

5-th Session of the Meeting of Parties, Ljubljana, Slovenia, 4 – 6 September 2006

AGREEMENT ON THE CONSERVATION OF EUROPEAN BAT POPULATIONS  
(EUROBATS)

**Report on the Agreement Implementation in Romania.**  
(MoP 5/2006)

**A. General Information**

- *Name of Party:* Romania
- *Date of Report:* April 2006
- *Period covered:* March 2003 – April 2006
- *Competent Authority:* Romanian Ministry of the Environment and Management of Waters – General Directorate of Nature Conservation, Biodiversity, Biosecurity, Soil and Underground, Director **Adriana Baz**.  
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-Appointed member of the Advisory Committee: Dumitru Murariu

**B. Status of Bats within the territory of the party**

*1. Summary details of the resident species:*

In the previous yearly national reports there were mentioned 30 bat species for the Romanian territory. This figure is contradictory with some Romanian chiropterologists' reports who recognize 27 or 28 bat species. This is on one side because up to now only one specimen of *Hipsugo savii* Bonaparte, 1837 was collected and on the other side because new techniques used in Romania after 2000 to identify bats using Bat Detector is still without full confidence up to some specialists. Today is not more recognized the reported species of *Myotis ikonnikovi* from central and eastern part of Romania.

In last few years some pessimistic people who neglected the results of Bat Detector identification, had the chance to collect themselves one specimen of *Pipistrellus kuhli* (Kuhl, 1819) reported by Mr. Herman Limpens in June 2000 on the occasion of first Detector Workshop in the country. Other new species reported for Romanian bat fauna was *Pipistrellus pygmaeus* Leach, 1825. It is true, these two new species and *H. savii* in Romanian bat fauna are still poor known.

On the opposite, the optimistic chiropterologists (Decu and coll., 2003) are expecting to appear in the Romanian bat fauna the 31-st species – *Tadarida teniotis* (Rafinesque, 1814).

*2. Status and trends*

According to the results (observation, collecting with mist-nets and releasing as well as identifying with bat detectors) in field trips in last three years the above mentioned 30 bat species for Romanian bat fauna have the status and estimated trends as noted in the Tab.1:

Table 1:

<i>Species</i>	<i>Status</i>	<i>Estimated Trend</i>	<i>Observ.</i>
<i>Rhinolophus ferrumequinum</i>	EN*	Declining	Few in East RO
<i>R. hipposideros</i>	VU.	Declining	Widespread
<i>R. euryale</i>	EN.	Declining	Isolated in carstic
<i>R. blasii</i>	CR.	Declining	Isolated in carstic
<i>R. mehelyi</i>	VU.	Declining	Only South RO
<i>Myotis myotis</i>	NT.	Declining	Widespread
<i>M. brandtii</i>	DD.	Unknown	Only West Carpath.
<i>M. blythii</i>	VU.	Declining	Widespread
<i>M. dasycneme</i>	DD.	Unknown	Only in S-W of RO
<i>M. daubentonii</i>	LC.	Stable	Widespread
<i>M. emarginatus</i>	VU.	Declining	Small and isolated popul.
<i>M. mystacinus</i>	VU.	Declining	Widespread, small popul.
<i>M. nattereri</i>	EN.	Declining	Absent in S. of RO
<i>M. bechsteini</i>	EN.	Declining	In all Carpathians
<i>M. capaccinii</i>	CR.	Declining	Only W. of RO
<i>Plecotus auritus</i>	VU.	Declining	Few in Carpath.
<i>P. austriacus</i>	VU.	Declining	Only in S. of Carpathians
<i>Vespertilio murinus</i>	NT.	Possib. declining	Widespread
<i>Eptesicus serotinus</i>	VU.	Declining	Widespread, small popul.
<i>E. nilssonii</i>	EN.	Declining	Only in W. of RO
<i>Nyctalus noctula</i>	LC.	Stable	Widespread
<i>N. lasiopterus</i>	VU.	Declining	Only South RO
<i>N. leisleri</i>	VU.	Declining	Widespread, small popul.
<i>Pipistrellus pipistrellus</i>	LC.	Stable	Widespread
<i>P. pygmaeus</i>	NE.	Unknown	Recent reported
<i>P. nathusii</i>	LC.	Unknown	At low altitude
<i>P. kuhli</i>	NE.	Unknown	Recent reported
<i>Hypsugo savii</i>	NE.	Unknown	Recent reported
<i>Barbastella barbastellus</i>	VU.	Declining	Restricted distrib.
<i>Miniopterus schreibersii</i>	VU.	Serious declining	In limited no. of sites

\* According to new IUCN categories: EX = Extinct; EW = Extinct in the Wild; CR = Critically Endangered; EN = Endangered; VU = Vulnerable; NT = Near Threatened; LC = Least Concern; DD = Data Deficient; NE = Not Evaluated.

