

AGREEMENT ON THE CONSERVATION OF POPULATIONS OF EUROPEAN BATS

NATIONAL IMPLEMENTATION REPORT – BULGARIA – 2003 / 4 MOP

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A. General Information

Name of the Party: Bulgaria

Date of Report: 5 September 2003

Period Covered: April 2000 – August 2003

Competent Authority: Ministry of the Environment and Water (MEW)

Organizations providing support and expertise:

National Museum of Natural History – Bulgarian Academy Of Sciences, Sofia (NMNH-BAS)

Institute of Zoology - Bulgarian Academy Of Sciences, Sofia (IZ-BAS)

NGO Bat Research and Protection Group (BRPG)

Appointed members of the Advisory Committee:

Dr. Teodora Ivanova, NMNH-BAS

B. Status of Bats Within the Territory of Bulgaria

1. Summary Details of Resident Species

32 bat species have been recorded up to know on the territory of Bulgaria. The following species were recorded in addition to the known 29 ones (2000):

Myotis dasycneme (Limpens 2001) – only a bat detector record along Danube river.

Pipistrellus pygmaeus (Dietz et al. 2002) – one record from the Eastern Rhodopes.

Myotis aurascens (Benda & Tsytulina 2000) – common species in the country.

Plecotus spp. – a revision of the existing collections and data has been made with the aim to assess the current taxonomic status of *Plecotus spp.* on the territory of Bulgaria. Only the presence of *Plecotus auritus* and *P. austriacus* has been confirmed (Benda & Ivanova, in print).

2. Status and Trends

Table 1. Status of Bats in Bulgaria: **V** - vulnerable, **NT** - not threatened, **DD** – data deficiency, **R** – rare (distribution border).

Bat species	Status - Bulgaria
1. <i>Rhinolophus ferrumequinum</i>	V
2. <i>Rh. hipposideros</i>	NT (?)
3. <i>Rh. euryale</i>	V
4. <i>Rh. mehelyi</i>	V
5. <i>Rh. blasii</i>	V
6. <i>Myotis nattereri</i>	DD
7. <i>M. daubentonii</i>	DD
8. <i>M. emarginatus</i>	V
9. <i>M. mystacinus</i>	DD
10. <i>M. aurascens</i>	DD
11. <i>M. brandtii</i>	DD
12. <i>M. bechsteinii</i>	DD
13. <i>M. capaccinii</i>	V
14. <i>M. dasycneme</i>	DD
15. <i>M. myotis</i>	V
16. <i>M. blythii</i>	V
17. <i>Plecotus auritus</i>	DD
18. <i>P. austriacus</i>	NT
19. <i>Miniopterus schreibersii</i>	V
20. <i>Pipistrellus pipistrellus</i>	NT
21. <i>Pipistrellus pygmaeus</i>	DD
22. <i>P. nathusii</i>	DD
23. <i>P. kuhlii</i>	DD
24. <i>Hypsugo savii</i>	NT
25. <i>Eptesicus serotinus</i>	NT
26. <i>E. nilssonii</i>	DD/ R
27. <i>Nyctalus noctula</i>	NT
28. <i>N. leisleri</i>	DD
29. <i>N. lasiopterus</i>	DD
30. <i>Vespertilio murinus</i>	DD
31. <i>Barbastella barbastellus</i>	DD
32. <i>Tadarida teniotis</i>	DD

Trends

The assessment of **trends** is very difficult as there are no quantitative data from the past. For the moment data for the total population size of the different species inhabiting the territory of Bulgaria are not available. No special surveys related to population size estimation were carried out in the period 2000-2003.

3. Habitats and Roost Sites

Most important habitats (nurseries, hibernacula and mating areas) are:

- Limestone (karst) areas that cover about 23% of the territory of the country with most then 4500 caves known and rocky cliffs and gorges with a lot of crevices.
 - Old deciduous forests, mostly beech forests, situated at the altitude of 600-1600 m. a.s.l.
- The use of artificial galleries and buildings is less studied. Only relatively low number of bat boxes is installed since 2001 (about 250) and they are temporary occupied by few single specimens of *Pipistrellus* and *Nyctalus* spp.

