



**REPUBLIC OF MACEDONIA
MINISTRY OF ENVIRONMENT AND PHYSICAL PLANNING**

AGREEMENT ON THE CONSERVATION OF EUROPEAN POPULATIONS OF BATS

**4th Session of the Meeting of Parties (EUROBATS MOP4)
22-24 September 2003, Sofia, Bulgaria**

**MACEDONIAN NATIONAL REPORT
OF THE IMPLEMENTATION OF THE AGREEMENT ON BATS**

Skopje: July, 2003

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MACEDONIAN NATIONAL REPORT

- UPDATE TO THE YEAR 2003-

For remind, actions of the Ministry of Environment and Physical Planning and Macedonian Committee of the conservation of migratory species (MBC) for the activities of the bats conservation is described in the our National Report of the 3th Meeting of the Parties: Bristol, UK, July 2000, (see: http://www.eurobats.org/Party_Reports/Macedonia.htm) and Draft-reports 7th and 8th Meeting of the Advisory Committee (Bucharest, Romania , May 2002; Roros, Norway, maj 2003).

Macedonian Committee of the CMS (MBC) has consider following directions:

- Protect the nature ecosystems and habitats (caves, rivers, canyons and other nature areas),
- Protection of the buildings in urban and rural complexes,
- Promoting important rules of the bats population on biodiversity conservation,
- Organizing The 6th Bats Night (26 August 2002) in Skopje old complex (buildings) and in many different places in Macedonia.
- Organizing The 7th Bats Night (26 August 2003) in Skopje (Macedonian Museum of Natural History and Sity Park) and in many different places in Macedonia.

A. General information

- Party: **Republic of Macedonia**
- Date of report: **July 2003**
- Period covered by Report: **June 2000- June 2003**
- Competent Authority: **Ministry of Environment and Physical Planning**

B. Status of Bats within the Territory of the Party

1. Summary Details of the Species

Situation similar to the second report (2000). See Annex 1.

2. Status and Trends

Situation similar to the second report (2000). See Annex 2 (table 1).

3. Habitats and Roost Sites

The majority of data has been collected from the traditionally examined areas, which are also considered as the key sites of bat diversity. Currently bats are known in 40 localities in the Republic of Macedonia. The territory of Macedonia has been unequally studied.

Most of the data originate from the Vardar River valley, while the greatest gaps are in the Northeast. Collectors also sampled mainly at lower altitudes, while the mountains were neglected. For the majority of them, nursery or pregnant females and juvenile specimens were found in caves or other underground spaces.

This is in accordance with the origin of most of the Museum Specimens, which were collected by hand in such underground galleries. Bats not roosting in caves were mainly overlooked, or were collected only occasionally.

Consequently, further investigations on the bats in Republic of Macedonia are necessary in ascertaining improved information as a primary basis of their future conservation.

4. Threats

Human activities in Macedonia over the last 50 years have been apparently large in the lowland areas, as constant draining of wetlands, steady reduction of forests, urbanization of large areas, uniformity in the arrangement and landscaping of farmland, continuing and increasing use of chemicals to eliminate unwanted insects etc.

The higher altitude habitats are less exposed to human activities.

5. Data Collection

The source of data is the Macedonian Museum of Natural History, Boulevard Ilinden 86, MK-1000 Skopje bb.

C. Measures Taken to Implement Article III of the Agreement

6. Legal measures taken to protect bats (to prevent the deliberate capture, keeping or killing bats), including details of enforcement actions.

Notwithstanding the fact that law does not protect bats, traditionally they never have been a subject of capture, keeping or killing.

Hitherto, 130 localities are protected in Macedonia, with different protection rank, with total surface of 260.000 ha.

Of them, especially important are 2 Strict Natural Reserves: Ezerani, on the Prespa Lake and Tikvesh (12.730 ha), three National Parks: Pelister, Mavrovo and Galicica (110.000 ha), 10 Scientific Reserves and 27 Natural Monuments (rivers, lakes and caves).

Legislative Basis for Bats Conservation

This matter will be included on the New Law for Nature protection. Situation of the other legislative is similar to the second report (2000). See annex 3.

