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NATIONAL REPORT ON THE IMPLEMENTATION OF THE AGREEMENT ON THE CONSERVATION OF BATS IN EUROPE (EUROBATS)

ROMANIA

2000 – 2001

„Grigore Antipa" National Museum of Natural History
Ministry of Waters and Environmental Protection

February 2000

A. General information:

- *Name of the Party:* Romania
- *Date of report:* February 2001
- *Period covered:* January 2000 – February 2001
- *Competent Authority:* Directorate of Biodiversity Protection and Conservation, Protected Areas, Monuments of Nature/Ministry of Waters and Environmental Protection.
- *Prepared by:*

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B. Status of bats within the Romanian territory:

1. Summary details of resident species:

In Romania 28 bat species have been recorded, considering only collected specimens. One of them (*Pipistrellus savii*) was reported based on the only one specimen collected in Dobrogea (South-East of the country) and deposited in the „Grigore Antipa" National Museum of Natural History.
With the occasion of the first Bat Detector Workshop in Romania (15–18 June, 2000), assisted by Mr. Herman Limpens, they were reported two additional species: *Pipistrellus kuhli* and *Pipistrellus* (= *Vesperugo*) *pygmaeus.* Both of them should be prouved with collected material/specimens too.
However, the species *Myotis brandtii* reported since 1959 in Hungary and recently in Ukraine is reported from Western part of Romania – the Water Cave of Lesu (Laszlo 2000, in Abstracts of the 3-rd ICCB, Rachiv, 2000).

2. Status and trends:

The most of species have not increased in number of their individuals in different populations. Few of them (*Rhinolophus euryale, Myotis emarginatus, Plecotus auritus, Eptesicus serotinus* and *Miniopterus schreibersi*) are considered with relatively stable populations. However, the last species (*M. schreibersi*) offers a very large fluctuation of number of individuals. It was noticed in some years, in the same roosts being totally absent, in the same seasons, while in other years appear large colonies, numbering 500 – 1,500 individuals. (Unfortunately in Romania there were not yet ringing Bat activities to get an idea about species' movements).
Some other species (*Rhinolophus mehelyi, Myotis brandtii, M. ikonnikovi*) are not precisely known, concerning their status and trends.

Status and trends of the bat species in Romania

Species	Estimated size	Conservation status	Protection status
Rhinolophus ferrumequinum	*5000*	*V*	Annexes 3 and 4 of the GO 236/2000, Annex II of the Bern Convention
Rhinolophus hipposideros	*5000*	*V*	Annexes 3 and 4 of the GO 236/2000, Annex II of the Bern Convention
Rhinolophus euryale	*500-700*	*R*	Annexes 3 and 4 of the GO 236/2000, Annex II of the Bern Convention
Rhinolophus blasii	*1500*	*E*	Annexes 3 and 4 of the GO 236/2000, Annex II of the Bern Convention
Rhinolophus mehelyi	*5000*	*V*	Annexes 3 and 4 of the GO 236/2000, Annex II of the Bern Convention
Myotis myotis	*6000*	*R*	Annexes 3 and 4 of the GO 236/2000, Annex II of the Bern Convention
Myotis blythii	*4000*	*R*	Annexes 3 and 4 of the GO 236/2000, Annex II of the Bern Convention
Myotis capaccinii	*500?*	*R*	Annexes 3 and 4 of the GO 236/2000, Annex II of the Bern Convention
Myotis dasycneme	*100*	*Ex*	Annexes 3 and 4 of the GO 236/2000, Annex II of the Bern Convention
Myotis daubentonii	*100*	*Ex*	Annex 4 of the GO 236/2000, Annex II of the Bern Convention
Myotis emarginatus	*300*	*E*	Annexes 3 and 4 of the GO 236/2000, Annexes II and III of the Bern Convention
Myotis mystacinus	*600-800*	*E*	Annex 4 of the GO 236/2000, Annex II of the Bern Convention
Myotis nattereri	*500*	*R*	Annex 4 of the GO 236/2000, Annex II of the Bern Convention
Myotis bechsteinii	*200*	*E*	Annexes 3 and 4 of the GO 236/2000, Annex II of the Bern Convention
Myotis ikonnikovi	*X0*	*Ex*	Annex 4 of the GO 236/2000, Annex II of the Bern Convention
Plecotus auritus	*3000*	*V*	Annex 4 of the GO 236/2000, Annex II of the Bern Convention
Plecotus austriacus	*1000*	*E*	Annex 4 of the GO 236/2000, Annex II of the Bern Convention
Vespertilio murinus	*2000*	*R*	Annexes 3 and 4 of the GO 236/2000, Annex II of the Bern Convention
Eptesicus serotinus	*1500*	*V*	Annex 4 of the GO 236/2000, Annex II of the Bern Convention
Eptesicus nilssoni	*500*	*Ex*	Annex 4 of the GO 236/2000, Annex II of the Bern Convention
Nyctalus noctula	*10000*	*V*	Annex 4 of the GO 236/2000, Annex II of the Bern Convention
Nyctalus lasiopterus	*500*	*R*	Annex 4 of the GO 236/2000, Annex II of the Bern Convention
Nyctalus leisleri	*1000*	*R*	Annex 4 of the GO 236/2000, Annex II of the Bern Convention
Pipistrellus pipistrellus	*10000*	*V*	Annex 4 of the GO 236/2000, Annex III of the Bern Convention
Pipistrellus nathusii	*500*	*R*	Annex 4 of the GO 236/2000, Annex II of the Bern Convention
Pipistrellus savii	*100*	*R*	Annex 4 of the GO 236/2000, Annex II of the Bern Convention
Barbastella barbastellus	*500*	*R*	Annexes 3 and 4 of the GO 236/2000, Annex II of the Bern Convention
Miniopterus schreibersi	*10000*	*V*	Annexes 3 and 4 of the GO 236/2000, Annex II of the Bern Convention