Table 2. Use of roosts sites by bat species in Bulgaria: **N** - nursery, **S** – summer roost, **H** – hibernacula, **()** – not confirmed by direct observations.

Species	Underground roosts: caves, galleries	Trees: hollows, under bark, etc.	Rocky crevices	Buildings
Cave-dwelling				
Obligatory				
<i>Rhinolophus euryale</i>	S, N, H	-	-	S
<i>Rhinolophus mehelyi</i>	S, N, H	-	-	-
<i>Rhinolophus blasii</i>	S, N, H	-	-	-
<i>Myotis myotis</i>	S, N, H	-	S	S
<i>Myotis blythii</i>	S, N, H	-	S	S
<i>Myotis capaccinii</i>	S, N, H	-	-	-
<i>M. schreibersii</i>	S, N, H	-	-	S
Facultative				
<i>Rh. ferrumequinum</i>	S, N, H	-	-	N, S, H
<i>Rh. hipposideros</i>	S, N, H	-	-	N, S, H
<i>Myotis emarginatus</i>	S, N, H	-	S	N, S
Non cave-dwelling				
Crevices-dwelling				
<i>Hypsugo savii</i>	S	-	S, N	S
<i>Eptesicus serotinus</i>	-	-	S, N	S, N
<i>Vespertilio murinus</i>	H	-	S	S, (H)
<i>Tadarida teniotis</i>	-	-	S, (N)	-
Tree-dwelling				
<i>B. barbastellus</i>	H	S, (N)	-	-
<i>Myotis bechsteinii</i>	H	S, (N)	-	-
<i>Myotis daubentonii</i>	H	S, (N)	-	-
<i>Myotis nattereri</i>	H, S	-	S	-
<i>Nyctalus noctula</i>	H, S	H, S	H, S	H, S
<i>Nyctalus leisleri</i>	-	(S)	-	-
<i>Pipistrellus pygmaeus</i>	-	S	-	-
<i>Pipistrellus nathusii</i>	-	S	S	-
<i>Plecotus auritus</i>	H, S	S, (N)	-	-
Synanthropic				
<i>Myotis mystacinus</i>	H	(S)	-	S
<i>Myotis aurascens</i>	(H)	-	-	S, N
<i>Myotis brandtii</i>	S, (H)	-	-	S, N
<i>Pipistrellus pipistrellus</i>	H	-	-	S, N
<i>Pipistrellus kuhlii</i>	-	-	-	S, N
<i>Plecotus austriacus</i>	H, S	(S)	S	S, N
No data available				
<i>Myotis dasycneme</i>				
<i>Nyctalus lasiopterus</i>				
<i>Eptesicus nilssonii</i>				

4. Threats

Major threats to bats in Bulgaria:

- Disturbance in the roosts due to human activities
- Direct killing because of ignorance and prejudices

- Destruction of the roosts:
 - destruction of the caves due to explosions related to quarry work and road construction;
 - use of caves - for tourism, storage, dairies, mushroom growing, etc.;
 - use of caves for drinking water supply (water catching), which is often accompanied by closing of the entrances;
 - bad forest management: clear cutting of old forests and unique hollow trees;
- Disturbance of feeding habitats
 - drying of wetlands
 - water pollution

5. Data Collection

- Different specialists in national scientific institutions like the National Museum of Natural History – BAS and Institute of Zoology – BAS, collect data.
- The NGO Bat Research and Protection Group works towards collection of data related to bat conservation, including database for the underground roosts, relevant legislation, etc.
- **A Bat Research and Conservation Center is established at the National Museum of Natural History – BAS** that aims to act as specially designed responsible institution for collecting and evaluating of data concerning bat conservation and management on national level in cooperation with all interested governmental and non-governmental organizations.

C. Measures Taken To Implement Article III Of The Agreement

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

National legislation related to bat protection: The process of Euro-integration results in harmonization of the Bulgarian nature conservation legislation with those of the European Community and now it guarantees the protection of species, as well as the protection of their habitats – roosts, foraging habitats and migration flight-paths. Related Acts are:

Biodiversity Act (State Gazette 77/2002): All bat species are declared as protected under the Biodiversity Act (Appendix № 3.) and are totally protected from human activities endangering them. The Act bans catching and killing of bats, as well as any disturbances. By analogy with the Habitat Directive 92/43/EEC, under the Biodiversity Act also all habitats of protected species are of conservation concern and protected zones have to be established to assure their long-term conservation (Appendix №2.).

