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**A BRIEF REVIEW OF THE CONSERVATION STATUS OF
SHEARWATERS *CALONECTRIS* AND *PUFFINUS***

Author: **Secretariat**

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A BRIEF REVIEW OF THE CONSERVATION STATUS OF SHEARWATERS *CALONECTRIS* AND *PUFFINUS*

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INTRODUCTION

In a review of all the members of the order Procellariiformes as potential candidates for inclusion within the Agreement on the Conservation of Albatrosses (ACAP), seven species of shearwaters of the genera *Calonectris* and *Puffinus* (Family Procellariidae) attained high scores that suggested listing would be warranted (Cooper & Baker 2008). This review contributed to the listing of the three species of North Pacific albatrosses of the genus *Phoebastria* within the Agreement at the Third Session of the Meeting of Parties, held in Bergen, Norway in April/May 2009 (Cooper *et al.* 2009).

To date the Agreement has expressed a level of interest in nominating shearwaters, with the Pink-footed Shearwater *Puffinus creatopus*, Balearic Shearwater *P. mauretanicus* and Cory's Shearwater *Calonectris diomedea* being specifically identified in the reports of several meetings. These three species are included within the suite of seven Mediterranean and southern hemisphere shearwaters previously identified as potential candidates for inclusion by Cooper & Baker (2008).

The conservation status of the 22 species of shearwaters is summarized here as an aid to discussion of their potential candidacy for listing within ACAP at the Fifth Meeting of the ACAP Advisory Committee, to be held in Mar del Plata, Argentina over 13-17 April 2010.

THE CONSERVATION STATUS OF THE WORLD'S SHEARWATERS

Largely following Brooke (2004), 22 species of shearwaters were recognized by Cooper & Baker (2008) within the genera *Calonectris* (three species) and *Puffinus* (19 species) (Table 1). Of these 22 species seven (32%) are considered globally threatened (two Critically Endangered, two Endangered and three Vulnerable) and four Near Threatened by BirdLife International (2009) on behalf of the World Conservation Union (IUCN).

MORTALITY FROM FISHING

Mortality of shearwaters in longline fisheries has been investigated in several parts of the World and for a number of species, notably the Flesh-footed Shearwater *P. carneipes* (Baker & Wise 2005) and for the three Mediterranean-breeding species (e.g. Cooper *et al.* 2003). Great Shearwaters *P. gravis* are caught on hooks in both the North and South Atlantic, as are

Sooty *P. griseus* and Short-tailed *P. tenuirostris* Shearwaters in the North Pacific (but more rarely for as yet unknown reasons in the southern hemisphere (Brothers *et al.* 1999, Cooper *et al.* 2000).

In the recent past Sooty and Short-tailed Shearwaters were killed in large numbers in North Pacific drift nets, but the global banning of high-seas drift nets has reduced this mortality (Tasker *et al.* 2000, Brooke 2004).

EXPLOITATION OF SHEARWATERS

Shearwaters are currently exploited for their eggs and chicks in a number of countries and regions where they breed (Warham 1996, Brooke 2004). Examples of ongoing exploitation, mainly now artisanal in nature and often not well-managed, include Australia (Short-tailed), Cape Verde Islands (Cape Verde Shearwater *C. edwardsii*), Chile (Pink-footed), Japan (Streaked *C. leucomelas*), New Zealand (Sooty), Tristan da Cunha, United Kingdom (Great) and Indian ocean islands (Wedge-tailed *P. pacificus*). In the past Manx Shearwaters *P. puffinus* were exploited for food in the Faeroe Islands and the United Kingdom, and probably elsewhere in its range, as were Cory's Shearwaters throughout the Mediterranean and Macaronesian islands.

CONCERTED PROGRAMMES TO IMPROVE THE CONSERVATION STATUS OF SHEARWATERS

Efforts are being undertaken both to study and improve the conservation status of shearwaters of a number of species and taxa in several countries. The following is a non-exhaustive list of projects currently or recently active.

The EU LIFE Yelkouan Shearwater Project

Operated by BirdLife Malta, this European Union LIFE Nature-funded project aims to reverse population declines and reduce future threats of the Yelkouan Shearwater *P. yelkouan* in Malta

(http://www.birdlifemalta.org/conservation/LIFE_project/).

Kia Mau te Titi Mo Ake Tōnu Atu (Keep the Titi Forever)

Run from the University of Otago, this project studies the exploitation of Sooty Shearwaters at their breeding sites in New Zealand (<http://www.otago.ac.nz/titi/>).

Pink-footed Shearwater

A collaborative group from Canada, Chile, Mexico and the USA is working together with the Juan Fernández Islands Conservancy to study and conserve the Pink-footed Shearwater (<http://www.pinkfootedshearwater.org/>).

Studies of Mediterranean shearwaters

The Population Ecology Group of the University of Barcelona in Spain studies seabird/fishery interactions of the Balearic Shearwater and biology of the Cory's Shearwater (<http://www.imedea.uib.es/natural/goi/seabirds/eng/4/41.html>).

Wildlife Tracking Project

Pink-footed, Sooty and Great Shearwaters are being tracked at sea by several projects as part of the collaborative Wildlife Tracking Project (<http://www.wildlifetracking.org/#>).

Short-tailed Shearwater

The Short-tailed Shearwater has been the subject of long-term demographic studies in Australia by a number of researchers.

LISTING OF SHEARWATERS WITHIN INTERNATIONAL TREATIES

Two shearwater species (Balearic, Appendices I and II, with a subsequent call for concerted and/or collaborative action and Pink-footed, Appendix I) are listed within the Convention on the Conservation of Migratory Species of Wild Animals (CMS). Migratory species that have been categorized as being in danger of extinction throughout all or a significant proportion of their range are listed on Appendix I of the Convention (http://www.cms.int/documents/appendix/cms_app1_2.htm#appendix_I).

