

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

## Report on implementation of the Agreement in the Czech Republic

### A. General information

- *Name of Party:* Czech Republic
- *Date of Report:* June 2003
- *Period covered:* December 1999 – June 2003
- *Competent Authority:* Ministry of Environment
- *Changes regarding:*
  - *Competent Authority:* - - -
  - *Appointed Member of the Advisory Committee:* Eva Cepakova (nee Suchomelova)
  - *Membership of other committees/working groups:* - - -

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

#### 1. *Summary Details of Resident Species*

So far, 24 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, however, their reproduction in the country has not been proved recently. Nineteen species can be considered resident, they breed regularly in the country (including *Pipistrellus pygmaeus* and *P. nathusii*).

#### 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) No official Red List of bats of the Czech Republic has been published so far. At present, new assessment of all vertebrate species has been carried out by specialists, based on the 2001 IUCN criteria and the guidelines for application of IUCN criteria at regional levels. The table follows the new classification of bat species (final draft of the Red List).

Species	Distribution	Status	Trends	Red List (unpublished)
<i>Rhinolophus ferrumequinum</i>	only 7x recorded	very rare	?	CR
<i>Rhinolophus hipposideros</i>	restricted	relatively rare	+	VU
<i>Myotis bechsteinii</i>	restricted	rare	?	DD
<i>Myotis blythii</i>	restricted	rare	?	CR
<i>Myotis brandtii</i>	widespread	relatively common	?	
<i>Myotis dasycneme</i>	?	rare	?	CR
<i>Myotis daubentonii</i>	widespread	common	+	
<i>Myotis emarginatus</i>	restricted	rare	+?	VU
<i>Myotis myotis</i>	widespread	relatively common	+	VU
<i>Myotis mystacinus</i>	widespread	common	?	
<i>Myotis nattereri</i>	widespread	relatively common	?	
<i>Nyctalus lasiopterus</i>	only 1x recorded	very rare	?	
<i>Nyctalus leisleri</i>	restricted	rare	?	DD
<i>Nyctalus noctula</i>	widespread	common	?	
<i>Eptesicus nilsonii</i>	restricted	common	+	
<i>Eptesicus serotinus</i>	widespread	common	?	
<i>Pipistrellus pipistrellus</i>	restricted	common	?	
<i>Pipistrellus pygmaeus</i>	restricted?	common?	?	DD
<i>Pipistrellus nathusii</i>	restricted?	very rare	?	DD
<i>Hypsugo savii</i>	only 2x recorded	very rare	?	
<i>Plecotus auritus</i>	widespread	common	?	
<i>Plecotus austriacus</i>	widespread	relatively common	?	
<i>Vespertilio murinus</i>	restricted	rare	?	DD
<i>Barbastella barbastellus</i>	restricted	relatively common	+	VU

### 3. Habitats and Roost Sites

No substantial changes (finding of the country's first maternity roost of *Myotis myotis* situated in a cave was mentioned in the update to the national report in 2001).

### 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*) is 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. This threat has become quite an urgent problem in the last two years, since responsible mining authorities started to safeguard abandoned mines because of human security at many places (after several cases of mortal wounds). When nature conservation authorities are not informed, mine entrances may be closed using gates or buried, therefore, the mines cannot be used by bats any more.

## 5. Data collection, analysis, interpretation and dissemination

- hibernacula counts and surveys of maternity roosts (monitoring)

In 2001, results of a 30-year census of bats in underground hibernacula in the Czech Republic (including primary data) were published in the *Vespertilio* journal. The census has been currently co-ordinated by the Czech Bat Conservation Trust. Both professional researchers and volunteers are involved in the surveys. At present, about 250 sites (mostly caves and mines) are surveyed annually. It is one of the best monitoring programmes, aimed at animal species, run in the country.

In addition to hibernacula counts, extensive data on nursery colonies of *Rhinolophus hipposideros*, *Myotis myotis* and *Myotis emarginatus* were collected by the Agency for Nature Conservation and Landscape Protection, the authority responsible for proposal of NATURA 2000 sites in the Czech Republic, in 2000-2003.

- 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
- neuromorphological traits and chiropteran phylogeny
- distribution of *Pipistrellus pipistrellus* and *Pipistrellus pygmaeus* in the Czech Republic, their habitat preferences
- ecology and behaviour of *Pipistrellus nathusii*
- food and foraging ecology of *Eptesicus nilssonii*
- 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
- parasitisation of *Myotis daubentonii* by *Spinturnix andegavinus* (Acarina, Mesostigmata)

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 about 100,000 ringed individuals were collected and entered in an electronic database, managed by the Agency for Nature Conservation and Landscape Protection. Results of the analyses will be published in a series of papers.

## C. Measures Taken to Implement Article III of the Agreement

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

Legislative protection of bats in the Czech Republic is given by the Act No. 114/1992 on nature conservation and landscape protection and 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 should be provided within the NATURA 2000 network (the Czech Republic will join the European Union in May 2004). Based on the data collected in 2000-2003, the Agency for Nature Conservation and Landscape Protection has prepared a proposal of SCIs for bats.

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) or will be designated as NATURA 2000 sites (see also point 7). Moreover, the number of research projects aimed at the use of different habitats by bats 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 two 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 fourteen in 2001 (International Year of the Bat) and ten in 2002. The total number of participants reached about 840 in the year 2001 and 800 in the year 2002. 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 manual for regional authorities, explaining the most important issues in bat conservation and giving advice on how to solve different kinds of problems related to bats (how to safeguard old mines and

renovate lofts in a bat-friendly way, how to treat situations when bats appear in houses during summer or autumn movements, or when they inhabit prefab houses, how to handle a wounded or exhausted bat). The manual can be found at the Agency's web site.

*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.*

No changes.

*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 1999).

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*

In 2000, the Regional Studies Museum in Ceska Lipa (northern Bohemia) received funding from EURONATUR (Germany) to safeguard one underground bat hibernaculum within the three-year German-Polish-Czech project "Bat roosts on both sides of the Oder river".

A workshop called "Bats in prefab buildings", aimed at the occurrence of bats in this type of houses, conflicts with people and potential solutions, was organised by two Slovak bat NGOs in September 2002. Both Slovak and Czech bat workers took part in the workshop, which has led to many practical outcomes.

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.).

## 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 (as well as the update to the national implementation report submitted in 2002)
- 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

Although several bat species occurring in the Czech Republic are not listed as Specially Protected (according to the Act No. 114/1992 on nature conservation and landscape protection and the Regulation No. 395/1992) and are thus protected only at general level as populations (no permits are required for capture, keeping or killing of individuals), this should be changed soon 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.

### 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 were made available to the Advisory Committee in 2001.

### ad 4: Foraging Habitats

Surveys to identify critical feeding areas close to maternity colonies of national or international importance have not been started in the country yet, for financial reasons.

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).

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.