Agreement on the Conservation of Albatrosses and Petrels

Fifteenth Meeting of the Advisory Committee

Swakopmund, Namibia, 1 – 5 June 2026

Recent Small Grants and Secondments supported by the Advisory Committee

Secretariat

SUMMARY

The 2024 Secondments round opened on 16 September 2024 and was finalised on 10 January 2025. Two applications were received and both were successful. The total amount granted to the successful applicants was $31,567.

Application for the 2024 Small Grants opened on 17 September 2024 with proposal submissions due on 12 November 2024. Twelve applications were forwarded to the Secretariat by nine Parties, seeking $490,731 in total funding. Six projects were recommended for funding by the Grants Subcommittee. The total amount granted to the six successful applicants was $287,273. There was a delay with the Advisory Committee reaching consensus on the recommendations from the Grant Subcommittee and as a result applicants were not advised of the outcome of the round until 8 December 2025. New Zealand, the United Kingdom, Chinese Taipei and Abercrombie & Kent Philanthropy generously supported the Small Grants Programme with Voluntary Contributions which fully or partially funded five projects.

Successful 2024 Small Grants and Secondments proposals are listed on the ACAP website and are summarised in Sections 1 and 2 below.

Updates on progress with previous Small Grants (2023, 2020 and 2019 rounds) and Secondments (2022) which were still ongoing at the time of AC14 in 2024 are also provided, based on reports received.

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1. SMALL GRANTS SUPPORTED IN THE 2024 FUNDING ROUND

ACAP 2024-01: ***Estimation of bycatch of albatrosses and petrels in pelagic longline fisheries in the Atlantic and Indian Oceans.***

Project Leader: *José Carlos Báez. Instituto Español de Oceanografía IEO, España.*
Andrés Domingo. Dirección Nacional de Recursos Acuáticos DINARA, Uruguay.

Co-investigators: *Sebastián Jiménez. Dirección Nacional de Recursos Acuáticos DINARA, Uruguay*
Tatiana Neves. Projeto Albatroz, Brasil
Rui Coelho, Portuguese Institute for the Ocean and Atmosphere (IPMA), Olhão, Portugal. Centre of Marine Sciences of the Algarve (CCMAR). Univ. of Algarve, Faro, Portugal
Sven Kerwath. Department of Forestry, Fisheries and the Environment (DFFE), Cape Town, South Africa
María Lourdes Ramos, Instituto Español de Oceanografía IEO, España

FUNDS GRANTED: $21,700 (Partially supported by a Voluntary Contribution from the United Kingdom)

The Atlantic and Southern Indian Oceans are home to important breeding sites for albatrosses and petrels and are used by numerous species listed in the Agreement on the Conservation of Albatrosses and Petrels (ACAP). Tuna fisheries operating with pelagic longlines in both oceans are regulated by the International Commission for the Conservation of Atlantic Tunas (ICCAT) and the Indian Ocean Tuna Commission (IOTC). Both of these Regional Fisheries Management Organisations (RFMOs) have adopted resolutions to mitigate seabird bycatch in these fisheries (IOTC Res 23/07 and ICCAT Rec. 11-09).

To assess the impact of these resolutions on reducing the bycatch and mortality of albatrosses and petrels, a collaborative effort was undertaken involving researchers from various fleets operating across both oceans (Jiménez et al. 2020). A significant decrease in the standardised bycatch rate was observed from 2002-2008 and 2009-2011, with a further reduction in 2012-2016, as a consequence of the increased use of mitigation measures.

Despite this, there is still little information on the magnitude of bycatch and the effect these resolutions have had on bycatch mortality rates. The study showed compelling evidence that the wide-scale implementation of mitigation measures in commercial fishing can greatly reduce seabird bycatch over time. However, the data came from vessels with observers, where these measures are more likely to be used. On trips without observers, these measures are likely used much less, leading to higher seabird bycatch rates. Additionally, observer coverage for most longline fleets in ICCAT and IOTC regions is less than 5% of the fishing effort and is not distributed evenly across different areas or seasons. Compliance with bycatch mitigation rules is believed to be low when observers are not present.

ICCAT has recently developed a bycatch estimation tool (Babcock 2022). The application of this statistical toolbox allows for the semi-automated estimation of bycatch, using different models. The tool can be applied to data from observer programmes to estimate seabird bycatch in the South Atlantic Ocean and Southwest Indian Ocean.

Making these estimates requires a consideration of the coverage of observer programmes in relation to the total fishing effort, along with their spatial and temporal representativeness. The low observer coverage in the Atlantic and Indian Ocean tuna longline fleets, together with the low proportion of positive hauls, may lead to a misinterpretation of temporal trends. Bycatch data with a high proportion of zeroes require extensive sampling to accurately identify trends. Variability in the representativeness of fishing efforts, both temporal and spatial, could influence the annual estimates of bycatch rates. Increasing observer coverage in longline fisheries is crucial to gathering representative data for accurately quantifying bycatch and obtaining reliable bycatch rate estimates. This proposal aims to re-collect the observer data from Brazil, Portugal, South Africa and Uruguay, update them and incorporate the data from the pelagic longline observer programme in Spain. This would increase the coverage and representativeness of the data used to estimate bycatch.

The proposal is to organise a workshop with researchers from Brazil, Spain, Portugal, South Africa, and Uruguay, where databases can be consolidated and data analysis conducted collaboratively. The main objective will be to estimate the bycatch of seabirds in pelagic longlines for the South Atlantic and Southwest Indian Oceans (south of 25°S), using the "Bycatch Estimation Tool" (Babcock 2022).

ACAP 2024-02: ***Developing seabird bycatch mitigation options for the Mahi-mahi surface longline fishery in Peru***

Project Leader: *Ana Alegre Norza Sior, PhD, head Área Funcional de Recursos Trans zonales y Altamente Migratorios, Instituto del Mar del Perú (IMARPE).*

Co-investigators: *Javier Quiñones Davila, Jairo Calderon, Cynthia Romero, & Gersson Roman, IMARPE, Callao.*
Igor Debski & Johannes Fischer, Department of Conservation, Wellington, New Zealand.
Dave Goad, PhD, contractor for the Department of Conservation, Tauranga, New Zealand.

FUNDS GRANTED: $65,300 (Partially supported by a Voluntary Contribution from Abercrombie & Kent Philanthropy)

The waters off northern Peru form an important part of the range of Waved Albatross (*Phoebastria irrorata*) from Galapagos, the non-breeding range of Black Petrel (*Procellaria parkinsoni*) and Salvin's albatross (*Thalassarche salvini*), and White-chinned petrel (*Procellaria aequinoctialis*) from New Zealand and the migratory pathway of Pink-footed Shearwater (*Ardenna creatopus*) from Chile. All these ACAP-listed species are known to be highly susceptible to bycatch in longline fisheries.

The mahi-mahi (*Coryphaena hippurus*) is a highly migratory epipelagic species, restricted to oceanic waters and distributed from 40°N to 40°S. The artisanal Mahi-mahi fishery is distributed in the whole Peruvian coastline from the boundary with Ecuador (03°23'S) until the boundary with Chile (18°20'S) and from October to April with a clearly spatio-temporal dynamic, being exclusively captured by the artisanal fleet.

Currently the Peruvian Mahi-mahi fishery is the second most important artisanal fishery in Peru, representing more than 40% of the world catch since 2000 (FAO, FishStat 2024). Peru's socioeconomic activity is greatly impacted by the mahi-mahi fishery, which provides thousands of jobs and fresh and frozen products for human consumption directly and indirectly.

