

 <p>Agreement on the Conservation of Albatrosses and Petrels</p>	<p style="text-align: center;">Seventh Meeting of the Advisory Committee <i>La Rochelle, France, 6 - 10 May 2013</i></p> <p style="text-align: center;"><i>Summary of Projects Supported in 2012 and Progress Reports – AC Grants Programme</i></p> <p style="text-align: center;"><i>Grant Sub-Committee, Secretariat</i></p>
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1. PROJECTS SUPPORTED IN THE 2012 FUNDING ROUND

Nine project applications requesting a total of AUD 156,850 were received by the Secretariat in the 2012 funding round. Of those, five projects were approved by the Grants sub-committee and the AC and were granted a combined total of AUD 97,600. For a description of the funds allocation process in 2012 see [AC7 Doc 16](#). A summary of the five projects supported in the 2012 round is provided below.

ACAP 12-03 Seabird mitigation effectiveness of the Smart Tuna Hook in Tuna longline fishing

Project Leader: Barry Baker, Southern Seabird Solutions Trust

Co-investigators / collaborators: Graham Robertson, Australian Antarctic Division and Hans Jusseit, OceanSmart

Funds Requested: AUD 20 000

FUNDS GRANTED: AUD 20 000

The Smart Tuna Hook has been developed to prevent seabirds and turtles being caught during the setting of Tuna Long-lines. The system uses a modified tuna long-line hook, circle or Japanese style, which accepts a specially designed shield that disarms the hook once it has been baited. The steel shield, once attached to the baited hook creates a large 3 dimensional barrier encompassing the hook's point and barb, which prevents ingestion and making it impossible for any seabird or turtle to be hooked, internally or externally. The shield is easily and quickly snapped and held onto the baited hook by a clip that has a corrodible alloy link. The link causes the shield to be released within 15-20 minutes from the hook after immersion in salt water. The shield sinks to the seafloor where it corrodes within 12 months, leaving no pollution or toxic residue. The byproduct is iron oxide and carbon.

AUD 20,000 is sought to conduct an at sea trial / experiment setting 100,000 Smart Tuna Hooks and shields to demonstrate the efficacy of this measure in reducing seabird bycatch whilst maintaining catch of target species.

Successful pilot studies have shown the system is operationally effective and has no impact on efficient setting of gear. However, support and feedback from stakeholders indicates a larger trial under experimental conditions is warranted and justified before uptake and the

device is put into full commercial production. Work funded by this grant would be completed within 12 months

ACAP 12-04 Population demography and at-sea distribution of Sooty Albatross at the Prince Edward Islands

Project Leader: Peter G Ryan, Percy FitzPatrick Institute, DST/NRF Centre of Excellence, University of Cape Town

Co-investigators / collaborators: Robert JM Crawford and Azwianewi B Makhado
Oceans and Coast, Department of Environmental Affairs

Funds Requested: AUD 17 600

FUNDS GRANTED: AUD 17 600

There is scant information on demographic parameters such as breeding success, age at breeding, breeding frequency, recruitment and adult survival for the Prince Edward Islands Sooty Albatrosses. Furthermore, the at-sea distributions of juvenile Sooty Albatrosses from the Prince Edward Islands have not been determined. Information on demographic parameters and possible at-sea factors influencing the Sooty Albatross at the Prince Edward Islands is necessary in order fully to understand factors that may be driving the decrease in numbers at these islands.

We plan to establish a demographic study colony of up to 50 breeding pairs of Sooty Albatrosses at Marion Island. All breeding adults will be fitted with field readable darvic bands as well as individually numbered metal bands to obtain key demographic parameters (breeding frequency and success, adult survival). Fledglings will receive metal bands. Regular visits to nests from the early incubation stage through to fledging will ascertain their success or approximate stage at failure, following protocols used for monitoring Wandering and Grey-headed Albatrosses at Marion Island (Nel et al. 2003, Ryan et al. 2007). Multi-state capture-mark-recapture analyses to simultaneously estimate breeding frequency and survival will be used to analyse the data (e.g. Converse et al. 2009). Through the marking of birds and the daily monitoring of some nests (or data from geolocators during incubation and brooding), we can obtain data on incubation and brooding shifts, and perhaps foraging trip durations, that can be compared with data collected at Marion Island in the late 1970s (Berruti 1979).

