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The Agreement on the Conservation of Populations of European Bats EUROBATS

National implementation report for Slovenia 2004 - 2006

A. GENERAL INFORMATION

Name of Party:	Republic of Slovenia
Date of accession to the Agreement:	5 December, 2003
Date of Report:	21 April, 2006
Period covered:	2004 - 2006
Competent Authority:	Ministrstvo za okolje in prostor (Ministry of the Environment and Spatial Planning)

Appointed Member of the Advisory Committee: None

Membership of other committees/working groups: IWG on Producing Guidelines on Bat Monitoring Methods to Assess Population Trends at Different Levels, IWG on Protection of Overground Roosts, IWG on Autecological Studies for Priority Species, IWG Bats as Indicators, WG to prepare a new Conservation and Management Plan for MoP5

B. STATUS OF BATS IN SLOVENIA

1. Summary Details of Resident Species

Up to date 29 bat species have been recorded in Slovenia (Tab.1) of which 27 have been regularly observed.

Rhinolophus blasii is considered extinct and there is just one old record for *Nyctalus lasiopterus*. During the last five years, presence of recently described *Pipistrellus pygmaeus* and *Plecotus*

macrobullaris was confirmed in Slovenia. Presence of *Myotis alcathoe* is evident while presence of *Plecotus kolombatovici* and perhaps *Tadarida teniotis* and *Myotis dasycnem* is quite possible.

Table 1 List of bat species recorded in Slovenia and their conservation status.

Species		Red List	No. of pSCI (N2K)	Evidence of	
Scientific name	**Common name**			**breeding**	**wintering**
Rhinolophus hipposideros	mali podkovnjak	E	47	Yes, numerous	Yes, numerous
Rhinolophus ferrumequinum	veliki podkovnjak	E	13	Yes, numerous	Yes, numerous
Rhinolophus euryale	južni podkovnjak	E	9	Yes, common	Yes, common
Rhinolophus blasii	Blasijev podkovnjak	Ex	/	/	/
Myotis myotis	navadni netopir	E	12	Yes, numerous	Yes, numerous
Myotis blythii	ostrouhi netopir	E	1	Yes, rare	Yes, rare
Myotis bechsteinii	velikouhi netopir	E	2	Yes, rare	Yes, rare
Myotis nattereri	resasti netopir	V	-	Yes, rare	Yes, rare
Myotis emarginatus	vejicati netopir	V	10	Yes numerous	Yes, rare
Myotis mystacinus	brkati netopir	O1	-	Yes, rare	Yes, rare
Myotis brandtii	Brandtov netopir	R	-	No	No
Myotis capaccinii	dolgonogi netopir	E	5	Yes, common	Yes, common
Myotis daubentonii	obvodni netopir	O1	-	Yes, rare	Yes, rare
Pipistrellus pipistrellus	mali netopir	O1	-	Yes, rare	Yes, rare
Pipistrellus pygmaeus	drobni netopir	K	-	Yes, rare	Yes, rare
Pipistrellus nathusii	Nathusijev netopir	V	-	No	Yes, rare
Pipistrellus kuhlii	belorobi netopir	O1	-	Yes, common	Yes, rare
Hypsugo savii	Savijev netopir	O1	-	Yes, rare	No
Eptesicus serotinus	pozni netopir	O1	-	Yes, common	Yes, rare
Eptesicus nilssonii	severni netopir	V	-	Yes, rare	No
Nyctalus lasiopterus	veliki mračnik	K	-	No	No
Nyctalus noctula	navadni mračnik	O1	-	Yes, rare	Yes, rare
Nyctalus leisleri	gozdni mračnik	V	-	No	No
Vespertilio murinus	dvobarvni netopir	V	-	Yes, rare	Yes, rare
Plecotus auritus	rjavi uhati netopir	V	-	Yes, rare	Yes, rare
Plecotus macrobullaris	usnjebradi uhati netopir	V	-	Yes, common	Yes, rare
Plecotus austriacus	sivi uhati netopir	V	-	Yes, rare	Yes, rare
Barbastella barbastellus	širokouhi netopir	V	3	Yes, rare	Yes, numerous
Miniopterus schreibersii	dolgokrili netopir	E	7	Yes, rare	Yes, common

Legend:

- **Red list** (Rules on the inclusion of endangered plant and animal species in the Red List. Official Gazette of the Republic of Slovenia No. 82/02. (Ex – Extinct, E – Endangered, V – Vulnerable, R – Rare, O – Least concern; K – Data deficient)
- **N2k -** Decree on special protection areas (Natura 2000 areas). Official Gazette of the Republic of Slovenia No. 49/04.

