



International
Science Council

SCAR Sub-Group

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Person
Responsible:

EG-BAMM

LS

Yan Ropert-
Coudert

XXXVII SCAR Delegates Meeting

India, September 2022

Expert Group on Birds and Marine Mammals (EG-BAMM)

2020-22 Report

Summary

Report Author(s)

Mark Hindell (Australia) and Yan Ropert-Coudert (France)

Summary of activities from 2020-22

EG-BAMM has been in existence for more than 10 years, after being reviewed and renewed by the SCAR delegates in 2017. The group maintained several of its usual activities in 2020 and 2021, participating in several international fora, such as CCAMLR and SOOS, as well as being part of several SCAR programmes, most notably SCATS, AntEco and AnT-ERA. However, the COVID19 situation has also curtailed several activities, most notably delaying the implantation of three new working groups (cetaceans, functional responses and demography), but we anticipate these will begin in 2022.

This will be the last year that Hindell and Ropert-Coudert will be CO and Secretary. Their replacements have been nominated and, after approval from the SCAR Delegates, will commence at the OSC in 2022.

The new leadership team is:

- Chief Officer, Associate Professor Michelle La Rue, University of Canterbury, New Zealand
- Deputy Chief Officer, Dr Ryan Reisinger, University of Southampton, UK
- Secretary, Manuela Basso, Universidade Federal do Rio Grande do Norte, Brazil

EG-BAMM BUDGET REQUEST 2022

- 1- Support for COs to attend SCAR Biology in 2023: \$5000
- 2- Support for Tag-resight on-line interface: \$1000

Total: \$6000

Progress to date

Below are the specific reports for activities that are part of EG-BAMM:

A. Retrospective Analysis of Antarctic Tracking Data (RAATD)

PIs: Mark Hindell (University of Tasmania, Australia), Yan Ropert-Coudert.

The RAATD program core team presented information papers on the outcomes of the study for ATCM and CCAMLR to facilitate their spatial management planning decisions. One additional paper was published (Reisinger, R. R., et al. (2022). "Predator-derived bioregions in the Southern Ocean: Characteristics, drivers and representation in marine protected areas." *Biological Conservation* 272: 109630. The RAATD dataset has also been used by other members of the SCAR community and forms the basis of several presentations at this year's OSC

B. Tag Re-Sights

There is on-going demand for EG-BAMM to coordinate tag and band re-sights. This year we continued to circulate photos to the broad EG-BAMM membership we were able to successfully identify the individual animals. This is an important scientific and also outreach activity, as often the re-sights are made by members of the public. Due to increasing demand for this capacity and the time constraints it imposed on the group, it has been proposed to develop an on-line tag re-sight portal as part of the EG-BAMM website. This portal will serve the EG-BAMM scientific community but will also receive inputs from tourists as sightings from non-scientists have been increasing and represent a potentially useful contribution. We are requesting \$1000 in funding to help with this.

C. Education and Outreach

In terms of Education and outreach, work has been conducted with the Association of Polar Early Career Scientists (APECS) and Polar Educators International (PEI). Antarctic biodiversity activities by scientists and educators were noted at the PEI 2022 workshop (Iceland) that had 32 participants from 10 countries, addressing issues such as climate change. POLAR WEEKS (APECS and PEI activity that connects polar scientists and schools), with talks on Antarctic biodiversity and science, engaged 18 000 students, 600 teachers/educators and 50 scientists in Portugal in cooperation > 10 countries worldwide in the last 2 years. Efforts have been put for early career scientists from life sciences to apply for SCAR grants (e.g., Webinars in English/Portuguese on SCAR grants). The relevance of EG-BAMM research related to conservation has also been shown in an educational context within the Intercessional Contact Group on Education and Outreach of the Antarctic Treaty, expressed by 2 posts in the forum. EG-BAMM members were also engaged in the Southern Ocean Action Plan (UN Decade of Ocean science Sustainable Development) from an outreach perspective.

D. Wildlife Health

The WG has maintained several virtual meetings along these years to work on the development of a health surveillance strategy for Antarctic Wildlife. This work is still in progress.

EG-BAMM: 2020-22 Report, cont.

Following the COVID-19 pandemic, the WG quickly began to work on a risk assessment about the probability of infection of SARS-COV-2 to Antarctic wildlife. This activity was included in the SCAR COVID-19 project with the Working Package 6 "Antarctic Wildlife". The work concluded in a paper published in the journal *Science of Total Environment* 755: 143352. In addition, the conclusions of this work were spread to several organizations as SCAR, COMNAP, IAATO and an Informative Paper was presented to the Antarctic Treaty Meeting in 2021. Finally, a video about the risk assessment was upload in the SCAR YouTube channel. The guidelines outlined in the paper for preventing the spread of SARS_CoV_2 to wildlife was incorporated into the IAATOs regulations and will again be employed this season.

The working group is also involved in many wildlife health related projects:

- ECOPATHS ('Ecology of the transmission of pathogens in south-polar vertebrates: surveillance, understanding and implication for conservation of biodiversity'). French subantarctic islands, 2022-2025. Funding (General call of French National Research Agency - ANR). Lead by Thierry Boulinier
- REMOVE_DISEASE ('Conservation and restoration of degraded insular biodiversity: impacts of the removal of introduced mammals on the dynamics of infectious diseases in seabirds across islands of the Southern Ocean'). French subantarctic islands, Marion Island and Falkland Islands, 2022-2025. Funding via the BiodivRestore call of Biodiversa/Water JPI). Web site: <https://removedisease.fr/>. Lead by Thierry Boulinier.
- PERPANTAR (Personality in Antarctic Penguins). This project includes testing hypothesis about the potential relationships between personality and health in Antarctic penguins. Funded by the Spanish Research Agency. Lead by Andrés Barbosa
- Field-Based Disease Surveillance Project. This project is developing field-based disease surveillance tools for Albatrosses and Petrels in the Southern Ocean. This project is led by Meagan Dewar and Tom Hart and is funded by Agreement on the Conservation of Albatrosses and Petrels.
- Parasite-host interactions in a context of global climate change: health status of petrels in an Antarctic ecosystem. Lead by Julia Inés Diaz. Funded by the Agencia Nacional de Promoción de la Investigación, el Desarrollo Tecnológico y la Innovación (Ministerio de Ciencia, Tecnología e Innovación de la República de Argentina).
- Australian Antarctic Territory continues to report monthly to the National Wildlife Health Information System as part of Australia's general wildlife health surveillance arrangements. Lead by Rupert Woods.
- Contribution of introduced species to multi-host epidemiological dynamics" with a focus on pathogen transmission between introduced mammals and native seabirds and marine mammals of subantarctic islands. Lead by Amandine Gamble.

Publications

The members of the WG have published 21 peer-review papers about health issues in Antarctic wildlife.