Ideally we would like to deploy satellite tags on 15-20 Sooty Albatross chicks shortly before they leave Marion Island to gain information on their survival and movements at sea after fledging. Given the large cost of PTT satellite tags, this project may be spread over several years.

ACAP 12-06 NGO action in Santa Rosa, Ecuador to reduce bycatch of Waved albatross (and other seabirds) in artisanal longline fisheries

Project Leader: Jessica Hardesty Norris and George Wallace (American Bird Conservancy); Oli Yates and Esteban Frere (BirdLife International)

Co-investigators / collaborators: Jorge Samaniego (Aves y Conservación) and Andres Baquero (Equilibrio Azul)

Funds Requested: AUD 20 000

FUNDS GRANTED: AUD 20 000

This project aims to develop and test mitigation measures in the port of Santa Rosa that will help to reduce bycatch of Waved Albatrosses in fisheries along the coastline of Ecuador. The work will focus primarily on investigating and developing best practice mitigation measures for the artisanal demersal longline fleet. The project will also build support for seabird bycatch mitigation through community education and outreach, and provide information to government agencies to facilitate the adoption of broader guidelines for the conservation of seabirds.

The actions we propose here will contribute to the next steps in the implementation of the Waved Albatross Action Plan for Ecuadorian Fisheries.

In addition, though we believe the hake fishery presents an immediate threat to the Waved Albatross, we are also monitoring bycatch and gear changes in other fisheries. We are particularly interested in the fate of the Ecuadorian industrial trawl vessels, which are supposed to cease operations in mid 2012.

Specifically, we propose to:

Complete Line Weighting Trials: Completing these experiments in 2012 will provide valuable information on the catch rate of target and non-target species under control and alternative weighting regimes.

Chilean longline system: transfer of information could be beneficial for seabird conservation.

Complete Line Setting Trials for the “Medina” Setting System: Throughout 2012, we will run trials of the system in the Ecuadorian hake fishery, and measure the system’s effect on target catch rates, duration of set, and seabird interactions.

Evaluate the Conversions of Industrial Trawl Vessels to Hake Vessels and Develop Mitigation as Needed: We propose to evaluate this situation and propose strategic engagement with the fishermen and government agencies as appropriate.

Multi-organizational workshop to come up with joint recommendations: Our ultimate goal is to develop and disseminate a set of proven recommendations to the Ecuadorian government. To achieve this, we propose to host a joint meeting for the fishermen groups and ministries to review the mitigation devices we have evaluated, and determine the compatibility and advisability of their combination.

Develop and distribute Safe-release and Offal management flyer to key fisheries

ACAP 12-07 Tracking Juvenile Tristan Albatrosses at Gough Island

Project Leader: Ross Wanless, BirdLife South Africa

Co-investigators / collaborators: Peter Ryan, Percy FitzPatrick Institute, University of Cape Town and Richard Cuthbert, Royal Society for the Protection of Birds

Funds Requested: AUD 20 000

FUNDS GRANTED: AUD 20 000

Understanding movements of juvenile Tristan Albatrosses, and their relative exposure risk to longline fishing effort have been identified as a priority research gap by ACAP. At-sea

separation of Tristan and Wandering albatrosses is impossible, so tracking individual birds is the only option currently available for filling this gap. We plan to attach satellite tracking devices to fledglings at Gough Island. Recent tracking work on the ecologically very similar Amsterdam Albatross in the Indian Ocean has demonstrated that juveniles move further north than adults. This is of significant concern for the Tristan Albatross, because ICCAT has recently changed the area of application for its seabird conservation measure. The use of appropriate and effective seabird bycatch measures is only required for fishing south of 25°S. A clearer understanding of the proportion of time spent by juvenile birds will inform ACAP and BirdLife advocacy actions with respect to the area of application.

Additionally, a minority of adult Tristan Albatrosses spend their sabbatical year in the Indian Ocean (R Wanless unpublished data). Recent southward shifts in longline effort in the Indian Ocean Tuna Commission (IOTC) in response to the threat of piracy, as well as the recent development of a Taiwanese fresh tuna longline fishery in southern IOTC waters may pose significant additional threats to Tristan Albatrosses moving into the Indian Ocean. This tracking work will provide initial indications of the exposure of juveniles to these fishing fleets.

All data will be accessioned to the BirdLife International Seabird Tracking Database and will be made available for combined analyses.