Regulation For Penalty Taxes For Damages Caused On The Nature. Last update: MC Directive №442 /1. 12.1997 (State Gazette 116 /1997). All bat species are included in the Regulation list with penalty taxes defined per individual; also taxes have to be paid in cases of destroying of protected caves or other protected geological phenomena.

Protected Areas Act (State Gazette 133/1998, 98/1999, 28/2000, 48/2000, 78/2000, 23/2002, 77/2002, 91/2002). Under the Act the categories of protected areas (PA) in Bulgaria are set up, as well as their function, conservation regime, use, establishment and management. The PA categories are: 1. Reserve; 2. National Park; 3. Natural Monument; 4. Managed Reserve; 5. Nature Park; 6. Protected Site.

Under the **Directive for Development of Management Plans for the Protected Areas** (State Gazette 13/2000) Management Plans for the National and Nature Parks are developed. Efforts are made conservation activities for bats to be included.

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

- Until now *only underground roosts* (natural caves, disused mines, etc.) have been declared as protected sites important for the conservation of bats.

- There are 120 caves and karstic landscape areas in Bulgaria, declared as Natural Monuments (NM) and 15 - declared as Protected Sites (PS).
- 40 of the total number of about 90 important bat-caves, known as summer and/or winter roosts, and/or transitory roosts during migration are declared as Protected Sites or Natural Monuments.

8. Consideration given to habitats which are important to bats

Roosting habitats

(see C7) Despite the status of legally protected sites, most of the listed roosts have conservation problems, as at the moment there are a lot of difficulties to implement the legislation, most of them related to lack of funds for designation of responsible bodies to control and monitor them according the requirements of the management plans.

Foraging habitats

No special consideration has been given yet to protect foraging habitats of bats.

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

Most of the activities to promote the awareness of the importance of the conservation of bats in Bulgaria have been carried out by the Bat Research & Protection Group (BRPG) with the assistance of several other nature conservation NGOs. All information is included in the new Website of BRPG (www.bats-bulgaria.org). Recently more attention to bat conservation is given also by the management bodies of nature and national parks and bats became part of their education and publicity materials.

Publicity materials published:

“Unknown neighbors”- a set of 7 leaflets (2003)

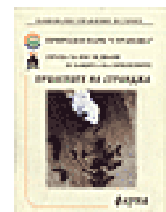
The set of 7 leaflets "Unknown neighbours" is published by BRPG with the aid of UNEP/EUROBATS and with the financial support of Ministry of the Flemish Community, Administration for Environment, Nature, Land and Water Management (AMINAL) in the frame of the project for raising public awareness in the countries of Eastern and South Eastern Europe by publishing of print materials dedicated to the bats. The texts are kindly provided by the Federal Agency for Nature Conservation (BfN), Germany and the illustrations are original drawings, photos from the archives of BRPG and pictures made by Rollin Verlinde.



The Information and Nature Conservation Centres in the country will mainly distribute the edition.

“Shadows in the night” and “Secrets in the darkness” – two contemporary Bulgarian films about the bats (2001)

Due to the efforts of the team of the Bulgarian National Television broadcast "Eye in eye with the animals" and members of BRPG the Bulgarian public has possibility to touch to the secret of the amazing bat life. The both films are 15 minutes in length and they show curios facts of the biology and ecology of these "night shadows", the threats of their fragile world, the problems on their protection and the beauty of the underground world.



Series “Fauna of “Strandja” NP” - The bats in Strandja (2001)

In this small booklet with original photos and popular texts the bat species recorded up to now during the research of BRPG on the territory of "Strandja" NP are presented. They are 21 as 10 of them are in the Red List of Threatened Animals of IUCN/ RL IUCN 2002 and two are in the Bulgarian Red Data Book.

