

AGREEMENT ON THE CONSERVATION OF POPULATIONS OF EUROPEAN BATS

Report on the implementation of the Agreement in the Slovak Republic (Mop 4 – 2003)

A. General information

Name of Party: Slovak Republic
 Date of report: August 2003
 Period covered: March 2001 – August 2003
 Competent authority: Ministry of the environment of the Slovak Republic,
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B. Status of bats within the territory of the party

1. Summary details of resident species

26 bat species are known in the Slovak Republic (Table 1). Two new species – *Myotis alcathoe* in 2001 (BENDA et al. 2003) and *Pipistrellus pygmaeus* in 2002 (DANKO & PJENČÁK 2002, FULÍN 2002) for the Slovak republic have been recorded since the last national report. As for there is only limited knowledge on these species, their status is not described in the table. During the years 2002 and 2003 new legislature – Act No. 543/2002 on Nature and Landscape Protection and Order of the Ministry of Environment of the Slovak Republic No. 24/2003, administrating Act No. 543/2002 on Nature and Landscape Protection implementing the EU directives was passed. Ecososological evaluation of the species based on the Order No. 24/2003 and status in the National Mammal Red List using new criteria IUCN (1995) is given in the table.

**Table 1. List of bat species known in Slovakia with their legal and conservation status

Species	Order No. 24/2003	Red List (ŠTOLLMANN et al. 1997)	Trend
<i>Rhinolophus ferrumequinum</i>	+	EN: A2b, c, B1, 2c	Declining – stable
<i>Rhinolophus hipposideros</i>	+	LR: cd	Stable – increasing
<i>Rhinolophus euryale</i>	+	VU: B1: 2c	Declining – stable
<i>Myotis emarginatus</i>	+	VU: B1	Probably declining
<i>Myotis bechsteinii</i>	+	LR: lc	Unknown
<i>Myotis nattereri</i>	+	LR: nt	Unknown
<i>Myotis dasycneme</i>	+	VU: B1	Probably increasing
<i>Myotis daubentonii</i>	+	LR: lc	Probably increasing
<i>Myotis mystacinus</i>	+	VU: B1	Unknown
<i>Myotis alcathoe</i>	–	–	Unknown
<i>Myotis brandtii</i>	+	VU: B1	Unknown
<i>Myotis myotis</i>	+	LR: cd	Stable
<i>Myotis oxynathus</i>	+	LR: cd	Stable
<i>Nyctalus noctula</i>	+	LR: lc	Probably increasing
<i>Nyctalus lasiopterus</i>	+	DD	Unknown
<i>Nyctalus leisleri</i>	+	DD	Unknown
<i>Eptesicus serotinus</i>	+	DD	Unknown
<i>Eptesicus nilsonii</i>	+	LR: lc	Stable
<i>Vespertilio murinus</i>	+	DD	Unknown

<i>Pipistrellus pipistrellus</i>	+	LR: lc	Unknown
<i>Pipistrellus pygamaeus</i>	+	–	Unknown
<i>Pipistrellus nathusii</i>	+	DD	Unknown
<i>Plecotus austriacus</i>	+	LR: nt	Stable – declining
<i>Plecotus auritus</i>	+	LR: nt	Stable – declining
<i>Barbastella barbastellus</i>	+	LR: cd	Declining
<i>Miniopterus schreibersii</i>	+	CR: A1a, c, B2d, c, 3a, b, c	Declining

Rhinolophus ferrumequinum

1. Summary details of resident species: The species occurs in limited territory mainly in the southern part of the country. There are known few reproducing colonies in the central part of southern Slovakia.
2. Status and trends: Endangered, disappearance of some nursery colonies during last two 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 decades 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 territory 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 altitudes, often not 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 areas.

Myotis bechsteinii

1. Summary details of resident species: A typical forest species, probably common in deciduous forests, but so far data deficient.
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 by mist-netting, several records of nursery colonies in hollow trees, winter records in underground roosts. Most of the population probably uses hollow trees throughout the year.

Myotis nattereri

1. Summary details of resident species: A typical forest species, probably common, but so far data deficient.

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), part of population probably wintering in tree hollows. Most of the population probably uses hollow trees throughout the year. Several records of occupied tree hollows from the Southern part of Central Slovakia.

Myotis dasycneme

1. Summary details of resident species: According to data recorded from bat detector surveys, species seems to be more distributed than 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 sites, within hibernaculas 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 overall 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 alcathoe

1. Summary details of resident species: Only a few individuals recorded in one locality in southern Slovakia in 2001 (BENDA et al. 2003).
2. Status and trends: Unknown.
3. Habitats and roost sites: Summer roosts probably in deciduous forests.

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 in hibernation quarters.
3. Habitats and roost sites: Summer roosts known in numerous sites almost exclusively in loft spaces; two cases of nursery colonies have been recorded in 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 known 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. Detailed information on distribution of *Nyctalus* genus in Slovakia are just about to be published (DANKO et al. 2003).
2. Status and trends: Classified as „low risk“ species, trends are not known.
3. Habitats and roost sites: In summer mainly in tree hollows, fissures in buildings, roof attics of buildings (prefab houses, block of flats). Data on hibernation of the species in blocks of flat are available.

Nyctalus lasiopterus

1. Summary details of resident species: Since 2003, only one specimen recorded in the Eastern Slovakia in 1973 and small amounts of additional data available from owl pellet analysis were known. In 2003, a young female of *N. lasiopterus* was mist netted in southern Slovakia (MATIS & BOLDOGH 2003). This record is the second record of live individual of the species in Slovakia.
2. Status and trends: Data nonconclusive for species.
3. Habitats and roost: All captured specimen were recorded hunting over water surface in a lowland landscape.

Nyctalus leisleri

1. Summary details of resident species: Common forest species, probably widespread in all forest types. Detailed information on distribution of *Nyctalus* genus in Slovakia are just about to be published (DANKO et al. 2003).
2. Status and trends: Data nonconclusive for species.
3. Habitats and roost: Bound to forest ecosystems throughout year where it inhabits roosts 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 nilsonii

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 thanathocoenosis, owls pellets), records of individual species occurring occasionally. During autumn and winter often recorded in towns.
2. Status and trends: Data nonconclusive for species.
3. Habitats and roost: Winter records show occasionally founds 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 species 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 pygmaeus

1. Summary details of resident species: As a new species for the Slovak republic, it was first time recorded in the Slovak karst Mts. in 2001 (DANKO & PJENČÁK 2002, FULÍN 2002) using bat detectors.
2. Status and trends: Due to lack of data it is impossible to describe species status and its population trends.
3. Habitats and roost sites: Lack of data.

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 (it occurs continuously along the entire Morava river). Current status in Eastern Slovakia was recently analysed (DANKO et al. 2002).
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 and rural 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.
2. Status and trends: Classified as „low risk“ species near threatened, population seems to be stable.
3. Habitats and roost: Similar to *P. austriacus*, and probably also tree hollows.