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

The National Committee of the Bonn Convention (NBC) was promoting actions to make the Macedonian list of SCI (important to the conservation of bats). This action is coordinated and instructed of experts from sciences institutions and nature conservation: Macedonian Academy of Sciences and Arts (MASA), Faculty of Natural Sciences (FNS), Macedonian Museum of Natural History (MMNH), Agency "NATUROPA" and Dept. of Biological Diversity on the Ministry of Environment and Physical Planning.

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

Also NBC, in February 2003, has promoted actions for research about feeding habitat use by bats in Republic of Macedonia. This action coordinate experts from Zoological Department on Faculty of Sciences, Macedonian Museum of Natural History, Department of Biological Diversity (DBD) and NCA "NATUROPA" on the Ministry of Environment and Physical Planning (MOEPP).

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

In 2002 the Macedonian Environmental Info-Center (MEIC) on the Ministry of Environment and Physical Planning has make with his activities to promote this awareness of the importance of conservation of bats population and their habitats.

MEIC have focused to education of journalists from Macedonian Eco-Press Center (MEPC).

In 2003 (January- April) DBD, NCA "NATUROPA" and MEPC on the MOEPP, with cooperation and assistance of the MBC, ZD/FS, MMNH and coordinate of the Secretariat of the UNEP/EUROBATS have started to implement several activities from the Regional Project "Promotion of awareness on bat protection in Easter and South-eastern Europe". In April 2003, MOEPP has signed the Letter of Agreement (LoA) for produce a series of seven leaflets (1,000 copies of each) on bat conservation in Macedonia.

The Campaign of the Macedonian bat Night 2002 has started on 22 April (IDP) and continue of the 22 May (IDBD), 5 June (World Day of Environment) and 25 August was organize many manifestation with education ecological sections and NGO-s. Also, Macedonian Committee of CMS and MC of CBD Committee on Biological Diversity (MCBD) has organized Ceremony with support of the Ministry of Environment and Physical Planning and participation of the Sciences institution and NGO-s. National focal point of the CMS, CBD and others international conventions and agreement was promoted EUROBATS decisions to organize International Years of the Bats-2002.

This year activities has started on 21 of March-European Ecological Day (EED) and continued in April. many of activities from our Program will be implement on the future (May- August).

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

Macedonian Museum of Natural History (MMNH)
Boulevard "Ilinden" 86, MK-1000 Skopje Macedonia

11. Additional action undertaken to safeguard populations of bats

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

Project for Macedonian Emerald- Network (MEN) in cooperation with the Secretariat of the Bern Convention (BC) of the Council of Europe has included 3 ASCI (NP Galicica, SNR Ezerani on the Lake Prespa and Lake Doiran). Experts have evaluated nature areas and species (flora, fungya and fauna). On the List of fauna species has been include species of the Mammals.

Chiroptera:**National Park "Galicica"**

RHINOLOPHIDAE: Rh.blasii, Rh. euryale, Rh. ferrumequinum, Rh. hipposideros

VESPERTILIONIDAE: Myotis blythii.

Strict Nature Reserve "Ezerani"

RHINOLOPHIDAE: Rh.blasii, Rh. euryale, Rh. ferrumequinum.

VESPERTILIONIDAE: Myotis blythii.

Monument of Nature "Dojransko Ezero" /Lake Dojran

RHINOLOPHIDAE: Rh.blasii, Rh. euryale, Rh. ferrumequinum, Rh. hipposideros,
Rh.mehelyi

VESPERTILIONIDAE: Barbastella barbastellus, Miniopterus schreibersi, Myotis blythii,
Myotis capaccinii, Myotis emarginatus, Myotis myotis.

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

In 2002 DBD and Department of Environment Impact Assessment (D-EIA) of the MOEPP, in cooperation with State Inspectorate of Environment (SIE) has organized several actions for eliminating potential effects of pesticides on biodiversity, (including populations of bats).

The Agency of Natural Conservation (ANC), D-EIA and SIE of the MOEPP, in cooperation with the Ministry of Agriculture, Forestry and Water-management (MAFWM) analyzed the efforts to replace timber treatment chemicals which are highly toxic to flora and fauna, including bats and collect review (see annex 4).

