Eighth Meeting of the Advisory Committee

Punta del Este, Uruguay, 15 -19 September 2014

Conservation Projects and Secondments Supported in 2013

Secretariat

1. CONSERVATION PROJECTS SUPPORTED IN THE 2013 FUNDING ROUND

Twenty-three project applications requesting a total of AUD 388,906 were received by the Secretariat in the 2013 funding round. Of those, 10 projects were approved by the Grants sub-committee and the AC and were granted a combined total of AUD 116,666, including AUD 9,000 allocated from Core Funds for two projects. For a description of the funds allocation process in 2013 see AC8 Doc 21. A summary of the projects supported in the 2013 round is provided below.

ACAP 2013-04 Multi-colony tracking of nonbreeding Black-browed Albatrosses* Thalassarche melanophris *from the Falkland Islands (Islas Malvinas)[1]: identifying key wintering areas and zones of overlap with fisheries

Project Leader: Dr. April Hedd (Contractor), Newfoundland, Canada

Co-investigators / collaborators: Dr. Paulo Catry, ISPA, Portugal; Dr. Richard Phillips, British Antarctic Survey, UK; Prof. William Montevecchi, Memorial University of Newfoundland, Canada

Funds Requested: AUD 15 000

FUNDS GRANTED: AUD 12 500

More than 70% of the world's Black-browed Albatrosses (BBA) *Thalassarche melanophris* breed at 12 sites within the Falkland Islands (Islas Malvinas)[1]. There are striking differences among birds from different islands in at-sea distribution during the breeding season and in the propensity to follow fishing vessels (Huin 2002, Granadeiro *et al*. 2011). Whether these differences persist during the winter is unknown, despite the implications for bird bycatch rates and hence population dynamics and conservation. Despite their currently favourable conservation status (Wolfaardt 2013; AC 7: PCSWG1 Doc 14), Favero (2013; AC 7: PCSWG1 Doc 09) reports that during the nonbreeding season, BBA utilising continental shelf waters off Argentina, Uruguay and Brazil, have the highest levels of fishery interactions of any ACAP-listed species and that large numbers of birds continue to be incidentally killed.

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[1] *"A dispute exists between the Governments of Argentina and the United Kingdom of Great Britain and Northern Ireland concerning sovereignty over the Falkland Islands (Islas Malvinas), South Georgia and the South Sandwich Islands (Islas Georgias del Sur e Islas Sandwich del Sur) and the surrounding maritime areas".*

By combining datasets collected across multiple colonies and years, this project will comprehensively identify key wintering areas of BBA from the Falkland Islands (Islas Malvinas)[1], including by population and by sex; information required to assess their overlap with, and vulnerability to, fisheries. Processed and filtered tracking data will also be contributed to the BirdLife International tracking database for further conservation applications. The long-term outcomes and benefits of this project, therefore, include significant improvement in the scientific basis for sound conservation and management of this globally significant population.

ACAP 2013-07 A population estimate of white-chinned petrel at Disappointment Island, Auckland Islands, New Zealand

Project Leader: David Thompson, National Institute of Water and Atmospheric Research Ltd, New Zealand

Co-investigators / collaborators*:* Kalinka Rexer-Huber, University of Otago; Bruce Robertson, University of Otago; Paul Sagar, National Institute of Water and Atmospheric Research Ltd.

Funds Requested: AUD 20 000

FUNDS GRANTED: AUD 16 00

In the southwest Pacific Ocean white-chinned petrel breeds at three New Zealand sub-Antarctic island groups: Antipodes, Campbell and Auckland islands. Very little is known about any aspect of these white-chinned petrel populations. A population estimate for any of the breeding sites at the Auckland Islands is currently lacking. The current IUCN status for white-chinned petrel is 'vulnerable' (www.iucnredlist.org), although there is ongoing discussion around whether this should be uplisted to 'endangered' (for example, see AC7 Doc 12).