Ex=reported before, but not collected in the last 50 years, E=endangered, R=rare, V=vulnerable

3. Habitats and roost sites

- ***Rhinolophus hippodesideros***

Caves, church steeples and garrets are prefered places. Individuals of this species were found isolated in caves, both in summer and in winter. They were found in colonies only in the cave from Racoş, in winter (9°C) and in the loft of the stable of a farm from commune Baru Mare, in August (20°C). Different authors mentioned the presence of several individuals in the same shelter, without gathering in colonies (e.g. in the Big Cave - Peştera Mare - from Cheile Vârghişului and in Muierii Cave - Peştera Muierii - from Baia de Fier) - as a characteristic feature of this species. Staying isolated in different places of the shelter, some of them hibernate at -4°C, and others, in places with temperatures up to +10°C, according to their distance from the entrance. They weren't collected or observed sheltering in the tree hollows.

- ***Rhinolophus blasii***

Up to now it was reported only from the caves situated in the Southern Carpathians (Oltenia and Banat). There it also occurs in summer, but especially in winter, for hibernation. Hibernation colonies are small (maximum 300 individuals), placed in places protected from the air currents and with the temperature of 9°C - 14°C.

- ***Rhinolophus mehely***

The most reports are from the caves, but the first Méhely's description on an specimen collected from Bucharest, led to the idea that these bats also shelter in tunnels, garrets and steeples, and even in treee hollows. In the same time we have to take into consideration that these bat can migrate on long distances (300 – 500 km, and according to foreign literature - even 1.500 Km) from the hibernation place to the shelters of the summer colonies, and inversely.

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

- ***Myotis blythii***

Most of the observations on this species were made in caves, where its individuals were mixed with those of *M. myotis*. In spite of all these there are enough reports and collectings from steeples. A recent example is the identification of a colony of around 200 individuals of *M. blythii,* in July 1995, in the steeple of the church from village Slătioara, commune Strâmtura, Maramureş.

- ***Myotis capaccinii***

Caves are the prefered shelters. According to literature, they were also observed in other places as garrets, steeples and tree hollows.

- ***Myotis dasycneme*** prefers better lowlands, with still waters. It shelters in the tree hollows.

- ***Myotis daubentoni***

Tree hollows and garrets, not absolutely necessarily near water, as in *M. dasycneme.*

- ***Myotis emarginatus.*** Till now, we do not know other prefered biotopes than the caves.

- ***Myotis mystacinus***

It is a bat which prefers more the garrets and steeples than the forests. In these shelters it stays eastwards or southeastwards sides. In summet it also shelters in the fissures of the limy rocks. However, in winter it looks for caves and tunnels, with a relatively constant temperature (2°C - 8°C).