### 3. Habitats and Roost Sites

Large diversity of landscape in the country (Sea shore, Danube Delta and Plains, Hills and Carpathians - most of them covered with forests and many parts with limestone/caves) allow to bats to find appropriate roosts. The only problem appear with foraging habitats after extensive deforestation, use of chemicals and insufficient public awareness.

*Rhinolophus ferrumequinum* appears in limited territories from Carpathians and Dobrogea.

*R. hipposideros* prefers caves but in summer roosts in tree hollows, church steeples and garrets. Individuals of this species were found isolated in caves, both in summer and in winter.

*R. blasii* was reported only from the caves situated in Southern Carpathians (Oltenia and Banat).

*R. mehelyi* collected from Bucharest and in last few years reported from Ponicoava Cave – left shore of the Danube River.

*R. euryale* from caves in Western and Southern Carpathians with carstic zones.

*Myotis myotis* prefers the caves, and rarely was mentioned from the garrets and steeples.

*M. blythii* from caves, where its individuals were mixed with those of *M. myotis*. However there are enough reports and collectings from church steeples.

*M. capaccinii* prefers cave as main shelters. Few specimens were observed in garrets, steeples and tree hollows.

*M. dasycneme* prefers better lowlands, with still waters. It shelters mainly in tree hollows.

*M. daubentoni* usually in tree hollows and garrets, close by lakes, marshes and rivers or streams.

*M. emarginatus* reported only from caves with small populations.

*M. mystacinus* is a bat which prefers more the garrets and steeples than tree hollows. In these shelters it stays eastwards or southeastwards sides. In summer it also shelters in the fissures of the limy rocks.

*M. nattereri* lives in forests and parks, near water flows, even in localities. They shelter in tree hollows, garrets, but also in rock crevices. For winter it looks for the caves and tunnels.

*M. bechsteini* has summer colonies roosted in tree hollows from the deciduous forests; rarely in the garrets and in rock crevices. For hibernation it looks for caves.

*M. brandtii* insufficiently known. Reported only from the caves in Western Carpathians.

*Plecotus auritus* prefers the afforested areas from the plain to the mountains, at a medium altitude, parks with hollow tree, garrets used mostly as temporary shelters, rock crevices.

*P. austriacus* looks for the cultivated areas and human settlements; it is also called “house bat”. It avoids the compact woods and it was never observed or collected from the tree hollows. Maternal colonies of only 10 – 30 females live in garrets, steeples, hunting ranges. Isolated individuals were also observed in caves, tunnels, rock crevices. For winter they withdraw in caves, tunnels and pantries.

*Vespertilio murinus*. Maternal colonies shelter in the garrets of the low houses, well shadowed, whose roof is made of good insulating materials against heat. Steeples are also preferred during summer. Males prefer more the tree hollows. They also shelter in the artificial boxes mounted for birds. In winter they shelter in the garrets of the blocks and high houses, from the large cities (e.g., in Bucharest) and in caves with a high ceiling.

*Eptesicus serotinus*. Mainly, it is a synanthropic species, looking for the summer shelters in the garrets, steeples, pantries, cellars and rarely in the tree hollows. When hibernating they go into houses, in cellars and pantries.

*E. nilssoni*. Usually in the human shelters placed at altitude of 200 – 2000m, because it looks for refuges in garrets; but, in winter it looks for better isolated refuges and it goes even in cellars.

*Nyctalus noctula* mainly in tree hollows for summer and in fissures of walls, roofs of buildings and inside the building for winter.

*Nyctalus lasiopterus* prefers deciduous forests, where the oak is prevalent. It shelters in the hollows of the trees of soft essence (e.g. lime tree).

*N. leisleri* prefers the dense forests, but it also shelters in the hollows of the old trees from the town parks. Rarely it shelters in garrets. In winter, it gathers in same kind of shelter, in larger colonies than the summer ones.

*Pipistrellus pipistrellus* in buildings, attics, between windows, in cellars and any crevices for its small size.

*P. pygmaeus* insufficiently known. Seems to use tree hollows for nursery colonies and for hibernating.

*P. kuhli* insufficiently known. The only specimens caught in Eastern part of Romania was the balcony of a house in Iassy city.

*P. nathusii*. It prefers the deciduous forests and human settlements around. As shelters, it uses the hollows of the trees, the crevices of the tree trunks, but it also shelters in garrets and in hen coops. In summer it shelters in rock crevices.

*Hypsugo savii* a species insufficiently known. According to the data from the literature, the species prefers the caves. Single specimen caught in Romania was from the steeples.