The white-chinned petrel breeding population will be estimated using line-transect distance sampling (for example, Lawton et al. 2006, Barbraud et al. 2009). These data will ultimately form the basis for population trend monitoring, of direct relevance to threat classifications on both global and national scales. Furthermore, given that this species consistently constitutes a significant proportion of the observed and total estimated seabird bycatch in New Zealand fisheries, fundamental population size information is vital in order to better manage this seabird-fishery interaction.

ACAP 2013-09 Trial of mitigation measures to reduce seabird bycatch in demersal longliners of the Mediterranean Sea

Project Leader: Jacob González-Solís Bou, Universitat de Barcelona, Spain

Co-investigators / collaborators: Verònica Cortés Serra, Universitat de Barcelona

Funds Requested: AUD 19 985

FUNDS GRANTED: AUD 19 985

The impact of longlines on seabirds has been particularly serious for albatrosses and petrels of the Southern Ocean and the North Pacific, where it has been widely studied (e.g.,

Brothers et al 1999, Weimerskirch et al, 1997). However, in Mediterranean waters, a significant amount of bycatch also occurs, though it is not satisfactorily quantified (Cooper et al, 2003). The Mediterranean has a moderate, though relatively diverse, bird population, both in breeding and migratory species (Arcos et al, 2009). Altogether, the bycatch of 20 different seabird species has been detected (ICES, 2008). The relatively low seabird bycatch rates for industrial pelagic longliners recorded by the Spanish Oceanographic Institute on-board observer programmes are not comparable to the small demersal longliner fleet operating near the coast. There are no observers in this fleet, and more bycatch seems to occur in this longliners due to, among other reasons, the use of smaller hooks (Belda & Sánchez 2001, ICES 2008, Laneri et al, 2010).

The preliminary results of the study allowed us to verify that bycatch is an event occurring on a regular basis, though rare and fragmented in space, so its detection may be difficult. In fact, several massive mortality episodes have occurred (tens of individuals at the same time) in demersal longlines (ICES 2008, Arcos 2011, own data). It is inferred that the total number of bycatch taking place is not at all negligible and can compromise the viability of shearwater populations. The impact on the Balearic Shearwater is of particular concern, as it is an endemic species of the Balearic Archipelago and is rated as being Critically Endangered by the IUCN due to its extremely fast decline (-7.4% per year) and its reduced breeding population.

Therefore, this project's main objective is to design and test the effectiveness of different mitigation measures, based on our experience obtained during the follow-up of this issue in previous years. We intend to find effective measures adaptable to bottom artisanal longliners operating in the North-western Mediterranean Sea, in such a way that they are easy to implement, cost effective and widely accepted within the fishing community.

Specifically, we intend to evaluate the effectiveness and implementation viability of the following mitigation measures:

1. Night cast
2. Addition of weight and changes to the boat speed during cast
3. Use of chase-away devices, such as streamer lines
4. Use of artificial baits

All tests will focus on bottom longliners using a longline configuration with a greater bycatch risk and during the period of greatest interaction with birds. In addition, some trips will be made when trawlers are inoperative, because there is evidence that the absence of trawlers increases the probability of seabird bycatch in the longline.

Update:

Only the BSL in one demersal longliner from Llançà has been tested in May due to bad weather and low seabird bird attendance on some days. In general we registered more birds, attacks on baits and bycatch events in the experimental line than control. But on days with high bird attendance, we detected a change in bird behaviour after deploying the BSL. Birds were deterred from the BSL area of influence and moved further behind the boat. Stealing attempts occurred mainly in the limit or further behind the BSL. Despite the general effectiveness of the BSL, 7 birds were hooked while using the BSL. Moreover we detected some stealing attempts inside the area of influence of the BSL on a calm day. This result

could suggest the effectiveness of the BSL measure is limited to windy days. Further trials looking at hook sink rates are planned for June.

ACAP 2013-11 Comparative trials of Lumo Leads and traditional line weighting in the Brazilian pelagic longline fishery

Project Leader: Tatiana Neves, Projeto Albatroz, Brazil

Co-investigators / collaborators: Rodrigo Sant'Ana, Projeto Albatroz; Augusto Silva-Costa, Projeto Albatroz; Fabiana Peppes, Projeto Albatroz; Dimas Gianuca, University of Exeter; Oliver Yates, ATF, BirdLife International.