- ***Myotis emarginatus***. Till now, we do not know other prefered biotopes than the caves.

- ***Myotis nattereri***

It lives in forests and parks, near water flows, even in localities. They shelter in tree hollows, garrets, but also in rock crevices. But in winter it looks for the caves and tunnels with relatively constant temperaturte (2,5°C - 8°C).

- ***Myotis bechsteini***

Summer colonies prefere the tree hollows from the deciduous forests; rarely in the garrerts and in rock crevices. For hibernation it looks for the caves.

- ***Myotis ikonnikovi***. Tree hollow from the alpine forests are prefered.

- ***Plecotus auritus***

It 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. In winter they go in caves, tunnels, well isolated spaces for the temperature not to reach less than 2°C - 5°C.

- ***Plecotus austriacus***

In comparison with *Plecotus auritus* which prefers the unpopulated areas, this species 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, etc. Isolated individuals were also observed in caves, tunnels, rock crevices. For winter they withdraw in caves, tunnels and pantry – sometimes together with Long-eared bat.

- ***Vespertilio murinus***

Maternal colonies shelter in the garrets of the low houses, weal shadowed, whose roof is made of good insulating materials against heat. Steeples are also preferred during summer. The 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 synanthropous species, looking for the summer shelters in the garrets, steeples, pantries, cellars and, rarely, in the tree hollows. When hibernating they go in houses, in cellars and pantries. These kinds of refuges are used from the plain area to 800 – 900 m altitude.

- ***Eptesicus 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 lasiopterus***

Deciduous forests, where the oak is prevalent. It shelters in the hollows of the trees of soft essence (e.g. lime tree).

- ***Nyctalus leisleri***

It 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 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 hencoops. In summer it shelters in rock crevices.

- ***Pipistrellus savii***

According to the data from the literature, the species prefers the caves. Single specimen caught in Romania from the steeples, allows us to consider garrets and stable between its shelters too.

- ***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 placed at altitudes between 40 m (e.g. Gura Dobrogei) and 1000 m (e.g. Bran). In the garrets of the big houses (for colonies of about 1000 individuals), placed in forests.

Note: Some species (e.g. *Rhinolophus ferrumequinum, Nyctalus noctula, Pipistrellus pipistrellus)* were not mentioned here, having still a Status of common species in Romania.

4. *Threats*

Habitat destruction is not only a general term. Anthropic pressure, disturbing tourism, free and noisy access in caves, control of insects, high percent of deforestation and wrong popular stories about bats are the most importanmt threats in Romania. There are already some caves closed with iron gates, but this system must be extended and works only for caves. Education programes to protect bats anywhere they are must be initiated sistematicaly.

5. Legal measures taken to protect bats

The legislative framework for bats conservation is assured by the following acts:

- **The Convention on the conservation of European wildlife and natural heritage** *(Berna, 1979),* accepted by ***Law 13/1993.***

The purpose of this convention is ensuring the conservation of the wild flora and fauna and their natural habitats, in particular those species and habitats whose requires the cooperation of several states. All species, except *Pipistrellus pipistrellus*, are listed in Appendix II of convention (strict protected species). However, this species is listed in the Appendix III (protected species).

- ***The Environmental Protection Law 137/1995.***

The object of the present law is the environmental protection, objective of major public interest, based on the strategic principles and elements that lead to the sustainable development of the socio-economic system. Among this principles is that concerning the biodiversity conservation and of the specific ecosystem for the natural bio-geographic frame.

Based of this law, the central authority for the environmental protection, consulting the other central specialized authorities, elaborates the technical regulations on the biological diversity protection and conservation and for sustainable use of the natural resources.

The protection of the wild species and the natural habitats and setting-up the protected areas, as well as the measures established by the environmental protection authorities, are priorities in respect with other interests.

Trapping through any means, holding and trade animals protected, as well as dislocation, holding, and trade of minerals, speleological and paleolontological pieces from places declared natural monuments are forbidden.

- **The Agreement on the conservation of bats in Europe** *(London, 1991)***,** accepted by ***Law 90/2000,*** the first international agreement devoted to the conservation of bats and the first of its kind under Art. IV of the Bonn **Convention on the conservation of migratory species of wild animals** *(Bonn, 1979)* (ratified by ***Law 13/1998***).