The nature of the gear configuration used in this fishery results in baited hooks potentially being available to seabirds close to the surface during the entire fishing period, thus posing bycatch risk. According to the onboard forms and to some people involved in the mahi-mahi fishing activity, the highest interaction is not during the shooting (deployment) or during the hauling, with the soaking time being the period where more bycatch occurs. This makes sense, since the snoods remain close to the surface, and in this project we intend to test this assumption. As such, seabird bycatch mitigation options targeted only at deterring birds during the setting period may not be adequate to minimise seabird bycatch in this fishery. Because baited hooks are purposefully set in surface waters in order to target the catch of Mahi-mahi, there is reluctance by operators to change the target fishing depth as it is assumed this would impact target catch.

The ultimate goal of this project is to reduce the bycatch of seabird species, with a focus on the critically endangered waved albatross, and other vulnerable species such as the Salvin's albatross, black petrel, pink-footed shearwater, among others.

Initially, we aim to characterize seabird interactions at seasonal scales, by means of identifying the species composition that most interacts with the mahi-mahi fishery in northern Peru. We aim to identify in which specific moment of the operability (deploying, soaking and hauling) the interactions takes place, and in which part of the gear (entanglements with the mother line or snoods, eating the baited hooks, among others).

According to the initial characterization, we will test the most feasible and effective bycatch mitigation options to reduce the availability of baited hooks to birds. We will test a suite of affordable mitigation measures to ensure its implementation by the low income mahi-mahi artisanal fishermen.

ACAP 2024-04: Safeguarding White-chinned Petrels on New Island Through Localised Predator Control

Project Leader: *Ross James, Biosecurity & Invasives Manager, Falklands Conservation*

FUNDS GRANTED: $18,873 (supported by a Voluntary Contribution from Abercrombie & Kent Philanthropy)

The breeding colony of White-chinned Petrels *Procellaria aequinoctialis,* (WCP) on New Island (ACAP breeding site and IBA) is significant due to its geographic isolation from other WCP breeding sites in the region – the next closest site being 250 km away. The WCP population on New Island has experienced dramatic declines over the past two decades, with the number of breeding pairs falling from an estimated 30-50 to near extirpation. In 2022 only nine burrows remained in suitable condition to support breeding. Without immediate intervention, the probability of recolonisation following local extinction is extremely low, making it essential to act now.

Trail cameras placed in the WCP colony since 2022 show the area is well used by feral cats, rats and mice, with feral cats observed regularly patrolling the area and putting their heads inside burrows. This project aimed to implement localised predator control to safeguard the WCP population on New Island until the planned full-scale invasive mammal eradication in June 2027. Funding supported staff time for trap deployment, monitoring, maintenance, and data collection throughout the breeding season.

Summary of activities/outcomes:

Targeted predator control and monitoring were implemented at the (WCP) colony during the 2025/26 breeding season with six smart live-capture traps and five trail cameras deployed. In addition to cat captures, a number of rats were also caught opportunistically in traps. Camera data confirmed continued pressure from invasive predators, including both cats and rats entering WCP burrows.

WCP activity was recorded on three cameras until late February 2026 (last detections on 19th, 21st and 27th February). By mid-March, all monitored burrows appeared to be abandoned, although failure dates for two burrows could not be confirmed due to camera malfunction.

The removal of 20 cats over the breeding season represents a significant localised reduction in cat presence, and no direct evidence of cat predation was recorded on trail cameras during the monitoring period. Rodent predation may remain a significant limiting factor for breeding success, even where cat pressure is reduced.

These findings will help inform future management and the design of integrated interventions ahead of planned island-wide eradication.

In addition to predator control, habitat restoration actions were undertaken at the end of the season, including planting tussac grass around the periphery of the colony. This work is expected to contribute to longer-term improvements in habitat quality, soil stability, and suitability for burrowing seabirds.

ACAP 2024-07: ***Contemporary range-wide Grey-headed Albatross satellite tracking***

Project Leader: *Cristián G. Suazo, Albatross Task Force – Chile, BirdLife International.*

Co-investigators: *Luis Adasme, Departamento Evaluacion de Pesquerías*

Cristóbal Anguita, Universidad de Chile

Luis A. Cocas, & Marcelo García, Subsecretaría de Pesca y Acuicultura en Chile

Azwianewi Makhado & Makhudu Masotla, Department of Forestry, Fisheries, and the Environmental Affairs

Peter Ryan, University of Cape Town

*Christophe Barbraud, & Karine Delord, Centre d'Etudes Biologiques de Chize **

Richard Phillips, British Antarctic Survey

Olivia Rowley, Igor Debski, & Johannes Fischer, New Zealand Department of Conservation

FUNDS GRANTED: $113,600 (Partially supported by a Voluntary Contribution from New Zealand)

The Grey-headed Albatross is a circumpolar, highly migratory species that encounters a range of threats at at-sea (predominantly bycatch) as well as land-based threats at a few breeding sites. Consequently, the species is listed as Endangered on the IUCN Red List and on Annex II of the CMS. Recent studies on South Georgia (Islas Georgias del Sur)[1] and Campbell Island, New Zealand, have shown ongoing and severe declines at these colonies (-76% since 1984 and -94% since 1945 respectively), indicating widespread impacts of a combination of bycatch, and changing climate and oceanography, as both island groups are free of invasive species. South Georgia (Islas Georgias del Sur)[1] and Campbell Island hold ~13,400 (24% of world population) and ~4,700 breeding pairs (8%) breeding pairs, respectively, but other key Grey-headed Albatross breeding sites hold large populations as well, including, Islas Diego Ramírez (~18,400; 32%), Marion Island (~7,500; 13%), Crozet (~6,300; 11%), and Kerguelen (~6,500; 11%), some of which show relatively stable population trends.

Within the last two decades, tracking efforts of Grey-headed Albatrosses has been largely limited to short-term, high-resolution GPS logger deployments, and long-term, low-resolution GLS logger deployments at a select number of sites. Most of these were collected prior to the public availability of high-resolution AIS data on movements of individual vessels from known flag states via Global Fishing Watch (GFW). Hence, more recent, high-resolution tracking data would allow us to identify the extent of fine-scale overlap (or absence thereof) of each Grey-headed Albatross population with different fishing fleets in areas under fisheries management by five ACAP parties (Chile, France, New Zealand, South Africa, and United Kingdom), as well as the high seas. This information would also enable us to link population trends to implicit bycatch risk, and ultimately, identify key fleets for targeted engagement to ensure the implementation of best-practice mitigation. Consequently, we jointly propose a contemporary, range-wide GPS-Argos tracking study of Grey-headed Albatrosses from all three ocean basins in which this species breeds.

Specifically, we here jointly apply for an ACAP small grant to obtain funds to:

- Support ACAP parties with limited resources for albatross species monitoring for island groups in which Grey-headed Albatrosses breed to organise field visits (e.g., a visit to Islas Diego Ramírez, Chile) and;
- Purchase novel satellite-tracking devices (Druid YAWL C2, which enable ~hourly GPS-level fixes to be transmitted through satellite at a lower cost than other transmitters), and funding of satellite transmission costs to support various existing long-term fieldwork programmes throughout the range of Grey-headed Albatrosses.

All tracking data will be directly transmitted to a bespoke platform that will be accessible to all collaborators. New Zealand is willing to provide leadership on analyses of fisheries overlap using data obtained from Global Fishing Watch in direct collaboration with all participants (e.g., The GFW-Chile Agreement). Overlap analyses will be conducted following established protocols (e.g., Joint SBWG12/PaCSWG8 Doc 7). After analyses, all tracking data will be uploaded to the BirdLife International Seabird Tracking Database.

[1] A dispute exists between the Governments of Argentina and the United Kingdom of Great Britain and Northern Ireland concerning sovereignty of 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.

