

Report on the Implementation of the Agreement in the Slovak Republic

A. General information

- Name of party: Slovak Republic
- Date of report: April 2000
- Period covered: from December 1999
- Competent authority:
 - Ministry of the environment of the Slovak Republic, Department of Nature and Landscape Protection, Ľ. Štúra 1, SK – 811 02 Bratislava 1 (Mgr. Peter Pilinský)
 - Appointed member of the advisory committee: Mgr. Marcel Uhrin, Muránska planina National Park Administration Office, J. Kráľa 12, SK – 050 01 Revúca

B. Status of bats within the territory of the party

24 bat species occur in the Slovak Republic. A list of species with their ecososological evaluation in the Order of the Ministry of Environment No. 93/1999 (On protected plants and protected animals ...) and status in the National Mammal Red List (Štollmann et al. 1997) using new criteria IUCN (1995) is given in the following table:

Species	Order No. 93/1999	Red List
<i>Rhinolophus ferrumequinum</i>	C	EN: A2b, c, B1, 2c
<i>Rhinolophus hipposideros</i>	B	LR: cd
<i>Rhinolophus euryale</i>	C	VU: B1: 2c
<i>Myotis emarginatus</i>	B	VU: B1
<i>Myotis bechsteinii</i>	A	LR: lc
<i>Myotis nattereri</i>	A	LR: nt
<i>Myotis dasycneme</i>	A	VU: B1
<i>Myotis daubentonii</i>	A	LR: lc
<i>Myotis mystacinus</i>	A	VU: B1
<i>Myotis brandtii</i>	A	VU: B1
<i>Myotis myotis</i>	B	LR: cd
<i>Myotis blythii</i>	A	LR: cd
<i>Nyctalus noctula</i>	A	LR: lc
<i>Nyctalus lasiopterus</i>	A	DD
<i>Nyctalus leisleri</i>	A	DD
<i>Eptesicus serotinus</i>	A	DD
<i>Eptesicus nillsonii</i>	B	LR: lc
<i>Vespertilio murinus</i>	A	DD
<i>Pipistrellus pipistrellus</i>	B	LR: lc
<i>Pipistrellus nathusii</i>	A	DD
<i>Plecotus austriacus</i>	B	LR: nt
<i>Plecotus auritus</i>	B	LR: nt
<i>Barbastella barbastellus</i>	B	LR: cd
<i>Miniopterus schreibersii</i>	C	CR: A1a, c, B2d, c, 3a, b, c

Explanations:

a – endangered, b – very endangered, c – critically endangered

Red List according Štollmann A. et al. 1997 (In: Ochrana prírody, Banská Bystrica 15: 201–218).

Rhinolophus ferrumequinum

1. Summary details of resident species: The species occurs in limited territory mainly in the southern part of the country. There are few known reproducing colonies in the central part of southern Slovakia.
2. Status and trends: Endangered, disappearance of some nursery colonies during last decade; moderate increase of the numbers in hibernaculas.
3. Habitats and roost sites: Underground hibernacula (caves, mines, galleries), nursery colonies in lofts spaces.

Rhinolophus hipposideros

1. Summary details of resident species: Widespread species.
2. Status and trends: Expressive population decrease recorded in Western Europe was not confirmed in Slovakia; in the last decade increasing numbers in hibernaculas.
3. Habitats and roost sites: Underground hibernacula (caves, mines, galleries), nursery colonies in lofts spaces, various other roosts (small cavities, small forest buildings, trees hollow etc.)

Rhinolophus euryale

1. Summary details of resident species: In the Karstic region which is located in the Central Southern Slovakia species have very limited distribution. In this region a few isolated populations occur. Slovakian populations represent a separate colony of the distribution area in this species.
2. Status and trends: Vulnerable because of the limited number of known roosts; populations seems to be stable.
3. Habitats and roost sites: Species hibernate and reproduce in underground roosts (mainly caves) (in one case in an old mine); occasional records of nursery colonies in the loft spaces)

Myotis emarginatus

1. Summary details of resident species: It seems to prefer warmer sites in lower altitude, not often present in Western Slovakia.
2. Status and trends: Vulnerable, trends are not known, numbers in hibernacula almost stable.
3. Habitats and roost sites: Hibernation in underground spaces, nursery colonies in loft spaces mainly in warm lowland.

Myotis bechsteinii

1. Summary details of resident species: Rare species, but recorded in several sites throughout the Slovakia.
2. Status and trends: Classified as „low risk“ species, because of „trend estimation“ do not have enough data.
3. Habitats and roost sites: Summer data recorded with the aid of mist-netting, several records of nursery colonies in hollow trees, winter records in underground roosts.