*Barbastella barbastellus*. Individuals of this species shelter for winter in caves, tunnels, cellars, and in summer – in tree hollows, wall crevices and even between the frames of the windows.

*Miniopterus schreibersi*. Caves and garrets of the big houses placed in forests.

#### 4. Threats

Habitat destruction are important for foraging. Roost perturbances because of anthropic pressure, disturbing tourism, free and noisy access in caves, control of insects, high percent of deforestation and wrong legends about bats. Extensive logging determine bat species (e.g. *Myotis nattereri*, *M. mystacinus*, *Pipistrellus* sp.) depending by forest habitats on one side to restrict their breeding sites and day-time shelters and on the other side – to find other (undisturbed) habitats.

#### 5. Data collection, analysis, interpretation and dissemination

In last three years it was continued the research activities a national bat monitoring programme, developed by Faculties of Biology from Bucharest, Iassy and Cluj, Institutes of Speleology „Emil Racovitza” from Bucharest and Cluj and „Grigore Antipa” National Museum of Natural History – Bucharest in co-operation with NGOs and volunteers from all over the country.

The purpose of these programmes was to update information about bat species from the country. As it was reported in 2005 they were surveyed more than 30 underground roosts in Western, Eastern and Southern Carpathians. The aim of the programme was to estimate bat species and their populations on the basis of correlating the

results of visual observations with photos, places, height, flight type and silhouette of active bats as well as the frequencies recorded with bat detectors and even mist netting at the entrance of the caves, tree hollows, garrets, creviced buildings and cellars for direct examination, identification, proof of reproduction, marking and to release individuals, and eventually to recapture. **(Details in last national report).**

#### **A. Measures taken to Implement Article III of the Agreement**

##### *6. Legal measures taken to protect bats, including enforcement actions*

Bats are protected by the Law 167/8 May 2000 when Romania adhered to the EUROBATS Agreement adopted in London on 4-th december 1991 as well as by all International Conventions (Bern, Bonn etc.) and for Species and Habitats Directives. The new management programmes and legal measures to protect 9 important caves with bat colonies in South-West part of the country are followed by return of (for the time being few) individuals of some species (*Rhinolophus euryale*, *Myotis myotis* etc.).

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

The national monitoring programme started in 2003 and surveyed about 40 underground roosts with important colonies of bats. Some caves are important both for certain dominant species of bats and for other (less represented) species too. Example Bat Cave close by Bistrita Monastery (Vâlcea County) is important for *Miniopterus schreibersii* but for *Rhinolophus ferrumequinum* and for *R. hipposideros* too; Cave Sura Mare (Hunedoara County) shelters a large colony with thousands individuals of *Pipistrellus pipistrellus* but other hundreds individuals are of different other bat species). All the monitored sites were protected with gates for controlled entrance, to avoid disturbances of tourists.

Considering the inventory of more than 12,000 caves on the Romanian territory it is necessary the identification of other large roosts with important populations of bats, followed by measures to protect these sites for the bats conservation benefit.

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

Romanian Law No. 5/2000 declared 844 protected areas with: 11 National Parks; 6 Natural Parks; 3 Biosphere Reserves; 52 Scientific Reservations; 228 Monuments of Nature and 537 Natural Reservations. Other 6 Natural Parks and 42 Protected Areas are with documentation ready to be approved by the Romanian Government. All these protected areas are in natural ecosystems with optimum conditions for bats foraging. Avoiding extensive logging, tree hollows and under tree bark will be important shelters for many species with nursery colonies in protected and forested areas. The Programme Natura 2000 will be beneficial for bat fauna too.

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

As it was mentioned in previous national reports, in the context of implication of more and more Romanian volunteers, NGOs and academic institutions in bat research, observations and better management of roosts (mainly underground) data collection and the awareness of the importance of the conservation of bats is ongoing in every year.

Each team visit at least one time/season some important caves, considering bat species and their populations.

In 2006 will be reprinted the book „*Bats between myths and truth*” = (in Romanian - „*Liliecii intre mit si adevar*”) with a great success to public.

Analysis, interpretation and dissemination of bat data are on the occasion of editing some papers to be presented in diferent scientific meetings and published in special journals. Some of these data are used in diferent steps of preparation of Ph. Degree thesis about bats. In 2005, two Romanian chiropterologists attended 10-th Meeting in Ireland?

On 5-th June 2005 the National Museum of Natural History hosted and was implied in the organization together with Romanian Ministry of the Environment and Waters Management of a meeting with scholars and students. The title of the Symposium was „*Together for Nature*”. On 2-nd February 2006 the National Agency for Nature Protection organized in the same Museum a competition between best prepared scholars, about biodiversity conservation, bats being included.