D. Functioning of the Agreement**Co-operating with other Range States**

Department of the biodiversity and State Agency for Natural Conservation in The Netherlands, Sciences institution in Bulgaria, Slovenia, Croatia, Romania, Czech Republic, Germany, Switzerland and Serbia and Montenegro (S&M).

Annex 1.**Status of Bats within the territory of the Republic of Macedonia****1. Summary details of the Species**

Twenty-four species of bats are currently known to occur within the territory of Macedonia. On the basis of the available data from the adjacent regions (Bulgaria, Greece and Serbia) and habitat diversity in Macedonia, the presence of four additional species could be expected. The majority of specimens and information are from spring; summer and early autumn, while winter visits to caves were exceptional. Consequently, only five species (*Rhinolophus ferrumequinum*, *Rhinolophus hipposideros*, *Myotis myotis*, *Nyctalus noctula* and *Miniopterus schreibersi*) were found in hibernation. For nine species we have evidence of their reproduction in the region: *Rhinolophus ferrumequinum*, *Rhinolophus euryale*, *Myotis myotis*, *Myotis blythii*, *Myotis emarginatus*, *Myotis capaccinii*, *Eptesicus serotinus*, *Pipistrellus pipistrellus* and *Miniopterus schreibersi*.

2. List of threatened bat species in Macedonia

Rhinolophus blasii

Rhinolophus euryale

Rhinolophus mehelyi

Rhinolophus hipposideros

Rhinolophus ferrumequinum

Barbastrella barbastrelus

Miniopterus schreibersii

Myotis capaccinii

Myotis emarginatus.

Annex 2.

Table I. The distributional and estimated found status of the bat species known in Republic of Macedonia.

	SPECIES	DISTRIBUTION STATUS	ESTIMATED FAUNAL STATUS	HIBERNATION SITES	SUMMER ROOST
1.	<i>Rhinolophus hipposideros</i>	widespread	common	mines	buildings, caves
2.	<i>Rhinolophus ferrumequinum</i>	widespread	common	mines	caves
3.	<i>Rhinolophus euryale</i>	widespread	common		caves
4.	<i>Rhinolophus blasii</i>	restricted	rare		
5.	<i>Rhinolophus mehelyi</i>	restricted	rare		caves, mines
6.	<i>Myotis mystacinus</i>	widespread	rare		
7.	<i>Myotis myotis</i>	widespread	numerous	caves	caves
8.	<i>Myotis daubentonii</i>	restricted	rare		
9.	<i>Myotis blythi</i>	widespread	common		caves, mines
10.	<i>Myotis emarginatus</i>	restricted	common		caves
11.	<i>Myotis capaccinii</i>	widespread	common		caves, mines
12.	<i>Myotis nattereri</i>	restricted	rare		
13.	<i>Nyctalus noctula</i>	widespread	rare		hollow trees
14.	<i>Nyctalus leisleri</i>	restricted	rare		
15.	<i>Eptesicus serotinus</i>	restricted	rare		caves
16.	<i>Vespertilio murinus</i>	restricted	rare		
17.	<i>Pipistrellus pipistrellus</i>	widespread	common		buildings, caves
18.	<i>Pipistrellus nathusii</i>	restricted	rare		
19.	<i>Pipistrellus kuhlii</i>	restricted	rare		
20.	<i>Hypsugo savii</i>	restricted	rare		
21.	<i>Plecotus austriacus</i>	restricted	rare		
22.	<i>Barbastella barbastellus</i>	restricted	rare		
23.	<i>Miniopterus schreibersi</i>	widespread	common	caves	caves
24.	<i>Tadarida teniotis</i>	restricted	rare		

Annex 3.**Legislative Basis for Biodiversity Conservation****National basic laws**

- Act on Protection of Natural Rarities (“The Official Gazette of SRM” 41/73, 42/76 and 10/90, and “The Official Gazette of RM” N0 62/93);
- Act on Protection of Natural Parks (“The Official Gazette of SRM” 33/80 and “The Official Gazette of RM” N0 62/93);
- Act on Protection Ohrid Lake, Prespa Lake and Dojran Lake (“The Official Gazette of SRM” 45/77 and “The Official Gazette of RM” N0 62/93);
- Act on Environment and Nature Protection and Promotion (“The Official Gazette of RM” N0 69/96 and 41/2000).