Myotis nattereri

1. Summary details of resident species: Several recordedings from the Southern part of Central Slovakia.
2. Status and trends: Species classified as „low risk“, trends are not known.
3. Habitats and roost sites: In winter populations are found in underground roosts (mainly in artificial), summer roosts are not well known.

Myotis dasycneme

1. Summary details of resident species: According to new data recorded from bat detector surveys, species seems to be more distributed then was evaluated earlier. Only one reproducing colony was found in 80's in the Eastern Slovakia.

2. Status and trends: Vulnerable, increasing numbers of recorded sitings, within hibernacula locality increasing numbers of individuals.
3. Habitats and roost sites: Summer occurrence in fishponds and lakes, hibernacula underground (both, natural and artificial), one recorded nursery colony in the loft.

Myotis daubentonii

1. Summary details of resident species: Common and widespread species.
2. Status and trends: Species classified as „low risk“, population is significantly increasing.
3. Habitats and roost sites: Winter roosts known in underground spaces, summer occurrence in landscape with water surfaces, several records of colonies in tree hollows.

Myotis mystacinus

1. Summary details of resident species: It seems to be relatively common species in higher altitude and in the woodlands.
2. Status and trends: Vulnerable, according to data from hibernaculas population, but over all seems to be stable.
3. Habitats and roost sites: Summer roosts in forests buildings and lofts of churches, winter roosts in underground habitats. Together with *M. brandtii* create numerous winter colony in Dobšiná Ice Cave in Central Slovakia.

Myotis brandtii

1. Summary details of resident species: Similar to *M. mystacinus*, seems to be relatively common species in higher altitude and in woodlands areas.
2. Status and trends: Vulnerable, according to data from hibernaculas population, but seems to be stable.
3. Habitats and roost sites: Summer roosts in isolated forests buildings, winter roosts in underground habitats.

Myotis myotis

1. Summary details of resident species: One of the most common species recorded throughout the country.
2. Status and trends: Species classified as „low risk“, population seems to be increasing.
3. Habitats and roost sites: Summer roosts known in numerous sites almost exclusively in loft spaces; two cases of nursery colonies have been record the natural limestone caves. Hibernacula in underground roosts (caves and artificial sites – mines, galleries, cellars).

Myotis blythii

1. Summary details of resident species: Common species also recorded throughout the country; nursery colonies often mixed with *M. myotis*.
2. Status and trends: Classified as „low risk“ species and nonconclusive data for trend estimation.
3. Habitats and roost sites: Summer roost are known in numerous sites almost exclusively in loft spaces; an occurrence of one nursery colony (mixed with *M. myotis*) is know in the natural limestone caves. Hibernacula in underground roosts (caves and artificial – mines, galleries, cellars).

Nyctalus noctula

1. Summary details of resident species: Widespread species.
2. Status and trends: Classified as „low risk“ species, trends are not known.
3. Habitats and roost sites: Summer – tree hollows, fissures in buildings, water facilities in buildings (block of flats).

Nyctalus lasiopterus

1. Summary details of resident species: Only one specimen recorded in the Eastern Slovakia in 1973 and small amounts of additional data is available from owl pellet analysis.
2. Status and trends: Data nonconclusive for species.
3. Habitats and roost: Single specimen was recorded hunting over water surface in the fish pond landscape.

Nyctalus leisleri

1. Summary details of resident species: Rare species found occasionally in various sites throughout the country.
2. Status and trends: Data nonconclusive for species.
3. Habitats and roost: Mainly lowland deciduous forests and wetlands. Roosts are generally located in hollow trees.

Eptesicus serotinus

1. Summary details of resident species: Common species found in various sites throughout Slovakia, mainly in lowlands and human settlements.
2. Status and trends: There is not enough data for trend estimation, potentially vulnerable species (due to occurrence in human settlements)
3. Habitats and roost: Summer occurrence in various roosts in buildings, during winter in underground spaces and crevices.

Eptesicus nillsonii

1. Summary details of resident species: Locally common species; occurs in woodlands at higher altitudes.
2. Status and trends: Classified as „low risk“ species, population seems to be stable or with small increasing.
3. Habitats and roost: Summer roosts found mainly in small forest buildings, wintering in underground habitats.

Vespertilio murinus

1. Summary details of resident species: Rare species, distribution patterns are known mainly on osteological records (crevices thanathocenosis, owls pellets), records of individual species occurring occasionally. During autumn often recorded in towns.
2. Status and trends: Data nonconclusive for species.
3. Habitats and roost: Winter records show occasionally found in buildings in towns, summer roosts in forest buildings (male colonies) and also crevices in rocks.