Barbastella barbastellus

1. Summary details of resident species: Relatively common species occurred throughout the country. Summer records in forest habitats are common, but still 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 in 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 Karst, Drienčanský Karst Region)

3. Habitats and roost sites: Both, summer and winter roosts are almost exclusively underground sites (caves, mines, galleries).

2. Status and trends

The apparent population trends of the species known in Slovakia shows Table 1.

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 and prefabs, unsuitable cave and abyss blocking by human, destroying of old mines and old trees, Locally unsuitable forest management
- toxic pesticides – there are not enough information on the level of impact of pesticides on bats
- changes in landscape features – loss of biocorridors, foraging areas.

5. Data collection

In Slovakia there is no specialized institution on research and conservation of bats. Activities related with data collection, analysis and interpretation are mostly done by the *State Nature Conservancy of the Slovak republic* and several nongovernmental organisations, less by research institutions.

- *The State Nature Conservancy of the Slovak republic*, Banská Bystrica includes Administration Offices of 15 Protected Landscape Areas and 8 National Parks.

A system of fauna supervisors focusing on selected animals species and animal groups has been run by this organisation since 1993. The task of this system is to coordinate data collection and protection of individual species or animal groups within their habitats. Muránska Planina National Park Administration Office is responsible for bat protection.

Data on bats are gathered in a database of the State Nature Conservancy of the Slovak Republic, which is a part of the “istb – information system of taxa and habitats“ Štátnej ochrany prírody SR. Organization secures monitoring of bats on 20 sites (9 hibernation quarters, 9 nursing colonies, 2 sites of mist netting) as a part of the Partial Monitoring System BIOTA of the Ministry of Environment of the Slovak Republic. Recently a great emphasis is given to data collection on bats for the purposes of proposed NATURA 2000 network.

- Great responsibility of bat research is on members of the non-governmental organisations:
 - „Slovak Bat Conservation Group“ (SON – Skupina pre ochranu netopierov)
 - „Environmental Education Center BAMBI“, Moldava nad Bodvou
 - „*Miniopterus*“, basic unit of Slovak Union of Nature and Landscape Conservators, Bratislava
 - „*Bocian*“, basic unit of Slovak Union of Nature and Landscape Conservators, Moldava nad Bodvou
 - local groups of the *Slovak Speleological Society*
- „*Slovak Caves Administration*“

This organisation is in charge of all caves, known in Slovakia. It is also involved in bat research of the caves open to public.

- „*Institute of Forest Ecology of the Slovak Academy of Sciences*“, Zvolen

Research of ecology of forest and tree-hollows dwelling bat species, it is responsible for bat banding database in Slovakia since 2003.

The major source of data are:

- Winter bat census. Annually, use of standard census methods, more than 300 hibernaculas are checked in the whole territory of Slovakia; some of the localities have been continuously censused since the 50s. A *Catalogue of the bat hibernaculas* was published in 2002 (*Vespertilio* No. 6). For some details see point 7 and 12.
- Bat banding. Slovak bands started to be used in Slovakia in 2003. Database of bat banding is in Zvolen (*Institute of Forest Ecology*). Database includes also past bat banding data by other organization (especially National Museum Praha) from Slovakia.
- Survey of bats in buildings. This programme is very extensively organised by the members of NGOs; more than 2500 buildings were surveyed. It also includes survey of bats (especially *Nyctalus noctula*) in blocks of flats and solving bat nuisance problems.
- Bat detectors. In the period covered, using detectors for data collections was increased. Since the year 2002, foraging areas and activity of bats in forests have been investigated. For some details see point 12.
- Mist netting. Data obtained by mist netting (e. g.. at the entrances to underground sites, in forest ecosystems etc.).

C. Measures taken to implement article III of the agreement

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

All bat species in Slovakia are protected since 1965. In the evaluated time period new Act No. 543/2002 on Nature and Landscape Protection has been passed in 2002 in the process of approximation of legislature of Slovak republic to the law of European union.. Based on this act, protection to all bat species is secured. 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 described in the Order of the Ministry of the Environment of the Slovak republic No. 24/2003 administrating the Act No. 543/2002 on Nature and Landscape Protection.

Bats are also covered by international legislation, such as Bern and Bonn Conventions.

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

More than 4000 caves were registered in Slovakia. Most of them could be used as appropriate roosts for bats. According „Act on Nature Protection“ all caves and abysses are 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).

In 2002, SON published a *Catalogue of the bat hibernaculas* with more information on all known winter roosts and a review of censuses organised in these sites. The “*Catalougue*” was published with the support of Zelený projekt of the Ministry of Environment and Action plan for implementation of the National Strategy on biodiversity conservation in Slovakia.

Based on the Act on nature and landscape protection two protected sites were established especially for bat protection in Slovakia:

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

A proposal of national protected areas of European importance (NATURA 2000 network) was prepared by the Slovak republic in 2003. Besides Dubnícke bane mines (see above), the site Bradlo (abandoned mine with a nursery colony of *R. euryale* and *M. schreibersii*) was added to the list.

8. Consideration given to habitats which are important to bats

Conservation of bat habitats is secured through the Act on Nature and Landscape Protection. Plenty of other important bat habitats are located inside national parks and other protected areas with different levels of conservation and management. Survey of foraging habitats in forest ecosystems is conducted on several sites.

9. Activities carried out 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. In period covered, 2 issues (6 and 7) were published.
- SON and CBCT (Czech Bat Conservation Trust) publish a international journal of chiropterology called, „Vespertilio“.
- European Bat Night – organised by SON at two sites in 2003. Altogether 250 people attended the event (lectures, slideshow, netting, detectoring). 2 programmes were a part of this activity (one in TV and one in radio).
- Discussion nets between slovakian bat workers using Internet („Vespertilio“ discussion group). Netopierom sú venované two web sites – stránka SON (www.son.host.sk) a stránka „Miniopterus“, basic unit of Slovak Union of Nature and Landscape Conservators, Bratislava (www.miniopterus.host.sk).
- „Miniopterus“, basic unit of Slovak Union of Nature and Landscape Conservators, Bratislava organized a seminar „Conservation of bats in blocks of flats “ on 26. – 29. 9. 2002. Bat-workers from the Czech and Slovak republic attended the seminar. A workshop on bat nuisance problems in blocks of flats was a part of this seminar.
- With support of EUROBATS Secretariat a Bat Detector Workshop was organized by „Bocian“, basic unit of Slovak Union of Nature and Landscape Conservators, Moldava nad Bodvou on 30. 5. – 3. 6. 2001. 13 people attended the workshop. A brochure on determining bats with a bat detector was published. 9 bat detectors for Slovak bat workers were provided. All these equipment and activities were financed by Milieukontakt Oost-Europa, Dutch embassy and a programme Living Lakes.
- The Slovak Caves Association and Slovak television financed a production of a film on bats in 2003. SON and „Bocian“, basic unit of Slovak Union of Nature and Landscape Conservators, Moldava nad Bodvou co-operated on the film.
- Some presentations and posters were presented on several conferences (e. g. 9th European Bat Research Symposium, Research and protection of caves in Slovakia, Research and protection of mammals in Slovakia)
- List of articles on bats published in the period covered is at the end of this report

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

See points 9 and 12.

