THE AGREEMENT ON THE CONSERVATION OF POPULATIONS OF EUROPEAN BATS (EUROBATS)

Report on the Implementation of the Agreement in Romania
- 2010 -

A. General Information

Name of Party	*Romania*
Date of Report	*23rd June, 2010*
Period covered	*November 2006 – May 2010*
Competent authority	*Romanian Ministry of the Environment and Forests – Directorate of Nature Conservation, Biodiversity, Biosafety* *12 Libertăţii str. 040129, district 5 Bucharest, Romania* *Focal point: Antoaneta OPRIŞAN*
Organization providing support and expertise	*Romanian Bat Protection Association*
Appointed member of the Advisory Committee	*Ms. Abigél Szodoray-Parádi*

B. Status of Bats within the territory of the party

1. Summary details of the resident species:

The total number of bat species in Romania is 32, since the last report the presence of *Myotis aurascens,* new species for the country has been recorded from south part of the country: Dobrodgea in 2007 (*Pocora&Ifrim, 2007*) and by Dumitru Murariu and col. in 2009. Further researches are undertaken on this topic.

Several researches have been made between 2008-2009 to improve the distributional map of the already know species as follows:

The Maramureş Mountains Nature Park, situated in northern part of Romania gives shelter for 13 bat species (seven of them being unknown until now from the area). Important colonies of *Myotis myotis* / *oxygnathus*, *Eptesicus serotinus* and *Rhinolophus hipposideros* where found in buildings in the Nature Park area. (*Jére, 2008*)

The actual knowledge about bat fauna of Moldovian part of Romania has been updated with the presence of *Rinolophus ferrumequinum* by Moldovian bat group of the Romanian Bat Protection Association (Baltag Emanuel, Pocora Irina and Pocora Viorel.). Also the presence of the nursery colony of *Rhinolophus hipposideros* has been found in Moldovian part of Romania (*Ifrim, 2007*)

The *Barbastella barbastellus* presence in Danube Delta was reported by Pocora Irina and Pocora Viorel after a detailed research on the area between 2006-2009. These researches also contributed with new data about *Barbastella barbastellus* in Moldovian part of Romania.

The method of the molecular taxonomy and population genetic was applied first time in Romania by Szilard Bücs and Zoltán Nagy in the country on the genetical variability of the *Myotis myotis* (*Bücs, 2007*), this work has been incorporated in a PhD thesis of Szilard Bücs in 2009.

All bat species from the Romanian fauna are included in the "*Red Book of Vertebrates from Romania*" excepting the *Myotis alcathoe*. (*Jére & Dóczy, 2007*)

The iBats Romania Car Based Monitoring program, run by the Romanian Bat Protection Association provides new skills and possibilities for the improving the actual knowledge of some species presence/absence in Romania.

2. Status and trends:

Based on scientific researches (visual observation, collecting with mist-nets and releasing, identifying with bat detectors) obtained in the field between 2008-2010, the above mentioned 31 bat species for Romanian bat fauna, have the status and estimated trends of populations as listed in the Table 1.

Table 1: Status and trends of bat populations in Romania

Species	Status	Estimated Trend	Observations
Rhinolophus ferrumequinum	EN*.	Declining	Few in East RO
R. hipposideros	VU.	Declining	Widespread
R. euryale	EN.	Declining	Isolated in karsts
R. blasii	CR.	Declining	Isolated in karsts
R. mehelyi	VU.	Declining	Only South RO
Myotis alcathoe**	NE	Unknown	Only one specimen in Eastern Carpathians
Myotis myotis	NT.	Declining	Widespread
M. brandtii	DD.	Unknown	Only West Carpathians
M. blythii	VU.	Declining	Widespread
M. dasycneme	DD.	Unknown	Only in S-W of RO
M. daubentonii	LC.	Stable	Widespread
M. emarginatus	VU.	Declining	Small and isolated populations
M. mystacinus	VU.	Declining	Widespread, small populations
M. aurascens	NE	Unknown	Two records from S of RO
M. nattereri	EN.	Declining	Absent in S of RO
M. bechsteini	EN.	Declining	In all Carpathians
M. capaccinii	CR.	Declining	Only W. of RO
Plecotus auritus	VU.	Declining	Few in Carpathians
P. austriacus	VU.	Declining	Only in S. of Carpathians
Vespertilio murinus	NT.	Possib. declining	Widespread
Eptesicus serotinus	VU.	Declining	Widespread, small population
E. nilssonii	EN.	Declining	Only in W. of RO
Nyctalus noctula	LC.	Stable	Widespread

N. lasiopterus	VU.	Unknown	Only South RO
N. leisleri	VU.	Unknown	Widespread, small population
Pipistrellus pipistrellus	LC.	Stable	Widespread
P. pygmaeus	NE.	Unknown	Recent reported
P. nathusii	LC.	Unknown	At low altitude
P. kuhlii	NE.	Unknown	Recent reported
Hypsugo savii	NE.	Unknown	Recent reported
Barbastella barbastellus	VU.	Declining	Restricted distribution
Miniopterus schreibersii	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.
** Species reported in 2007.