Pipistrellus pipistrellus

1. Summary details of resident species: It seems to be a common species, records show this specie is found in the entire territory of Slovakia.
2. Status and trends: Classified as „low risk“ species, there is not enough information for trend estimation.
3. Habitats and roost: Hibernation known in underground spaces and in buildings (e.g. dam), summer roosts less known.

Pipistrellus nathusii

1. Summary details of resident species: Single record known from entire territory of the country, according to new bat detector data, often occurs in lowland wetland areas in Western Slovakia.
2. Status and trends: Data nonconclusive for estimate.
3. Habitats and roost: It seems to prefer lowland country with water.

Plecotus austriacus

1. Summary details of resident species: Relatively common species, mainly in the lower altitude in cultural landscape areas.

2. Status and trends: Classified as „low risk“ species near threatened; according data from winter census population seems to be stable.
3. Habitats and roost: Summer roost almost exclusively in loft spaces (in villages or in forests buildings), hibernation in underground spaces.

Plecotus auritus

1. Summary details of resident species: Common species which occurs mainly in woodlands and in higher altitude.
2. Status and trends: Classified as „low risk“ species near threatened, population seems to be stable.
3. Habitats and roost: Similar to *P. austriacus*.

Barbastella barbastellus

1. Summary details of resident species: Relatively common species occurred throughout the country. Summer records are rare, no nursery colony were recorded in Slovakia. Often in hibernaculas, colonies numerous with recorded data of up to 6 000 spec.
2. Status and trends: Species classified as „low risk“ (LR.cd), upon census of hibernaculas a characteristic, sensitive behaviour when disturbed, was recorded resulting in locally decreasing of numbers of individuals.
3. Habitats and roost: Hibernation in underground spaces, data from summer roosts is nonconclusive.

Miniopterus schreibersii

1. Summary details of resident species: Very rare species presently occur, limited numbers of sites.
2. Status and trends: Critically endangered species, recorded disappearance from several sites where nursery colonies were previous observed. Presently, only two nursery colonies are known in Southern Slovakia, other records (mainly mist-netting) are situated to karstic region of Southern Slovakia (Slovak Karts, Drienčanský Karst Region)
3. Habitats and roost sites: Both, summer and winter roosts are almost exclusively underground sites (caves, mines, galleries).

4. Threats

The major threats that occur in Slovakia are:

- disturbance – mainly in the underground roosts (tourism in karstic regions, hikers in caves, minerals collectors etc.)
- destruction of roosts – renovation of lofts in buildings, unsuitable cave and abyss bloking by human, destroying of old mines and old trees, and forests destruction
- toxic pesticides – there are not enough information on the level of impact of pesticides on bats

5. Data collection

Thanks to bat researchers, which was traditionally carried out in the former Czechoslovakia, there is relatively enough data on several species. „Forest“ bat species are the fewest known group in Slovakia. Since the division of Czechoslovakia significian amounts of slovakian workers, including volunteers, has increased. There is no research institute in Slovakia, which specializes in bats. Data is collected mainly by state nature conservation organisations:

- Slovak Agency for Environment Banská Bystrica, which included Administration Offices of the 16 Protected Landscape Areas
- Slovak National Parks Office Liptovský Mikuláš, which including Administartion Offices of 7 National Parks.

In these organisations, since 1993, a system of fauna supervisors has focused on several animals species and animal groups. The task of this system is to coordinate data collection and protection of separate species or animal groups within their biotops. Muránska Planina National Park Administration Office is responsible for the bat protection.

The most important significance responsibility of bat research belongs to the members of the non-governmental organisations. Since 1993, these workers have been associated with the „Group for Bat Protection,“ (SON – Skupina pre ochranu netopierov in Slovak). Besides these organisation, several another groups are working specially on bats:

- Environmental Education Center BAMBI, Moldava nad Bodvou
- Miniopterus Working Group, Bratislava.

Data on bats is also collected by the members of local groups including, Slovak Speleological Society and Slovak Public Caves Office. These organizations supervise 12 caves open to the public in Slovakia.

The major source of data are:

- winter bat census: Annually, use of standard methods, more than 300 hibernaculas are checked in the whole territory of Slovakia; some of the localities have been continuously censused since the 50s; results of these census since 1994 summarized in SON documents
- bat banding: there is available banding datasets from the Czech Republic; the banding programmes in Slovakia use bands with the markings, „The National Museum Prague,“; when data is collected it is provided to The National Museum Prague which updates the dataset
- survey of bat occurrence in buildings: this programme is very extensively organised by the members of NGOs; since 1993, more than 2500 buildings were checked
- bat detectors: because of small amounts of equipment in Slovakia using detectors for data collections is very limited
- local databases (held by volunteers)

C. Measures taken to implement article III of the agreement

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

The first legislation to protect bats and other animal species in former Czechoslovakia was the 1955 Act on the State Protection of Nature. All bats occurring in the territory of Czechoslovakia were included in the list of protected species.