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

- a) Annual winter census of bats. Organized by State Nature Protection Organisations and by NGOs in more than 300 localities. In winter 2001/2002 were checked 258 sites, in winter 2002/2003 more than 300 sites; occurrence of 20 bat species was recorded. Activities are funded by State Nature Protection Organisations, voluntary and by occasional sponsors.

- b) Survey of nursery colonies in buildings. Organized and funded mainly by NGOs.
- c) Partial Monitoring System BIOTA. Programme is a part of monitoring of components of environment organized by the Ministry of environment of SR. Altogether 20 sites for monitoring of bat occurrence; financed by the State Nature Conservancy in co-operation with NGOs.
- d) Inventory research in several regions. Grid mapping of bats using detectors (organised by „*Environmental Education Center BAMBI*“, Moldava nad Bodvou and by Protected Landscape Area 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). Financed also from the Action plan for implementation of the National Strategy on biodiversity conservation in Slovakia.
- e) Dynamics of bat population in several caves open to public. Research of seasonal dynamics through monthly surveys is conducted in several caves (e. g. Dobšinská Ice Cave, Domica, Jasovská cave etc.). It is financed by the Slovak Caves Association, State Nature Conservancy of the Slovak Republic and by a student scholarship from Bat Conservation International.
- f) Bat survey in the Slovensky Raj National Park (Slovakia). The action has started 2003 with support of BP Conservation Programme. The project will end on 15. 5. 2004.
- g) Research of ecology of forest and tree-hollows dwelling bat species. Institute of Forest Ecology, Slovak Academy of Sciences.
- h) Research of foraging habitats and activity of bats in forest. Faculty of Forestry, Technical University Zvolen.

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. The questionnaire distributed by IWG was completed in cooperation with Nature Conservancy Department of the Ministry of Environment of the Slovak republic. Basic information in questionnaire was filled using data from Ministry of Economy of the Slovak republic.

D. Functioning of the Agreement

14. Cooperation with other range states

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

In co-operation with Hungarian bat conservation organization, the State Nature Conservancy of SR has started to prepare a LIFE – Nature project “Bat Conservation in the Slovak-Hungarian cross-border region” in 2003.

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

Resolution 2.1 – Consistent Monitoring Methodologies

For detail see section **C.12.a–e**.

Resolution 2.4 – Transboundary Programme: Habitat Proposals

A database of underground habitats was prepared.

Resolution 2.5 – Geographical Scope of the Agreement

Some activities were conducted (see also point 5).

Resolutions 2.7 and 3.3 – Format of National Reports

The report has been prepared accordingly to the new format.

Resolutions 2.8 and 3.8 – On the implementation of the conservation and management plan
As presented in this report, activities to implement the Agreement were taken.

Resolution 3.5 – International Year of the Bat

Only stickers prepared by the Secretariat were circulated to bat-workers in country.

Resolution 3.7 – Amendment of the Agreement

This point has not been implemented yet.

Literature:

References cited in the report:

- BENDA P., RUEDI M. & UHRIN M., 2003: First record of *Myotis alcathoe* (Chiroptera: Vespertilionidae) in Slovakia. *Folia zoologica* (in press).
- DANKO Š. et al., 2003: Rozšírenie netopierov na Slovensku. Časť 4: Raniaky (*Nyctalus noctula*, *Nyctalus leisleri* a *Nyctalus lasiopterus*). (in press).
- DANKO Š., MATIS Š. & PJENČÁK P., 2002: Súhrn doterajších poznatkov o výskyte večernice parkovej (*Pipistrellus nathusii*) na východnom Slovensku. Pp.: 83–87. In: URBAN P. (ed.): *Výskum a ochrana cicavcov na Slovensku V. Zborník referátov z konferencie. Štátna ochrana prírody SR – Centrum ochrany prírody a krajiny, Banská Bystrica*, 173 pp.
- DANKO Š. & PJENČÁK P., 2002: Nové poznatky o výskyte netopierov na východnom Slovensku II. *Natura Carpatica*, **43**: 137–172.
- FULÍN M., 2002: Bat Detector Workshop 2001. *Natura Carpatica*, **43**: 297–298 (in Slovak).
- MATIS Š. & BOLDOGH S., 2003: *Nyctalus lasiopterus* in the Gömör-Torna Karst (Slovakia, Hungary). *Vespertilio*, **7** (in press).
- ŠTOLLMANN A., URBAN P., KADLEČÍK J. & UHRIN M., 1997: Návrh (červeného) zoznamu cicavcov (Mammalia) fauny Slovenskej republiky. *Ochrana prírody*, **15**: 201–.

List of papers on Slovakian bats published in the covered period:

- BALÁŽ D., URBAN P. & VALACH I., 2002: Zimný výskyt netopierov v Starohorských vrchoch. *Vespertilio*, **6**: 172.
- BENDA P., 2001: *Comments on the biogeography and systematics of Eurasian bats (Chiroptera)*. Dissertation abstract, 28 pp. [Depon. in Dpt. of Zoology Faculty of Science Charles Univ., Prague]
- BERNADOVIČ F., 2001: Majstri navigácie. *Tramtária Outdoor Magazín*, **Leto 2001**: 62–63.
- BERNADOVIČ F., 2001: *Netopiere tajomní obyvatelia jaskýň*. Správa slovenských jaskýň, Liptovský Mikuláš, 120 pp.
- BERNADOVIČ F., 2002: Nové poznatky o netopieroch Demänovskej ľadovej jaskyne. Pp.: 175–178. In: BELLA P. (ed.): *Výskum, využívanie a ochrana jaskýň. Zborník referátov*. Správa slovenských jaskýň, Liptovský Mikuláš, 224 pp.
- BERNADOVIČ F., 2002: Poznávanie a ochrana chiropterofauny v podmienkach Správy slovenských jaskýň v rokoch 1995–2001. *Aragonit*, **7**: 36–37.
- BIHARI Z., 2001: Characteristics of the northernmost population of *Rhinolophus ferrumequinum* in the Carpathian Basin. *Acta Theriologica*, **46**(1): 13–21.
- BIHARI Z., 2002: Metapopulation structure of *Rhinolophus ferrumequinum* in the Carpathian Basin. Pp.: 5. In: *IXth European Bat Research Symposium, 26–30 August 2002 – University of Le Havre. Abstracts*. Le Havre, 57 pp.
- BOBÁKOVÁ L., 2002: Quantitative and qualitative characteristics of bat fauna of the Dobšinská Ice Cave (E Slovakia). *Lynx (Praha)*, n. s., **33**: 47–58.
- BOBÁKOVÁ L., 2001: *Netopiere vybraných lokalít (Dobšinská ľadová jaskyňa, Harmanecká jaskyňa a Dómica) vo vzťahu k ekologickým podmienkam a antropickým aktivitám*. Diplomová práca, 90 pp. [Depon. in PF UK, Katedra ekososológie a fyziotaktiky, Bratislava]
- BOBÁKOVÁ L., 2002: Doterajšie poznatky o chiropterofaune Harmaneckej jaskyne. Pp.: 165–174. In: BELLA P. (ed.): *Výskum, využívanie a ochrana jaskýň. Zborník referátov*. Správa slovenských jaskýň, Liptovský Mikuláš, 224 pp.