ACAP 12-09 Assessing the impact of demersal trawl fisheries on seabirds in Uruguay

Project Leader: Andrés Domingo, Laboratorio de Recursos Pelágicos, Dirección Nacional de Recursos Acuáticos

Co-investigators / collaborators: Sebastián Jiménez, Martín Abreu and Rodrigo Forselledo, Laboratorio de Recursos Pelágicos, Dirección Nacional de Recursos Acuáticos and Proyecto Albatros y Petreles – Uruguay (NGO CICMAR)

Funds Requested: AUD 20 000

FUNDS GRANTED: AUD 20 000

A recent study on the impact of Argentina's demersal trawl fleet on seabirds (Favero et al., 2010) suggests that more than a thousand birds may be killed annually. Because Uruguay and Argentina share an Argentine-Uruguayan Common Fishing Zone, it is highly possible that there is a major problem in the Uruguayan fleet.

The project aims to determine whether the trawl fishery targeting hake in Uruguay is a problem for the conservation of albatrosses and petrels, and if so, identify environmental and operational variables affecting the capture or interaction of these species with the fishery and propose a testing strategy of mitigation measures commensurate with the situation.

We plan eight trips of approximately 10-15 days (~ 40 sets) each between November 2012 and October 2013. It is estimated ~ 320 fishing sets during these trips. During the trips we will make direct observations of the interaction of seabirds with trawl warps and record bycatch in the cables by observers trained and dedicated to perform these tasks.

The information obtained will be key for Uruguay to develop management actions in this fishery. The results will allow in the short-term the start of the testing of mitigation measures and in the medium and long term implementation of efficiency measures in the fishery, if the situation requires.

2. PROGRESS AND OUTCOMES OF PROJECTS SUPPORTED IN THE 2010-2011 FUNDING ROUND

Eight projects were supported during the 2010 - 2011 call for applications. Progress reports were sought in December 2012 using a standard form developed in previous years and were used to collate this summary of activities undertaken and outcomes achieved to date.

ACAP 2010-01 At-sea distribution of the WAAL and overlap with fishing fleets of the central Peruvian coast (Joanna Alfaro-Shigueto & Jeffrey C. Mangel, Pro Delphinus, Peru)

FUNDS GRANTED: AUD 11,500

Summary of activities/outcomes

FISHING EFFORT AT FISHING PORTS AND BYCATCH INFORMATION Using shore-based observers monitoring daily fishing activity we updated and expanded information on fleet fishing effort and fishing grounds for the small-scale gillnet and longline fleets of Salaverry and Chimbote. Data was collected from December 2010 to August 2011. Approximately 600 trips were recorded in Salaverry. Gillnet trips were the most frequent (86.3% of all trips; n=518) followed by the giant squid jig fishery with 8.0% (n=48) of trips and longlines with 5.7% (n=34). A total of 2,484 individuals of different species were reported captured, including sea turtles, mammals and seabirds. Gillnet fisheries had the vast majority of reported captures of endangered species, with 100% of the marine mammals and 95.7% of the sea turtles reported caught. The giant squid fishery (jigging) did not have any reported bycatch. Only one seabird, an unidentified albatross, was reported captured in a gillnet during the study.

DISTRIBUTION OF WEIGHTED SWIVELS AND AWARENESS WORKSHOPS Eight educational workshops with fishermen were conducted during the project in Pucusana, Salaverry, Chimbote and Callao, and ca. 300 fishing captains and crew attended. Over 4,000 weighted swivels were distributed in these ports. However, the demand was higher than expected and more fishermen approached staff members to equip their entire gear with weighted swivels. Unfortunately we could not accomplish that, but distributing more weighted swivels could be achievable in future projects. With the growing acceptance of their use by the longline fleets, it would be greatly beneficial to have weighted swivels made locally in an effort to reduce costs and make them more affordable to Peruvian fishermen.

ACAP 2010-03 Evaluating alternative approaches to predicting at-sea distributions and fisheries overlaps of ACAP species in Ecological Risk Assessments (Richard Phillips, British Antarctic Survey)

FUNDS GRANTED: AUD 7,200

Summary of activities/outcomes

A cash transfer for this project has not yet been requested.