The above table indicates that 2 bat species are estimated with populations critically endangered. Other 5 bat species have the status of endangered, 11 species are considered vulnerable. In the category near threatened are 2 species. Least concern status are declared for 4 species. Further evaluation needed for 5 species. In deficient category 2 bat species are included.

As it was reported before, the trends of bat populations is declining or serious declining for 21 species, stable for 4 species and unknown for 6 species.

3. Habitats and Roost Sites

A National Bat Monitoring of Underground sites has been started from 2002, and still is an ongoing program covering 60 caves which are visited twice a year (summer and winter time). Using the results of this program we are able to determine the population trends and distributional maps for the bats which use underground habitats.

In 2006 has been started the car based bat monitoring in order to generate acoustic data on bat species distributions and abundances across Romania. As a results of 4 years data collection a network of 89 volunteers was created and during the monitoring 7316,43 km was driven 228 events have been registered on 105 routes from which 39 are considered to be monitoring transects. Beside the acoustic records collected, data concerning the environment (humidity, weather condition) were measured.

The designation for Natura 2000 territories in Romania has been made for 13 species (all included in Habitat Directive, Annex II): as following *Rhinolophus ferrumequinum, Rhinolophus hipossideros, Rhinolophus blassi, Rhinolophus mehelyi, Rhinolophus euryale, Myotis myotis, Myotis blythii, Myotis dasycneme, Myotis emarginatus, Myotis bechsteinii, Myotis capaccinii, Barbastella barbastellus, Miniopterus schreibersii*. Until now 273 pSCI has been designated (covering 17,84% of the country) and bats were present in 57 case among the designation species. In the future new Natura2000 territories will be designated based on bats in Romania. The Ministry of Environment and Forests intends to designate new sites and new species based on the Biogeographical Seminar held in 2010 in Sibiu, in this mean new sites have been proposed for the already included bat species that covers different biogeographical regions and new bat species will be nominated as designation species.

4. Threats

Among the threats which have been pointed generally in many other countries (loss of roost sites and foraging habitats) it is important to highlight the followings:

Conflict of the Cultural and Natural Heritage: The Coliboaia Cave one is the most important summer and winter roost for bats, situated in the center part of Transylvania where a nursery colony formed by thousand of *Miniopterus shreibersii* and *Myotis myotis* have been identified. The cave is important hibernaculum for *Miniopterus schreibersii* and *Rhinolophus ferrumequinum* which find shelter here in winter time.

In 2009 at the inside walls of the cave some ancient paintings (made probably 30 000 years ago) have been discovered. Due to this discovering the Administration Body of the Natural Park urgently closed the cave by a gait that fully covers the entrance, in this way the bats are not able to flight freely through the entrance. In the same time the number of visitors (experts and researchers on the paintings) was increased in the cave. The majority of the bats have been moved into a cave in neighbourhood but that cave is frequently visited by tourists. These all caused the drastically decrease of the bat population inside the cave.

At the moment there are discussions between the protectors of the cultural heritage and the protectors of the natural heritage in order to find a proper solution for both side.

White Nose Syndrome - In 2009 the presence of White Nose Syndrome was noticed in Romania. Researchers, cavers from countries where White Nose Syndrome was reported are often visiting Romanian caves, sometime wearing the same clothes which they used by visiting infected caves, this is a real threat for Romanian bats, as the fungi can be transmitted by infected clothes.

5. Data collection, analysis, interpretation and dissemination.

Out of academic institutions, today more and more NGOs and volunteers are implied in monitoring the underground roosts for bats, in identification of the species and conservation measures. In this way the data collection of the National Bat Monitoring Program of Underground Habitats has been managed in synchronized way by the volunteers involved and all data were collected into the centralised database of the Romanian Bat Protection Association. The Car Based Bat Monitoring Program (iBats) in Romania has been offered the possibility to hosting the collected data into an online database. The database is hosted within an ASP.net framework and this allows users upload their car survey data and download and analyze their collected data and project leaders to manage their projects. Users can also interact with the site by registering and posting news via web blogs and other communication forums. The hosting of the site is managed by the Newcastle University Data Management Centre and all the survey data sonograms and associated metadata collected by the Romanian volunteers has been uploaded onto their servers.