2. Status and Trends

Presetnik et al. (in press) estimated that there are app. 5000 specimens of *Rhinolophus ferrumequinum*, app. 1000 *R. euryale* and app. 10.000 *Miniopterus schreibersii* in Slovenia.

The lack of data unables estimation of populations' trends for majority of species. However, the results of recent monitoring will enable estimation of population status and trends for at least some species (e.g.: *Rhinolophus* ssp.) by MoP6.

3. Habitats and Roost Sites

Current field research is mostly focused on caves and buildings. Basic inventarisation of these sites has been carried out. A number of roost sites have been included in monitoring schemes. Normally, microclimate conditions in roosts are recorded.

Bats in foraging habitats are investigated by occasional mistneting and bat detector work. Forests as dominant land cover (55,5%) in Slovenia have been poorly surveyed (Presetnik & Grobelnik 2004, Presetnik & Govedič 2006). No research of foraging habitats has been carried out with aid of radio telemetry or light tags.

4. Threats

Bats in Slovenia are mainly threatened by destruction and degradation of roost sites by unadequate renovation of old buildings and increasing caving tourism. In accordance with the legislation in force, bats are often part of environmental impact assessment before the major construction projects are approved.

Destruction and degradation of potential foraging, and commuting habitats probably takes place, but the evidence is poor.

Deliberate taking of bats from the wild is rare and does not pose serious threat to bat populations.

5. Data Collection, analysis, interpretation and dissemination

In Slovenia, data on bats is collected by:

- Association for Bat Research and Conservation – SDPVN
- Centre for Cartography of Fauna and Flora (CKFF) and
- Natural History Museum.

Database on records of bats was prepared by CKFF as a scientific basis for designation of Natura 2000 areas (Kryštufek et al. 2003). Currently CKFF is carrying out large-scale project *Monitoring of target bat species populations* supervised by the Ministry of Environment and Spatial Planning.

Current studies:

Kryštufek & Režek Donev (2005) collected data and published an article on distribution of bats in Slovenia, while Presetnik et al. (in press) are preparing the monograph *Atlas of the bats (Chiroptera) of Slovenia*, where more detailed analysis of all data collected in the past century with emphasis on the last decade, will be presented.

C. MEASURES TAKEN TO IMPLEMENT ARTICLE III OF THE AGREEMENT

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

All species of bats in Slovenia are included in *Rules on the inclusion of endangered plant and animal species in the Red List* (Official Gazette of the Republic of Slovenia No. 82/02, see. Table 1) and are therefore protected by the *Decree on protected wild animal species* (Official Gazette of the Republic of Slovenia No. 46/04 and 110/04). In 1998 Slovenia ratified the *Bonn Convention* (Ur. L. RS 72/98, MP 18) and in 1999 the *Bern Convention* (Ur. L. RS 55/99, Mednarodne pogodbe, št. 17). The *EUROBATS Agreement* was ratified in 2003 (Official Gazette of the Republic of Slovenia MP No.22-68/2003).

As for bats caves are very important and there are over 8000 registered caves in Slovenia, legal measures for caves has to be taken onto account, as well. In *Cave Protection Act* (Official Gazette of the Republic of Slovenia No. 2/04) there is a provision (Art. 19) prohibiting any activities which could lead to deliberate destruction or disturbance of any animal species in the cave. In case that the caves are opened for tourist visit, manager or concessionaire has to take into account cave animal species.

Decree on special protection areas (Natura 2000 areas) (Official Gazette of the Republic of Slovenia No. 49/0) entered into force on 1st May 2004 when Slovenia became a full member of the European Union. For ten bat species, 67 pSCI have been designated (Tab. 1). Alpine (Kranjska Gora, Slovenija, May 2005) and Continental biogeographic seminars (Darovansky Dvur, Czech Republic, April 2006) concluded that some corrections of data are necessary. In some cases additional bat species have to be included in the pSCI while for some species new SCI have to be designated.

