AGREEMENT ON THE CONSERVATION OF POPULATIONS OF EUROPEAN BATS (EUROBATS)

Report on implementation of the Agreement in the Czech Republic

A. General InformationGeneral informationGeneral informationGeneral informationGeneral informationGeneral informationGeneral information

- *Name of Party:* Czech Republic
- *Date of Report:* May 2006
- *Period covered:* June 2003 – May 2006
- *Competent Authority:* Ministry of Environment
- *Changes regarding:*
  - *Competent Authority:* - - -
  - *Appointed Member of the Advisory Committee:* Josef Chytil
  - *Membership of other committees/working groups:* - - -

B. Status of Bats within the Territory of the PartyStatus of Bats within the Territory of the PartyStatus of Bats within the Territory of the PartyStatus of Bats within the Territory of the PartyStatus of Bats within the Territory of the PartyStatus of Bats within the Territory of the PartyStatus of Bats within the Territory of the Party

1. Summary Details of Resident Species

So far, 25 bat species have been recorded in the Czech Republic. However, occurrence of three of them is considered to be more or less accidental (*Rhinolophus ferrumequinum, Nyctalus lasiopterus, Hypsugo savii*). Two species (*Myotis blythii, Myotis dasycneme*) are found rarely but repeatedly in hibernacula and during autumn migrations; for the second one the numbers of records are increasing including confirmed reproduction in the country (S Moravia). Nineteen species can be considered resident, they breed regularly in the country (including *Pipistrellus pygmaeus* and *P. nathusii*). The occurrence (probably not very rare; the occurrence of pregnant females) of newly recognized species *M. alcathoe* was proved very recently in C Bohemia.

2. Status and Trends

The table below shows current status and trends of all bat species recorded in the Czech Republic.

Note:

a) Population estimates are not available.

b) The official Red List of all vertebrate species of the Czech Republic including bats was published in 2003 (Plesník et al. 2003). The part devoted mammals was prepared by Anděra et Červený (see Literature sources at the last page). All the criteria are based on the 2003 IUCN criteria and the guidelines for application of IUCN criteria at regional levels. The table follows the new classification of bat species.

Species	Distribution	Status	Trends	Red List (unpublished)
Rhinolophus ferrumequinum	only 7x recorded	very rare	?	CR
Rhinolophus hipposideros	restricted	relatively rare	+	EN
Myotis bechsteinii	restricted	rare	?	DD
Myotis oxygnathus	restricted	very rare	?	CR
Myotis brandtii	widespread	relatively common	?	
Myotis dasycneme	restricted	rare	+?	CR
Myotis alcathoe	restricted?	rare?	?	not evaluated
Myotis daubentonii	widespread	common	+	
Myotis emarginatus	restricted	rare	+ ?	VU
Myotis myotis	widespread	relatively common	+	VU
Myotis mystacinus	widespread	common	?	
Myotis nattereri	widespread	relatively common	?	
Nyctalus lasiopterus	only 1x recorded	very rare	?	
Nyctalus leisleri	restricted	rare	?	DD
Nyctalus noctula	widespread	common	?	
Eptesicus nilsonii	restricted	common	+	
Eptesicus serotinus	widespread	common	?	
Pipistrellus pipistrellus	restricted	common	?	
Pipistrellus pygmaeus	restricted	common	?	DD
Pipistrellus nathusii	restricted?	rare	?	DD
Hypsugo savii	only 3x recorded	very rare	?	DD
Plecotus auritus	widespread	common	?	
Plecotus austriacus	widespread	relatively common	?	
Vespertilio murinus	restricted	rare	?	DD
Barbastella barbastellus	restricted	relatively common	+	

3. Habitats and Roost Sites

No substantial changes.

4. Threats

Two important factors currently affecting bat roost sites in the country should be highlighted:

a) renovation, reconstruction or rearrangement of roofs and loft spaces in old buildings (churches, castles etc.) Due to economic development of the country, an increasing number of maternity roosts (especially those of *Myotis myotis*) are threatened by this factor. Although the species inhabiting this kind of shelters are provided with strict legislative protection, relevant nature conservation authorities are not always informed about the planned renovation.
b) unsuitable methods of safeguarding of abandoned mines which host winter roosts of bats. Important progress was achieved in the last triennium, and nowadays majority of these activities are realized after the consultation with nature conservation authorities.

5. Data collection, analysis, interpretation and dissemination

- hibernacula counts and surveys of maternity roosts (monitoring)

Regular monitoring of more than 300 hibernacula sites are monitored in the mid-winter times (mid January -mid-February). The census has been currently co-ordinated by the Czech Bat Conservation Trust. This monitoring is coordinated by the first professional employer of this NGO, dr. Tomáš Bartonička. Both researchers and volunteers are involved in the surveys. It is one of the best monitoring programmes, aimed at animal species, run in the country.

In addition to hibernacula counts, monitoring on nursery colonies of *Rhinolophus hipposideros, Myotis myotis* and *Myotis emarginatus* (NATURA 2000 species) is ensured by the same scheme.