Funds Requested: AUD 10 000

FUNDS GRANTED: AUD 10 000

The use of bird scaring lines (torilines) is a widely used method for reducing seabird mortalities and baits losses (Yakota et al. 2011, Melvin et al. 2009a), but its efficiency in pelagic longline must be improved by combining it with adequate line weighting and/or night setting (Anderson and Macardle 2002, Petersen et al. 2008, Melvin et al. 2009ab, Robertson et al. 2010). The best weighting regimes recommended are those that make baited hooks reach at least 10 m deep while under the protection of a well designed and properly deployed toriline (~100 m aerial coverage) if the longline is set at 7-8 knots (Petersen et al. 2008, Melvin et al. 2009a). Experiments indicated that ≥ 60 g of lead weight placed no more than 3 m from the hooks is likely to achieve these sink rates under most operational conditions (Melvin et al. 2009b, Robertson et al. 2010, Gianuca et al. 2011) and 60 g placed within 0.5 m from the hook is recommended (Robertson et al. 2013). Despite effective results in reducing bycatch of albatrosses and petrels when the mitigation measures are properly used, their use is often dependant on the goodwill of fishermen as compliance with torilines and night setting is impossible to verify via port-based inspection.

In Brazil, the southern pelagic longline fleet commonly uses a 60-75 g leaded swivels at distances greater than 3 m (Gianuca et al. 2011). There is a resistance by the Brazilian fisherman to change traditional gear configuration. This reluctance results from a cultural notion that any alterations in the fishing gear might have a negative effect in the fish catch rates, specially of tunas (Anderson and Macardle 2002, Melvin et al. 2009a, b, Petersen et al. 2008, Gianuca et al. 2011). Another concern pointed out by the fisherman is the safety issue related to the proximity of the lead weight to the hook, since it might injure the fisherman in the event of a line break and fly-back.

Therefore, it is of great importance to show practically, to the fisherman, that measures exist that are a safer alternative to the commonly used method (Lumo Leads), with no apparent negative effect over the target species fish catch. Additionally, the use of a Lumo Lead would facilitate inspections to monitor compliance with the mitigation measure, since the bins in which the hooks are stored, could be checked very fast and easily.

The aim of the present proposal is to carry out research on board of the commercial longline southern Brazilian fleet, comparing the effective catch rates of target fish species and branch lines sink rates, between branch lines with 40 g Lumo Leads weight within 0.5 m of the hook, and 60 g Lumo Leads weight 3,5 meters away from the hook, against traditional line weighing method adopted by the fleet.

ACAP 2013-12 Identification of Balearic shearwater's foraging ranges in the north-eastern Atlantic: a multidisciplinary approach

Project Leader: Maite Louzao Arsuaga, Instituto Español de Oceanografía, Spain

Co-investigators / collaborators: José Manuel Arcos, SEO/BirdLife International; David García, SEO/BirdLife International (Spain), Henri Weimerskirch, CEBC-CNRS; Karine Delord, CEBC-CNRS (France); Amélie Boué, LPO/BirdLife International; Thierry Micol, LPO/BirdLife International (France)

Funds Requested: AUD 8 486

FUNDS GRANTED: AUD 8 486

The Balearic Shearwater *Puffinus mauretanicus* is rated as being Critically Endangered by the International Union for the Conservation of Nature and Natural Resources (IUCN), and thus this endemic species of the Balearic Islands is the most threatened seabird in Europe. The main current threats are caused by terrestrial predators and the fishing pressure (particularly longlines and other gears causing direct mortality).

The greatest part of the Balearic Shearwater population migrates after the breeding period to the North-eastern Atlantic, while some of them stay in the Mediterranean (Arcos 2011). The main objective of this project is to identify the migratory routes and the location of the main concentration areas.

To better determine the Balearic Shearwater's foraging ranges in the North-eastern Atlantic, the distribution information from geolocators and stable isotope data, both of the predator and its prey, can be jointly used.

