



ORAL COMMUNICATION

## Radar applications to study bird behaviour

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The use of radar in ornithology is encountering a growing number of applications. Radar systems are used, for example, to assess collision risk for birds related to wind farms, airplanes, and power lines. In addition, radars are also used for studies on bird migration and habitat use. The radar provides an excellent tool to gather information on flight paths when the movements of birds take place at night or in conditions of poor visibility. These movements may be related to migratory behaviour, foraging flights, preferential directions or daily trips to and from the colony and can be quantified both for at the individual and group level.

In this study we present four case studies showing possible applications of the radar to investigate bird behaviour:

- monitoring of bird movements around a lagoon;
- spring migratory flow of raptors in a central Mediterranean island;
- monitoring of arrival and departures of passerines at a stopover site;
- daily activity patterns of shearwaters at their colony .

The radar can detect bird movements over large areas that cannot be covered by visual observations. Such movements can be recorded and processed later using new analytical tools, which are becoming available.

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