13th Meeting of the Advisory Committee

Cluj, Romania, 23 – 24 August 2008

Evaluation and international consultation on the suitability of an expansion of the EUROBATS Agreement area

A German research and development (R+D) project was conducted by the Zoological Museum Alexander Koenig and the University of Bonn from 15 October 2007 to 31 March 2008.

Background

UNEP/EUROBATS defines its Agreement area through the European bat populations, occurring on the continent of Europe and in neighbouring regions. Any state, that exercises jurisdiction over any part of the range of a bat population covered by the Agreement, is a range state. Currently, the Agreement area covers the western Palaearctic including Turkey, the Caucasus region, Cyprus and Malta, but without Northern Africa, Iceland, and the Atlantic islands (Canaries, Madeira, Azores). However, it cannot be ruled out, that bats of European populations regularly migrate across the borders of the current Agreement area into neighbouring non-European countries.

In the course of the former R+D-project “Analysis of bat banding data as a contribution to the study of bat migrations in Europe” and the analysis of the Intersessional Working Group of the EUROBATS Advisory Committee, at least 20 European bat species were identified to occur in countries which are outside the current Agreement area. Therefore, trans-boundary migration of European populations of these species is expected.

Being convinced, that UNEP/EUROBATS greatly benefit the conservation of bats in Europe, an expansion of the Agreement area and entry of members from the Middle East and Northern Africa would improve the situation of the mammal group of Chiroptera in the Western Palaearctic. Furthermore, if the advanced conservation and management practices developed under the EUROBATS Agreement are spread

across EU borders, EUROBATS will keep a reasonable, long-term instrument for species conservation which goes beyond the EU Habitats Directive. Last but not least, budgetary contributions of recent Parties will be reduced proportionally if further range states accede to the Agreement.

Project results

To evaluate present and future scientific evidence of bat migration across current borders of the EUROBATS Agreement area the following questions where worked on in the course of the R+D project:

- Which scientific results about bat migration in South- and East Europe are already published or otherwise available?
- Where are new research projects, which could be adequate to proof bat migration outside the continent of Europe, initiated, planned or generally promising?
- Which range states being not a member of the Agreement yet should be involved in close institutional cooperation with the aim of an extent of the convention area?
- Is it possible to prove bat migration in Southern and South-eastern Europe by methods other than bat banding?

The investigations carried out show that international knowledge about bat migrations in Europe doesn't exceed significantly beyond the book "Bat Migrations in Europe. A Review of Banding Data and Literature", which was published in 2005 by the Federal Agency for Nature Conservation (BfN) and reflected the results of the former R+D project and the Intersessional Working Group.

It is indeed quite likely, that bat migrations across the current borders of the EUROBATS Agreement area regularly occur, in particular in the species *Myotis punicus*, *Myotis cpaccinii*, *Eptesicus isabellinus*, *Nyctalus leisleri*, *Nyctalus lasiopterus*, and *Tadarida teniotis*. Closer examinations to prove such migrations would be suitable in cooperation with range states of the Agreement like Spain and Morocco (Strait of Gibraltar), Tunisia (together with Italy and Malta), Turkey and Cyprus.

Special inquiries in the framework of the R+D-Project have shown that genetic analyses of bat excrements can provide useful data to complement bat banding

results. Genetic characteristics of the animals, which left the samples behind, can be identified, so that comparisons of distant populations seem possible. In case they show very little diversity a regular genetic exchange is likely, e.g. via migrating individuals. The required samples can be collected with little or non disturbance to the bats. Operative and financial requirements for cooperating laboratories may be low if the gene sequencing procedure is carried out by service companies. However, as a precondition a data bank for comparison must be available.

Conclusions

According to the results of the project it is recommendable to

- open the EUROBATS Agreement for the accession of states which are outside but close to the current Agreement area;
- further investigate the opportunities of genetic analyses of bat droppings to prove population exchange across greater distances;
- support participation and cooperation of research institutions in many EUROBATS range states in order to improve conservation targeted bat research.

The Advisory Committee is invited to consider appropriate follow-up activities under the EUROBATS Agreement in an ad-hoc working group during the AC13 Meeting in Cluj, Romania.