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Annual Report on EG-BAMM activities since July 2009

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The new EG-BAMM (Expert Group in Bird and Marine Mammals) was created from the fusion of the two expert groups (Birds and Marine Mammals) in July 2009 during the SCAR meeting in Hokkaido, Japan, with Professor Mark Hindell as chief officer and Dr. Yan Ropert-Coudert as secretary. The group contains a core group of 11 scientists active in the area of Antarctic bird and marine mammal research, chosen to reflect the regional and taxonomic diversity of people in the discipline. The core group are intended to serve as gateways to reach the broader community top predators researchers. The final composition of the group is:

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An early priority was to compile a comprehensive list of all researchers who comprise the broader scientific community of bird and marine mammal researchers. We then circulated a list of scientists working on top predators in the southern ocean among the core members in an attempt to have the most exhaustive overview of our community. For each researcher identified, we provide the name, email address, institution, country and model (birds, mammals or both). So far, 165 names have been identified, from 19 countries (appendix 1).

Platform for communication within EG-BAMM:

The group felt that an internet-based platform would enhance considerably the communication among SCAR-involved scientists. The development of a web page where news, information, guidelines could be posted and with, of course, all the functionalities to search, browse and display the tracking data of top predators that are contained in SCAR-marBIN, was therefore made an early priority. A web

page designer, with knowledge in online database was recruited by SCAR for 3 months. The page is now reaching its final stage and will be available from the SCAR server. It can be temporarily consulted at the following address: <http://egbamm.olymp-network.com/SCAR2/>. Core members will be able to register and then to login from this page in order to exchange ideas among them easily. The original architecture of the page also includes the following options/information:

- A contact form (email) for non members to communicate with EG-BAMM
- A diagram of the EG-BAMM members (and past members), as well as two pages dedicated to the description of the missions of EG-BAMM.
- An access to an original database (i.e. not a database yet included in SCAR-marBIN, see below for details). This database can be browse and additional data can be added via an online form. Any addition will have to be supervised by a core member before it can be implemented in the database.
- A link to the Penguin Book database (soon in an upgraded version) managed by the secretary of EG-BAMM.

Note that the logo of the page is still not definitive. A poll for deciding among 4 proposals (below) will be accessible from the webpage and the final logo will be decided by the votes of the core members.



A meta-database on top predators work in the Southern Ocean :

Another early priority identified by the group was to compile a comprehensive data base of all tracking data for Antarctic birds and marine mammals (provisionally called the Retrospective Analysis of Antarctic Tracking Data - RAATD). While the original idea is to compile as much tracking information as possible in SCAR-marBIN, the group recognizes the many difficulties associated with the collection and collation of raw data from such a large and diverse community of scientists. A useful first step would be a gap-analysis of existing data with respect to species and regional coverage, which required compiling the references of the articles published regarding top predators from the Southern Ocean.

This process has begun and will be an on-going process. This database will relate each reference to the species investigated, the site in which the study was conducted, the year in which the work was done and a series of key words that describe the main aim of the study. This database is built up from library files from bibliographic software such as EndNote. So far, two EndNote databases, that of the IPHC-DEPE (Dr. Yan Ropert-Coudert) in France and that of the British Antarctic Survey (Dr. Richard Phillips) have

been compiled, amounting to 1542 references. The EndNote base of Dr. Mark Hindell is next to be processed.

Two trainees from the IPHC-DEPE (June-July 2010) will be responsible for compilation of key words, sites, years, etc. for the database before it is placed online at the EG-BAMM website. Once the database is entered in the EG-BAMM page, we will discuss the next steps, i.e. to design a display system on the page to visualize information from the database (e.g. a clickable system to see on a spot what studies exist that concern examination of king penguin populations).

A database of tracking data:

The next, and more challenging, step is to compile raw tracking data of top predators in SCAR-marBIN database. Since the beginning of the year, and following a CAML workshop held in Villefranche in May 2010 (YRC attended the meeting as a representant of EG-BAMM), we have obtained:

- GPS tracking data of king penguins from Crozet archipelago (2008-2009); metadata in SCAR-marBIN: Ropert-Coudert Y, Le Vaillant M, Le Bohec C, Le Maho Y (year accessed) GPS tracking of known-age king penguins from Crozet Archipelago. IPHC-DEPE-CNRS Internal Database, v. 1.0., May 2010.
- Diving data of king penguins at Crozet archipelago (2007-2009); metadata in SCAR-marBIN: Ropert-Coudert Y., Le Vaillant M., Le Bohec C., Le Maho Y. (2009) Long-term monitoring of the diving activity of known-age king penguins from the Crozet Archipelago. IPHC-DEPE-CNRS internal database. v. 1.0, October 2009.
- Satellite tracking data of Gentoo penguins at Kidney Cove; King penguins at Volunteer Beach; Magellanic penguins at Isla Martillo; Rockhopper penguins at Bird Island, Isla Estados, Long Island, Saunders Island, Sea Lion Island and Seal Bay; not yet entered in the metadatabase system but data already made available to SCAR-marBIN.
- The tracking data of the British Antarctic Survey will be made available shortly to SCAR-marBIN (through the input of Dr. Richard Phillips).

In addition to these datasets, all the tracking data of top predators, conducted by the Australian Antarctic Division between the years 1990 and 2000 are already included in SCAR-marBIN.

Preliminary discussions have also been held with Birdlife International, who have a comprehensive procelariformes tracking data base. Birdlife have considerable expertise in establish and maintaining these types of database, and their advice and guidance will be vital for ensuring issues of data ownership and data sharing are addressed to the satisfaction of the data providers. They have also expressed a willingness for SCAR to access the existing database (perhaps through a Memorandum of understanding), which will be crucial to prevent overlap in effort and reducing the burden on contributing parties.

These issues are on the agenda for the August 1 2010 meeting of EG_BAMM in Buenos Aires

Report from the CAML workshop in Villefranche/mer, France, May 2010:

The main aim of this meeting was to conduct a biogeographic synthesis of 5 years of CAML and to compile the recent data for conservation, management in the Southern Ocean. Top predators had been under-represented in the CAML approach and this was therefore a perfect occasion for EG-BAMM to take the lead on contributing to CAML.

During this meeting, it was proposed that EG-BAMM could issue guidelines aiming at standardising tracking procedures so that comparisons of tracking data would be made easier across sites and teams. While this may look redundant with the aims of CCAMLR, YRC suggest here that EG-BAMM and its focus on tracking should go much further: Instead of only posting information on its webpage (about devices types, analysis, attachment procedures...) EG-BAMM could also launch with the help of SCAR an ambitious program: provide access to tracking tools to the different teams and offer online analysis methods. (relatively) Inexpensive tools are becoming increasingly available on the market to conduct short-term tracking GPS (e.g. 30€ at MrLee, GPS), long-term tracking (100€ GLS systems from the BAS or the IPHC) and diving monitoring (400€ CEFAS devices). An application to Foundations, such as Total, could help obtaining the funds to purchase the devices, hire an engineer to prepare an online analysing and displaying system, with the help of SCAR-marBIN developers.

In addition, CAML asked EG-BAMM to help them obtaining geo-referenced blood samples of clearly identified species for the Barcoding project.

In all the above, it appears clear that EG-BAMM has a role to play in structuring the top predators scientific community to collect and share data more efficiently.