The specific items to be addressed are:

(1) To determine the Balearic Shearwater wintering areas in the North-eastern Atlantic by means of geolocalisation and to study if these are recurrent year after year. (Recovery of previously deployed geolocator data. Feathers will also be collected to analyse stable isotopes to obtain information on feeding during the migratory period (summer/autumn 2013)).

(2) Pelagic prey isotopic maps: Are they useful for refining foraging ranges of the Balearic Shearwater in the North-eastern Atlantic? (Analysis of muscle samples and stable isotopes collected from the main pray (small pelagic fishes) along the North-eastern Atlantic).

ACAP 2013-17 Assessing the conservation Status of the Atlantic Yellow-nosed Albatross on Gough Island, Tristan da Cunha

Project Leader: Dr Juliet Vickery, Royal Society for the Protection of Birds, UK

Co-investigators / collaborators: Rob Crawford, Department of Environmental Affairs and Tourism, South Africa; Trevor Glass, Director, Tristan Department of Conservation, Tristan da Cunha.

Funds Requested: AUD 10 695

FUNDS GRANTED: AUD 10 695

The Objective of the project is to obtain a robust population estimate of Atlantic yellow-nosed Albatross (AYNA) on Gough Island, Tristan da Cunha (TDC). This will contribute to the generation of a global population estimate when linked to other work planned at Tristan da Cunha, Inaccessible and Nightingale. Obtaining a robust global overall population estimate for this species was identified as a high priority at the meeting of the Advisory Committee of the Agreement for the Conservation of Albatrosses and Petrels (ACAP) in April 2013.

Most AYNA nests on Gough are located on rugged and inaccessible terrain that prevents regular ground-based survey. The population will therefore be surveyed from sequential overlapping aerial photographs taken from a helicopter flying low altitude circuits over the island. The surveys will be conducted during the incubation period when nest occupation levels are at their highest (September/October). The population estimate obtained from photographs will be ground-truthed by an RSPB/TDC/DEA field survey team. The output will be an estimate of the total breeding AYNA on Gough Island in 2014.

ACAP 2013-20 Establishing capacity in South America to build knowledge on albatross and petrel health and prevent disease introduction

Project Leader: Marcela Uhart, University of California, Davis; Flavio Quintana, Centro Nacional Patagónico, CONICET, Argentina.

Co-investigators / collaborators: Esteban Frere, Global Seabird Programme, BirdLife International; Kirsten Gilardi, University of California, Davis.

Funds Requested: AUD 20 000

FUNDS GRANTED: AUD 20 000

Most albatross and large petrel species (hereafter albatross) are endangered and potentially immunologically naïve to infectious diseases due to geographic isolation, rendering them susceptible to opportunistic pathogens. Although few albatross species are currently known to be severely impacted by disease (Weimerskirch 2004), lack of information prevents a thorough and accurate evaluation of the potential impact of this emerging threat (ACAP BSWG4/STWG6 Doc 07, 2011).

Because albatross spend most of their life at sea and return to land only to breed, most commonly in remote locations, the impact of disease on this family of birds is both difficult to detect, and more critically, prevent. Together, remoteness and clustering converge in greatly restricting opportunities for detecting, controlling or mitigating a disease outbreak (Fraser et al. 2004), highlighting the importance of reducing the risk of disease introduction in the first place.

Human presence can inadvertently contribute to pathogen introduction and spread in otherwise secluded albatross strongholds. Biological monitoring of populations requires periodic visitation to breeding sites, during the short window of time when birds can be found on land. In addition, some colonies are increasingly subject to oftentimes unregulated public visitation. Therefore, to minimize the risk of disease introduction and transmission to albatross breeding grounds, our first objective is to develop a biosecurity protocol and best practices guidelines for use by researchers and visitors. Initially, these documents will be developed to target southern giant petrel (SGP) breeding sites in Argentina, a recommendation in Objective 1 of the recently approved National Plan for the Conservation of the Southern Giant Petrel (Secretaría de Ambiente y Desarrollo Sustentable de la Nación

Argentina, 2013). Once developed, the biosecurity protocol and best practice guidelines will be shared and transferred to ACAP parties in Ecuador and Chile, the two additional South America countries with ACAP species breeding sites, adapting both documents to local needs through in-person facilitation and assistance (see workshops below). Collaboration and sharing with Chile and Ecuador will be made upon request and only if the parties consider this a useful addition to their national plans. All site- and species-specific plans will then be presented to ACAP to encourage other countries to consider adapting these best practices to their specific needs.