- BOBÁKOVÁ L., 2002: Kvantitatívne a kvalitatívne zloženie chiropterofauny Domického jaskynného systému. Pp.: 89–102. In: URBAN P. (ed.): *Výskum a ochrana cicavcov na Slovensku V. Zborník referátov z konferencie*. Štátna ochrana prírody SR – Centrum ochrany prírody a krajiny, Banská Bystrica, 173 pp.
- BOBÁKOVÁ L., 2002: Zimovanie netopierov v jaskynnom systéme Dobšinská ľadová jaskyňa – jaskyňa Duča. *Vespertilio*, **6**: 245–248.
- BOBÁKOVÁ L., 2002: Zimovanie netopierov v Liskovskej jaskyni. *Vespertilio*, **6**: 59–60.
- BOBÁKOVÁ L. & BRINZÍK M., 2002: Prehľad aktivít SON v rámci projektu "Pomoc dobrovoľníkov pri odstraňovaní problémov súvisiacich s výskytom netopierov v podkroviach budov". *Trúlelek*, **7**: 8–11.
- BOBÁKOVÁ L. & HAPL E., 2002: Zimoviská netopierov v Chočských vrchoch. *Vespertilio*, **6**: 41–43.
- BOBÁKOVÁ L. & HAPL E., 2002: Zimoviská netopierov Veľkej Fatry. *Vespertilio*, **6**: 303–309.
- BOBÁKOVÁ L., HAPL E., BRINZÍK M. & VALACHOVIČ P., 2002: Zimoviská netopierov Západných Tatier. *Vespertilio*, **6**: 343–344.
- BOBÁKOVÁ L., HAPL E. & VAVROVÁ E., 2002: Zimoviská netopierov severnej a západnej časti Národného parku Malá Fatra. *Vespertilio*, **6**: 61–64.
- BOZALKOVÁ I. & UHRIN M., 2002: Sanáciou banských diel k ochrane netopierov. *Chránené územia Slovenska*, **54**: 7–9.
- BRINZÍK M., 2001: *Monitoring kolónie Myotis myotis v orskom Mikuláši*. Záverečná správa, 2 pp. [Depon. in ŠOP SR – Správa NP Muránska planina, Revúca]
- BRINZÍK M., 2001: *Monitoring netopierov vo vybraných lokalitách Chvojnickej pahorkatiny*. Záverečná správa, 5 pp. [Depon. in Správa NP Muránska planina, Revúca]
- BRINZÍK M., 2002: Netopiere zimujúce v pivnici IX. mlyn pri Železnej studienke. *Vespertilio*, **6**: 98.
- BRINZÍK M., 2002: Zimovanie netopierov v pivniciach parku v Rusovciach. *Vespertilio*, **6**: 151.
- BRINZÍK M., NOGA M. & BERNADOVIČ F., 2002: Zimoviská netopierov v Demänovskej doline. *Vespertilio*, **6**: 131–136.
- BRINZÍK M. & REGEC M., 2001: Netopiere sú na Záhorí doma. *Malacký hlas*, **11**(12): 9.
- BRINZÍK M., KÜRTHY A. & KÜRTHYOVÁ M., 2002: Nálezy netopierov v podkroviach budov Borskej nížiny. *Lynx (Praha)*, n. s., **33**: 59–68.
- CELUCH M., 2002: Partnerstvo SON a IFT. *Trúlelek*, **7**: 13–14.
- CELUCH M. & KAŇUCH P., 2001: Ako prehliadať dutiny? *Trúlelek*, **6**: 18.
- CELUCH M. & KAŇUCH P., 2001: Výsledky činnosti chiropterologickej sekcie. Pp.: 23–25. In: KONEČNÁ E. & MURÍN M. (eds.): *24. východoslovenský tábor ochrancov prírody. Zborník odborných výsledkov*. Prípravný výbor 24. Vs TOP, Slavošovce, 40 pp.
- CELUCH M. & KAŇUCH P., 2002: Praktické riešenia problémov s výskytom raniaka hrdzavého v panelových budovách na strednom a východnom Slovensku. Pp.: 4–5. In: LEHOTSKÁ B. (ed.): *Zborník abstraktov zo seminára Ochrana netopierov v panelových domoch*. ZO SZOPK Miniopterus, Bratislava, 11 pp.
- CELUCH M. & KAŇUCH P., 2002: Problémy s výskytom raniaka hrdzavého (*Nyctalus noctula*) v panelových stavbách. Pp.: 160–161. In: BRYJA J. & ZUKAL J. (eds.): *Zoologické dny Brno 2002. Zborník abstraktů z konference 14.–15. února 2002*. Ústav biologie obratlovců, Brno, 191 pp.
- CELUCH M. & KAŇUCH P., 2002: Zimný výskyt netopierov v panelových blokoch na sídlisku Sekčov v Prešove. *Vespertilio*, **6**: 44.
- CELUCH M. & KAŇUCH P., 2002: Zimoviská netopierov v okolí Kremnice. *Vespertilio*, **6**: 53–54.
- CELUCH M. & KAŇUCH P., 2003: Turistické sprístupnenie jaskyne Zlá diera – významného zimoviska netopiera brvitého (*Myotis emarginatus*). Pp.: 174–175. In: BRYJA J. & ZUKAL J. (eds.): *Zoologické dny Brno 2003. Sborník abstraktů z konference 13.–14. února 2003*. Ústav biologie obratlovců AV ČR, Brno, 244 pp.
- DANKO Š. & PJEŇÁK P., 2002: Nové poznatky o výskyte netopierov na východnom Slovensku II. *Natura Carpatica*, **43**: 137–172.
- DUDIŇÁK V. & MOCK A., 2002: Zoznam typových druhov helmintov uložených vo Východoslovenskom múzeu v Košiciach (Prvá časť). *Natura Carpatica*, **43**: 251–258.
- DUNGEL J. & GAISLER J., 2002: *Atlas savců České a Slovenské republiky*. Academia, Praha, 150 pp.
- FULÍN M., 2001: Na netopiere po novom. *Chránené územia Slovenska*, **48**: 14–15.
- FULÍN M., 2001: *S detektorom na netopiere. Niekoľko praktických rád k vyhľadávaniu a určovaniu*. ZO SZOPK Bocian, Moldava nad Bodvou.
- FULÍN M., 2002: Bat detector workshop 2001. *Natura Carpatica*, **43**: 297–298.
- FULÍN M., 2002: Zimný výskyt netopierov v Jaskyni pod Jankovcom 2. *Vespertilio*, **6**: 38.