- scientific research

Examples of research activities (universities, Academy of Science, National Museum etc.):

- systematics and biogeography of bats in the Mediterranean and the Middle East
- palaeontology of Vespertilionidae bats
- monitoring of bats in different forest types of the Czech Republic
- neuromorphological traits and chiropteran phylogeny
- distribution of *Pipistrellus pipistrellus* and *Pipistrellus pygmaeus* in the Czech Republic, their habitat preferences, prey preference
- ecology and behaviour of *Pipistrellus nathusii*
- flight activity and habitat use in *Nyctalus noctula*
- flight activity of bats out of the vegetation period
- seasonal dynamics of a population of *Myotis daubentonii*
- biology of *Myotis myotis* in pre-hibernation period
- parasitation of *Myotis daubentonii* by *Spinturnix andegavinus* (Acarina, Mesostigmata)
- parasitation of different species by *Cimicidae*

In addition to being published in scientific journals, results of these research projects are presented at national zoological conferences held annually in Brno and during membership meetings of the Czech Bat Conservation Trust.

- bat ringing

There is a long tradition of bat ringing in the country (since the late 1940s). Although the current ringing activities are restricted to several well-planned projects, there is a large amount of data from the past. In the years 1999-2003, data on 89,108 ringed individuals of 23 species were collected and entered in an electronic database, managed by the Agency for Nature Conservation and Landscape Protection. The basic paper has been published in 2003 (Gaisler et al). The most important information and results on this ringing activity are included also in Hutterer et al. (2005).

C. Measures Taken to Implement Article III of the Agreement

6. Legal measures taken to protect bats, including enforcement action

The legislative protection of all bat species of bats in the Czech Republic is ensured by up-dating of the Act No. 114/1992 on nature conservation and landscape protection from 2004. This up-dating included mainly all principles of Birds and Habitats Directives of EU into our legislation. Moreover, the are several species particularly protected through the Regulation No. 395/1992 (see the last national report). Exceptions (permits) to the Act are granted by competent authorities (Ministry of Environment and regional authorities). Offence against the law is penalised by the Czech Environmental Inspection.

Moreover, deliberate killing and capture of bats is treated also by the Act No. 167/1993 on animal welfare. Permits are granted by competent authorities, co-ordinated by the Ministry of Agriculture.

7. Sites identified and protected which are important to the conservation of bats

Current protection of bat sites in the Czech Republic is relatively good, many important hibernacula are designated as or included in Specially Protected Areas (under the Act No. 114/1992 on nature conservation and landscape protection).

More extensive and more efficient protection of bat sites is provided within the NATURA 2000 network. There are 152 SCIs established only and/or partly (together with other species) for bats. Those SCIs include both important wintering sites and maternity colonies of bats´ species included in Habitats Directive.

In total, eight bat species listed in Annex II of the Habitats Directive occur in the Czech Republic. However, no sites are proposed for *Rhinolophus ferrumequinum* and *Myotis blythii* whose occurrence in the country is very rare, rather of accidental character. The most important hibernation sites have been identified for *Rhinolophus hipposideros, Myotis myotis, M. emarginatus, M. dasycneme* and *Barbastella barbastellus.* Similarly, the most numerous nursery colonies have been listed in *R. hipposideros, Myotis myotis* and *M.*

emarginatus. Therefore, most pSCIs are shelters (winter or summer roosting sites). Due to the lack of data on maternity roosts of *Barbastella barbastellus* and on roosts of *Myotis bechsteinii,* several larger areas of well-preserved woodland, known to host these species (based on netting results), have been selected as pSCIs.

8. Consideration given to habitats which are important to bats

Since not enough exact information (on habitat use, foraging sites etc.) is available in the country, no particular protection has been provided to bat habitats so far. However, the best preserved woodlands are included in Specially Protected Areas (under the Act No. 114/1992 on nature conservation and landscape protection) and are also designated as NATURA 2000 sites (see also point 7). Moreover, the number of research projects aimed at the use of different habitats by bats (the most important running project deals with 10 different forest types) and the amount of data obtained by bat detectors and radio-tracking has been increasing recently. This information can be used in the future to plan more effective conservation of habitats important to bats.

9. Activities to promote the awareness of the importance of the conservation of bats

Within the last years, the European Bat Night has become an important public awareness event in the country. While it was held at four sites only in 1999 and 2000, the number of events increased to 21 in 2005 (International Year of the Bat). The total number of participants reached already more than 1,000, and in 2005 the total number of participants was 1.731 (40-50 % are children). The events are organised by the Czech Bat Conservation Trust in co-operation with other NGOs (Czech Union of Nature Conservationists), staff of show caves, administrations of Protected Landscape Areas etc. For details, see reports on the European Bat Night in the Czech Republic.

Several series of postcards, folding picture-books and a hide-game with bat photos were published by an active bat group (members of the Czech Bat Conservation Trust) in Liberec. These materials are used during European Bat Nights and other events and have met with much success.

