Australian Government
Department of Climate Change, Energy, the Environment and Water
Australian Antarctic Division

CCSBT-ERS/2603/14

Agenda item 5.1.4 Seabird species identification

Protocols for collecting feather samples from dead bycaught seabirds for genetic analysis and photographing dead bycaught seabirds

Overview

Recalling the development of CCSBT standard protocols for collecting feather samples and photographing dead bycaught seabirds based on ACAP guidance as part of the Multi-year Seabird Strategy, Australia has developed a **Guide to collecting feather samples from dead seabirds for genetic analysis and to photographing dead seabirds**.

The Guide describes methods for collecting feather samples from dead seabirds and holding dead seabirds in close view of an EM camera in a series of specified positions. The introduction of these methods has facilitated the reliable, species-level identification of seabirds bycaught in Australia's longline fisheries.

Australia has amended the Guide so that it is now suitable for use by CCSBT members (Attachment A). The Guide could also be translated into key languages as identified in action 5E of the Multi-year Seabird Strategy.

Use of the Guide helps to address the key issues concerning identifying commonly bycaught seabirds to species level for all CCSBT members.

Australia's domestic research has shown that identifying bycaught seabirds to species-level is challenging and generally logbook data are unreliable below the family level. This highlights the value of applying genetic and EM methods to deliver reliable taxonomic data on bycaught seabirds.

Research

The Development of DNA Markers to Resolve Uncertainties of Seabird Bycatch Identification from Longline Fisheries in Australian Waters (Polanowski et al. 2024): https://doi.org/10.1002/ece3.70568

Attachment A

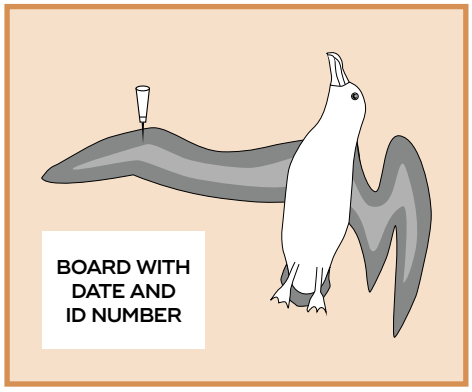
Guide to collecting feather samples from dead seabirds for genetic analysis and to photographing dead seabirds

Guide to photographing dead seabirds

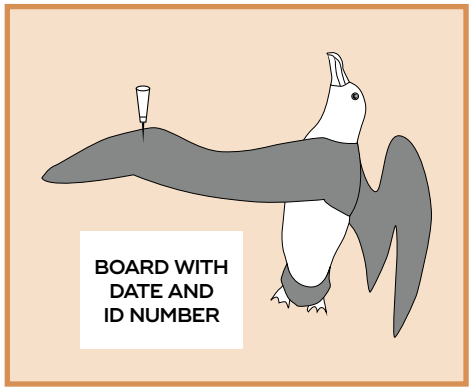
By photographing dead seabirds you will help scientists to identify which species was bycaught. This guide shows you what images to take. The ruler may be placed next to the seabird to help in estimating size. Please place a label next to the dead seabird to help with identification: noting the date and time when the seabird was bycaught (see below). Please also ensure that your vessel's logbook records each seabird bycatch incident.

PLEASE INCLUDE YOUR VESSEL'S NAME ON ALL SAMPLE LABELS

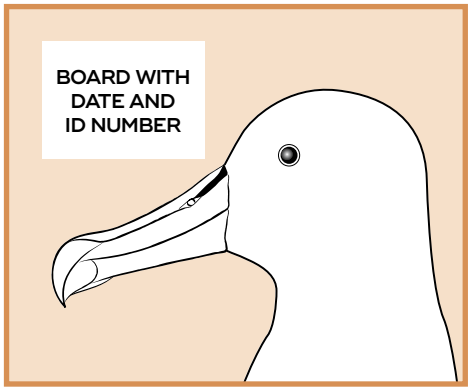
1. Whole body – belly side view



2. Whole body – back side view



3. Head – side view



4. Details for label

VESSEL NAME	.....
DATE	DD / MM / 20YY
TIME	00:00 h to 24:00 h
LAT LONG	deg/min/sec deg/min/sec
FISHING METHODE	.....
ID NUMBER	01, 02, ...

Please email digital photographs to: XXXXX

Modified from Seabird Identification Guide developed by the Agreement on the Conservation of Albatrosses and Petrels.

Guide to collecting feather samples from dead seabirds for genetic analysis

By collecting feather samples from dead seabirds you will help scientists to conduct genetic analyses that help identify which species was bycaught. This guide shows you what samples to take. Taking care in collecting feather samples will help to prevent contamination. Please also ensure that your vessel's logbook records each seabird bycatch incident.

PICK 5-6 FEATHERS IN TOTAL FROM THE BACK AND THE BELLY

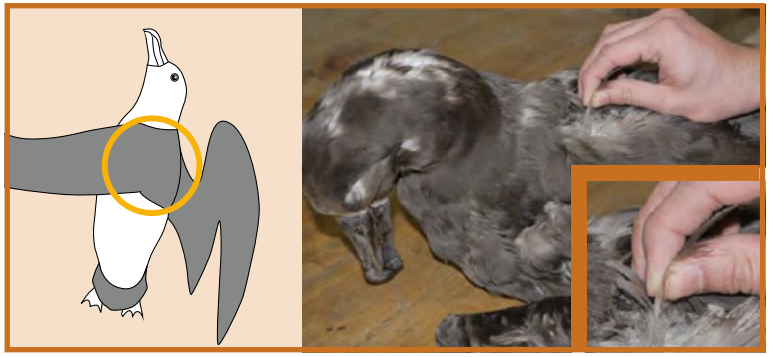
1. Details for ID label

VESSEL NAME	.....
DATE	DD / MM / 20YY
TIME	00:00 h to 24:00 h
LAT LONG	deg/min/sec deg/min/sec
FISHING METHODE	.....
ID NUMBER	01, 02, ...

2. Belly side view - pull two or three feathers from here



3. Back side view – pull two or three feathers from here



DO NOT CUT FEATHERS - PULL - DNA ANALYSIS IS DONE USING THE BASE OF THE FEATHER.

Posting samples

When posting, please place bagged feather sample inside a second ziplock bag with absorbent material and seal. Please then place this package inside a postage bag and seal. Postal requirements for samples will vary depending on the collection point destination.

Please post to: XXXXXXX

Modified from Seabird Identification Guide developed by the Agreement on the Conservation of Albatrosses and Petrels.