds.

78 DATA COLLECTION PROTOCOLS

Photos

At least three pictures should be taken:

- 1. Head**

- 2. Whole body - back side**

- 3. Whole body - belly side**


SEABIRD BYCATCH IDENTIFICATION GUIDE 79

Modified from Southern bluefin tuna Japanese observer manual 2012, National Research Institute of Far Seas Fisheries, Shizuoka, Japan.

Show eye colour and bill base shape


Show wing, body and tail colour


Show upper edge and base of wing


ATTACHMENT 3. Guidelines to assist on-board observers in obtaining feather samples for DNA analysis.

82 DATA COLLECTION PROTOCOLS

Feather samples for DNA analysis

If possible, it is useful to pull out a few feathers for DNA identification of the species:

1. Pinch and pull 1 - 3 feathers at once until you get 5 - 6 feathers from either the back or the belly
2. Put the feathers in a plastic bag with a label (ID number etc.)
3. Store samples in a freezer (at least -20°C)

Establishment of DNA sampling programmes

Each RFMO/observer body will decide on their sampling programme. Once established, feathers and/or tissue should be submitted as specified by each programme.

ACAP will maintain a register of organisations holding photos and/or tissue/feather samples, to assist researchers wishing to make use of this material. It would be appreciated if the custodians of these photos/samples could contact ACAP (secretariat@acap.aq) and provide their details for inclusion in the register.

SEABIRD BYCATCH IDENTIFICATION GUIDE 83

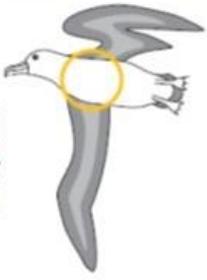
Modified from Southern bluefin tuna Japanese observer manual 2012, National Research Institute of Far Seas Fisheries, Shizuoka, Japan.

Pick 5 - 6 feathers either on the back or the belly.

Back side



Belly side



DO NOT CUT FEATHERS - PULL
Analysis is done using the base of the feather

ATTACHMENT 4. Guidelines to assist fishery observers in the proper handling of live seabirds bycaught in longliners and the removal of hooks from affected birds.

HOOK REMOVAL FROM SEABIRDS

Agreement on the Conservation of Albatrosses and Petrels

Release Kit


Towel / Blanket


Knife


Net


Box / Bin


Pliers / Bolt cutters


Gloves

Visit www.acap.aq
for more information



1 Bring bird aboard



If possible, slow or stop hauling and slow or stop vessel to release line tension. If practical, use a landing net to lift the bird on board, otherwise retrieve the bird on the line as safely and quickly as possible.

2 Restrain bird



Carefully fold the wings into the bird's body. Wrap the bird in a towel/blanket (not too tightly) and cover the eyes if possible. Make sure the bird doesn't come in to contact with oil on deck.

3 Hold the bird securely



Restrain the bird securely between your legs without squeezing. Hold the beak gently shut but do not cover the nostrils. If the bird vomits, loosen hold on bill so the bird does not suffocate.

4 Removing the hook



a. If the hook is visible

Use pliers (or bolt cutters for large hooks) to cut off the hook (or to flatten the barb). Pull the hook back out of the bird.



b. If the hook is swallowed and removal is possible

A second person can find the hook position externally by feeding along the neck or internally by following the line to the hook. Gently force the tip of the hook so that it bulges under the skin of the bird (for large birds, this may be easier if you reach down the bird's throat and hold the hook). Then, use a clean knife to make a small cut (<1cm) externally down the neck to allow the hook to pass through the skin and be removed. If no knife is available, and you can get a good grip on the hook, push the tip of the hook through the skin and remove. **Never try to extract the hook backwards.**



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 entry as possible and leave the hook in the bird.

5 If the bird is exhausted or waterlogged



If possible, place in a ventilated box or bin in a quiet, dry, shaded place to recover for an hour or two. Otherwise, contain bird in a quiet dry area, away from oil. The bird is ready for release when the feathers are dry, bird is alert and able to stand.

6 Release the bird



Small vessels: Slowly lower the bird onto the water. The bird may remain on the water for some time after release.



Large vessels (where birds cannot be lowered onto water): Lift and release the bird from the side of the vessel into the wind.