The second objective of this proposal is to maximize scientific sampling from albatross and petrels incidentally caught in fisheries, by building capacity for standardized sample and health data collection and storage in South American countries. For this purpose, we will develop standardized health assessment protocols for by-caught albatross, which will be delivered through hands-on training targeting selected South American on-board researchers and on-board observer program leaders in Argentina, Uruguay and Brazil in the Atlantic, and Chile, Ecuador and Peru in the Pacific. Protocols and methods developed for this project will be ground-tested over two seasons, improved, and presented to ACAP for potential implementation in other parts of the world.

Training of field teams will take place through a set of hands-on teaching workshops. Furthermore, to ensure sustainability of efforts and monitor implementation over time, local wildlife veterinarians and pathologists will participate in these workshops in addition to project leads. Sample collection and storage kits will be distributed to participants, as well as data collection sheets, and other necessary materials. The outcome of these training sessions will be a team of properly equipped and well-connected personnel at each site, direct links to local and regional expertise, and a unique set of locally-adapted biosecurity plans for breeding colonies and health assessment protocols for fisheries observer teams.

See **PaCSWG2 Inf 01** for a report on the biosecurity protocol and best practice guidelines for southern giant petrel (SGP) breeding sites in Argentina.

ACAP 2013-23 Reducing incidental mortality of albatrosses and petrels in trawl fisheries in the Argentine Sea. A comprehensive approach for the conservation of threatened species

Project Leader: Guillermo Cañete, Fundación Vida Silvestre Argentina

Co-investigators / collaborators:

Funds Requested: AUD 20 000

FUNDS GRANTED: AUD 10 000

The long-term objective is to contribute to an ecosystem-based fisheries management in the country, contributing to an environmentally, socially and economically sustainable fishing activity that minimizes the impact on the ecosystem and vulnerable species. We will seek to produce technical knowledge that, based on the lessons learned from the focus group work, may be used by the authorities to develop a large scale project that may allow to broaden the scope of its implementation and reach most fishing vessels.

Firstly and facing the impossibility of covering the whole sector, the activities will focus on a focus group, formed by fishing companies having the longtail hake (*Macruronus magellanicus*) as target species. We will work with 8 companies having 20 factory vessels fishing in the South Atlantic, almost exclusively fishing a group of southern species, especially longtail hake.

The project includes the following specific objectives:

1) Evaluating the effectiveness and use of mitigation measures, mainly streamer lines.

The evaluation and recording of use and effectiveness of streamer lines as mitigation measures will be coordinated with the trawling protocol for monitoring seabird bycatch and incidental mortality conducted by the INIDEP Onboard Observer Programme.

2) Evaluation of the effect of strategic management of fishing discard on the abundance of birds associated with fishing operation and incidental mortality risk.

We will seek to define the characteristics of bird groups associated with fishing and the interaction level with the fishing gear, as a risk indicator based on the quality and quantity composition of discard.

3) Raising crews' awareness and promoting responsible fishing practices

This activity seeks to make direct stakeholders aware, initially those related to longtail hake fisheries as a focus group, on the conservation status of albatrosses and petrels in the ecosystem context of the Argentine Sea. Likewise, it seeks to promote the development of responsible fishing practices.

4) Monitoring the impact of fishing vessel activity on bycatch components.

We seek to have specially trained Observers onboard fishing vessels in order to check for the implementation of mitigation measures and facilitate contact with the crew, leveraging their knowledge and experience.

These objectives will be supplemented with the activities of the Marine and Coastal Research Institute (CONICET-UNMDP), aimed at defining the characteristics and spatial modelling of seabird-fisheries interactions.