Natura2000 programmes – the ecological network of protected areas give an additional chance to bat populations.

Dissemination

One of the output of the project sponsored by MATRA BBI Project and implemented in Romania by the Romanian Bat Protection Association was the practical guideline about Bats an Environmental Impact Assessment (published in 2008, edited by Csaba Jére, Farkas Szodoray-Parádi and Abigél Szodoray-Parádi) - distributed to all of the Environmental Protection Agencies into the country. The guideline was entitled to the employers of environmental protection agencies and experts of consulting companies.

Identification key of bat species - the guideline was prepared by the Romanian Bat Protection Association in 2010 in order to use it in the field by the bat experts.

The interpretation and dissemination of the results of the bat research in Romania was realised in the frame of talks and posters presented by the Romanian bat researchers on the 11th European Bat Research Symposium at Cluj Napoca in 2008, on the VIth Hungarian Bat Conservation Conference at Martely in 2008, in the VIIth Hungarian Bat Conservation Conference at Felsotarkany in 2009, and in 15th International Bat Research Conference at Prague in 2010.

The results of the researches has been published in the proceedings of the conferences and European Bat Research News.

C. Measures taken to implement the Agreement

6. Legal measures taken to prevent the deliberate capture, keeping or killing bats, including details of enforcement actions used to support such measures.

Law No. 167/8 May 2000 which ratifies the agreement. Ongoing educational programmes and activities must be continued with all social categories at different levels of age and education. The Emergency Government Ordinance (GO) 57/2007 regarding the regime of natural protected area, the conservation of natural habitats, wild flora and fauna, through the Annex no. 3 is protecting bat species which are also protected through the annexes of EC Regulation no. 338/97/EC on the protection of species of wild fauna and flora by regulating trade therein. The Annex 4 also protects all the Microchiropteras declaring all of them strictly protected species in Romania. All of two Annexes (Annex 3 and Annex 4) are the implementation of EU Habitat Directive in Romanian Law. General protection measures are also mentioned into the environment main frame Emergency Government Ordinance 195/2005 proved with modifications and completions by the Law 265/2006.

The paragraph 31-40 of the GO 57/2007 mentions the necessity of the monitoring of the bat population, the possibility of the nominate new species in the Natura2000 list if is necessary. The paragraph 33 forbids the collection, the capture, hunting, killing, diminishing, injury of bats also the disturbance of bats during reproduction and hibernation period, the ruination, demolition, disturbance of bat roosts. It s forbidden to keep in captivity nether alive nor the death animals (or parts of their body). It is forbidden the commercialism , transport of bats.

The paragraph 41-49 of the GO 57/2007 protects important bat habitats including the underground habitats.

The enforcement of the legal framework is accomplished by the National Environment Guard which is subordinated to the Ministry of Environment and Forests.

7. Sites identified and protected which are important to bat conservation

Sites in Pădurea Craiului, Bihor and Trascău Mountains as important bat habitats have been identified. These sites include the followings: the Apuseni Nature Park - situated in Bihor Mountains - characterized by remarkable karst landscape; the vertical cave Betfia- suitable roost for *Myotis myotis/Myotis oxygnathus*, *Miniopterus schreibersii* and *Rhinolophus ferrumequimun.*

The Cefa fish ponds and the Rădvani forest - contains suitable foraging habitats for many bat species, the area can be considered as a stepping stone in the bats migration from maternity roosts in the Hungarian Plain to the hibernaculas in the Romanian Bihor and Pădurea Craiului Mountains. Beside this, there are house-dwelling maternity colonies of the *Rhinolophus ferrumequimun*. Important to highlight the Pădurea Craiului Mountains - totally includes 567 caves and 111 vertical caves and here can be find the most remarkable karstic formation from the country.

8. Consideration given to habitats which are important to bats

All the areas listed above are Natura2000 territories in this way the implementation of concrete conservation actions on bats were suitable to be supported by a Life+ project. This actions are the followings: closing of cave entrances, placing out artificial bat boxes, modifying the lighting conditions on the touristical caves.

In the same time, similar to the last report, in the period 2008 – 2010 extended all over the country a network of protected areas in the frame of Natura2000, many of such areas being closed by or include bat's roosts and offer optimum conditions for hosting and foraging.