The Agency for Nature Conservation and Landscape Protection has prepared a translation of important brochure concerning ecology and protection of forest bat species (from German original "Bats in forests").

10. Responsible bodies, in accordance with Article III.5 of the Agreement, nominated for the provision of advice on bat conservation and management

No changes.

11. Additional action undertaken to safeguard populations of bats

No changes.

12. Recent and ongoing programmes (including research and policy initiatives) relating to the conservation and management of bats. In the case of research, summaries of completed projects should be provided, giving references where possible and acknowledging the sources of funding.

See No. 8.

13. Consideration being given to the potential effects of pesticides on bats and their food sources, and efforts to replace timber treatment chemicals which are highly toxic to bats

No changes concerning the existing legislation (see the national report submitted in 2003).

When permits (exceptions to the Act No. 114/1992 on nature conservation and landscape protection, see point 6) are granted by the Ministry of Environment for renovation of roofs and loft spaces in buildings inhabited

by *Rhinolophus hipposideros* and *Myotis myotis* nursery colonies, they include prohibition of the use of timber treatment chemicals which are toxic to bats (these chemicals are listed in the permit).

D. Functioning of the Agreement

14. Cooperation with other Range States

There is a mailing list used by Slovak and Czech bat workers to discuss different topics concerning bat research and conservation.

The Vespertilio, an international journal of chiropterology, is published yearly by the Czech Bat Conservation Trust (CESON) and the Slovak Group for Bat Protection (SON).

There is a good tradition of cooperation between the Czech Republic and Slovakia in research projects (hibernacula counts etc.).

Eleven participants from our county took part on Xth Bat Research Symposium in Galway (Ireland). Both the prices for the best presentation and the best poster were given to Czech Participant, Helena Jahelkova.

In September 2005, a meeting of Czech and Polish chiropterologists took part in Wojciechow, Poland.

15. Measures taken to implement Resolutions adopted by Meetings of Parties

- Resolution 3.5 (International Year of the Bat) – see point 9 of this report.
- Resolution 3.7 (Amendment of the Agreement) – The Amendment was accepted by the Government in December 2001.
- Resolution 3.8 (Implementation of the Conservation and Management Plan)

ad 1: Legal Requirements
All bat species occurring in the Czech Republic are nowadays protected because of transposition of the Habitats Directive into national legislation. See also point 6 of this report.

ad 2: Population Survey and Monitoring
Of the species listed in the Action Plan, seven occur in the Czech Republic. While *Rhinolophus hipposideros* and *Myotis myotis* are monitored carefully in the country (regular hibernacula counts which follow a standard methodology, but also counts at maternity roosts are carried out, see point 5 of this report), monitoring of the other species (*Myotis blythii, M. bechsteinii, Eptesicus serotinus, E. nilssonii, Nyctalus noctula*) is difficult because of their ecology and for logistic reasons (lack of resources). Bat detectors are not widely used in the country so far. Nowadays, long-term project on detectoring of forest bat species is carried out.

ad 3: Roosts
Nationally agreed guidelines for the conservation of roost sites meriting protection have not been established yet. However, the first step towards this is the manual for regional authorities, mentioned under point 9 of this report.

The important underground roost sites for bats in the Czech Republic have been identified and the data are available to nature conservation authorities.

ad 4: Foraging Habitats
Surveys to identify critical feeding areas close to maternity colonies of national or international importance were started e.g. for *P.pygmeus*, *M. daubentonii* and *M. emarginatus*.

National guidelines for conservation of bat habitats have not been drafted yet.

ad 5: Promoting Public and Professional Awareness of Bats and their Conservation and Providing Advice
There is a continuing effort at public awareness in the country (see point 9 of this report). The negotiations concerning NATURA 2000 sites were used also for the increase of public awareness of bats.

National guidance to professionals who come across bats in the course of their work has not been produced yet.

ad 6: Pesticides
See point 13 of this report

ad 7: International Co-operation

See point 14 of this report. No measures to implement the species action plans for *Rhinolophus ferrumequinum* and *Myotis dasycneme* have been adopted in the country, since these two species occur only rarely there.

Important literature sources:

Gaisler J., Hanák V., Hanzal V. et Jarský V. 2003: Výsledky kroužkování netopýrů v České republice a na Slovensku, 1948-2000 /Results of bat banding in the Czech and Slovak Republics, 1948-2000/. Vespertilio, 7: 3-61.

Plesník J., Hanzal V. et Brejšková L. 2003: Červený seznam ohrožených druhů České republiky. Obratlovci /Red List of Threatened Species in the Czech Republic. Vertebrates/. Příroda, Praha, 22: 1-184.

Anděra M. et Červený J. 2003: Červený seznam savců České republiky /Red List of Mammals of the Czech Republic/. Příroda, Praha, 22: 121-129.

Hutterer R., Ivanova T., Meyer-Cords C. et Rodrigues L. 2005: Bat migrations in Europe. A review of banding data and literature. Naturschutz und Biologische Vielfalt, Federal Agency for Nature Conservation, Bonn, 28: 1-162.