Only one cave (Osapska jama) is legally protected (by means of management plan) on the basis of presence of bats. The entrance to the cave has been protected by fence to prevent unauthorized access. The entrance to another cave, Marijino brezno has also been protected by Društvo za raziskovanje jam Ljubljana (Association for the research of caves Ljubljana) to protect hibernating horseshoe bats (Petrinjak 2005). The entrances to several other caves important for bats have also been protected by local speleologist associations or tourist organisations.

The Ajdovska jama cave was proposed to be included into NATURA 2000 netwotk since it holds the largest maternity colony of *Rhinolopus euryale* in Slovenia. The species is protected by the *Decree on protected wild animal species* (Official Gazette of the Republic of Slovenia No. 46/04 and 110/04). The Decree requires species and habitat protection for *Rhinolopus euryale*. Therefore, the species and its habitat have been legally protected. The Ajdovska jama has been listed as a natural asset of special importance which can be open for visitors but the visit should be limited and controlled. The Ministerial Decree which will designate the regime is currently in preparation.

On several occasions, SDPVN informed the authorities on threats for bats and their roosts, particularly in buildings. In some cases the reconstruction of old buildings was stopped. Bat experts have been consulted to find the most suitable solutions (Presetnik 2003b, 2004a, b). Several such projects are still on going.

Violations of provisions of the Nature Conservation Act (NCA) related to protected species of wild fauna (taking from the wild, disturbance, trade, breeding, acquisition of specimens, keeping in captivity and introduction or repopulation of animals or plants into the natural environment etc.) are treated as offences. The NCA prescribes the amounts of fines for such violations.

A fine in accordance with Art 160 is imposed on a legal person or individual who:

- exterminates a plant or animal species;
- reduces the number of plants or animals of individual populations, reduces their habitats or worsens their living conditions to such an extent that the species becomes endangered;
- intentionally, without a justifiable cause, destroys or damages habitats of plant or animal species populations;
- does not use plants or animals in compliance with the prescribed conditions;

- uses plants or animals whose use is prohibited or uses them contrary to the prescribed restriction of use;
- introduces plants or animals of non-indigenous species without permission;
- breeds animals of indigenous or non-indigenous species without a permit;
- acts contrary to the protection regime prescribed by the Government for plant or animal species protected pursuant to the ratified international treaties;
- acts contrary to the prescribed guidelines for maintaining a species at a favourable status.

Table 2. The fines for offences according to Article 160 of the NCA

Fine (in EURO)	Imposed on
4,160 – 41,600	legal person
1,000 - 20,800	individual
200 - 2,000	responsible person of a legal entity

A fine in accordance of Art 161 is imposed on a legal person or individual who:

does not notify the ministry of the intended repopulation of plants or animals of non-indigenous species;

- keeps animals of indigenous or non-indigenous species in captivity in inadequate living conditions and without proper care;
- does not notify the ministry of obtaining an animal in the prescribed period;
- keeps animals of indigenous or non-indigenous species in captivity with the purpose of public exhibition without a permit;
- trades in animals and does not provide prescribed living conditions and proper care and does not keep prescribed records;
- exports, imports or tries to import or export plants or animals or parts or products thereof without the minister's permit;
- carries out or tries to carry out transit of plants or animals or parts or products thereof without the minister's permit when the permit is prescribed

Table 3: The fines for offences according to Article 161 of NCA

Fine (in EURO)	Imposed on
25,000 – 33,000	legal person
625 – 16,660	individual who commits an offence in relation to the carrying out of an independent activity
166 - 1,660	responsible person of a legal entity
83 - 583	individual
125	individual*

* a competent inspector, nature protection warden, policeman or customs officer may on the site give or issue a payment order for a fine to or collect a fine from an individual caught committing an offence

Note: 1 EURO = app. 240 Slovene tolars (SIT), August 2005

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

All available data from collections, publications and private notes was collected for the designation of *NATURA 2000* areas (Kryštufek et al. 2003). By the use of the same data, important underground roosts for bats were defined (Presetnik 2003a). This enabled the implementation of *Resolution No. 2.4, Element 2: Bat Habitats, Underground* and *Resolution No. 4.3 Guidelines for the Protection and Management of Important Underground Habitats for Bats*

Each year the SDPVN informs the Environmental Agency (ARSO) of newly discovered important roosts of bats.