9. Activities carried out to promote the awareness of the importance of the bat conservation

Yearly trainings and workshops on bat identification technology in the field are organised by the Romanian Bat Protection Association in Varghis Walley; also summer schools and lectures about biology of bats were organized at Closani Information Chiropterological Center.

On the same occasions, booklets and posters with images and short texts about the biology and important morphological features of bats were printed and distributed to scholars and interested people.

The European Bat Night is organised in Romania each year periodically in big cities like: Bucharest, Cluj, Iaşi, Satu Mare, Ploieşti, Constanţa, Sibiu, Arad, Timisoara. The organisation of the Event has been started about 10 years ago by the Romanian Bat Protection Association and till than more and more NGOs, Institutions has been joined to this campaign. It is a very successful public movement, several hundreds of posters received from the EUROBATS Secretariat are distributed, also expositions about bats use to be held, educational activities for children (draw competitions, presentations, roll play games, common field trips, excursions) use to be organised in this case.

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

The special body is not yet established, individual bat expert submitting advices about bat conservation methods when required.

11. Additional action undertaken to safeguard populations of bats.

The Romanian Ministry of the Environment and Forests through the Nature Protection, Biodiversity and Biosafety Directorate improved communication scheme and maintain close working relations and encouraged academic institutions, NGOs and volunteers to report illegal cases of deforestation, foraging habitat destructions or individual 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.

No further actions can be reported.

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

1. Bat Conservation in Pădurea Craiului, Bihor and Trascău Mountains. - a Life + Project that has been contracted in 2009 between the European Commission and the Environmental Protection Agency Bihor. The project period is 2010-2013 and it will concern on 16 Natura2000 sites, focusing on the following conservation actions: closing caves, modifying the tourist rousts in caves, modifying the lighting condition, putting out bat boxes, warning boards, preparing the management plan for 7 bat species (*M.myotis, M. oxignathus, M. bechsteinii, B. barbastellus, Rh. ferrumequinum, Rh. hipposiderus, M. schreibersii*)

The project is run in partnership with the Romanian Bat Protection Association and the Institute of Speology Emil Racovitza.

2. *The Conservative Management of the Habitat 8310 from the Natura 2000 Semenic - Cheile Caraşului Site* - a Project financed by the European Comission through the **LIFE-Natura** Programme and implemented by The Regional Environment Protection Agency Timişoara between 2009-2011. The project goals are the followings:

- Rehabilitation of 65 closed for the public caves (habitat 8310) which are vitiated/degraded and the elimination of pollution sources.
- The preservation of hibernating, birthing and feeding areas of the populations of 11 species of Chiroptera.
- Developing the best practices for conservation of habitat 8310 in 9 local communities.
- Sustaining a better management on a local level and exchanging information on a European level.

3. *The Indicator Bat Project (iBats)* – international project, started in 2006 about Car Based Bat Monitoring is still ongoing. The project has been initiated by the Zoological Society London and in Romania is leaded by the Romanian Bat Protection Association.

4. EUROBATS EPI project running by the Romanian Bat Protection Association:

a. *Completition of the proposed sites of community Interest Species in Romania with chiropterological interest*. In the frame of the project will be introduced bat species in the standard data form of the SCIs.

b. *Conservation aimed inventory of the Mediterranean horseshoe Bat (Rh. euryale) effectives in South Western Romania*. In the frame of this project will be collecting data about roost and feeding habitats of the unexplored territories and public aware actions.

Other projects run in 2009-2010 by the Romanian Bat Protection Association:

5. *Together for nature* – bat conservation in anthropic habitats by reducing human impacts

The project aims to contribute to the long-term conservation of bat populations in Romania by reducing the impact of human activities on them. The main objectives are to establish the effects of public lighting and light pollution on bat activity, the development of guidelines on sustainable use of habitat types important for bat conservation and increasing public awareness on bat conservation as well as the impact of human activities.

6. *Young for nature* - protection of bats and birds in urban environment. The goal of the project is to increase the level of knowledge of the pupils concerning the bat and bird conservation, by an interactive involvement of the student from local schools in the preparation and placing out of the artificial bat and bird boxes.

7. There are ongoing researches in the southern part of the country for Environmental Impact Assessments on bats in the places where wind farms are planed to be constructed.

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

As reported before: Unfortunately every spring forests are aspersed (using utilitarian planes) with insecticides against the invasion of the butterfly Limantria dispar with a dramatic effects on the bat residential populations. The timber used for roof of new buildings is also treated with chemicals very toxic for bats. Due to this issues new bat conservation measures should be developed for the future.

