

## Ornithological databases for science and conservation - management and project oriented studies

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Since 1992 the ornithological working group of Upper Austria has maintained an ornithological database at the biology centre of the Museum of Upper Austria. Data comprising 375 000 records about bird distribution are now included in and managed by the Museum's ZOBODAT professional database-system (Malicky & Aubrecht, 2002). Applying standardised questions yields concentrated information about taxonomic, geographic and conservation oriented contents ([www.biologiezentrum.at](http://www.biologiezentrum.at)).

Two examples demonstrate the system's capability:

1) For the project 'Upper Austrian Breeding Bird Atlas 1997-2001', we required rapid annual documentation of areas needing further investigation. Imputed data are analysed to project the number of species per grid unit. The resulting numbers are ranked by applying the species-area relationship as a working hypothesis. The resulting grid-map presents low and zero numbers that show areas needing further investigation as a priority. The whole process is computerised and does not require any additional manual procedures.

2) In the development of the project 'Threatened Meadow Bird Conservation', a scheme that began in 1992, a database query produced a map showing the cumu-

lative distribution of *Crex crex*, *Saxicola rubetra*, *Anthus pratensis*, *Gallinago gallinago* and *Numenius arquata* in Upper Austria. The project has identified areas of dense distribution and has initiated much fieldwork (e.g. co-operation of regional working groups and the involvement of BirdLife International and WWF) from which a site-based monitoring programme was derived (Uhl 1993). The results were used to evaluate IBAs in Upper Austria. 'Maltsch', one of the most important areas situated at the Czech border, was declared as NATURA 2000 site. WWF and the Czech authorities develop and implement bilateral management plans, assisted by incorporating the Interreg II project GREVOLATO (Uhl *et al.* 2000, Uhl 2001).

In both projects analyses of bird numbers from survey and monitoring studies are used to quickly identify gaps in knowledge or to verify and monitor sites of conservation concern.

### References:

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