Currently, there are no particular management plans focused only on bats in Slovenia. The conservation of bat populations is achieved through different sectoral policies (eg. forestry, environment etc). In Slovenia, due to its forest cover (app. 55 %), sustainable forestry is of major importance for habitat protection. The *Rules on protection of forests* (Official Gazette of the Republic of Slovenia No.92/2000) regulate the use of forest in a manner to maintain the biological balance of forest ecosystem. The managemet of forest should protect rare and endangered species and their habitats. The exploitation of forest should be adopted to these conditions. As one of the measures, the Rules prescribe that old and dead trees should be left in the forest and as far as possible be evenly distributed.

8. Consideration given to habitats, which are important to bats

SDPVN coordinated a project *Bats in Natura 2000 network* which was co-financed by the Ministry of the Environment and Spatial Planning. The aim of the project was to improve communication between main stakeholders (the Institute of the Republic of Slovenia for Nature Conservation, , the Institute of the Republic of Slovenia for the Protection of Cultural Heritage, local church authorities, managers & NGOs). In April 2004 two workshops with representatives from the Institute for natural conservation and the Institute for the Protection of Cultural Heritage of Slovenia, government officials, bat experts and SDPVN members were held. As a 2004-2005 follow up of these workshops, 20 communications at local level have been carried out, predominately targeting priests and managers of churches with bat maternity colonies. These communications have been carried out by the members of the SDPVN who presented bat biology while the representatives of the regional Institute for nature conservation explained the legal part ob bat protection.

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

SDPVN is organising lectures on bat biology and conservation and is involved in the CKFF campaign to raise public awareness (INTERREG IIIA Slovenia –Austria, *Conservation of Amphibians and Bats in the Alps-Adriatic Region*). SDPVN also coordinates the European Bat Night, which usually takes place in the second weekend of September. The event became quite popular and several other organizations such as The Skocjan Caves Regional Park, Triglav National Park, Goričko Regional Park**,** Arboretum Volčji Potok and Institute Willow Grove are regularly participating in the event.

Biology students' society is organising spring and summer research camps. Similar camps are organised for pupils by Zveza za tehnično kulturo Slovenije in cooperation with regional Institute for nature conservation from Nova Gorica.

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

No particular body nominated. The *SDPVN* and *CKFF* are acting as advisory bodies. State inspection has to follow breaching of the Nature Conservation Act (including decrees) and Cave Protection Act.

11. Additional action undertaken to safeguard populations of bats.

The Ministry of the Environment and Spatial Planning approved a financial support for a 2 year project (2006-07)

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.

The Ministry of the Environment and Spatial planning approved a financial support for a 2 year project (2006-07) *Monitoring of target bat species populations,* where monitoring scheme for all bat species will be defined, along with standard monitoring protocols.

Ministry of Defence approved a financial support for a project *Nature conservation values of military areas* , where bats are included in research.

INTERREG IIIA Slovenia –Austria, *Conservation of Amphibians and Bats in the Alps-Adriatic Region* has been carried out by the CKFF and its partner organisation SDPVN. The goals of the project include extensive bat conservation measures for summer and winter roosts as well as for foraging habitats: conservation of roosts and foraging habitats of endangered bat species, monitoring of colonies, preparation and implementation of standardised monitoring programmes for bat populations, studies about roost utilisation and habitat preferences, implementation of conservation measures, assisting during renovations of roosts, providing advice in case of bat-induced problems, handling of injured individuals and information and public awareness..

5 graduation thesis on functional morphology and ecology of bats, especially foraging and/or roost ecology (Koselj & Kryštufek 1999, Koselj 2002, Presetnik 2002, 2005, Zagmajster 2002, Aupič 2004, Petrinjak 2005a, b) were made in Slovenia.