ACAP 2013-15 Updating maps for ACAP listed species

Project Leader: Ben Lascelles, BirdLife International

Co-investigators / collaborators:

Funds Requested: AUD 4 000

FUNDS GRANTED: AUD 4 000

Species range maps are a critical component of capturing and communicating our understanding of a species distribution. They provide a simple and easily understandable summary of knowledge on species ranges and movements. As well as providing a useful communication tool, they are increasingly being used in conservation and marine spatial planning. Therefore ensuring range maps are up to date, and incorporate a cross section of the available information is vitally important.

Objectives: To update and improve range maps for all ACAP listed species (30 species; including 22 albatross and 8 petrel species).

We intend to source and integrate easily accessible data sources, and compile them into species range maps. This approach will provide a framework for future updates of species range maps, thus making it simpler to update them in the future. For species where there are significant changes in distribution during the course of the year, the development of animated maps (possibly gif files) will be explored.

ACAP 2013-16 Tracking data summary of ACAP listed species

Project Leader: Ben Lascelles, BirdLife International

Co-investigators / collaborators:

Funds Requested: AUD 5 000

FUNDS GRANTED: AUD 5 000

Tracking of seabirds has expanded exponentially over the last decade as devices have become smaller, allowing an ever increasing number of species to be studied. The at-sea movements and distribution of ACAP-listed species have been studied for many years.

Objectives: Summarise existing tracking data for ACAP-listed species, identify gaps in species, sites and/or life-history stages to provide priorities for future research.

A report presenting the results of this project has been submitted as **PaCSWG2 Doc 03**.

2. SECONDMENTS SUPPORTED IN THE 2013 FUNDING ROUND

Four secondment applications requesting a total of AUD 47,300 were received by the Secretariat in the 2013 funding round. Of those, one proposal with a high level of capacity building was successful and was granted AUD 11,600. For a description of the selection process in 2013 see AC8 Doc 25. A summary of the secondment supported in the 2013 round is provided below.

S 2013-10 "Overlap of breeding wandering albatrosses from South Georgia[1] and pelagic longline fisheries in the southwest Atlantic"

Secondee: Sebastián Jiménez, Dirección Nacional de Recursos Acuáticos, Uruguay

Host Institution: British Antarctic Survey, Natural Environment Research Council, United Kingdom

Funds Requested: AUD 11 600

FUNDS GRANTED: AUD 11 600

This project is part of the PhD research of Sebastián Jiménez. Preliminary analysis of tracking and fishing effort data has already been conducted. The aim of this secondment is to support a 3-month visit to BAS (Cambridge, UK) to receive further training in order to complete the analysis and write up the results as a paper for consideration at the next ACAP Bycatch working group meeting.

The population of wandering albatross *Diomedea exulans* at South Georgia (Islas Georgias del Sur)[1] is the third largest worldwide, and is showing a dramatic decrease [c. 4% per year since the late 1990s [1]. Given its global significance and high rate of decline, this is one of the five breeding populations that were identified by ACAP as priorities for conservation management at AC6. The decline is the result of high adult and juvenile mortality, suspected to result from bycatch in pelagic longline fisheries, particularly in the southwest Atlantic. Assessing overall bycatch risk directly from vessel-based studies is problematic because the species is relatively rare, bycatch rates depend on multiple factors (season, area, fishing practices, bird density-distribution, individual vessel characteristics etc.), and observer data are not available for many fisheries.

The use of tracking data can provide much improved resolution of the degree of overlap between birds and fisheries, and hence a much better understanding of spatio-temporal variation in the potential vulnerability to bycatch [5-7]. In this project we will use extensive tracking data from wandering albatross breeding at Bird Island, South Georgia (Islas Georgias del Sur)[1], to investigate their overlap with pelagic longline fisheries operating in the southwest Atlantic. The identification of the breeding stages, sex, areas and times of year when bycatch risk is greatest will be discussed in the context of better targeting of bycatch mitigation and monitoring of compliance, as high priority management tools.

Analysis will be of the movements of 263 breeding albatrosses of known age and sex tracked during 399 complete foraging trips using either Argos satellite transmitters (Platform Terminal Transmitters or PTTs) from 1990 to 2004, or by global positioning system (GPS) loggers from 2003 to 2012.

A report presenting the results of this project has been submitted as **SBWG6 Doc 17**.