- FULÍN M. & HAPL E., 2002: Zimoviská netopierov v Stolických vrchoch. *Vespertilio*, **6**: 259–260.
- FULÍN M., KAŇUCH P. & CELUCH M., 2002: Zimovanie netopierov v štôlni v Suchej doline v Šarišskej vrchovine. *Vespertilio*, **6**: 285.
- FULÍN M. & MATIS Š., 2002: Zimoviská netopierov vo východnej časti Slovenského krasu. *Vespertilio*, **6**: 183–188.
- FULÍN M., 2002: Údaje o výskyte stavovcov získané počas XXVI. VS TOP v Juskovej Voli. Pp.: 39–44. In: KONEČNÁ E. & ČURLÍK J. (eds.): *Zborník výsledkov prác odborných sekcií XXVI. východoslovenského tábora ochrancov prírody*. SZOPK & Krajský úrad, Prešov, 72 pp.
- GAISLER J., 2001: *Rhinolophus euryale* Blasius, 1853 – Mittelmeerhufeisennase. Pp.: 59–74. In: NIETHAMMER J. & KRAPP F. (eds.): *Handbuch der Säugetiere Europas. Band 4: Fledertiere. Teil I: Chiroptera I. Rhinolophidae, Vespertilionidae I*. AULA-Verlag, Wiebelsheim, 602 pp.
- GAISLER J., 2001: *Rhinolophus ferrumequinum* (Schreber, 1774) – Große Hufeisennase. Pp.: 15–37. In: NIETHAMMER J. & KRAPP F. (eds.): *Handbuch der Säugetiere Europas. Band 4: Fledertiere. Teil I: Chiroptera I. Rhinolophidae, Vespertilionidae I*. AULA-Verlag, Wiebelsheim, 602 pp.
- GAISLER J., HANÁK V., HANZAL V. & JARSKÝ V., 2003: Výsledky kroužkování netopýrů v České republice a na Slovensku, 1948–2000. *Vespertilio*, **7**: v tlači.
- GAÁL E., 2001: Chvalovská jaskyňa v minulosti a v súčasnosti. *Slovenský kras*, **39**: 129–137.
- GRESCH A., 2002: Dve zimoviská netopierov v Pieninskom národnom parku. *Vespertilio*, **6**: 147.
- GRESCH A., 2002: Zimoviská netopierov v Nízkych Tatrách. *Vespertilio*, **6**: 137–142.
- GRUA D., 2002: Správa o činnosti chiropterologickej sekcie. Pp.: 5–6. In: KONEČNÁ E. & ČURLÍK J. (eds.): *Zborník výsledkov prác odborných sekcií XXVI. východoslovenského tábora ochrancov prírody*. SZOPK & Krajský úrad, Prešov, 72 pp.
- HÁJKOVÁ A., 2001: *Výskyt netopierov na území Národného parku Slovenský raj*. Biologická olympiáda, 18 pp. [Depon. in Gymnázium, Spišská Nová Ves]
- HÁJKOVÁ A., 2001: *Výskyt netopierov na území Národného parku Slovenský raj*. Práca SOČ, 23 pp. [Depon. in Gymnázium, Spišská Nová Ves]
- HANÁKOVÁ L., 2002: Ako sa žije s netopierom. *Trúlelek*, **7**: 3–4.
- HAPL E., 2002: Zimný výskyt netopierov na Oravskom hrade. *Vespertilio*, **6**: 146.
- HAPL E., 2002: Zimoviská netopierov Slovenského krasu I. *Vespertilio*, **6**: 189–192.
- HAPL E. & BUREŠOVÁ A., 2002: Zimný výskyt netopierov v štôlniach Volovských vrchov. *Vespertilio*, **6**: 327–328.
- HAPL E. & UHRIN M., 2001: Monitoring a ochrana netopierov. Pp.: 35–46. In: *Ročenka Správy Národného parku Muránska planina 1999 - 2000*. Správa NP Muránska planina, Revúca, Revúca, 112 pp.
- HAPL E., UHRIN M., BOBÁKOVÁ L., BENDA P., ANDREAS M., REITER A., HOTOVÝ J., OBUCH J., STANKOVIČ J. & CSELÉNYI K., 2002: Prehľad zimovísk netopierov Silickej a Plešivskej planiny. *Vespertilio*, **6**: 193–211.
- HORÁČEK I., HANÁK V. & GAISLER J., 2001: Bats of the Palearctic region: a taxonomic and biogeographic review. Pp.: 11–157. In: WOŁOSZYN B. W. (ed.): *Proceedings of the VIIIth EBRs Vol. 1, Approaches to biogeography and ecology of bats*. Chiropterological Information Center & Institute of Systematics and Evolution of Animals PAS, Kraków, 273 pp.
- HORČÍK M., 2001: Z prieskumu svahov Silickej planiny – 3. časť. *Spravodaj Slovenskej speleologickej spoločnosti*, **32**(3): 27–30.
- HRÚZ V., 2002: Zimoviská netopierov Poľany. *Vespertilio*, **6**: 153–154.
- HÁJEK B., 2002: Terénne stretnutie SON, Slovenský raj 2001. *Trúlelek*, **7**: 16.
- HÁJEK B., DRAŽIL T., DIVOK F. & LESKOVJANSKÁ A., 2002: Realizácia praktickej starostlivosti o chránené územia a chránené druhy. Pp.: 12–18. In: DIVOK F. (ed.): *Ročenka 2000–2002*. Štátna ochrana prírody Slovenskej republiky, Správa Národného parku Slovenský raj, Spišská Nová Ves, 74 pp.
- HÁJEK B., HÁJKOVÁ A., JANEČKOVÁ K., CELUCH M. & KAŇUCH P., 2002: Zimovanie netopierov v Medvedej a Stratenskej jaskyni. *Vespertilio*, **6**: 249–251.
- KAŇUCH P., 2002: Nové krúžky na značenie netopierov. *Trúlelek*, **7**: 14.
- KAŇUCH P. & CELUCH M., 2002: Príspevok k poznaniu netopierov (Chiroptera) v severných častiach Stolických vrchov a Revúckej vrchoviny. Pp.: 13–17. In: MURÍN M. & KONEČNÁ E. (eds.): *XXV. východoslovenský tábor ochrancov prírody, Čierna Lehota na "Pastyrskej lúke"*. Zborník odborných výsledkov. Krajský úrad v Košiciach, Košice, 62 pp.
- KAŇUCH P. & CELUCH M., 2002: Zimný výskyt netopierov v krypte pod prešovskou Kalváriou. *Vespertilio*, **6**: 286.