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.

As an EU member State, Slovenia is obliged to implement common EU legislation by its national legal order. A number of Directives on chemicals have been transposed and implemented. The *Law on chemicals* (Official Gazette of the Republic of Slovenia No. 36/1999) and several by-laws in particular the *Rules on trade in of biocides* (Official Gazette of the Republic of Slovenia No. 38/2000) have been adopted. The law on chemicals regulates the production, trade, use and control of chemicals in general. Special attention is given to chemicals that may pose threat to humans or the environment.

D. FUNCTIONING OF THE AGREEMENT

14. Cooperation with other Range States

SDPVN members participated in the *Central European Miniopterus Program* supported by the Regional Environmental Centre for Central and Eastern Europe (Zagmajster et al. 2000, 2002). Chiropterologists from Hungary (Hungarian bat conservation foundation), Romania (Eco Studia Society - the youth wing of the Transylvanian Museum Association) and Bulgaria (Bat research & protection group - National Museum of Natural History) also participated in this program. .

In the current INTERREG IIIA project *Conservation of Amphibians and Bats in the Alps-Adriatic Region* the CKFF and SDPVN, cooperate with organizations from Austria (Arge NATURSCHUTZ, Koordinationsstelle für Fledermausschutz und -forschung in Österreich, Landesmuseum für Kärnten, Alpenzoo - Insbruck, Universität Salzburg) and Italy (Naturmuseum Südtirol, Parco Naturale delle Prealpi Giulie, Riserva Naturale Orientata e Museo naturalistico di Onferno) .

The cooperation between Slovenian Biology students' society and students from other former Yugoslav Republics is well developed. Students from Bosnia and Herzegovina and Monte Negro, got basic training on bat research in Slovenian research camps. The Belgrade Natural History Museum and NGO Mustela held training courses for some Slovenian chiropterologists.

Resolution No. 3.4 / 4.6 Guidelines for the Issue of Permits for the Capture and Study of Captured Wild Bats

Permits can be issued by authorities on formal request in accordance with the *Decree on protected wild animal species* (Official Gazette of the Republic of Slovenia No. 46/04 and 110/04)

Resolution No. 4.11 Recognizing the Important Role of Non-Governmental Organizations (NGOs) in Bat Conservation

Slovenia'a authorities recognise the importance of NGOs in the field of nature conservation. Every year a public teder is released to provide funding for environmental NGO's. In 2004, 2005 and 2006 Slovenian Association for Bat Research and Conservation – SDPVN was beneficiary of these funds.

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

Resolution No. 2.2 Consistent Monitoring Methodologies

In summer 2006, a 2-year program was initiated to produce national guidelines for monitoring of presence of bat species and their populations. In accordance with resolution 2.2 monitoring consists of roosts survey – counts in the maternity roosts and hibernacula's and line transects counts with ultrasound detectors. Additionally for determining presence of those species that cannot be reliably recorded by the methods mentioned above, some sites for mist netting are to be defined.

Resolution No. 2.3 Transboundary Programme: Species Proposals

Element 1: Bat Monitoring Programmes

Myotis dasycneme

There are no records of this species in Slovenia.

Pipistrellus nathusii

Species in rarely found in Slovenia,. (Presetnik et al. in press). On 16th April 1994, a male was found in Škofja Loka. The specimen was ringed on 6th August 1993. in Wooste-Teerofen in northern Germany 840 km away (Spitzenberger & Bauer 2001, Hutterer et al. 2005). Banding program for bats was initiated in Slovenia in 2006 and no *P. nathusii* has been banded so far.

Resolution No. 2.4 Transboundary Programme: Habitat Proposals

Element 2: Bats Habitats

Underground Habitats

Slovenia has submitted database of important underground bat roosts (see chapter 7)

Forests

Resolution No. 2.5 Geographical Scope of the Agreement

Slovenia agrees with this resolution.

Resolutions No. 2.6, 3.6, 4.13 Terms of Reference for the Advisory Committee

Slovenia agrees with this resolution.

Resolutions No. 2.7 and 3.6 Format of National Reports

Slovenia supports the proposed format for National Reports..