The proposed research leverages support from existing, long-term fieldwork programmes, which in combination with funding from the ACAP Small Grant programme, could initiate one of the largest contemporary albatross tracking studies for one of the most threatened ACAP species and thus has the potential to provide significant advances in the knowledge required to reverse current declines.

***** Due to delays with finalising the 2024 Small Grants round, tracking from Crozet and Kerguelen Islands could not be undertaken in the 2025/26 season and is no longer possible for the 2026/27 season.

ACAP 2024-09: Support for ACAP Best Practice Implementation through Port-based Outreach in the Pacific

Project Leader: *Dr Stephanie Borrelle, BirdLife International, Suva, Fiji*

Co-investigators: *Tiffany Plencner, Department of Conservation, New Zealand*

FUNDS GRANTED: $57,200 (Partially supported by a Voluntary Contribution from Chinese Taipei)

In 2017, BirdLife International (BLI) established a Port Based Outreach (PBO) program in Suva, Fiji. This program focuses on promoting ACAP best practice seabird bycatch mitigation and compliance in the Western and Central Pacific Fisheries Commission (WCPFC) convention area. Though the use of seabird bycatch mitigation measures is mandatory when fishing south of 25°S under the Conservation and Management Measures (CMMs) of the WCPFC, enforcement remains a challenge. Many vessel operators are either unaware of the regulations or cite cost and logistical difficulties as reasons for non-compliance. The PBO program's direct engagement with captains and crews helps bridge this gap by providing hands-on training and ensuring that vessel operators have access to the necessary tools and knowledge to comply with Regional Fisheries Management Organization (RFMO) requirements. During our programme, we have targeted Chinese-flagged vessels as a priority for outreach. Similarly, the program has engaged with a significant portion of the Fijian longline fleet. There are three components of the PBO that we are requesting funding for as follows:

1) One of the key challenges identified by the PBO program is the difficulty in sourcing materials to make compliant tori lines locally. To address this challenge, in 2018 BLI established a local women's group in Suva to construct tori lines for the program. Each participant of the women's group has received training, funding, and materials from the New Zealand Government and BLI to construct the tori-lines. BLI imports high-quality materials from New Zealand, ensuring that they are durable, effective, and meet international technical standards. As the cost of purchasing tori lines was often cited as a deterrent for vessel operators, BLI makes them freely available to vessels fishing south of 25°S. This change significantly increased uptake, as vessel operators are now more willing to use tori lines when there is no associated financial burden. Now, when operators we have engaged with plan for their vessels to fish south of 25°S, they are approaching the PBO officer for tori lines to equip their vessels (the vessels sometimes offload the tori lines when they are not fishing south of 25°S).

2) A significant portion of the vessels targeted by the PBO are flagged to China, with many of the captains and crew members speaking little to no English. This language barrier has been a notable challenge in effectively communicating the importance of seabird bycatch mitigation and ensuring that vessel operators understand the legal obligations under RFMO regulations. By employing translators, the PBO officer can more effectively convey critical information during vessel visits, ensuring that non-English-speaking captains and crew members fully comprehend the technical aspects of bycatch mitigation tools. Further, we are identifying vessels to trial line weighting sets on their vessels and Hookpod trials, with translators, guidance can be given more clearly on technical aspects when challenges arise without 'lost in translation' issues. Additionally, providing materials and training in the crew's native language fosters better compliance and cooperation, as vessel operators are more likely to adopt best practices when they fully understand their significance.

3) Through the work of the Department of Conservation (DOC), Aotearoa New Zealand, tracking ACAP listed species to assess fisheries interactions, Vanuatu flagged vessels have been identified as a priority fleet for engagement. However, vessels that are flagged to Vanuatu rarely visit Port Vila, instead offload and resupply in Taiwan or via transhipping. This makes accessing these vessels challenging. In collaboration with the Vanuatu Ministry of Fisheries, DOC New Zealand and BLI will provide a pilot training workshop for the Vanuatu Vessel Inspectors on seabird bycatch mitigation inspections. The workshop will include hands-on instruction for inspectors on the technical aspects of ACAP best practice bycatch mitigation measures to record, along with outreach strategies to engage vessel operators in adopting these practices.

ACAP 2024-12: Ecological risk assessment of hake trawl fisheries in Argentina

Project Leader: *Lic. Maximiliano M. Hernandez, Universidad Nacional de Mar del Plata, Argentina.*

Co-investigators: *Dr. Juan Pablo Seco Pon, Dra. Sofía Copello, & Dr. Marco Favero, Instituto de Investigaciones Marinas y Costeras, Universidad Nacional de Mar del Plata - CONICET (Consejo Nacional de Investigaciones Científicas y Técnicas), Argentina*

Dra. Jesica Paz, CONICET, Argentina.

Lic. José Luis Flaminio, Instituto Nacional de Investigación y Desarrollo Pesquero (CONICET), Argentina.

FUNDS GRANTED: $10,600

The southwestern Atlantic Ocean, and the continental shelf and the slope of the Argentine Continental Shelf within it, is considered one of the most productive marine areas in the world. Its productivity is largely driven by nutrient-rich waters from the Falkland Current (Corriente de Malvinas) and the creation of numerous ocean fronts. These conditions encourage the growth of phytoplankton and zooplankton, which in turn support large populations of fish, crustaceans, and squid. These resources are exploited by a large number of top predators, which leads to high biodiversity, endemism and a large biomass of marine megafauna. Additionally, a number of fishing fleets gather in these areas to exploit the same resources. Trawl fleet predominates, both in the number of vessels operating and

in the volume of catch it brings in. In Argentina, commercial fishing activity is focused primarily on the Argentine hake (*Merluccius hubbsi*) as the main target species, both in terms of capture volume and the economic revenue generated from its export (MAGYP 2012). In Argentina, the hake population is geographically split into three management units (stocks). Two of these, under national jurisdiction, are divided by the 41ºS parallel, from this point forward referred to as the northern or southern unit of 41ºS. The third unit is located in the waters of the San Matías Gulf and is under provincial jurisdiction. In the northern unit, under the Treaty of the Río de la Plata and its Maritime Front (http://ctmfm.org/)), Argentina and Uruguay jointly exploit a Common Fishing Zone between 34ºS and 39º30'S, while the southern unit is exclusively exploited by Argentina (Bezzi et al. 2004, Tringali 2012). However, these stocks have dynamic boundaries, meaning fisheries may be exploiting multiple stocks simultaneously.

Previous studies have documented the impact of trawl fisheries on seabirds in the Southern Hemisphere, particularly in the waters of the southwestern Atlantic. Despite the significant role played by the trawl fleet in terms of size (around 800 vessels), catch, and discards, as well as the potential impact of fishing operations on top predators (especially seabirds), interactions of seabirds with the trawl fleet targeting hake and the associated incidental mortality have not been thoroughly analysed or characterised.

This project aims to conduct an ecological risk assessment of the interactions of seabirds with the trawl fleet targeting hake in national waters. Taking interaction as a proxy for seabird incidental mortality risk, the project will analyse this fishery's impact on the sustainability of affected seabird populations. To achieve this, a level 2-type or semi-quantitative assessment is proposed, using a Productivity-Susceptibility Analysis (PSA) on a curated dataset based on standardised onboard observer records collected by the National Institute for Fishery Research and Development's (INIDEP) National Onboard Observers Programme (PNOB), documenting the interactions of seabirds with the demersal trawl fisheries targeting hake.

