

2nd Scientific Committee Meeting
16 - 18 November 2006

Location

Fabrica da Baleia – Horta, Faial, Açores

Attendants

DOP	<i>Ricardo Serrão Santos (RSS)</i> <i>Ana Martins (AMA)</i> <i>Patricia Amorim (PA)</i> <i>Miguel Machete (MM)</i> <i>JoëlBried (JB)?</i>	ICN	<i>Manuela Nunes (MN)</i>
SPEA	<i>Luis Costa (LC)</i> <i>Iván Ramírez (IR)</i> <i>Pedro Geraldés (PG)</i> <i>Ana Meirinho (AM)</i>	UA	<i>António Silva Luís(ASL)</i>
		Bureau Waardenburg	<i>Martin Poot (MP)</i> <i>Peter van Horssen (PoH)</i>
		University of Coimbra	<i>Vitor Paiva (VP)</i>
		SEO	<i>Pep Arcos (PA)</i> <i>Juan Bécares (JB)</i>

Topics in discussion:

Thursday, 16th of November 2006
14.00– 18.00 h

1. A.1 – Cartographic analysis of the Portuguese EEZ, with special emphasis in those areas where seabird presence occurs – Ana Meirinho

- 1.1. Do you think the amount of variables compiled is enough?
- 1.2. In case we cannot have all the variables quoted for all the areas targeted, which ones should be prioritise?

2. C1 - Radio-tracking of *Pterodroma feae*, *Bulweria bulwerii*, *Puffinus assimilis*, *Oceanodroma castro*, *Sterna dougallii* in Azores, Madeira and Berlengas – Pedro Geraldés

Still is missing the Berlengas Test with 20 birds marked (*O. castro*) and detection from a plane, but apparently the technique from shore is not very effective, or at least not cost/effective to the birds targeted with the possible exception of *Sterna dougallii*. What's more, recent data from our twin-project at SEO reveals that no detections were made at sea, after marking 31 *Bulweria*, using plane as far as 100 miles off the coast of Alegranza, Canaries.

- 2.1. Is it worth continuing with radio-tracking campaigns for Terns?
- 2.2. Is it worth to try a radio-tracking campaign targeted at Little shearwater?
- 2.3. Bearing in mind the very poor results, and the amount of money and time we will need to spend next year in this methodology, do you think is it worth continuing with radiotracking campaigns from shore, targeted at petrels?

3. C2 – Data-loggers for *Calonectris diomedea borealis*, and eventually *Pterodroma feae* in Azores, Madeira e Berlengas – Vitor Paiva

- 3.1. During fieldwork, and with special attention to the Azores, would it be better to obtain a bigger sample from one or two colonies on the same island/group or try to obtain shorter samples from as many colonies/groups as possible?
- 3.2. Would it be better to continue with our current approach, which is to sample twice each colony (incubation and chick-rearing), or to change to tracking only as many birds as possible during chick rearing (with shorter trips, therefore higher numbers to analyze)?
- 3.3. If the choice is to resample the same birds/colonies, should we continue to use those colonies every year, or try different ones for 2007?
- 3.4. Apart from diet-sampling and isotopes from birds, are there any other data (namely oceanographic) we should sample at the same time, to cross with birds distribution?
- 3.5. Should we invest more on at-sea census to cross with distribution on birds with loggers? Mainly during the reproductive phase were there's more lack of data?
- 3.6. In relation to the devices, are there more accurate loggers we could use or there are new ones?
- 3.7. Should we direct efforts to do another campaign next year in collaboration with Tim Guilford (University of Oxford), and apply more GPS-loggers on Cory's, probably on another colony?

Friday, 17th of November 2006

09.30– 18.00 h

Presentation Martin Poot – Spatial statistics

Presentation Peter van Horssen – Distance analysis

4. C.3 – Visual census of seabirds, both aerial and boat-based, in continental Portugal, Azores and Madeira. Analysis of the oceanographic data and evaluation of the fishing activities

Aerial census – Pedro Geraldes

- 4.1 The surveys have been taking fewer hours than expected, so it is possible to redirect some flight time to do a different survey, to increase our data on the studied areas, or to try to survey Madeira and/or Azores.
- 4.2 Should we repeat the surveys that we already did to test different years?
- 4.3 Should we go for different surveys (July August for Balearics and other migrating species)?
- 4.4 Should we use the flight time to test different hypothesis (flights along the coast at lower altitudes or flight-transsects more close to each other in particular areas)?
- 4.5 Should we save flight time and try to organise a campaign in Madeira/ Azores?

Maritime census – Ana Meirinho

- 4.6. Aggregation of data
 - 4.6.1. In terms of seasonal aggregation of data is best to separate in periods of 6 months (nesting period) or in periods of 1 month?
 - 4.6.2. Is different for each specie, regarding is nesting period?
 - 4.6.3. How should be done to migratory birds, like gannets?



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4.6.4. Should it be separate for spatial zones? For example North, center, south, and islands? If so, for this spatial zones or others?

4.6.5. Should the data of Berlengas be treated as one different zone?

4.6.6. Should the data be aggregate in grids of 5 per 5, 10 per 10 or others? (Note: the satellite images are for 4 per 4 km in the internet, and DOP will gather satellite images 1 per 1 km for all eez. In gannets the statistical tests for 5 per 5 km didn't identified any correlation between the parameters.)

4.7. Statistical methodology

4.7.1. Which are the best statistical methods for each species?

4.7.2. Should they be treated equally or with different approaches regarding the biology of the bird?

4.7.3. What is the best preliminary treatment to do in the data, before the analysis? Separate in spatial zones? (Note: the programme in use is R)

5. C.5 – Analysis of the information obtained from the POPA programme, including satellite-data analysis – Patrícia Amorim

5.1 Reviewed the data analysis approach (quotient plots, GLM, GAM, etc)

5.1.1. Seabirds sightings and environmental data relationship: residuals of the models reveal several problems and the total percentage of deviance explained is low.

5.1.2. Tuna fishing events and seabirds relationship

6. Other points – Ivan Ramirez

Saturday, 18th of November 2006

08.30– 13.00 h

Whale watching trip ☺