- KAŇUCH P. & CELUCH M., 2002: Zimný výskyt netopierov v pohorí Branisko. *Vespertilio*, **6**: 22.
- KAŇUCH P. & CELUCH M., 2002: Zimovanie netopierov v jaskyni Zlá diera. *Vespertilio*, **6**: 7.
- KAŇUCH P. & CELUCH M., 2002: Zimovisko netopierov Dráč v Čiernej hore. *Vespertilio*, **6**: 26.
- KAŇUCH P. & CELUCH M., 2002: Zimoviská netopierov Spišsko-šarišského medzihoria. *Vespertilio*, **6**: 257–258.
- KAŇUCH P. & CELUCH M., JANEČKOVÁ K., HÁJKOVÁ A. & HÁJEK B., 2002: Menšie zimoviská netopierov Slovenského raja. *Vespertilio*, **6**: 253–255.
- KAŇUCH P., CELUCH M. & PAČENOVSKÝ S., 2002: Zimovanie netopierov v Kysackej jaskyni. *Vespertilio*, **6**: 27.
- KAŇUCH P., JANEČKOVÁ K. & KRIŠTÍN A., 2003: Čo lovia netopiere v zime? Prípád *Nyctalus noctula*. Pp.: 190. In: BRYJA J. & ZUKAL J. (eds.): *Zoologické dny Brno 2003. Sborník abstraktů z konference 13.–14. února 2003*. Ústav biologie obratlovců AV ČR, Brno, 244 pp.
- KAŇUCH P. & SÁROSSY M., 2002: K štruktúre spoločenstiev netopierov starých parkov. Pp.: 103–108. In: URBAN P. (ed.): *Výskum a ochrana cicavcov na Slovensku V. Zborník referátov z konferencie*. Štátna ochrana prírody SR – Centrum ochrany prírody a krajiny, Banská Bystrica, 173 pp.
- KRIŠTÍN A. & SÁROSSY M., 2002: K mortalite divo žijúcich cicavcov na cestách Slovenska. Pp.: 137–145. In: URBAN P. (ed.): *Výskum a ochrana cicavcov na Slovensku V. Zborník referátov z konferencie*. Štátna ochrana prírody SR – Centrum ochrany prírody a krajiny, Banská Bystrica, 173 pp.
- KÜRTHY A. & KÜRTHYOVÁ M., 2002: Zimovisko *Nyctalus noctula* v topoli v Ivanke pri Dunaji. *Vespertilio*, **6**: 152.
- KÜRTHY A., KÜRTHYOVÁ M., MATIS Š. & DITTEL L., 2002: Zimovanie *Nyctalus noctula* v Zámockom parku v Malackách. *Vespertilio*, **6**: 21.
- LEHOTSKÁ B. (ed.), 2002: *Zimné sčítanie netopierov na Slovensku 2001/2002*. Skupina pre ochranu netopierov, Revúca, 20 pp.
- LEHOTSKÁ B., 2002: Netopiere Malých Karpát. *Lynx (Praha)*, n. s., **33**: 141–184.
- LEHOTSKÁ B., 2002: Príspevok k poznaniu zimovísk netopierov na Trnavskej pahorkatine. *Vespertilio*, **6**: 176.
- LEHOTSKÁ B., 2002: Seminár ochrana netopierov v panelových domoch. *Chránené územia Slovenska*, **53**: 12.
- LEHOTSKÁ B., 2002: Zimovanie raniaka hrdzavého na sídlisku Dlhé Diely v Bratislave. Pp.: 8–9. In: LEHOTSKÁ B. (ed.): *Zborník abstraktov zo seminára Ochrana netopierov v panelových domoch*. ZO SZOPK Miniopterus, Bratislava, 11 pp.
- LEHOTSKÁ B., 2002: Zimovisko netopierov pod Nitrianskym hradom. *Vespertilio*, **6**: 144.
- LEHOTSKÁ B., 2002: Zimovisko netopierov v Malej nad Hronom. *Vespertilio*, **6**: 28.
- LEHOTSKÁ B., 2002: Zimoviská netopierov v jaskyniach Pri ceste v Považskom podolí. *Vespertilio*, **6**: 155–156.
- LEHOTSKÁ B., 2002: Zimoviská netopierov v Malých Karpatoch I. *Vespertilio*, **6**: 65–71.
- LEHOTSKÁ B., 2002: Zimoviská netopierov v Považskom Inovci. *Vespertilio*, **6**: 157–158.
- LEHOTSKÁ B. & LEHOTSÝ R., 2002: Malokarpatský seminár o problematike ochrany "panelákových" netopierov. *Trúlelek*, **7**: 12.
- LEHOTSKÁ B. & LEHOTSÝ R., 2002: Zimoviská netopierov v Malých Karpatoch II. *Vespertilio*, **6**: 73–86.
- LEHOTSKÁ B. & LEHOTSÝ R., 2002: Zimoviská netopierov v pohorí Burda. *Vespertilio*, **6**: 23–25.
- LEHOTSKÁ B. & LEHOTSÝ R., 2002: Zimoviská netopierov v pohorí Tríbeč. *Vespertilio*, **6**: 299–302.
- LEHOTSKÁ B., MATIS Š. & UHRIN M., 2002: Príloha katalógu zimovísk netopierov Slovenska: Prehľad skontrolovaných lokalít bez nálezu netopierov. *Vespertilio*, **6**: 349–356.
- LEHOTSKÁ B. & NOGA M., 2002: Zimoviská netopierov v Malých Karpatoch III. *Vespertilio*, **6**: 87–97.
- LEHOTSKÁ B. & ONDRUŠKA J., 2002: Zimoviská netopierov v Bielych Karpatoch. *Vespertilio*, **6**: 13–14.
- LEHOTSKÁ B. & VALACHOVIČ P., 2002: Netopiere zimujúce v štôľňach bývalých rudných ložísk v strednej časti Malých Karpát. *Vespertilio*, **6**: 99–102.
- LEHOTSÝ R., 2002: Nálezy netopierov v panelových domoch v Bratislave. Pp.: 9–10. In: LEHOTSKÁ B. (ed.): *Zborník abstraktov zo seminára Ochrana netopierov v panelových domoch*. ZO SZOPK Miniopterus, Bratislava, 11 pp.
- LEŠINSKÝ G., 2002: Zimný výskyt netopierov v priepasťovitej jaskyni v Humenci. *Vespertilio*, **6**: 26.