2. SECONDMENTS SUPPORTED IN THE 2024 FUNDING ROUND

S2024-01: ***Expert training in spatial data analysis to assess the impact of fisheries on the behaviour of threatened seabirds in the Argentine-Uruguayan Common Fishing Zone.***

Secondee: *Jesica Andrea Paz, Instituto de Investigaciones Marinas y Costeras (IIMYC, Facultad de Ciencias Exactas y Naturales, Universidad Nacional de Mar del Plata - Consejo Nacional de Investigaciones Científicas y Técnicas), ARGENTINA.*

Host Institutions: *BirdLife International Marine Programme and British Antarctic Survey, UNITED KINGDOM.*

FUNDS GRANTED: $18,867

Summary of activities/outcomes:

The Río de la Plata and its associated coastal zone are located within the Southwestern Atlantic, a region considered extremely important in terms of fisheries. This is mainly due to the convergence of freshwater and seawater, which creates a highly productive and physically complex coastal zone. Various species of pelagic seabirds use these areas to feed, including local breeders and migrants.

Since 1973, the Treaty of the Río de la Plata and its Maritime Front has established the basis for cooperation between Argentina and Uruguay, creating the Joint Technical Commission of the Maritime Front (CTMFM). In addition, the Treaty establishes and delimits the Argentina-Uruguay Common Fishing Zone (ZCP), where mainly coastal and offshore fleets operate, covering the waters of the outer maritime front of the Río de la Plata. The high concentration of vessels in the ZCP provides a food source that attracts various species of seabirds, potentially increasing the likelihood of interaction and incidental mortality. There are currently three action plans focused on reducing seabird-fishing interactions in the region (National Action Plan to Reduce Seabird-Fishing Interactions in Argentina [PANaves-Argentina] and Uruguay [PANaves-Uruguay], and the Regional Action Plan in the area of the Treaty of the Río de la Plata and its Maritime Front [PARaves]).

The overall objective of this proposal was to contribute to the implementation of national and regional action plans by providing information on the spatial distribution of seabirds and the factors influencing their interactions with vessels. This was achieved following specialized training in spatial data analysis through the Marine Program of BirdLife International and the British Antarctic Survey, under the guidance of Mr. Sc. Oliver Yates, Dr. Ana Carneiro, and Prof. Richard Phillips.

Specific objectives:

1. Gain experience in the use of tools and new techniques in spatial statistics and modeling, fostering collaboration with scientists from other ACAP Parties.

2. Determine the effect of spatially explicit fisheries management measures in the ZCP on the distribution, behavior, and interaction of seabirds with commercial fishing vessels, in collaboration with the CTMFM and Uruguayan colleagues.

3. Provide input to national and regional fisheries management agencies to better understand the dynamics of these interactions and develop fisheries management practices and bycatch mitigation measures under current action plans.

The results obtained were as follows:

1)

a) I gained experience in using tools for spatial data analysis. Statistical packages from the open-source R software were used (adehabitatLT, adehabitatHR, sf, raster, dplyr, lubridate, tidyr, purr, tibble and stringr).

b) I gave a presentation on my research work in Argentina and the objectives to be achieved during my stay in the United Kingdom. This facilitated exchange with the researchers.

2)

I worked with a satellite tracking database (GPS and PTTs) for four species of seabirds: Black-browed Albatross (*Thalassarche melanophris*), White-bearded Petrel (*Procellaria aequinoctialis*), Black-headed Shearwater (*Ardenna gravis*) and Wandering Albatross (*Diomedea exulans*). A temporal regularisation of the birds' positions was carried out to obtain locations every hour and standardise the database; the proportion of time spent within the ZCP was then determined in comparison with the entire Argentine fishing zone. In turn, filters were applied to the different fleets operating in the area (data provided by the Secretariat of Agriculture, Livestock and Fisheries), allowing fishing activity to be selected by area and period, in relation to the birds. A KernelUD density analysis was then carried out by species and by fleet on a monthly and quarterly basis. Subsequently, the extent of the overlap and the area where it occurs were identified.

3)

The results of this project were presented at:

The workshop of the CTMFM's PAR Seabirds Working Group, held on 13 and 14 August 2025 in Buenos Aires, Argentina. The workshop was attended by researchers from Argentina and Uruguay, as well as staff from Argentina's Undersecretariat for the Environment and the Secretariat for Agriculture, Livestock and Fisheries.

The 12th National Conference on Marine Sciences, 20th Oceanography Colloquium, held from 1 to 5 December 2025 in Puerto Madryn, Argentina.

In both cases, this information was also shared via our working group's networks (link 1, link 2).

There was an active transfer of the skills acquired to members of the research group to which I belong (Marine and Coastal Bird Ecology and Conservation Group, IIMYC)

I am currently working on a manuscript based on this training, and technical reports are being prepared for submission to government bodies such as the Undersecretariat of the Environment and the Secretariat of Agriculture, Livestock and Fisheries of Argentina, as well as for the Technical Advisory Group of PAN-Aves and PAR-Aves.

Secondee's report translated from Spanish using DeepL.

See also ***Joint SBWG13/PaCSWG9 Inf 09:*** *Zonas de riesgo para aves marinas pelágicas en la Zona Común de Pesca Argentina – Uruguaya*

S2024-02: ***Assessment of mercury and isotope accumulation in seabirds as bioindicators of environmental pollution***

Secondee: *María Andrea Meza Torres, Instituto del Mar del PERÚ.*

Host Institution: *Laboratoire LIENSs, La Rochelle Université, FRANCE.*

FUNDS GRANTED: $ 12,700

Seabirds have increasingly been used as indicators of environmental health. Seabird feathers are a valuable tool for monitoring exposure to heavy metals, as toxic elements build up in them during the individuals' growth and development, providing insights into the environmental conditions they face. The Peruvian Marine Research Institute (IMARPE) has collected samples of albatross and petrel feathers during its coastal monitoring activities of stranded marine fauna. However, it is essential to enhance knowledge and build capacity in this field, understand the tools and technologies needed for proper processing, and analysing samples in an adequate manner.

This Secondment aims to build capacity in implementing methodologies for assessing the accumulation of heavy metals in seabirds and its effects on their development through the analysis of feather samples collected from albatrosses, petrels, and shearwaters found stranded along the Peruvian coast.

General objectives

- Assess the relationship between the presence of mercury and isotopes (nitrogen and carbon) and their impact on the health of these species.
- Enhance the knowledge of pollutant data collection methodologies in seabird feathers and link that data to seabird health.
- Explore new tools to optimise the information gathered from seabird feathers.
- Provide data to support seabird conservation and inform environmental management efforts.
- Promote collaboration between institutions to foster joint projects aimed at conserving ACAP species.

This secondment was completed on 27 February 2026. Final report will be provided to AC16.

3. PROGRESS AND OUTCOMES OF SMALL GRANTS SUPPORTED IN THE 2023 FUNDING ROUND

ACAP 2023-01: ***Skyward heat: thermal signatures revealing population size and productivity in albatross and giant petrel colonies.***

Project Leader: *Martin Brogger, Instituto de Biología de Organismos Marinos, (IBIOMAR-CONICET), Puerto Madryn, Argentina.*

Co-investigators: *Flavio Quintana, Instituto de Biología de Organismos Marinos, (IBIOMAR-CONICET), Puerto Madryn, Argentina*

FUNDS GRANTED: $ 23,370

Summary of activities/outcomes:

This project evaluated the use of drone-based optical and thermal imagery to improve estimates of breeding population size and reduce counting bias in Southern Giant Petrel colonies in Chubut, Argentina, focusing on Isla Gran Robredo and Isla Arce. Fieldwork was conducted during the 2024–2025 breeding season and the onset of the 2025 incubation period.

Drone surveys using high-resolution RGB imagery and exploratory thermal sensors were carried out during early incubation (November–December 2024 and December 2025) to estimate breeding population size, and during late chick-rearing (March 2025) to assess the potential of thermal imagery to distinguish live from dead chicks. Additional surveys at the beginning of incubation were conducted in December 2026 to evaluate consistency of patterns observed in previous seasons.