In August 2005 the „Grigore Antipa” National Museum of Natural History organized a cicle of three given lectures about bats, their biology, roosts and need of protection. Before the conferences, attendants visited a small exhibition with posters referring to conservation topics and the anthropic pressure; some naturalized bat specimens were presented too.

On 28-th of August 2005 volunteers, NGOs and academic institutions organized Bat Night in Bucharest, Jassy, Suceava, Satu Mare, Cluj, working with Ultrasound Bat Detectors and spreading two types of posters received from the EUROBATS’ Secretariat. Also from the EUROBATS’ Secretariat, attendats to the given lectures and visitors received about 150 copies of two versions (German and English languages) of reviews („*Landschaft als Lebensraum*”, vol. 4/2001 – 20 pages) printed by Bundesamt für Naturschutz und Deutscher Verband für Landschaftspflege, including useful Information and recommendations for forest managers; the title of the review is „*Bats in Forests*”.

Out of Bat Nights organized in different cities in the country, distribution of posters and leaflets to participants an visitors in the natural sciences museum and severael lectures about biology, ecology, distribution and ethology of bats they were printed four articles in magazines and newspapers referring to the situation of bats in Romania, their roosts and foraging habitats and their need to be protected. National Museum of Natural History, Romanian Federation of Chiropterology and Romanian Association for Bat Protection printed more than 10 kinds of leaflets with information about biology and role of bats in nature. A number of 28,000 copies of leaflets were printed with 7 different titles grateful to the financial support of the Minister of Flamand Community for the Environment Administration, Management of Nature, Land and Waters – Direction for Naturae – Belgium as well as with kind permission to translate German texts on the behalf of the German Federal Agency for Nature Conservation. The correspondence and financial support was kindly transfered via EUROBATS Secretariat.

Booklets, posters and books for optional disciplines in instruction and education institutions were also distributed, mainly in rural schools (Mehedinti, Gorj and Caras-Severin Counties) as well as in 5 counties museums of natural sciences.

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

The General Direction for Nature Conservation, Biodiversity and

Biosecurity, Terrestrial and Underground in the Romanian Ministry of the Environment and Waters Management is responsible body for nature conservation in the country, nominating for Bat Conservation consultancy the „Grigore Antipa” National Museum of Natural History – Bucharest.

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

Promoting a LIFE Nature project (2002 – 2005) for protection of underground roosts for bats in South-Western Romanian Carpathians, ending with a Management plan for 9 large and important caves, considering bat colonies.

The Romanian Ministry of Environment and Waters Management and especially the General Directorate of Nature Conservation, Biodiversity, Biosecurity encourage academic institutions, NGOs and volunteers to report illegal cases of deforestation, foraging habitat distructions or individual wrong activities against bat species conservation (e.g. fire in front of caves, crossing with noisy and inappropriate lights under bat colonies, taking in hands bats from the cave walls etc.). These authorities discourage any attitude/intention to collect or kill bats without permit.

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

Continuation of the Monitoring programme for both (natural and anthropic roosts as well as populations of each bat species) in order to protect special sites (refuges and foraging habitats) in favour of conservation of bats.

Except programmes of the academic institutions implied in technical and scientific methods of study of bats and their management, a number of NGO's are implied in nature conservation in general and especially in using new methods to identify bat species, estimation of their populations/colonies, density and frequency.

*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.*

In case of some pest insects invasion and need to use pesticides there is a consultancy between the Ministry of Environment and Management of Waters with Ministry of Agriculture, Silviculture and Rural Development to choose the optimum period and special hours in daytime to diminish impact (potential effects of chemicals) on biodiversity in general and on bats in special.

#### **D. Functioning of the Agreement**

*14. Cooperation with other Range States*

The co-operation between Range State of EUROBATs Convention was Limited to the reported data on the occasion of different topics of the Intersessional Working Group: *Bat Conservation and Sustainable Forest management; Geographic Scope of the Agreement, Bat Migration* etc. There is a project co-ordinated by Professor Dr. Bronislaw Woloszyn, referring to Bats from all Carpathians – an Atlas with contributions from Poland, Ukraine, Hungary, Slovakia, Serbia and Romania.

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

Since 2002 was established a National Strategy for Monitoring underground roosts and bat species from 34 important caves from the country. Teams from different regions were organized and shared a certain number of shelters with maternity and hibernation bat colonies. These teams had a common programme (one, maximum two visits in each season) with no more than 2 – 4 persons.

In last three years increased the number of bat workers, were organized Bat Nights every year (last weekend of August) and distributed to the attendants at least two kind/size of leaflets kindly provided by the EUROBATS Secretariat.

Starting with national report for 2005 – 2006 and this triennial report, these were structured according to Resolutions 2.5 and 3.3 – Format of National Reports.