Three shearwater taxa are listed by name in Appendix II of the The Convention on the Conservation of European Wildlife and Natural Habitats (the Bern Convention). They are the Little Shearwater *P. assimilis baroli*, the Manx Shearwater and the Yelkouan Shearwater. Although not specifically stated, it would seem that the Yelkouan Shearwater was considered conspecific with the Balearic Shearwater at the time of listing. Contracting Parties to the Bern Convention are required take appropriate and necessary legislative and administrative measures to ensure the conservation of the habitats of wild fauna species, especially those specified in Appendices I (deemed Specially Protected Species) and II (Protected Species), and the conservation of endangered natural habitats (<http://conventions.coe.int/Treaty/en/Treaties/html/104.ht>).

ACTION PLANS FOR SHEARWATERS

International and domestic action or equivalent plans and species assessments at varying levels of detail have been produced for a number of taxa of both globally threatened and non-threatened shearwaters. Taxa covered include the Balearic Shearwater (BirdLife International 2002, Gallo-Orsi 2003, Consejería de Medio Ambiente 2004, Grupo de Trabajo de la Pardela Balear 2005), Pink-footed Shearwater (COSEWIC 2004, CEC 2005, Sáez & Hodum 2007), Hutton's Shearwater *P. huttoni*, Kermadec Little Shearwater *P. a. kermadecensis*, North Island Little Shearwater *P. a. haurakiensis* and Buller's Shearwater *P. bulleri* (Taylor 2000a, Department of Conservation undated), Subantarctic Little Shearwater *P. a. elegans*, Flesh-footed Shearwater, Fluttering Shearwater *P. gavia*, Sooty Shearwater and Wedge-tailed Shearwater (Taylor 2000b) and Little Shearwater *P. a. assimilis* (Garnett & Crowley 2000). It should be noted that this is not considered an exhaustive list.

CALLS FOR ACTION

Calls to protect Mediterranean shearwaters from longline mortality have been made to the European Commission's Agriculture & Fisheries Council to adopt measures to reduce seabird mortality from longlining in European (including Mediterranean) waters, especially of Cory's, Balearic and Yelkouan Shearwaters. Additionally, the United Kingdom has supported the need for the European Commissioner for Maritime Affairs and Fisheries to develop and adopt an EU Seabird Plan of Action following the UN's Food and Agricultural Organization's best practice guidelines (<http://www.fao.org/fishery/ipoa-seabirds/en>) (see <http://www.acap.aq/latest-news/renewed-concern-expressed-about-the-mortality-of-european-seabirds-from-fishing-activities>).

A WAY FORWARD

It is suggested that the ACAP Advisory Committee considers how the conservation of shearwaters might be advanced by the listing of selected species within the Agreement. Cooper & Baker (2008) gave a high weighting (Table 1) to shearwaters that were killed on longlines as addressing this threat requires international efforts, to which ACAP is well-suited. Based on this approach the following nine species appear to be suitable candidates for further consideration.

Mediterranean and Macaronesian Regions

Cory's Shearwater *Calonectris diomedea*
Cape Verde Shearwater *Calonectris edwardsii*
Balearic Shearwater *Puffinus mauretanicus*
Yelkouan Shearwater *Puffinus yelkouan*

Southern Hemisphere

Wedge-tailed Shearwater *Puffinus pacificus*
Flesh-footed Shearwater *Puffinus carneipes*
Pink-footed Shearwater *Puffinus creatopus*
Sooty Shearwater *Puffinus griseus*
Short-tailed Shearwater *Puffinus tenuirostris*

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TABLE ONE

CONSERVATION STATUS OF SHEARWATERS *CALONECTRIS* AND *PUFFINUS*

Common name	Scientific name	IUCN status*	CMS status**	ACAP score***
Streaked	<i>C. leucomelas</i>	LC		8
Cory's	<i>C. diomedea</i>	LC		20
Cape Verde	<i>C. edwardsii</i>	NT		17
Christmas	<i>P. nativitatus</i>	LC		13
Wedge-tailed	<i>P. pacificus</i>	LC		18
Buller's	<i>P. bulleri</i>	VU		7
Manx	<i>P. puffinus</i>	LC		12
Yelkouan	<i>P. yelkouan</i>	NT		19
Balearic	<i>P. mauretanicus</i>	CR	I & II	17
Black-vented	<i>P. opisthomelas</i>	NT		9
Newell's	<i>P. newelli</i>	EN		9
Townsend's	<i>P. auricularis</i>	CR		7
Fluttering	<i>P. gavia</i>	LC		6
Hutton's	<i>P. huttoni</i>	EN		7
Audubon's	<i>P. lherminieri</i>	LC		12
Heinroth's	<i>P. heinrothi</i>	VU		8
Little	<i>P. assimilis</i>	LC		12
Sooty	<i>P. griseus</i>	NT		18
Short-tailed	<i>P. tenuirostris</i>	LC		14
Pink-footed	<i>P. creatopus</i>	VU	I	14
Flesh-footed	<i>P. carneipes</i>	LC		18
Great	<i>P. gravis</i>	LC		11

*CE = Critically Endangered; EN = Endangered; VU = Vulnerable; NT = Near Threatened; LC = Least Concern.

(<http://www.birdlife.org/datazone/species/index.html?action=SpcHTMLFindResults.asp&hdnAction=SEARCH&hdnPageMode=0&cboFamily=18&txtGenus=&txtSpecies=&txtCommonName=&cboRegion=-2&cboCountry=-2>).

** Convention on Migratory Species, Appendix I and II

(http://www.cms.int/documents/appendix/cms_app1_2.htm#appendix_I).

***After Cooper & Baker (2008).