- LEŠINSKÝ G. & HORČÍK M., 2002: Zimovisko netopierov – Jaskyňa pod Paklánom v Slovenskom krasi. *Vespertilio*, **6**: 234.
- LIMPENS H. J. G. A., 2002: Bat detector workshops in eastern and south European countries: building a network for bat conservation. Pp.: 13. In: *IXth European Bat Research Symposium, 26–30 August 2002 – University of Le Havre. Abstracts*. Le Havre, 57 pp.
- MATIS Š., 2002: Zimovanie netopierov v Drienovskej jaskyni. *Vespertilio*, **6**: 213–215.
- MATIS Š., 2002: Zimoviská netopierov Košickej kotliny. *Vespertilio*, **6**: 45–48.
- MATIS Š., 2002: Zimoviská netopierov Slovenského krasu II. *Vespertilio*, **6**: 217–224.
- MATIS Š., 2002: Zimoviská netopierov Volovských vrchov I. *Vespertilio*, **6**: 329–331.
- MATIS Š. & FULÍN M., 2002: Zimný výskyt netopierov v pivniciach Ľubovnianskeho hradu. *Vespertilio*, **6**: 256.
- MATIS Š. & FULÍN M., 2002: Zimovanie netopierov v Moldavských jaskyniach. *Vespertilio*, **6**: 49–50.
- MATIS Š. & FULÍN M., 2002: Zimoviská netopierov Slovenského krasu III. *Vespertilio*, **6**: 225–226.
- MATIS Š. & HAPL E., 2002: Zimovisko netopierov – Veterná priepať. *Vespertilio*, **6**: 212.
- MATIS Š., HAPL E. & PJENČÁK P., 2002: Zimovanie netopierov v baniach pod Havraňou skalou. *Vespertilio*, **6**: 227–228.
- MATIS Š. & LEŠINSKÝ G., 2002: Zimoviská netopierov v Slovenskom krasi IV. *Vespertilio*, **6**: 229–230.
- MATIS Š. & PJENČÁK P., 2002: Zimovisko netopierov Brada v Nízkyh Tatráh. *Vespertilio*, **6**: 143.
- MATIS Š. & PJENČÁK P., 2002: Zimoviská netopierov v orografickom celku Kozie chrbty. *Vespertilio*, **6**: 51–52.
- MATIS Š. & PJENČÁK P., 2002: Zimoviská netopierov Volovských vrchov II. *Vespertilio*, **6**: 333–336.
- MATIS Š. & PJENČÁK P., KÜRTHY A. & HAPL E., 2002: Prehľad letných nálezov netopierov (Chiroptera) v Národnom parku Slovenský kras. *Natura Carpatica*, **43**: 195–234.
- MATIS Š., PJENČÁK P. & LEŠINSKÝ G., 2002: Zimovisko netopierov – Okrajová priepať. *Vespertilio*, **6**: 216.
- MATIS Š., PJENČÁK P. & UHRIN M., 2002: Zimovanie netopierov v Hačavskej a Marciho jaskyni. *Vespertilio*, **6**: 231–233.
- MATIS Š., UHRIN M. & PJENČÁK P., 2002: Zimovanie netopierov v jaskyni Erňa. *Vespertilio*, **6**: 235–236.
- MIHÁL T., 2002: *Podzemné sídla netopierov v Štiavnických vrchoch*. Seminárna práca, 24 pp. + prílohy [Depon. in Fakulta ekológie a environmentalistiky TU, Banská Štiavnica]
- NOGA M., 2002: Netopiere zimujúce v štrbinách panelových domov v Devínskej Novej Vsi. *Vespertilio*, **6**: 19–20.
- NOGA M., 2002: Prvé poznatky o zimovaní raniaka hrdzavého (*Nyctalus noctula*) v štrbinách panelových domov v Devínskej Novej Vsi v Bratislave. Pp.: 10. In: LEHOTSKÁ B. (ed.): *Zborník abstraktov zo seminára Ochrana netopierov v panelových domoch*. ZO SZOPK Miniopterus, Bratislava, 11 pp.
- NOGA M., 2002: Zimný výskyt *Nyctalus noctula* na hrade Pajštún. *Vespertilio*, **6**: 72.
- NOGA M., 2002: Zimovisko netopierov v stromovej dutine parku kaštieľa v Palárikove. *Vespertilio*, **6**: 152.
- NOGA M. & KOVARIK A., 2002: Zimovanie *Nyctalus noctula* v Plaveckom hradnom brale. *Vespertilio*, **6**: 72.
- OBUCH J., 2001: Using marked differences from the mean (MDFM) method for evaluation of contingency tables. *Buteo*, **12**: 37–46.
- OBUCH J., 2002: Kosti netopierov v Jasovskej jaskyni. *Aragonit*, **7**: 34–36.
- OBUCH J., 2002: Prehľad zimovísk netopierov v Gaderskej a Belianskej doline (Veľká Fatra). *Vespertilio*, **6**: 311–319.
- ONDRUŠKA J., 2001: Činnosť oblastných skupín SSS Strážovské vrchy a Dubnica nad Váhom v roku 1999. *Trúlelek*, **6**: 8.
- ONDRUŠKA J., 2002: Niektoré menšie zimoviská netopierov Malej Fatry. *Vespertilio*, **6**: 58.
- ONDRUŠKA J., 2002: Zimoviská netopierov v Strážovských vrchoch. *Vespertilio*, **6**: 261–274.
- ONDRUŠKA J. & LEHOTSKÁ B., 2002: Netopiere zimujúce v jaskyniach v okolí Zemianskej Závady. *Vespertilio*, **6**: 275–276.
- ORSZÁGHOVÁ Z., MIKULÍČEK P. & PACHINGER K., 2002: Whiskered bat (*Myotis mystacinus*) as a prey of edible frog (*Rana esculenta*). *Biologia, Bratislava*: in press.
- PAČENOVSKÝ S., 2002: Zimoviská netopierov v oblasti Bielej skaly v Čiernej hore. *Vespertilio*, **6**: 29–31.