Since 1994, the new legislation on nature protection was called, „prijaté na Slovensku.

Ochrana prírody je upravená in the Acta of the National Council of the Slovak Republic No. 287/1994 on Nature and Landscape Protection as amended by the Act No. 222/1996.“ In this act, general protection of all bat species is provided: „Natural persons and legal persons during conducting of any activity are obliged to avoid needless killing of plants and animals and to avoid damage and destruction of their biotops. ... The trapping and killing of animals is prohibited. This prohibition does not apply in cases of immediate threat or damage to human life or health, or property damage or if provided in special regulations.“

Súčasťou tohoto zákona sú aj ustanovenia on protected animals (including all bat species occurring in Slovakia): „The disturbance of protected animals in their natural development, specifically their killing, wounding, catching, and removing is prohibited. The destruction and damage of their biotops and dwellings, mainly nests, dens and lairs is also prohibited.“ Also all caves (which could be used as roosts by bats) are protected as natural monuments (see also point 7).

Conditions for protection of protected species are in detail regulated in the Order of the Ministry of the Environment of the Slovak republic No. 93/1999. This act cover the protected plants animals and on social evaluation of protected plants, protected animals and trees“.

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

More than 4000 caves were registered in Slovakia until 1999. Most of them could be used as appropriate roosts for bats. According „Act on Nature Protection“ all caves longer than 3 m and abysses deeper than 5 m protected as Nature Monuments. A lot of caves and another sites and habitats which are known to be important to bats are included in National Parks and Protected Landscape Areas. They can also be designated in some of the small-size protected territories: Protected Site, Nature Reserve, National Nature Reserve, Nature Monument, National Nature Monument, which are protected under the Act on Nature nad Landscape Protection (see also point 6).

SON is now preparing publication „Catalogue of bat hibernaculas“ with the full information on all winter roosts and a review of censuses organised in these sites.

Two protected sites specially established for bat protection are in Slovakia:

- Dubnícke bane mines (Eastern Slovakia) – large complex of bandoned mines with numerous and diversity rich bat community
- Dielik (Central Slovakia) – abandoned railway tunnel with numerous winter colony of pipistrelles, Schreiber bats and barbastesles.

8. Consideration given to habitats which are important to bats

Big efforts is given to traditionally roosts:

- underground spaces
 - gating and grilling of the most important sites
 - giving advices and conditions for old mines closing
 - giving conditions for guiding services in caves
- buildings
 - renovations of lofts supervised by nature conservationists
 - loft spces cleaning
 - bat problems in the blocks of flats are addressed
- there are very few information on bat roosts in tree hollows and on feeding habitats.

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

- SON publishes information newsletter „Trúlelek“ (traditional slovakian bat name) for members with information on activities, on literature, stories etc.
- SON and CBCT (Czech Bat Conservation Trust) publish a international journal of chiropterology called, „Vespertilio“
- European Bat Night – in 1998 organised during 2nd International Conference on Carpathian Bats in the Poloniny National Park, in 1999 organised in several sites
- a lot of various articles have been published in newspapers and magazines
- questionnaire on bats are given to public (activities organised by Slovak Public Caves Office among visitors)
- drawing competition „Stork and bat“ is given to schools students (organised by SEO BAMBI in cooperation with hungarian partners)
 - several leaflets (e.g. bats in loft spaces), postcards and small material (e.g. stickers) were published (supported by NGO)
- discussion nets between slovakian bat workers using Internet

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

Muránska planina National Park Office is responsible for coordination of bat research and conservation under the system of supervisors; SON is also the responsible body.

11. Additional action undertaken to safeguard populations of bats
See points 9 and 12.

12. Recent and ongoing programmes (including research and policy initiatives) relating to the conservation and management of bats

- annual winter census of bats (organized by Nature Protection Organisations and by NGOs) in more than 300 localities
- survey of nursery colonies in buildings
- project „Active Bat Conservation“ (organised by SEO BAMBI)
- grid mapping of bats using detectors (organised by SEO BAMBI and by PLA Záhorie)
- ecto- and endoparasitological research (Department of zoology Comenius University Bratislava, Helminthological Institute Košice)
- faunistic research in several regions (e.g. Muránska planina, southern Slovakia, East Slovakian lowlands)
- dynamics of bat population in several caves open to public

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

There is not enough information on this issue. During surveys of the nursery colonies information on the pesticides using practices are compiled.

D. Functioning of the Agreement

14. Cooperation with other range states

There is very good cooperation between volunteers in the Czech Republic, Hungary and Poland. Cooperation is focused on mutual help during winter censuses, on organising summer camps and on realising projects.