Poster about *Myotis emarginatus* (2001/2)

- **Education Activities:**

Series of lectures are given by BRPG regularly in secondary and high schools in Sofia.

“Discover your nature home” - April - October 2001

This is a project for interactive nature protection and ecological education in students' model groups. The developed educational materials approved as methodological guides continue permanently to be used after the end of the project. Along the special routes the partners, BRPG and Children Nature Conservation School “Aeshna” continue to work with groups of students. The main activities took place in NP “Vitosha”, NP “Vrachansky Balkan” – Lakatnik station, near by Sofia. The project was financed by MATRA/KAP.

“Sharkanitzi” about the nature - April 15 - October 20 2002

In this project interactive educational techniques for raising the activity of the children of 6-9 years' old group for participation in nature protection initiatives and their nature conservation knowledge were successfully applied. It was held in collaboration between BRPG, Children Nature Conservation School “Aeshna” and Children Studio of Applied Arts “Sharkanitzi” and is financed by BSBCP. The main activities on the project took place in “Vitosha” Natural Park, “Central Balkan” National Park and North Black Sea coast. The small plastics of animals prepared by the children rest in the Information centres of the Parks and BSBCP.

Raising public awareness in the countries of Eastern and South Eastern Europe by publishing of print materials dedicated to the bats - March 01 - June 15 2003

The necessity of popularisation of the bats and the problems of their protection particularly in the countries in transition is considerable. The edition of the set of 7 leaflets “Unknown neighbours” was the aim of this project and in Bulgaria the work on it finished in May 2003. The distribution of the materials will last at least until the end of the year.

- **European Bat Nights**

BRPG has been organizing regularly the European Bat Nights.

4th European Bat Night - September 30 – October 15 2000

The main activities on the celebration of this Bat Night took place simultaneously on September 30 2000 for the first time in Karlovo and for the second, consecutive, time in Madjarovo. The partners of BRPG were the teams of the Nature Conservation Information Centres in both of the towns and the financial support was assured by BSBCP (Project of BRPG “Activities for year 2000”) and “Wilderness Fund” Society in the frames of its project “Central Balkan” also financed by BSBCP. As usual the event was organized with the aid of the Secretary of EUROBATS and NMNH – BAS. In Karlovo the children and the students of the region were happy to participate in the Kite Feast and in Madjarovo they made and hung bat-boxes in the region around the NICCER. The exhibition, bat-detector night walk, lecture with slide projection also were not missed. On October 15 2000 in cooperation with the team of ZOO – Sofia in the Hall of Carnivores a lecture with slide projection about the bats and the problems of their protection was organized. The educational materials of BRPG were filled in with a new sticker “European Bat Nights”. As usual the media helped us in popularisation of the bats – this amazing group of mammals.

5th European Bat Night - October 12 – 14 2001

The activities on the celebration of this Bat Night took place in May and October 2001. While working on the project of BRPG and Children Nature Conservation School “Aeshna” “Discover your nature home” during the organized in Natural Park “Vitosha” 7-days' green school practically all the nights were dedicated to the bats. Bat-boxes were made and hanged in the region and the drawings and paper models of bats were exposed in the Information Centre of NP “Vitosha” on the organized at the end of the project exhibition. In October together with the team of “Wilderness Fund” Society and NCIC – Ribaritzha a Bat Night was organized once again in the region of “Central Balkan” NP. More than 50 children

were happy to participate in the specialized plays, in the concourse for the best "batty" pose, in the bat-detectors night walk and in the lecture with slide projection.

6th European Bat Night - August - October 2002

Because of the consecutive Bat Night numerous initiatives took place in our country. Traditionally they were not limited only in Sofia or in other big towns in Bulgaria. On the contrary - the celebration was held in the regions of "Strandja" Natural Park and "Central Balkan" National Park.

7th European Bat Night - October 3, 2003

On October 2003 in the town of Rouse the celebration of the 7 EBN is coming. It's organized in collaboration with the Regional Museum of History-Rousse and will be followed by bat night in the Information Centre "Kaliakra", v. Balgarevo, supported by Project Dobrudja/ BSBCP/ BSPB.