Repeated drone surveys were performed across multiple dates and within a 24-hour cycle to assess the effect of survey timing on colony counts. Orthomosaics were generated for each flight and used to identify sitting individuals and evaluate nest persistence through repeated observations. Thermal imagery was tested under different environmental and light conditions (day, twilight, and night) to assess detectability and operational constraints.

The project prioritised non-invasive methods and aimed to generate transferable methodological insights relevant to ACAP monitoring needs, particularly for colonies where traditional ground-based surveys are logistically difficult or may cause disturbance.

1. Effect of survey timing on breeding population estimates

Drone surveys conducted during early incubation (November–December 2024) showed that counts of sitting Southern Giant Petrels varied substantially depending on the time of day. Across a 24-hour survey cycle, counts ranged from approximately 2,140 individuals during midday surveys to peaks of around 2,770 individuals during night surveys, indicating differences of up to ~30% attributable solely to survey timing. Repeated surveys across dates identified 2,007 individuals consistently present at the same locations, providing a conservative proxy for active nests and demonstrating that single surveys may overestimate breeding population size.

2. Assessment of thermal imagery during incubation and chick-rearing

Thermal imagery proved effective for detecting sitting adults and chicks under low solar radiation conditions (night, dawn, dusk). During late chick-rearing surveys in March 2025,

thermal imagery was explored as a complementary tool and showed consistent differences in heat signatures between live chicks and carcasses, even under suboptimal thermal conditions. However, this component was not designed as a formal validation exercise, and in many cases high-resolution RGB imagery alone was sufficient to identify dead chicks. During clear daytime conditions, high solar radiation and substrate heat load reduced thermal contrast, limiting the reliability of thermal imagery for nest classification.

3. Methodological contribution

The project provides concrete guidance on optimal survey timing, minimum survey repetition, and environmental conditions under which thermal imagery adds value to optical drone surveys. These findings directly inform best-practice recommendations for UAV-based monitoring of ACAP-listed species.

A manuscript presenting the main results (*Any given survey day: How drone flight timing affects breeding population estimates in the Southern Giant Petrel*) is currently in preparation.

See also *PaCSWG9 Inf 01:* *Fine-scale assessment of temporal variability in nest attendance using repeated drone surveys of Southern Giant Petrels*

ACAP 2023-02: ***Effectiveness of acoustic monitoring for estimating population trends and recolonisation of burrow-nesting petrels***

Project Leader: *Richard Phillips, British Antarctic Survey*

Co-investigators: *Rachel Buxton, Carleton University, Institute of Environmental and Interdisciplinary Sciences, Ottawa Ontario Canada*

FUNDS GRANTED: $ 36,600

Summary of activities/outcomes to date:

The aim of this project is to assess the efficacy of acoustic monitoring of white-chinned petrels by comparing indices of vocal activity with nesting density and burrow occupancy during different stages of the breeding period.

The data available for the study are continuous nightly audio recordings at 19 sites over 6 breeding seasons (2017/18-2024/25) from mid-September to 7 February (pre-laying to hatching periods) from loggers deployed on Bird Island. An audio logger was deployed at one of the sites in every season, but the other sites changed each year in order to sample a range of burrow densities and habitats. At the constant site, the number of burrows and burrow occupancy within a 15 m radius of the audio logger (corresponding to the detection distance; Linares et al. 2022) were determined from tape playback at burrow entrances every 5-7 days from 13 Nov. (first recorded egg date) to 7 Feb. (last recorded hatching date) in each season. Elsewhere, burrow numbers and occupancy were determined around the audio logger once per season.

We quantified vocal activity of white-chinned petrels manually by documenting presence or absence of calls in 10-second segments of 2-minute recordings. Twenty 2-minute recordings

were selected from each site: 10 sampled every 3 hours within 3 nights of the date of each field survey, and 10 chosen randomly from all recordings. At the constant site, 2-minute recordings were sampled from every 30 min. periods on the night prior to each field survey. The presence of wind and other species (from calls) were also documented. Manual analysis is nearing completion; 953 out of a total sample of ~1050 2-minute recordings have been analyzed to date.

Comprehensive manual analysis of all files is not feasible as we have over 30,000 hours of recordings. As such, we are also automating the extraction of a suite of acoustic indices, chosen for their relevance in terms of white-chinned petrel vocalization structure, that provide a summary of each hour of acoustic data. Acoustic indices are measurements that quantitatively describe features of a sound recording, including acoustic complexity, intensity, and ratios of different types of sound. This includes acoustic indices used in our previous study (Linares et al. 2022), as well as new indices used in recent publications that were compared with population sizes of other colonial animals.

We have built preliminary models relating white-chinned petrel vocal activity to the density of occupied burrows (i) across all sites, and (ii) over time at the single site where burrow occupancy was monitored every 5-7 days in each season. These models suggest that after controlling for wind there is a significant relationship between vocal activity and the density of occupied burrows. The analyses are still being refined and will potentially include Bayesian Gamma regressions. We are also building Random Forest models to determine if the acoustic indices correlate with the density of occupied burrows.

The results of the study will be presented by the MSc student, Alex Day, at the Canadian Society for Ecology and Evolution conference in May 2026 in Toronto. We have also submitted an abstract on this work to the World Seabird Conference (WSC4) in Hobart in Sept. 2026. Alex will submit their MSc thesis on this project work in September 2026. The intention is also to draft one or two manuscripts for publication in peer-reviewed journals.

ACAP 2023-03: ***Potential risks to ACAP species from unregulated fisheries in the southwest Atlantic Ocean***

Project Leader: *Ana Carneiro, BirdLife International*

Co-investigators: *Richard Phillips, British Antarctic Survey*
Tammy Davies, BirdLife International

FUNDS GRANTED: $ 27,900

Summary of activities/outcomes to date:

This project commenced in April 2026. Final report will be provided to AC16.

ACAP 2023-04: ***Disease Risk Analysis of High Pathogenicity Avian Influenza for ACAP Species***

Project Leader: *Patricia Pereira Serafini, Federal University of Santa Catarina and National Centre for Wild Birds Conservation and Research – CEMAVE/ICMBio/MMA*

Co-investigators: *Ralph E. T. Vanstreels, Latin America Program, Karen C. Drayer Wildlife Health Center, University of California - Davis, USA (based in Patagonia, Argentina)*

Marcela Uhart, Latin America Program, Karen C. Drayer Wildlife Health Center, University of California - Davis, USA (based in Patagonia, Argentina)

Meagan Dewar, Future Regions Research Centre, Federation University Australia, Australia

Michelle Wille, Centre for Pathogen Genomics, Department of Microbiology, and Immunology, University of Melbourne, at the Doherty Institute for Infection and Immunity, Australia

Brett Gartrell, Massey University, New Zealand

Gustavo Jiménez-Uzcátegui, Charles Darwin Foundation, Ecuador

Jane Younger, Institute for Marine and Antarctic Studies, University of Tasmania, Australia

Jennifer Black, Environment Manager, United Kingdom

Laura Roberts, University of Pretoria/ Western Cape provincial government, South Africa

FUNDS GRANTED: $ 20,000

Summary of activities/outcomes to date:

The ACAP intersessional correspondence group of experts established at AC13 (2023), continues to play a central advisory role to ACAP on issues related to the ongoing high pathogenicity avian influenza panzootic (HPAI). Through the support of this ACAP Small Grant, the group has maintained its core activities and has accomplished its 20th regular virtual meeting in December 2025 to coordinate activities and advance the project objectives. A core subgroup was established to progress the qualitative Disease Risk Analysis (DRA) for ACAP species.