Resolutions No. 2.8, 3.8 Implementation of the conservation and management plan

Resolution No. 3.1 Integration of the EUROBATS Secretariat into the UNEP/CMS Agreements Unit

Slovenia welcomes this action. .

Resolution No. 3.4 / 4.6 Guidelines for the Issue of Permits for the Capture and Study of Captured Wild Bats

Decree on protected wild animal species (*Official Gazette of the Republic of Slovenia No. 46/04 and 110/04*) requires a permit for any research of protected species (including all bats). An exception is given for short term care of injured animals and where this is not suitable they should be given to a rescue centre. There is no special permitting regime for bats but they fall under general rules. The Decree applies to live and dead wild animals in all stages of development, parts or derivatives of dead animals or any goods made from dead animals or their parts which appear, from accompanying documents, the packaging or a mark or from any other circumstances, to be parts or derivatives of animals. The prohibition also applies to animal structures such as nests etc..

However *Decree* requires that all persons applying for licence desribe the methods which will be used in specific research. The permit is issued by the EnvironmentalAgency of the Republic of Slovenia on the basis of the written opinion made by the Institute for Nature Conservation of the Republic of Slovenia. An authorization is issued for a fixed (renewable) term and requires reporting.

Bat researchers have participated in the process of formation of *Decree*

Resolution No. 3.5 International Year of the Bat

The 10th anniversary of the EUROBATS agreement and the International Year of the Bat were mentioned in several public awareness activities of SDPVN.

Resolution No. 3.7 Amendment of the Agreement

With the Act on the ratification of the agreement, Slovenia also adopted its amendments (*Official Gazette of the Republic of Slovenia No. 102/03*)

Resolution No. 3.9 Exception to Article XII of the Agreement

Slovenia agrees with this resolution.

Resolution No. 4.1 Financial and Administrative Matters (Budget 2004 – 2006)

Slovenia is satisfied with the proposed budged.

Resolution No. 4.2 Headquarters Agreement for and Juridical Personality of the Agreement Secretariat

Slovenia agrees with this resolution.

Resolution No. 4.3 Guidelines for the Protection and Management of Important Underground Habitats for Bats

Slovenia agrees with resolution. A list of important underground sites has been sent to the convenor of the IWG in 2003.

Resolution No. 4.4 Bat Conservation and Sustainable Forest Management

The *Rules on protection of forests* (Official Gazette of the Republic of Slovenia No.92/2000) regulate the use of forest in a manner to maintain the biological balance of forest ecosystem. The managemet of forest should protect rare and endangered species and their habitats. The exploitation of forest should be adopted to these conditions. As one of the measures, the Rules prescribe that old and dead trees should be left in the forest and be as far ar possible evenly distributed

Resolution No. 4.5 Guidelines for the Use of Remedial Timber Treatment

No particular action was taken.

Resolution No. 4.7 Wind Turbines and Bat Populations

No particular action was taken.

Resolution No. 4.8 Amendment of the Annex to the Agreement

Slovenia agrees with this resolution.

Resolution No. 4.9 Implementation of the Conservation and Management Plan (2003 – 2006)

Slovenia is in favour with the proposed plan.

Resolution 4.10 Contribution to the CBD/CMS Joint Work Programme

Slovenia agrees with this resolution.

Resolution No. 4.11 Recognizing the Important Role of Non-Governmental Organizations (NGOs) in Bat Conservation

Slovenia'a authorities recognise the importance of NGOs in the field of nature conservation. Every year a public teder is released to provide funding for environmental NGO's. In 2004, 2005 and 2006 Slovenian Association for Bat Research and Conservation – SDPVN was beneficiary of these funds.

Resolution No. 4.12 Priority Species for Autecological Studies

Slovenia actvely participated in IWG on Autecological Studies for Priority Species. Dietary studies of *Miniopterus schreibersii, Rhinolophus euryale* and *R. ferrumequinum* (see chapter 12) have been carried out. Members of SDPVN have also studied roosts (microclimate) of *M. schreibersii* in Central European Miniopterus Program which was supported by Regional Environmental Centre (Zagmajster et al. 2000, 2002).

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Ljubljana, 18. July 2006