10. Responsible bodies nominated for the provision of advice on bat conservation and management

The body responsible for nature conservation in Bulgaria is the Ministry of Environment and Waters (MEW) - National Nature Protection Service (NNPS) (web site: <http://www.moew.government.bg>)

- Many protected areas, including some protected bat caves or karstic landscapes are managed by the Ministry of Agriculture and Forests.
- Institutions providing scientific information and consultancy are the National Museum of Natural History – BAS and Institute of Zoology – BAS.

11. Additional action undertaken to safeguard populations of bats

None.

12. Recent and ongoing programmes relating to the conservation and management of bats

Biological diversity in Natural Park "Rilsky manastir" - BATS- Rapid Ecological Assessment (July – September 2001)

Members of BRPG participate in the Rapid Ecological Assessment (REA) in NP "Rilsky manastir" with an aim submission of an expert statement on the bats, which inhabit the Park, as well as on the conservation value of the territory according to their protection. This is made in the frames of the development of the Management plan of this part of the former National Park "Rila" relatively soon declared as new protected territory. The fieldwork was in the period of June and August 2001 and in October the results were discussed on a three-days' workshop. On the base of the expert report a publication "Bats (Mammalia: Chiroptera) on the territory of NP "Rilsky manastir" is in print. The research is financed by ARD – Bulgaria and is supported by MoEW and USAID.

Participation in development of Management Plans for the Nature Parks Strandja and Rilski Manastir and National Park Pirin with special focus on bat research and conservation. Specialists from NMNH-BAS, BRPG and IZ-BAS.

Project for the Conservation of Important Roosts of *Myotis emarginatus* in Bulgaria.(2001-2002) Project of the IZ-BAS, Sofia, sponsored by BCI's Grassroots Conservation Fund.

Development of new protected territories relied to the bat protection (2000 – 2003)

Expert statements are submitted by the members of BRPG in the actualisation of the management plans of already existing Protected sites as "Orlova Chuka", "Devetashkata Peshtera", "The Canyon of Negovanka River". The next new protected territories have been announced because of the bat protection: NM "Serapionovata Peshtera" – NP "Vrachansky

Balkan”, PS “Gurgen dere”, “Oreshary”, “Sredna Arda”, “Talashman dere” – Eastern Rhodopes, NM “Gargina dupka” – Western Rhodopes. During this continuous process the members of BRPG work together with the teams of NMNH – BAS, Institute of Zoology, RIE, BSPB – branch Madjarovo, Society for Protection of Birds of Prey, NP “Vrachansky Balkan.

Participation of BRPG in the Project: Needs Assessment and CHM Establishment in Bulgaria. (2002- 2003) Financed by UNDP/GEF Enabling Activities Project BUL/98/G31/1G/99.

Main aim of the Project is to present the data available in BRPG archives in digital electronic way easy for public access. Results are presented in the new Web site of BRPG.

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

No changes since 2000.

D. Functioning of the Agreement

14. Cooperation with other Range States 2000-2003:

- 2001-2003: Biodiversity of bats in managed landscapes: niche separation, genetic differences and implications for nature conservation. A two-year co-operative Swedish-Bulgarian research project (Department of Conservation Biology and Centre for Biodiversity, Uppsala -Institute of Zoology, Sofia.
- 2001-2003: Ecology, behaviour and population genetics of the forest living Bechstein's bat (*Myotis bechsteinii*) in Europe. No 7BUPJ062292. Swiss-Bulgarian co-operative project: Co-ordinators: Barbara König and Gerald Kerth, Zoological Institute, University of Zürich; Petar Beron and Boyan Petrov, National Museum of Natural History, Sofia.
- 2002: A summer field camp of explorers of mammals from the Netherlands and Bulgaria in Eastern Rhodopes - July 17 – 27, 2002. Partners: The Field Working Group (FWG) of Dutch Society for Study and Conservation of Mammals (VZZ) and NICCER/BSPB and BRPG, Bulgaria.
- 2001-2004: Comparative ecology and conservation biology of the European horseshoe bats (genus *Rhinolophus*). Institute of Animal Physiology, University of Tübingen, Germany BRPG and NMNH – BAS, Bulgaria.

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