Objective 1 – Conduct a simplified qualitative Disease Risk Analysis (DRA) for ACAP species

A preliminary work was presented at PaCSWG8 Doc 04 only for albatrosses, in 2024. Progress to date to the final complete version includes revision of the scoring forms, allocation of sites and species among assessors, compilation of supporting materials, and completion of scoring of transmission pathways and impact variables. The group is currently compiling and revising the scoring sheets to ensure consistent application of the criteria and conducting internal cross-review among experts. Finalisation of the DRA has been postponed enabling presentation and consultation with the broader seabird community at the World Seabird Conference (September 2026). The DRA process remains ongoing; however, during project implementation, emerging needs associated with the rapid expansion of HPAI outbreaks required partial reallocation of effort. Work on the DRA was temporarily paused to

support the development of a global data synthesis on HPAI impacts in ACAP species. This resulted in the preparation of the data paper "A public database to monitor the spread and impacts of high pathogenicity avian influenza viruses on albatrosses and petrels", currently under review in the Biodiversity Data Journal. In parallel, the project has supported continuous updates of case data and spatial information on the ACAP website.

Objective 2 – Produce tutorials and guidance materials
Intensive work by the ICG members has been conducted to compile and organise technical information needed to produce guidance materials aimed at researchers, protected-area managers and other personnel working with ACAP species (guidelines and tutorial video available online), as well as for crews onboard fishing vessels (poster). The project has also supported the compilation of HPAI cases data and spatial information used for regular updates on the ACAP website.

Objective 3 – Design and deploy field surveillance kits
Field surveillance kits containing materials for sample collection were assembled and deployed to field teams working with ACAP species in South Africa. These kits have been used by monitoring teams on sub-Antarctic Marion Island to document and investigate suspected HPAI cases under field conditions.

See also *PaCSWG9 Doc 06:* *A public database to monitor the spread and impacts of high pathogenicity avian influenza viruses on albatrosses and petrels.*

ACAP 2023-06: ***Multi-sensor assessment of fine-scale fisheries overlap and bycatch risk of Southern Buller's Albatross across life history stages***

Project Leader: *Jonathan Rutter, University of Oxford Department of Biology, United Kingdom*

Co-investigators: *Igor Debski & Johannes Fischer, New Zealand Department of Conservation*

Tim Guilford & Katrina Davis, University of Oxford

FUNDS GRANTED: $ 30,000

Summary of activities/outcomes:

We originally intended to spend most of our budget to purchase 6 solar satellite GPS tags for long-term tracking of southern Buller's albatross. We ended up far exceeding these expectations, purchasing 30 tags (11 of which have not yet been deployed) with these funds. We deployed 8 tags (Druid YAWL C2 Argos) to breeding adults on the Tini Heke/Snares colony in April 2024. These tags performed just as well as previous solar satellite GPS tags (several months of tracking, up to 30 min fix rate) for a fraction of the cost. Most of our cost savings came from Druid's Renewal Plan which allows for unconditional replacement of lost tags for ~20% of the original tag cost, effectively a subscription service.

We deployed another 11 tags (Druid YAWL C5 Argos) to breeding adults on Tini Heke in January 2025, and plan another 11 deployments in 2026. In addition, DOC also funded many other short-term GPS (2024, Tini Heke), long-term Druid GPS (2025, Tini Heke), and long-

term PTT (2024, Hautere/Solander) deployments for a total of 72 GPS/PTT deployments on this species as of March 2026.

Datasets contributed to the BirdLife International Seabird Tracking Database:

- **Southern Buller's Albatross Snares 2024:** https://data.seabirdtracking.org/dataset/2269
- **Southern Buller's Albatross Snares 2025:** https://data.seabirdtracking.org/dataset/2460

Objective 1- Determine how bycatch risk of southern Buller's albatross varies across areas, time periods, vessels, and phenological stages.
Accomplished (Düssler et al. 2025, Rutter et al. *in prep*) with work ongoing. Our analysis shows extremely high vessel association rates between southern Buller's albatross and trawl fisheries during chick-rearing, especially within Aotearoa NZ waters. We also show overlap/association with longline fisheries from multiple nations. We successfully tracked several birds as far as South America, but observed relatively few associations there, which may reflect low AIS coverage in Chilean and Peruvian fisheries. We have not successfully tracked fledglings, but we may be able to do so in August 2026.

Objective 2 - Test and refine new analytical methodologies to quantify seabird-vessel interactions.
Accomplished (Rutter et al. *in prep*). Using tracking data from southern Buller's albatross, we have developed a method based on continuous-time movement models to estimate fine-scale vessel association rates using relatively coarse tracking data. We demonstrate how this method can quantify the uncertainty in fine-scale overlap that comes from tracking birds and vessels with low temporal resolution.

In addition, ACAP funds that were redirected to support Westland petrel fieldwork (see Objective 3) also indirectly supported deployment of GLS-immersion loggers on Westland petrels. Data from these loggers are currently being analysed to determine whether immersion patterns can predict vessel following by this species.

Objective 3 - Trial the use of bird-borne audio recorders as a vessel detection device.
Accomplished (Rutter et al. *in review*). Due to technical issues during fieldwork, we were unable to trial bird-borne audio recorders on southern Buller's albatross. However, we successfully trialled the same ACAP-funded audio recorders on both Westland petrel and Balearic shearwater. We found that audio could indeed reveal interactions with vessels, a striking proportion of which could not be matched with AIS, suggesting interaction with IUU/small-scale fisheries.

Results of this work will be presented at the World Seabird Conference in September 2026 if JR receives travel funding. See also:

Joint SBWG13/PaCSWG9 Inf 03: *Unseen but not unheard: Animal-borne audio recorders reveal missing interactions between seabirds and untracked vessels*

Joint SBWG13/PaCSWG9 Inf 04: *Navigating uncertainty in fine-scale fisheries overlap to assess bycatch risk of a wide-ranging pelagic seabird*

ACAP 2023-07: ***Trialling seabird bycatch mitigation measures for Brazilian demersal longline fisheries***

Project Leader: *Gabriel Canani Sampaio, LAATM-FURG / Projeto Albatroz, Brazil*

Co-investigators: *Dimas Gianuca, BirdLife International/SAVE Brasil*
Leandro Bugoni, LAATM-FURG
Tatiana Silva Neves, Danilo Geraldo Filipkowski, & Caio Azevedo Marques, Projeto Albatroz
Fernando Niemeyer Fiedler, IFSC-Itajaí

FUNDS GRANTED: $ 36,800

Summary of activities/outcomes to date:

Our study aims to evaluate line sink rates of current line weighting regimes commonly used by Brazilian demersal longline vessels, compared with an additional weighting regime aligned with ACAP best practice advice for reducing bycatch in demersal longline fisheries. In addition, to evaluate line tension and aerial coverage of a toriline prototype designed for small vessels, potentially suitable for the Brazilian small-scale demersal longline fleet.

Reduced toriline trials were finished in 2025, with two different sizes (75 and 45 meters long) tested, in an array of different configurations (tori poles at 5 and 6 meters, navigations at 4 and 6 knots, navigation against and in favour to the wind and two dragging devices (30 and 20 meters).

Sinking rate experiments remain ongoing due to delays in vessel availability. We are also seeking commercial fishing vessels to take onboard observers, so we can compare the experimental sinking rates results with real life scenarios.

A report on the tori line experiments is currently being prepared for the upcoming ICCAT Ecosystems meeting, expected to take place in May this year. Our plan is to present these results alongside a discussion on the inclusion of small-scale fisheries in ICCAT recommendations.

