

## **Vogelwarte Radolfzell Ringing Centre Status Report 2001**

Max Planck Research Centre for Ornithology  
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### **General Items**

The Radolfzell Bird Ringing Centre is an integrated part of the Max Planck Research Centre for Ornithology. This institute consists of 2 separate acting but closely interlinked departments, "Biological Rhythms and Behaviour" (Director: Prof. Dr. E. Gwinner; Andechs) and "Vogelwarte Radolfzell" (Director: Prof. Dr. P. Berthold; Radolfzell). The ringing centre is located at Vogelwarte Radolfzell which is the direct successor of former "Vogelwarte Rossitten" which itself has been founded in 1901 and was the first institute where scientific bird ringing has been performed at a large scale level.

Traditionally at Vogelwarte Radolfzell (staff size altogether appr. 40; currently 6 graduated scientists) it has always been tried to maintain a broad and diverse but interrelated research concept which can be divided into 12 main research areas: (1) avian migration, (2) population and behavioural genetics, (3) experimental studies in evolutionary biology, (4) population dynamics, (5) mechanisms and implications of habitat selection, (6) eco-morphology, (7) ecosystem analysis, (8) breeding biology and mating systems, (9) basic research related to conservation measures, (10) foraging and nutrition, (11) energetics and distribution, (12) molecular genetics and systematics.

The ringing scheme is mainly engaged in the research areas 1, 4, 5, 6, and 9, not only with data maintenance and delivery, but also with own analysis. Dr. Wolfgang Fiedler is in the position of the scientific head of the ringing centre since March 2000 and worked within this area since 1993 at the institute. Currently he works together with 4 part-time workers (altogether a 4/5 technical position) and approximately 250 amateur ringers and 150 volunteer co-workers at ringing fieldstations.

Today the Radolfzell Ringing Scheme is one out of three closely co-operating bird ringing centres in Germany (Helgoland, Hiddensee, Radolfzell) and is responsible for scientific bird ringing in southern Germany (Saarland, Rheinland-Pfalz, Baden-Württemberg, Bayern), Berlin and Austria. Management of bird ringing in the southern part of former German Democratic Republic has been assigned to Vogelwarte Hiddensee in 1964.

### **Modernisation**

It will be the future task of the Radolfzell Ringing Centre to operate as a highly efficient, substantial and modern unit within the Max Planck Research Centre for Ornithology. Consequently, critical surveillance and reorganisation of all parts built up the main focus during the last years.

Development and introduction of the new ringing and recovery database system RINGZENT are completed. Processing of ring recoveries and management of the ring stock has been completely migrated to the new system. In 2001 we expect more than 50% of the ringing data to be entered by the ringers using the component RING at their home computers and sending the data on disc or by e-mail to the Ringing Centre for easy import into the database.

In a similar way observers can now enter their data of studies in breeding biology with the software NEST at home and send it by electronic means to the Breeding Biology Database at the Ringing Centre. This data is stored so far on registration cards which makes access to larger datasets very slow and time consuming.

The management of the personal data, permit and report status of the 250 active ringers as well as addresses and skills of more than 150 volunteer co-workers at the ringing fieldstations is now also completely based on electronic databases.

All relevant manuals, infosheets and software can be downloaded by the ringers via the homepage of

Vogelwarte Radolfzell (<http://vowa.ornithol.mpg.de>).

100% of foreign ring recoveries (currently ca. 48.000) and ringing and recovery totals for all years and all species since 1947 are now available in electronic form for quick access and data delivery. For some selected species (e.g. White Stork) data from the period before World War II (Rossitten data) has been reconstructed and entered into the database. In addition, morphological and phenological data of 500 000 passerines from bird ringing stations can also be delivered rapidly.

A new White Stork ring with several preferences in opposite to the traditional aluminium rings has been developed in cooperation with Fraunhofer Institute for Chemical Technology (Karlsruhe). This ring is made by robust plastic material, has a completely new designed, irreversible closure mechanism and is signed by laser inscription technique. It is currently evaluated in field tests.

### **Focus Activities**

The ringing centre is currently mainly engaged in the following programs and projects:

- Integrated Monitoring of Songbirds (together with Helgoland and Hiddensee);
- EURING - Barn Swallow Project;
- Long-term population studies, breeding biology, migration and dispersal of selected breeding bird species;
- Nest Record Database (breeding biology of selected bird species);
- Breeding biology and population dynamics of cavity nesting birds;
- Long-term studies at migration stopover sites of songbirds (ringing fieldstation Mettnau [since 1972], Galenbeck [1991 - 2000], in close co-operation with partners: Reit / Hamburg, Rybachy / Kaliningrad;
- Joint Vogelwarte Radolfzell - EURING Migration Project (large-scale data analysis of selected species);

For ringing and recovery numbers and representation of different species in the ringing database please refer to the Ringing & Recovery Report 1992-1999.

by Wolfgang Fiedler