ACAP 2010-04 Concluding six years of research on seabird bycatch reduction through modified discharge management regimes: Is batch discharge better than ad-hoc discharge from trawl vessels? (Johanna Pierre, Ministry of Research, Science and Technology, New Zealand)

FUNDS GRANTED: AUD 14,500

Summary of activities/outcomes

This project has now been concluded and the results have been published in:

Johanna P. Pierre, Edward R. Abraham, Yvan Richard, John Cleal, David A.J. Middleton. 2012. Controlling trawler waste discharge to reduce seabird mortality. *Fisheries Research* **131– 133**: 30– 38.

Abstract

Responsible fisheries management requires the consideration of fishing effects on ecosystems including non-target species. Extensive distributional overlap between fisheries and seabirds, and the attractiveness of the catch and fishery waste to foraging birds, leads to fatal interactions between seabirds and fishing gear. In a series of experiments, we have investigated measures for managing trawl processing waste to reduce seabird mortalities. Different fisheries generate different volumes of processing waste, and vessel capacities for holding this waste can vary significantly both within and between trawl fleets. Here, we compare seabird responses to discharging trawl fisheries waste ad hoc, as and when waste became available, with responses to discharging waste after holding periods of 30 min and 2 h. Using abundance as a proxy for the risk of mortality, we show that compared to discharging ad hoc, holding waste for two specified periods prior to discharge significantly reduces vessel attendance by small seabirds, and both small and large seabirds, respectively. Drawing on this study and our past work, we provide best practice guidelines for trawler waste management to reduce seabird mortality due to interactions with trawl warps. If the ideal approach of discharging waste only when fishing gear is out of the water is impossible, then discharging waste rapidly in maximally large batches, as infrequently as possible is recommended. Holding periods of 30 min to 8 h may be required to reduce the abundance of small species of seabirds attending vessels. For large seabirds, holding periods of 2–4 h are required, and 8 h holding periods are still more effective. Discharging waste as it becomes available is not recommended. Mincing processing waste can reduce the attendance of some seabird species at vessels, especially large albatrosses. However, holding waste is preferred, due to relative simplicity in the mechanics of dealing with waste, lower cost, and greater reductions in seabird abundance. Though developed on trawl fisheries, principles of these guidelines are applicable to any fishery discharging waste attractive to seabirds. While holding fisheries waste can minimise seabird captures on trawl warps worldwide, evidence-based management measures are still required to reduce seabird mortalities in trawl nets.

ACAP 2010-09 Internal Consultation Process for the Consolidation of the National Plan of Action for the Conservation of Seabirds in Peru (Elisa Goya, Instituto del Mar del Perú; Arturo Gonzáles Araujo, Dirección General de Extracción y Procesamiento Pesquero, Ministerio de la Producción).

FUNDS GRANTED: AUD 15,400

Summary of activities/outcomes

A cash transfer for this project has not yet been requested.

ACAP 2010-10 Defining high-risk areas in the Argentinean Continental Shelf: to which extent albatrosses and petrels interact with the Argentine high-seas commercial trawl fleet? (Sofía Copello and Juan Pablo Seco Pon. CONICET-UNMDP, Argentina).

FUNDS GRANTED: AUD 14,100

Summary of activities/outcomes

This project is a part of a wider one funded by the National Research Council of Argentina-CONICET and the National Agency for the Promotion of Science and Technology-ANPCyT). The activities for the whole project during 2011-2012 were as follows:

- 1) we tracked 11 Black-browed albatrosses (*Thalassarche melanophris*, BBA) using satellite telemetry (PTTs) during 2011-2012 non-breeding period
- 2) we took blood samples from adults BBA (n=32) and Cape petrels (*Daption capense*) (n=30) captured at-sea to the stable isotopes analysis
- 3) we made on-board censuses (50 sets, 17 days) to determine the interactions between BBAs and trawlers
- 4) we analysed the fishing spatial data gathered from the Vessel Monitoring System from Argentine fisheries (trawlers and longliners)

Objective (1): to analyse through complementary methodologies (stable isotopes, on-board data and satellite telemetry) the degree of interaction and incidental mortality of albatrosses and petrels with fisheries.

The distributions resulting from the SIAR isotope mixing models showed demersal fish as the main food source of BBAs (42%), followed by pelagic fish (26%), demersal longline offal (27%) and offal from pelagic longlines (5%). Tracked BBAs were distributed mostly in waters within the continental shelf of Argentina, Uruguay and southern Brazil; from 29° to 51°S. Two large areas, comprising ca. 90% of the core area (50% UD) were identified; one from the mouth of Rio de la Plata towards the E and SE reaching the shelfbreak, and another in El Rincón estuary and waters to the South. The BBA accounted for 54% of top predators attending this fleet. The species interact chiefly with the sonde cable and warp cables (>60% of total animal interactions).