- **The Government Ordinance 236/2000 on the natural protected areas, the conservation of natural habitats, wild flora and fauna.**

The purpose of the Ordinance is to assure the conservation and the sustainable use of the biological diversity. In order to conserve the biological diversity, which defines the bio-geographical frame of the country, as well as the natural structures and formations with ecological, scientific and landscape value, the national network of protected areas and natural monuments are maintained and developed.
On the other hand, by this act, was transposed in the national legislation the provisions of the European Directive 92/43/EEC and Directive 79/409/EEC. According with this, in Annex 3 of plants and animals whose conservation requires the designation of special protected areas of conservation are included the following species: *Rhinolophus blasii, Rhinolophus euryale, Rhinolophus ferrumequinum, Rhinolophus hipposideros, Rhinolophus mehelyi, Barbastella barbastellus, Miniopterus schreibersi, Myotis bechsteini, Myotis blythi, Myotis capaccinii, Myotis dasycneme, Myotis emarginatus, Myotis myotis, Vespertilio murinos*. In Annex 4 of strict protected plants and animals are listed all Microchiroptera's species. Also, in Annex 2 (natural habitats whose conservation requires the designation of special protected areas of conservation) are listed the caves not opened to the public, one of the most important bat's habitat.

- Signed the **Decision 1/1998 for association between the European Commission and their member states, of the one part, and Romania, of other part, concerning the conditions and the modalities for participation of the Romania at the Community's financial instrument for environment,** Romania was the first and the only candidate country part to the LIFE Programme, in 1998.

Following this agreement, in 1999 was aproved the LIFE project **„Combined actions for the protection and the development of the Apuseni Mountains' natural heritage"**, proposed by the Bihor County Council in partnership with Speleological Institute and Romanian Speleological Federation. The project aims to prevent degradation of the karst heritage and to restore the adjacent degraded areas. The target sights are caves and surrounding karst areas, representing bat's habitats, on the other great value.
In 2000 was send to the European Commission the LIFE-Nature project **„Conservation Program for Bat's Underground Habitats in SW Carparthians"**, proposed by the Green Cross Romania in partnership with the Speleological Institute, the Group for Underwater and Speleological Exploration and the „Grigore Antipa" National Museum of Natural History. The project overall objective is to put into place an effectively conservation management program in order to safeguard endangered species of bats, conserve their underground habitats and incorporate biodiversity conservation as an integral part of sustainable human development in the Southwestern Carpathian region.16 bat species have been signaled in the project area, 12 from these listed in Annex 3 of the GO 236/2000 and are considered species of comunity interest. These species are the following: *Rhinolophus ferrumequinum, Rhinolophus hipposideros, Rhinolophus blasii, Rhinolophus euryale, Myotis myotis, Myotis blythi, Myotis bechsteini, Myotis capaccinii, Myotis dasycneme, Myotis emarginatus, Miniopterus schreibersi, Barbastella barbastellus.* The project foresees a divers spectrum of measures ranging from preparatory research to assess current status of the bat population to habitat protection measures and elaboration of the National Action Plan for Bat Conservation.

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

- In 2000, the „Grigore Antipa" National Museum of Natural History together with Speleological Institute and with financial support of the Ministry of Waters, Forests and Environmental Protection was elaborated the "**Guide of Romanian Chiroptera"**and in 2001 this book will be published.

- The „Grigore Antipa" National Museum of Natural History with the financial support of the Ministry of Waters, Forests and Environmental Protection was elaborated the „**Red Book of Romanian Vertebrates"** (including bat species). This book will be published in 2001 too.

7. International Cooperation

- Five Romanian specialists attended the 3-rd Internation Conference on Carpathians Bats, in September 2000 – Rakhiv, Ukraine.

- A team of Romanian chiropterologists accompanied a Polish team in the field trips in Western and Southern Carpathians.

- In December 2000, four Romanian chiropterologists attended the meeting organized by Polish Academy in Krakow, the convenor being Professor Dr. Bronislaw Woloszyn to establish terms and responsabilities in preparation of the **ATLAS OF CARPATHIANS BATS**. There is a project which should be finished in 2003.