- PAČENOVSKÝ S., 2002: Zimoviská netopierov Volovských vrchov III. *Vespertilio*, **6**: 337–341.
- PETRŽELKOVÁ K. J., OBUCH J., ZUKAL J., UHRIN M. & HAPL E., 2003: Netopýr veľký (*Myotis myotis*) jako kořist sovy pálené (*Tyto alba*). Pp.: 208. In: BRYJA J. & ZUKAL J. (eds.): *Zoologické dny Brno 2003. Sborník abstraktů z konference 13.–14. února 2003*. Ústav biologie obratlovců AV ČR, Brno, 244 pp.
- PIKSA K. & WOŁOSZYN B. W., 2001: Postglacial bat remains from the Polish Tatra Caves. *Lynx (Praha)*, n. s., **32**: 301–311.
- PJENČÁK P., 2002: Zimovanie netopierov v malých jaskyniach Pienin. *Vespertilio*, **6**: 148.
- PJENČÁK P., 2002: Zimovanie netopierov v pivnici pod Baranom. *Vespertilio*, **6**: 298.
- PJENČÁK P., 2002: Zimoviská netopierov Beskydského predhoria. *Vespertilio*, **6**: 9–11.
- PJENČÁK P., 2002: Zimoviská netopierov v Slanských vrchoch. *Vespertilio*, **6**: 173–175.
- PJENČÁK P. & DANKO Š., 2002: Bane Libanka a Malá Šimonka – najvýznamnejšie zimoviská netopierov v Slanských vrchoch. *Vespertilio*, **6**: 177–180.
- PJENČÁK P. & DANKO Š., 2002: Zimný výskyt netopierov v Belianskej jaskyni. *Vespertilio*, **6**: 8.
- PJENČÁK P. & DANKO Š., 2002: Zimný výskyt netopierov v jaskyniach okolia Galmusu. *Vespertilio*, **6**: 342.
- PJENČÁK P. & DANKO Š., 2002: Zimovanie netopierov v jaskyni Aksamitka. *Vespertilio*, **6**: 149–150.
- PJENČÁK P. & DANKO Š., 2002: Zimovanie netopierov v slepých štôľňach na Dubníku. *Vespertilio*, **6**: 181–182.
- PJENČÁK P. & DANKO Š., 2002: Zimovisko netopierov v pivnici v mestskom parku v Humennom. *Vespertilio*, **6**: 145.
- PJENČÁK P. & DANKO Š., 2002: Zimovisko netopierov Vyšná Hurka I. *Vespertilio*, **6**: 12.
- PJENČÁK P. & DANKO Š., 2002: Zimoviská netopierov v Zemplínskych vrchoch. *Vespertilio*, **6**: 345–346.
- PJENČÁK P. & DANKO Š., 2002: Zimoviská netopierov vo Vihorlate. *Vespertilio*, **6**: 321–326.
- PJENČÁK P. & MATIS Š., 2002: Zimovanie netopierov v jaskyniach Malého Ružinka. *Vespertilio*, **6**: 33–34.
- PJENČÁK P., MATIS Š. & DANKO Š., 2002: Zimoviská netopierov v Dreveníku. *Vespertilio*, **6**: 39–40.
- PČOLA Š., 2002: Zimný výskyt netopierov v hrádzi Vodárenskej nádrže Starina. *Vespertilio*, **6**: 32.
- PČOLA Š., 2002: Zoznam a ekozologický status stavovcov Národného parku Poloniny. *Natura Carpatica*, **43**: 173–194.
- RACHWALD A. & SZKUDLAREK R., 2001: Stwierdzenie występowania typów echolokacyjnych "45 kHz" i "55 kHz" karlika malutkiego *Pipistrellus pipistrellus* ("gatunki ukryte" *P. pipistrellus* i *P. pygmaeus*) na terenie Polski. *Nietoperze*, **2**(1): 19–22.
- RADINGER F. & MLEJNEK R., 2001: Nové pseudokrasové jaskyne v geomorfologických celkoch Juhoslovenská kotlina, Krupinská planina a Ostrôžky. *Spravodaj Slovenskej speleologickej spoločnosti*, **32**(3): 11–15.
- REZNÍK S., 2002: Typy antropogénnych úkrytov netopierov (Chiroptera) v panelových domoch a ich okolí. Pp.: 11. In: Lehotská B. (ed.): *Zborník abstraktov zo seminára Ochrana netopierov v panelových domoch*. ZO SZOPK Miniopertus, Bratislava, 11 pp.
- SLOBODNÍK V., 2002: Zimný nález netopierov v pivničných priestoroch chaty v obci Chvojnica. *Vespertilio*, **6**: 284.
- SOVA M., 2002: Zimoviská netopierov v južnej časti Strážovských vrchov. *Vespertilio*, **6**: 277–283.
- STANKO M., DUDICH A. & MOŠANSKÝ L., 2002: Cicavce (Mammalia). Pp.: 93–103. In: PANIGAJ Ľ. (ed.): *Pieniny. Príroda a človek I. Fauna a flóra Pienin*. Vivit s. r. o. pre Štátnu ochranu prírody SR – Správu Pieninského národného parku Červený Kláštor, Kežmarok, 103 pp.
- TENCER J., 2002: Zimný výskyt netopierov v Čiernohorskom jaskynnom systéme. *Vespertilio*, **6**: 252.
- TULIS J., 2001: Netopiere v Stratenskej jaskyni. *Spravodaj Slovenskej speleologickej spoločnosti*, **32**(1): 44.
- UHRIN M., 2002: The catalogue of the bat hibernacula in Slovakia. Pp.: 21. In: *IXth European Bat Research Symposium, 26–30 August 2002 – University of Le Havre. Abstracts*. Le Havre, 57 pp.
- UHRIN M., BENDA P., BOBÁKOVÁ L., HAPL E. & OBUCH J., 2002: The bats of the Muránska planina National Park, central Slovakia. Pp.: 21. In: *IXth European Bat Research Symposium, 26–30 August 2002 – University of Le Havre. Abstracts*. Le Havre, 57 pp.
- UHRIN M., BENDA P., OBUCH J. & URBAN P., 2002: K poznaniu fauny cicavcov Drienčanského krasu a okolia (stredné Slovensko). *Lynx (Praha)*, n. s., **33**: 193–247.

- UHRIN M., BOBÁKOVÁ L., HAPL E., ANDREAS M., BENDA P., OBUCH J. & REITER A., 2002: Zimovanie netopierov v slovenskej časti jaskynného systému Domica-Baradla. *Vespertilio*, **6**: 237–243.
- UHRIN M. & HAPL E., 2002 : Zimoviská netopierov južnej časti stredného Slovenska (Bodvianska pahorkatina, Ipeľská kotlina a Rimavská kotlina). *Vespertilio*, **6**: 15–18.
- UHRIN M., HAPL E., ANDREAS M., BENDA P., BOBÁKOVÁ L., HOTOVÝ J., MATIS Š., OBUCH J., PJENČÁK P. & REITER A., 2002: Prehľad zimovísk netopierov Muránskej planiny. *Vespertilio*, **6**: 103–130.
- UHRIN M., HAPL E., ANDREAS M., BENDA P., BOBÁKOVÁ L., HOTOVÝ J., MATIS Š., OBUCH J., PJENČÁK P. & REITER A., 2002: Zimoviská netopierov Revúckej vrchoviny. *Vespertilio*, **6**: 159–171.
- UHRIN M., HAPL E., URBAN P., VALACH I., MIHÁL T. & ZLACKÁ S., 2002: Zimoviská netopierov v Štiavnických vrchoch. *Vespertilio*, **6**: 287–297.
- UHRIN M., LEHOTSKÁ B. & MATIS Š., 2002: Katalóg zimovísk netopierov Slovenskej republiky. *Vespertilio*, **6**: 3–6.
- UHRIN M. & URBAN P., 2002: Zimoviská netopierov v Horehronskom podolí. *Vespertilio*, **6**: 35–37.
- UHRIN M., URBAN P., VALACH I. & HAPL E., 2002: Prehľad údajov o zimovaní netopierov v oblasti Krupinskej planiny. *Vespertilio*, **6**: 55–57.
- URBAN P., BALÁŽ D., VALACH I. & UHRIN M., 2002: Zimný výskyt netopierov v Zvolenskej kotline. *Vespertilio*, **6**: 347–348.
- VALACH I. & HRÚZ V., 2002: Zimoviská netopierov v Podlipe – Zelenej doline. *Vespertilio*, **6**: 244.
- VAVROVÁ Ľ., 2002: "Sídliiskové netopiere" v Banskej Bystrici a okolí. *Chránené územia Slovenska*, **53**: 13.
- ZLACKÁ S., 2002: *Letné sídla netopierov v Štiavnických vrchoch*. Seminárna práca, 24 pp. [Depon. in Fakulta ekológie a environmentalitiky TU, Banská Štiavnica].