ACAP 2023-08: ***Enabling mitigation measures in the southern Peruvian artisanal longline fleet targeting sharks to reduce the bycatch of albatrosses and petrels***

Project Leader: *Javier Quiñones, PhD. Oficina de Investigaciones en Depredadores Superiores del Instituto del Mar del Perú.*

Co-investigators: *Johannes Fischer, PhD & Igor Debski, PhD. Department of Conservation, New Zealand.*

Jairo Calderón Martel, Dirección de Investigaciones en Pesca, Instituto del Mar del Perú.

Sixto Quispe Cayhualla, Laboratorio Costero de Pisco, Instituto del Mar del Perú.

FUNDS GRANTED: $ 35,700

Summary of activities/outcomes:

The project was conducted across three seasonal field campaigns aboard the 12-m artisanal vessel *San Martín II*, based in Ilo Harbour, southern Peru. During the first campaign (April 2024), the team characterized artisanal longline operations targeting sharks, documented seabird species composition and abundances across three habitat zones (coastal 10–30 nm, intermediate 35–75 nm, and oceanic 160–180 nm), and conducted baseline observations without mitigation measures across 10 fishing operations. Preliminary tori line trials were also initiated during the final set of this period.

During the second campaign (June 2024), full tori line trials were conducted during longline deployment across 10 fishing operations, and Integrated Mitigation Measures (IMM) — combining hauling deterrents, offal retention, and bait retention — were tested during longline recovery. This campaign coincided with peak seabird densities following the seasonal arrival of Black-browed Albatrosses.

During the third campaign (October 2024), tori line and IMM trials were repeated across 5 fishing operations during early spring, when seabird densities were markedly lower.

Complementing field observations, 24 structured interviews were conducted with experienced fishing skippers at Ilo, Morro Sama, and Arica harbours, providing broader spatial and temporal validation of bycatch patterns. Seabird species composition and habitat use were analysed using multidimensional scaling (MDS) across four bathymetric zones. Across all campaigns, 25 fishing operations were completed totalling 10,000 hooks deployed under experimental conditions, and generalized linear mixed models (GLMM) were applied to evaluate mitigation effectiveness statistically.

***Objective 1* – Characterise seabird interactions and gear configuration:** The project confirmed that the artisanal shark-targeting longline fishery ("espinel") deploys approximately 400–1,500 J-hooks per operation on snoods averaging 11.68 m, with deployment occurring in the late afternoon. White-chinned Petrels and Black-browed Albatrosses were identified as the species most at risk, with petrels performing deep dives and albatrosses shallow dives toward baited hooks. Bycatch risk was confirmed to be concentrated during longline deployment (75% of events per skipper reports), with hook placements predominantly in the throat (43%) and bill (34%).

***Objective 2* – Quantify seabird densities spatially and temporally:** Pronounced seasonal variation was documented. White-chinned Petrels dominated April and June surveys (mean 170.5 individuals/observation unit on the Upper Slope in April), declining by over three orders of magnitude by October. Black-browed Albatrosses were absent in April, peaked in June (5.0–11.2 individuals across habitats), and nearly disappeared by October. MDS analysis confirmed distinct species assemblages across habitat zones and seasons.

***Objective 3* – Test mitigation measures:** The Peruvian tori line prototype achieved approximately 96% reduction in seabird diving frequency within the danger zone during June trials (Wilcoxon $p = 0.0003984$; GLMM $\beta = -3.219$, $p < 0.001$). Integrated recovery measures achieved approximately 95% reduction during the same period (GLMM $\beta = -3.0824$, $p < 0.001$). Both devices were built from locally available, low-cost materials, confirming economic feasibility for artisanal fishermen.

***Objective 4* – Identify optimal mitigation timing:** Results clearly demonstrated that mitigation is necessary only during autumn through winter (April–July), when seabird densities are substantially elevated, and unnecessary during spring and summer when bycatch risk is negligible.

See also *SBWG13 Doc 21:* *Enabling Mitigation Measures in the Southern Peruvian Artisanal Longline Fleet Targeting Sharks to Reduce the Bycatch of Albatrosses and Petrels.*

4. PROGRESS AND OUTCOMES OF SECONDMENTS SUPPORTED IN THE 2022 FUNDING ROUND

The 2022 Secondment applications opened on 4 July 2022. All applicants were successful and a total of $55,635 was granted to four applicants in February 2023. One secondment was yet to be completed at the time of reporting to AC14 in June 2024 (see AC14 Inf 01).

S2022-03: ***Multi-fishery interactions of sympatric black-browed and grey-headed albatrosses from the Diego Ramírez Islands: An isotopic and tracking approach.***

Secondee: *Cristián G. Suazo. Albatross Task Force, CHILE.*

Host Institution: *Centro Para el Estudio de Sistemas Marinos, Centro Nacional Patagónico, CONICET, Puerto Madryn, ARGENTINA.*

FUNDS GRANTED: $12,100

Summary of activities/outcomes:

Due to scheduling issues for the visit to Dr. Javier E. Ciancio (CENPAT-Puerto Madryn, Argentina), this work began in 2023 through 2024 with the collection, analysis, and curation of reference diet samples from the two albatross species that breed in Chile for isotopic fingerprint analysis towards the interpretation of results at the end of 2024-early 2025.

During this process, we collected tissue samples from various target species in industrial and small-scale fisheries, based on the context in which these foods are available to albatrosses (e.g., muscle from discards, offal).

The sample collection was supported by the IFOP fisheries observer program and the Albatross Task Force in Chile, covering both pelagic fisheries in oceanic islands (pelagic longline for swordfish) and demersal fisheries in southern Chile (demersal trawl for Austral hake). Overall, fisheries included in this sample set represented the full gradient of fisheries in Chile, from the border with Peru (18°S) to the southern Diego Ramírez Islands (56°S) in the Drake Passage also covering longline (pelagic, demersal), trawl (pelagic, demersal), and purse seine fisheries (industrial and small-scale).

Additionally, we considered samples of natural prey from the diet repertoire of the Diego Ramírez albatrosses, including tissues from regurgitated squid from the subantarctic waters, as well as fish like Fueguian sprat *Sprattus fuegensis* from the Chilean fjords, and Antarctic krill *Euphausia superba* off the Antarctic Peninsula (60°S).

In total, we obtained 126 processed tissue samples with δ13C and δ15N readings, representing the described endemic areas for seabirds in Chile, such as the Humboldt Current System, Oceanic Islands, Fjords and Channels in Southern Chile, and Antarctica.

Blood and feather samples (n = 171) were analyzed from adult and chick Black-browed albatross (*Thalassarche melanophris*; n = 125) and Grey-headed albatross (*T. chrysostoma*; n = 46) from the Diego Ramírez Islands.

With this data set, we conducted an initial working stay at CENPAT (November 2024) to perform preliminary analyses to project the spatial distribution of the dietary spectrum of both albatross species over the long term (feathers), as well as during the chick-rearing period (blood).

A second visit took place in January 2025 to complete the final analyses of this secondment and integrate them with tracking data from both albatross species during different phases of their breeding process (incubation, guard, and post-guard), as reference values for their reproductive phenology in Chilean waters.

For details see *Joint SBWG13/PaCSWG9 Inf 21*: *Multi-fishery interactions of sympatric black-browed and grey-headed albatrosses from the Diego Ramírez Islands: An isotopic and tracking approach.*

5. PROGRESS AND OUTCOMES OF SMALL GRANTS SUPPORTED IN THE 2020 FUNDING ROUND

The 2020 Small Grants Programme applications opened on 4 September 2020. Nine projects were granted a total of AUD 137,842 in February 2021. One small grant was still ongoing at the time of reporting to AC14 in June 2024 (see AC14 Inf 01).

