



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

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**AGREEMENT ON THE CONSERVATION OF POPULATIONS OF EUROPEAN BATS**

**7<sup>th</sup> Meeting of the Advisory Committee (EUROBATS AC7)**

**Bucharest, 27-29 May 2001**

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

**Skopje: May, 2002**

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## ***MACEDONIAN NATIONAL REPORT***

***- UPDATE TO THE YEAR 2002-***

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For remind, actions of the Ministry of Environment and Physical Planning for bats conservation is described in the our report of the 3th Meeting of the Parties in Bristol, UK, July 2000 (see: <http://www.eurobats.org/PartyReports/Macedonia.htm>) and 6<sup>th</sup> Meeting of the Advisory Committees in Sintra, Portugal , March 2001.

Macedonian Committee of the CMS made in following directions:

- Protection of the nature habitats (especialy caves, rivers, cainions and other nature areas),
- Protection of the buildings in urban and rural complexes,
- Promoting important rullles of the bats population on biodiversity conservation,
- Organising The 5<sup>th</sup> Bats Night (25 August 2001) in Skopje old buildings and in 5 different places in Macedonia (Oteshevo, Ohrid, Cotursko, Peshti, Sretenovo).

### **A. General information**

- Party: **Republic of Macedonia**
- Date of report: **May 2002**
- Period covered by Report: **2001**
- 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 first report (1999). See Anex 1.

#### **2. Status and Trends**

Situation similar to the first report (1999). See Anex 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**

Situation similar to the first report (1999). 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 promote actions to make the Macedonian list of Sites of Cammanitary Interest (important to the conservation of bats). This action will be coordinated and instructed of experts from sciencies institutions and Nature Conservation Agency "Naturopa" on the Ministry of Environment and Physical Planning.

## **8. Consideration given to habitats which are important for bats**

Also NBC, in January 2001, was promote actions for research about feeding habitat use by bats in Republic of Macedonia. This action will be coordinated of experts from Zoological Department on Faculty of Sciences, Macedonian Museum of natural History and NCA "Naturopa" on the Ministry of Environment and Physical Planning.

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

In 2001 the the Macedonian Environmental Info-Center (MEIC) on the Ministry of Environment and Physical Planning has coninied with his activities to promote the awareness of the imporcance of conservation of bats population and their habitates.

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

In Office of National Agency "Natruropa" presented the actual situation of Biological Diversity Conservation in the Republic of Macedonia, including conservation of bats and their natural habitas.

Macedonian bat Night 2001 on 5 June (World Day of Environment) and 25 August was organised many manifestation with scools ecological sections and NGO-s. Also, Macedonian Committee of CMS and MC of CBD Committee on Biological Diversity has organised Ceremony with suport of the Ministry of Environment and Physical Planning and participation of the Sciencies institution and NGO-s. National focal point of the CMS, CBD and others international conventions and agreement was promoted EUROBATS decision to organising International Years of the Bats-2001.

## **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 55

## **11. Additional action undertaken to safeguard populations of bats**

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

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## **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 2001 Department of the Biodiversity (DBD) and Department of Environment Impact Assistent (D-EIA) of the Ministry of Environment and Physical Planning, in cooperation with the State Inspectorate of Environment (SIE) have organised

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 Ministry of Environment and Physical Planning, in cooperation with the Ministry of Agriculture, Forestry and Water-management have analyzed the efforts to replace timber treatment chemicals which are highly toxic to flora and fauna, including bats and collected 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, Croatia, Czech Republic, Germany, Switzerland and Yugoslavia.

### ***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 blythi*, *Myotis emarginatus*, *Myotis capaccinii*, *Eptesicus serotinus*, *Pipistrellus pipistrellus* and *Miniopterus schreibersi*

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

<b>Active ingredient (E-ISO name)</b>	<b>Approved (or available) for use in RTT</b>	<b>Commonly used</b>	<b>Rarely used</b>	<i>Comments</i>
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**

<p>Is the supply and use of remedial timber treatment chemicals regulated by a national authority? Please name the authority.</p>	<p><b>yes</b> Ministry for Agriculture, Forestry and Water Management, Skopje.</p>
<p>Does the approval or registration process include an assessment of ecotoxicity?</p>	<p><b>yes</b> Assessment of ecotoxicity.</p>
<p>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?</p>	<p><b>generali (not specialy)</b> The assessment included toxical impact to wildlife fauna species and peoples. No data for type of used formal methodology.</p>
<p>Are the directions or instructions for use (on a label or accompanying document) required to refer to ecotoxicity?</p>	<p><b>yes</b></p>
<p>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</p>	<p><b>no</b></p>
<p>Is advice given to the industry on ways in which any hazard to bats as a result of RTT may be minimised?</p>	<p><b>yes</b></p>

**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 include the application of RTT biocides?	High (>90%)
		Medium (50-90%)
		Low (< 50%) <b>x</b>
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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