

## Round Table Discussion 4 -Radar aeroecology: unravelling population scale patterns of avian movement

27.08.2015 - 16:50 - Sala 3

### Agenda and minutes

**Brief presentation of work developed by ENRAM – European Network for the Radar surveillance of Animal Movement (*José Alves*)**

**Short presentation of calibration campaign in Sweden(*Cecilia Nilsson*)**

### **Questions & answers about ENRAM:**

- The following provides an overview of the type of questions that were asked by members of the audience following both brief presentations aiming to disseminate ENRAM's activities:
- Is there any radar monitoring of migration in Russia? – not included in ENRAM and also not as far as we know.
- Can radar detect small birds? – issue of power and distance from radar was briefly explained
- Are there radar on Portuguese Islands to measure migration at sea? – again not as far as ENRAM members that were present knew.
- Why are there no radars displayed for Turkey? – this is due to Turkey's radar network not belonging to the OPERA network (which was what was displayed) however, Turkey does have active members in ENRAM and operational weather radar that at least in principle could be used to monitor migration.
- Clearly, from the audience there is an interest in radar monitoring over land and offshore, but little knowledge about what is available in their own countries or even who to contact. Several participants are likely to join ENRAM following this meeting (eg members of Aranzadi Sciences Society, Spain – contacted Judy Shamoun-Baranes following EOU).

### **Discussion (*Judy-Shamoun Baranes*):**

- *How visualizations based on radar data can become of use to different interest groups? What are we missing that would make these even more very interesting and usable to different end users?*
  - In this section we presented the most recent flow visualization for Europe and the forward trajectory model. The following is a list of questions and suggestions from the audience:
  - Is acceleration (of vectors) related to movement of birds (speed/acceleration) – no.
  - Are flocks of birds represented or individuals – with broad front migration usually individuals or loose aggregations.
  - (in forward trajectory simulation) are winds on the same scales as bird vectors, they should be for interpretation but seem very slow – as far as we recall they are but indeed seemed quite slow.

- Representation of density is essential for interpretation (especially within a scientific community), this was expressed by most people that were actively participating in the discussion and clearly a point to consider in the future. Different suggestions were given for showing density or traffic rates (a) select area or line and show traffic rate through that space (b) provide a counter somewhere in visualization with total density, refreshing at each time stamp.
- Altitude should be more clearly represented.
- Information about the weather should be shown. An example of how to manage the amount of information can be taken from <http://www.eurobirdportal.org/ebp/en/> where bird distributions and weather are shown and users can select different variables.
- *Population scale patterns: what types of data could be integrated? Which would be good systems to explore?*
  - Consider integration with systems/projects such as eurobirdportal which could be used to proposed information about species composition.
  - In general has often been noted that there is a mismatch between ringing and radar tracking.