



**REPUBLIC OF MACEDONIA
MINISTRY OF ENVIRONMENT**

AGREEMENT ON THE CONSERVATION OF BATS IN EUROPE

**EUROBATS, AC6,
Sintra, Portugal, March ,19-21, 2001**

**NATIONAL REPORT
ON THE IMPLEMENTATION OF EUROBATS
IN THE REPUBLIC OF MACEDONIA**

Skopje: March, 2001

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NATIONAL REPORT

on the implementation of the Agreement in the Republic of Macedonia

-March 2001

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AGREEMENT ON THE CONSERVATION OF BATS IN EUROPE

National implementation report of the Republic of Macedonia (2000)

A. General information

- Party: **Republic of Macedonia**
- Date of report: **March 2001**
- Period covered by Report: **2000**
- 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 (12.730 ha), three National Parks (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 2000 the the Environmental Information Center (EIC) on the Ministry of Environment and Physical Planning has coninied with his activities to promote thes awareness of the imporcance of bats conservation.

EIC have focused to education of journalists from Eco-Press Center in Republic of Macedonia (EPC/RM) for future cooperation of the conservation of bats.

In Office of NCA “Natruropa” presented the actual situation of Biological Diversity Conservation in the Republic of Macedonia, including conservation of bats and natural habitas.

Macedonian bat Night 2000 on 5 June (World Day of Environment) was organised many manifestation with scools ecological sections and NGO-s. Also, National Committee on Biological Diversity (NCBD) on 29 of December (World Day of BD) was organised Ceremony with suport of the Ministry of Environment and Phisical 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 2000 the Department of Environment Impact Assistentment (D-EIA) of the Ministry of Environment and Physical Planning, in cooperation with the State Inspectorate of Environment (SIE) have organised many activities for eliminating potential effects of pesticides on biodiversity, including populations of bats.

The Agency of Nanural Conservation (ANC), D-EIA and SIE of the Ministry of Environment and Physical Planning, in cooperation with the Ministry od Agriculture, Forestry and Water-management have analyzed the efforts to replace

timber treatment chemicals which are highly toxic to flora and fauna, including bats (see annex 4).

A. Functioning of the Agreement

Co-operating with other Range States

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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*, *Pipishellus pipishellus* 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. | <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 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.

| Active ingredient (E-ISO name) | Approved (or available) for use in RTT | Commonly used | Rarely used | <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>yes Ministry for Agriculture, Forestry and Water Management, Skopje.</p> |
| <p>Does the approval or registration process include an assessment of ecotoxicity?</p> | <p>yes Assessment of esotoxicity.</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>generali (not specialy) The assessment included toxical inpact 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>yes</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>no</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>yes</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%) 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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