

RTD17 The present and future of bird ringing

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1 Issues

Bird ringing (or banding) is a widespread research technique for marking birds individually. Originally introduced just over a century ago to determine the routes of migrating birds, it is still the most widely used method to monitor bird migration. More recently, improvements in techniques for analyzing mark-recapture data have led to increasing use of ringing for other purposes, such as monitoring demographic parameters of bird populations (Seber and Schwarz, 2002). Ringing is also used in behavioral studies and, indeed, any research in which the identity of individual birds needs to be known.

Given its historical aim to track migratory routes across continents, ringing has traditionally required cooperation and efficient exchange of data among different research centers across countries. This has positive benefits in ornithology. The coordination of ringing has led ringing centers in different countries to adopt common procedures both for exchanging data concerned with recoveries of marked birds, and for collecting information from birds being newly marked. This is particularly true in Europe, where there are many national ringing schemes in many countries, all with different languages. Since 1963, EURING (The European Union for Bird Ringing) has coordinated research activities based on ringing, and has introduced the use of common alphanumeric codes for exchanging data.

Experience in Europe highlights the many advantages provided by international coordination of field protocols and data management, as well as in planning large-scale research projects. Out of this experience, considerable interest was expressed at the 1998 IOC in Durban to establish a standing committee of the IOC through which international cooperation on bird ringing could be expanded. A conference celebrating 100 years of bird-ringing at Helgoland in 1999 further reinforced the benefits of such an initiative (Jenni and Camphuysen, 2001).

So the main aim of the present RTD was to bring together scientists concerned with coordinating ringing activities to air common problems and ways of improving the standardization of ringing worldwide, and to consider further the value of establishing an IOC standing committee on bird ringing.

2 Outcomes

This RTD was attended by over 70 delegates from 28 countries representing five continents. The program featured a series of contributions on the current status of bird ringing in different continents and countries. Different potential uses of ringing recoveries in migration atlassing were illustrated, together with some of the opportunities offered by analyses of first-capture data. There was also discussion of recent advances in the statistical tools available to estimate survival and dispersal in bird populations, based on mark-recapture models.

Participants agreed in general on the need to further enhance international exchange of information and its organization. Activities along these lines will be carried out over the next few years, with the aim of reactivating the former IOC standing committee on bird ringing in time for the 2006 IOC in Hamburg, Germany. There was also considerable interest expressed in having a full-day workshop on bird ringing then, organized by this committee. The workshop could consider many aspects of ringing, including new developments in field methods covering marking techniques, data standards and data exchange, advances in statistical analysis and modelling techniques, and international cooperative research projects.

References

- Jenni L, Camphuysen K, 2001. Bird Ringing 100 Years. *Ardea* 89 (1) Special Issue: 252.
- Seber GAF, Schwarz CJ, 2002. Capture-recapture: before and after EURING 2000. *Journal of Applied Statistics* 29 (1-4): 5-18.