The laws for close fields

- Act on proclamation of ornithological locality Ezerani, on Prespa lake, for Strict Natural Reserve (“The Official Gazette of RM” N0 37/96);
- Act on proclamation of ornithological locality Tikvesh, on Crna River Gorge, for Strict Natural Reserve (“The Official Gazette of RM” N0 35/97);
- Act on Forests (“The Official Gazette of RM” N0 47/97);
- Act on Waters (“The Official Gazette of RM” N0 4/98);
- Act on Fishing (“The Official Gazette of RM” N0 62/93);
- Act on Hunting (“The Official Gazette of RM” N0 20/96);
- Act on Management and Use of Pastures and Abandoned Fields and Meadows (“The Official Gazette of SRM” N0 20/74).

The law for ratificate international documents

- Act on ratification of Convention on Biological Diversity ("The Official Gazette of RM" 54/97),
- Act on ratification of Convention on the Conservation of Migratory Species of Wild Animals ("The Official Gazette of RM" 38/99),
- Act on ratification of Agreement on the Conservation of Bats in Europe ("The Official Gazette of RM" 38/99),
- Act on ratification of Agreement on the Conservation of African-Eurasian Migratory Water Birds ("The Official Gazette of RM" 32/99),
- Act on ratification of Convention of European Wildlife and Natural Habitats ("The Official Gazette of RM" 49/97),
- Act on ratification of Convention on International Trade in Endangered Species of Wild Fauna and Flora ("The Official Gazette of RM" 82/99).

Annex 4.

Table 1. Active ingredients.

Active ingredient (E-ISO name)	Approved (or available) for use in RTT	Commonly used	Rarely used	Comments
Pentachlorophenol PCP	-			
Dieldrin HEOD	-			
Lindane γ -HCH, BHC	-			
DDT	-			
Tributyl tin compounds TBT, TBTO	-			
Synthetic pyrethroids (Permethrin, Cypermethrin etc)	-			
Boron compounds	-			
Zinc compounds	-			
3-Iodo-2-propynyl-n-butyl carbamate Polyphase/IPBC	-			
Propiconazole	-			
Azaconazole	-			
Tebuconazole	-			

Notes. Depending on the national approvals scheme, many more products or active ingredients may be approved for use than are actually marketed or used. The 'Commonly used' and 'Rarely used' columns allow for an indication of the extent to which products are currently used in practice.

Table 2. Approvals or registration process

Is the supply and use of remedial timber treatment chemicals regulated by a national authority? Please name the authority.	yes Ministry for Agriculture, Forestry and Water Management, Skopje.
Does the approval or registration process include an assessment of ecotoxicity?	yes Assessment of ecotoxicity.
Are bats specifically included in the ecotoxicological assessment of products to be used to treat structural timbers in the roofs of buildings? If so, is there a formal methodology to be used?	generally (not specially) The assessment included toxicological impact to wildlife fauna species and peoples. No data for type of used formal methodology.
Are the directions or instructions for use (on a label or accompanying document) required to refer to ecotoxicity?	yes
Do the directions or instructions for use (on a label or accompanying document) of remedial timber treatment products refer to the possible hazard to bats? If so, is this a legal requirement or a voluntary agreement? Please include an example label	
Is advice given to the industry on ways in which any hazard to bats as a result of RTT may be minimised?	yes

Table 3. Types of treatment and size of industry

1. What proportion of treatments of roof voids for wood-boring insects or wood-rotting fungi includes the application of RTT biocides?	High (>90%)
	Medium (50-90%)
	Low (< 50%) x
2. Please estimate the total number of private dwellings for your country	Is not data for the total number of private dwellings. ?
3. Please estimate the number of <u>specialist</u> companies carrying out RTT. This does not include general builders or other non- specialist companies.	Is not official data for the number of specialist companies for RTT trade. ?
4. Please estimate the number of roof voids treated annually by specialist companies for wood-boring insects or wood-rotting fungi.	Is not data for the number of roof voids treated annually (by spec. companies...) It is very difficult.

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