

RTD08 Impacts of long-line fishing on seabirds: towards identifying geographical “hotspots” of seabird mortality

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1 Introduction

The purpose of RTD 08 was to canvass the collating, into a centralized database, of all tracking data on seabirds (principally albatrosses and petrels) affected by long-line fisheries. The objective: to identify the areas of ocean utilized most intensively by each species. The resulting map of records would be used to pinpoint areas where interaction with long-line fisheries is highest, thus warranting priority conservation attention. Beyond that, the initiative was seen as the first fundamental step towards the identifying Important Bird Areas (IBAs) on the high seas.

BirdLife International's Seabird Conservation Programme offered its services as an independent NGO (with no academic interest in the data) to take the program forward, and proposed to seek funding for a technical workshop in South Africa in the latter part of 2003. Prior to the present RTD, a circular outlining the initiative was distributed to all interested and affected parties; and responses from data-holders were overwhelmingly positive.

2 Issues

2.1 Progressing the initiative to conservation action

To the question of how the mapping program would be taken through to conservation action of benefit to seabirds, it was felt that various international and regional forums were the appropriate venues. The Agreement for the Conservation of Albatrosses and Petrels (ACAP) would require the proposed distributional inventory to identify priority areas at sea. Where such areas fell within the national waters or Economic Exclusive Zones of signatory states, the states would be expected to provide appropriate conservation measures. The exercise would also assist Regional Fisheries Management Organisations (RFMOs) to take due account of the most important areas. A range of conservation procedures could be implemented under the auspices of the RFMOs, ranging from more thorough investigation of seabird/fishing interactions by signatory fishery states, to the use of more comprehensive mitigation measures, including regulation of the timing (seasonality)

and scale of fishing effort.

2.2 Inclusion of ship-based transect data

Such data, it was agreed, would make an invaluable complement to satellite-tracking information; and every effort should be made to facilitate their combining when appropriate. Initially, however, emphasis would be placed on collating the tracking data and setting up a framework to receive and process them. Once this basal data-layer had been incorporated and analyzed, ship-based data-layers (for geographically confined areas) could easily be added, to improve and refine outputs.

2.3 Fisheries distributional data

Following enquiries, it was determined that spatiotemporal analyses of the long-line fishing effort in the Southern and north Pacific Oceans were already available, and that scientists involved had indicated an interest in participating in the present project. Much data was also available directly from Regional Fisheries Management Organizations.

2.4 Identifying gaps in data sets and refinement of analyses

It was recognized that the coverage of species and populations at different stages of their breeding and life cycles would not be complete. The project could help to identify such gaps; moreover, the database would become more complete as more data were collected, enabling improved analyses. Initial emphasis, nevertheless, needed to be placed on getting a working framework in place, to which further data could be added.

2.5 Home for the database

A brief description of Birdlife International's World Bird Database (BIWBDb) was given to the meeting. It was pointed out that the BIWBDb currently held point location data and could be a logical home for the new database. The Avian Demography Unit, based in Cape Town (and thus geographically close to the Global Seabird Programme) also had the capacity to manage such a database. It was decided, however, that resolution of this issue should be postponed

to the proposed technical workshop in South Africa, at which the picture of the product and its management structure would become clearer.

2.6 Compatibility of data

Issues relating to compatibility of data (e.g. for different geographical areas with different uplink rates, different devices, different duty cycling, etc.) and to the most appropriate ways of converting the uplinks into density-distribution maps, were felt to be key elements that the proposed technical workshop should address.

2.7 Ephemeral habitats

Although some areas utilized by seabirds were ephemeral, current data suggest that many sites are linked to bathymetric features and so predictable in space and

time. Such sites could serve as foci for management strategies.

3 Outcomes

The meeting concurred that the project would be valuable for the conservation of pelagic seabirds; and data holders present agreed to participate in the process. Based on such a positive response, the BirdLife International Seabird Conservation Programme would proceed to seek funding for a technical workshop to be held in Cape Town during latter 2003. All holders of relevant tracking data and fisheries scientists would be invited to the workshop. Just as importantly, specialists in the field of spatial analysis and statistics would be included to ensure that data are incorporated and analyzed in a statistically appropriate manner.