ACAP 2020-09: Winter fine-scale movements of black-browed albatrosses and encounters with fishing vessels

Project Leader: *Dr Alastair Baylis, South Atlantic Environmental Research Institute*

Co-investigators: *Dr Rachael Orben, Oregon State University, Newport, Oregon*

FUNDS GRANTED: $12,600

Summary of activities/outcomes:

In total, with support from ACAP Small Grants, we deployed 55 tracking devices on Black-browed albatross between 2021 and 2023, comprising 51 GPS tags and four satellite transmitters. Although the primary aim of this project was to study the winter movements of Black-browed albatross in the Falkland Islands [Islas Malvinas][1], GPS tags were also deployed during the breeding season to maximise data collected within the project timeframe.

Fieldwork was conducted at two previously untracked breeding colonies: Bird Island (West Falklands)[1] and Grand Jason Island. Both colonies are globally important in terms of the number of Black-browed albatross breeding pairs. Accordingly, their inclusion in the Birdlife seabird tracking database substantially expands the spatial representation of movement data within the archipelago. After several significant project delays, satellite tags to characterize winter movements were finally deployed at Bird Island in 2023. GPS tracking occurred during late incubation and early chick-brooding at both Bird Island and Grand Jason during early December.

Our objective was to collect fine-scale GPS data from a large sample of birds (originally, n=45). However, the remote data download base-station GPS loggers initially purchased for winter deployments, proved to be unreliable. To address our project aims, we resorted to satellite tags. The cost of satellite tags meant that our sample size was far smaller than initially planned. Nevertheless, despite a much-reduced sample size, we successfully collected data on individual movements during the non-breeding period to better understand overlap with fisheries.

Our ACAP project highlights that Black-browed albatross from Bird Island frequently return to the breeding colony during the winter months. This behaviour indicates a flexible overwintering strategy, with at least some individuals from certain colonies best described as partial migrants. While substantial effort has been devoted to tracking individuals during the breeding season, winter movements - including those of juveniles - remain poorly studied. The data collected during this study directly addresses this gap by quantifying winter distribution and evaluating associated conservation implications, including interactions with fisheries. However, our sample size was small, and a larger sample size is required for more rigorous analysis.

Full Report: ***Joint SBWG13/PaCSWG9 Inf 22*** *ACAP Small Grants Final Report – Winter Movements of Black-browed Albatross*

See also *PaCSWG9 Inf 16*: Riaz, J., Orben, R.A., Gamble, A., Catry, P., Granadeiro, J.P., Campioni, L., Tierney, M. and Baylis, A.M.M. (2024), Coastal connectivity of marine predators over the Patagonian Shelf during the highly pathogenic avian influenza outbreak. *Ecography*, 2024: e07415. https://doi.org/10.1111/ecog.07415

6. PROGRESS AND OUTCOMES OF SMALL GRANTS SUPPORTED IN THE 2019 FUNDING ROUND

The 2019 Small Grants Programme applications opened on 30 August 2019. Seven projects were granted a total of $134,296 in February 2020. The COVID-19 pandemic delayed or otherwise disrupted some projects. One projects was still ongoing at the time of reporting to AC14 in June 2024 (see AC14 Inf 01).

ACAP 2019-12: ***Demographic monitoring, at-sea movements, and scavenging behaviour in the Balearic shearwater***

Project Leader: *Professor Tim Guilford, Department of Zoology, Oxford University, UK*

Co-investigators: *Dr Oliver Padge, OxNav*

Miguel McMinn-Grive, Societat d'Història Natural de les Balears (SHNB)

Elisa Miquel-Riera, Grup d'Ornitologia Balear (GOB)

FUNDS GRANTED: $20,702

Summary of activities/outcomes:

Initial progress on this project was severely disrupted first by Covid-19, and then by problems with our field RIB and engine that flowed from this disruption and which required additional fund raising. At last reporting, a limited re-start had occurred in 2022 with a full return expected for 2023. The 2023 field season was successful, and was followed by successful seasons in 2024 and 2025. Final preparations are underway for the 2026 field season at time of writing. We now have a fully working reconditioned RIB with new engine, and a stable custodianship arrangement with local ornithologists Jason Moss and Elisa Miquel-Riera. We have re-established systematic GLS tracking of breeding Balearic shearwaters at both the concentrated cave colony of Sa Cella and the diffuse island colony of Sa Dragonera (Objective ii), and published an analysis of long-term northwards trends in migratory behaviour in response to warming seas (Lewin et al., *PNAS*). We have re-established systematic monitoring of both breeding attempts and breeding success at both sites, including introduction of new nest boxes and labelling of new nests on Sa Dragonera (Objective i). We have set up a standing collaboration with local biologists at IMEDEA (NAMES) to monitor nests throughout the season, and report to the government species department. Systematic labelling and mapping of nests has greatly improved the transferability of this process. Ringing of a large proportion of fledglings at both sites has now been conducted for three years to improve estimates of juvenile survival. Finally (Objective iii), we have conducted two limited campaigns deploying GPS-Audio loggers as a new technology for assessing "hidden" by-catch (Jonathan Rutter, PhD student), and in 2026 plan a more comprehensive campaign with GPS-GSM loggers whilst training a new PhD student (Emily Walker) whose UKRI scholarship funding was leveraged partly by the progress reported here.

Objective i: *Improve and maintain repeatable annual monitoring of key life-history parameters at Sa Cella cave (dense colony) and Sa Dragonera (diffuse breeding), capturing the variation in typical breeding habitat.*

Substantially achieved. Systematic breeding population monitoring has now been established at both Sa Cella and Sa Dragonera, working together with local collaborators from IMEDEA and UIB (Sanz-Aguilar, Tavecchia, Moss). The number of labelled natural nests on Sa Dragonera has expanded yearly, and additional nest boxes have been installed.

Monitoring and ringing of pulli in Sa Cella has now been on-going for three years. Recently recruited PhD student Emily Walker will analyse new demographic data now building up, but initial results suggest that breeding numbers at Sa Cella appear stable, whilst occupied nests on Sa Dragonera are increasing following rat eradication. Nevertheless, our impression is of significant turn-over of next occupancy in Sa Cella suggesting that it may now be a population sink, a view supported by Genovart et al., (2023)'s updated analysis of Balearic shearwater demographics from several colonies.

Objective ii: *Continue and extend monitoring of migratory movements, breeding phenology, and at-sea behaviour using geolocator/immersion loggers in order to detect shifts in behaviour and reproductive performance in relation to large scale events at sea (e.g. changes in fishing practice), and identify by-catch risk areas, year round.*

Substantially achieved. Notwithstanding the hiatus caused by Covid, geolocator tracking of breeding shearwaters has continued, with both Sa Cella and Sa Dragonera now well covered (although the effort requires continual if modest funding). We published an analysis of changing migratory movements (Lewin et al., 2024), showing northwards shift in post-breeding migration destinations well correlated with rising summer sea-temperatures, and driven predominantly by individual flexibility. This shift is, however, having the knock-on effect of delaying migratory return to the Mediterranean with unknown future consequences.

Objective iii: *Use high-resolution accelerometer-GPS biotelemetry to understand detailed foraging behaviour, and ultimately scavenging by-catch risk in different fisheries, at different times of day, and season, to inform optimum mitigation methods.*

Ongoing (not funded by the partial award). Accelerometry (and related) approaches to understanding by-catch risk using biotelemetry has been delayed and will now be undertaken by PhD student Walker using separate funding. We have succeeded in developing combined GPS-Audio loggers capable of detecting interactions with un-tracked (small, or illegal) fishing boats (Rutter et al., submitted), again a separately funded but related project. Our tracking data have also been used in analyses of global marine plastic pollution risks (Clark et al., 2023) and in the UIB Ampliamar project to evidence KBAs in Spanish waters for new MPA designations.

See also:

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