Objective (2) to determine the degree of overlapping between the fishing fleets and albatrosses and petrels.

BBAs share core and focal areas with all fisheries (except with longliners). The utilization distribution overlap index between birds and vessels vary according to fleet, the highest

overlap was observed between BBAs and coastal ice-trawlers, followed by offshore ice-trawlers, freezer and double-beam trawlers

Objective (3) to define areas of high risk along the Patagonian Shelf where conservation measures should be prioritized.

We identified 31 areas of fishing management (1x1°) where conservation measure should be prioritized.

Objective (4) to transfer this information to the decision makers in the National Organizations in order to promote and facilitate the development, refinement and implementation of conservation measures

We presented the preliminary results in the workshop of the PAN-AVES Argentina (<http://www.ambiente.gob.ar/archivos/web/GTRA/file/Aves%20marinas/TALLER%20SEGUI MIENTO%20PAN%20AVES%20JUNIO%202012.pdf>)

ACAP 2010-11 Improving data collection on seabird incidental mortality associated with fisheries in South American observer programmes: Part II – year 2011 (Argentina, Brasil, Chile, Ecuador, Peru, Uruguay)

FUNDS GRANTED: AUD 10,000

Summary of activities/outcomes

A cash transfer for this project has not yet been requested.

ACAP 2010-13 Final on-shore development of 'hook-pod' to reduce seabird bycatch in pelagic longline fisheries (Ben Sullivan, BirdLife International).

FUNDS GRANTED: AUD 25,000

Summary of activities/outcomes

A progress report of this project was presented in 2011 in [SBWG4 Doc 10 Rev 1](#).

ACAP 2010-15 Estimates of the Waved albatross mortality in artisanal fisheries during the critical period of incubation (Jorge Samaniego, GSP BirdLife - Aves & Conservación, Ecuador).

FUNDS GRANTED: AUD 15,000

Summary of activities/outcomes

This project was directed at the artisanal demersal longline fleet targeting hake (*Merluccius gayi*). The study focused on confirming whether there are interactions and mortality of albatrosses and petrels in these fisheries, and if interactions are confirmed, on implementing mitigation measures.

Objective 1. Form a group of fisheries observers to accompany artisanal demersal longline fleets.

The observer team that carried out the project consisted of: 1 coordinator, 1 technical observer and three qualified observers. The team received specialized training, and in addition to the work of monitoring and observation, conducted environmental education activities and technical support to the artisanal hake fishing fleet.

Objective 2. Increase information on bird interactions, and specifically the Waved Albatross, with artisanal demersal longline fisheries.

We conducted a total of 118 observation trip, involving 12 fishing boats and 6 qualified observers. Additionally, monitoring was supplemented with a team of observers organized and led by the National Fisheries Institute, and another organized and led by American Bird Conservancy - Equilibrio Azul. In total, 80% of the Santa Rosa hake fleet was monitored.

- Low albatross presence in the fishing area from January to May and November to December: 2011: 3.68 ± 1.3 individuals, and 2012: 8.14 ± 1.5 individuals observed.
- High albatross presence in fishing area from June to October: 2010: 12.16 ± 1.5 individuals; 2011: 11.63 ± 1.6 individuals, and 2012: 11.78 ± 1.5 individuals observed.

In 2010, the estimated mortality was 60 ± 2.5 individuals during June to October. In 2011 and 2012 the team of observers and A&C / ATF did not report records of Albatross hookings or mortality in fishing operations with observers on board, but in conversations with fishermen, one captured individual was reported dead, and another injured. The Equilibrio Azul / ABC team reported the capture of 8 Waved albatrosses (2 were recovered dead and 6 were released alive) in 5 observed trips.

We recommend continued monitoring of hake fisheries in the months of greater presence of Waved Albatross (June to September).

Objective 3. Implement mitigation measures to reduce seabird mortality in the fisheries mentioned.

Technical teams and EA GSP / ABC, developed modified longlines and conducted testing to determine sink rates. Tests showed increased sink rate, fisherman showed no resistance to its use and the target fish size and number was not affected by the amended longline.

See also **SBWG5 Doc 55** for more information.