D. Functioning of the Agreement

14. Co-operation with other Range States

— Indicator Bats Project (iBats) - It is run by the initiative of the Zoological London Society (ZSL) in partnership with the Bat Conservation Trust and it has been implemented in Romania by the Romanian Bat Protection Association. The project assures a high level international collaboration by the following Range States: Bulgaria (from 2007), Hungary, Ukraine and Russia (from 2008).

— Bats and Environmental Impact Assessment: Tools for implementation of the European Habitat Directive and EUROBATS Agreement in Romanian and Romania - the project was sponsored by the Ministry of Agriculture, Nature and Food Quality (ANF) in the frame of the MATRA BBI Project. It was run in Romania by the Romanian Bat Protection Association by the initiative of the Dutch Mammal Society (VZZ) in collaboration with the Bulgarian National Museum.

— Collaboration with Ireland and Germany concerning the White Nose Syndrome

— Romania hosted the 11th European Bat Research Symposium in 2008 (the Babes - Bolyai University of Cluj Napoca in partnership with the Romanian Bat Protection Association has been taken the task of organisation)

15. Measures taken to implement Resolutions adopted by Meeting of Parties

Resolution 2.2, Consistent Monitoring Methodologies

The National Bat Monitoring Program in Underground Habitats has been started in 2002 and this is an ongoing program. Also the National Car Based Bat Monitoring has been started in 2006, that collects acoustical data on bats and this is an ongoing monitoring program, run by the Romanian Bat Protection Association.

Resolution 2.4, Transboundary Programme: Habitat proposals

Romania has more than 12 000 caves that assures suitable roost for the many of the bat species, the monitoring program is focusing on 60 caves. Records of bats in all known underground habitats are available in a central database.

Resolution 2.5, Geographical Scope of the Agreement

A long-term study on the ecology and seasonal migration of bats in Bihor Mountains is carried out.

Resolutions 2.7 and 3.3, Format of National Report

This report has been prepared in accordance to the adopted format

Resolutions 2.8 and 3.8, On the implementation of the conservation and management plan

A management plan for *Myotis myotis, Myotis oxignathus, Myotis bechsteinii, Barbastella barbastellus, Rhinolophus ferrumequinum, Rhinolophus hipposideros, Miniopterus schreibersii* is in preparation.

Resolution 3.7, Amendment to the Agreement

Not yet implemented.

Resolution 4.2, Guidelines for the Protection and Management of Important Underground Habitats for Bats

The identification of the important underground habitats, as required in Resolution 2.4, is currently being carried out by the Romanian Bat Protection Association and data on this had been submitted to the EUROBATS Secretariat in spring 2010.

Further works are carried out for the preparing the management plan of underground sites for Bihor Mountains, Padurea Craiului and Trascau Mountains.

Resolution 4.4, Bat Conservation and Sustainable Forest Management.

The types of forests and land management as causing problems for bats in forests have not yet been identified. There are not yet incentive schemes in use to provide resources for bat conservation measures in forests. Measures are not fully yet taken to identify the management and enhancement of key elements and key areas for bats in forests.

Resolution 4.5, Guidelines for the Use of Remedial Timber Treatment.

Not yet implemented. See also Section 13 of this Report.

Resolution 4.6, Guidelines for the Issue of Permits for the Capture and Study of Captured Wild Bats. and Resolution 5.5: Amendment to Resolution 4.6: Guidelines for the Issue of Permits for the Capture and Study of Captured Wild Bats

Not yet implemented.

Resolution 4.7, Wind Turbines and bat Populations and Resolution 5.6: Wind Turbines and Bat Populations: guidelines for the planning process and impact assessments

Investigations and research on the impact of wind turbines on bats have been started in the year 2007 by the Romanian Bat Protection Association. A national guideline has been prepared on Bats and Environmental Impact Assessment that includes chapters on practical guideline of wind

turbines. Field work in the southern part of the country is being done on this subject. Unfortunately the effects of wind turbines on bats tend to be neglected in Environmental Impact Assessments submitted by the different wind farm companies. In many cases even that the national guideline exists the responsible bodies (the Environmental Protection Agencies) of giving the approval of the environmental impact assessments are not taken into account the presence of bats.

Resolution 5.2: Bat Rabies in Europe

Not yet implemented

Resolution 5.4: Monitoring Bats across Europe

Romania has been joined the Indicator Bat International Program (iBats) that assures data on determination of population trends. See also Section 5 of this Report.

Resolution 5.7: Guidelines for the Protection of Overground Roosts, with Particular Reference to Roosts in Buildings of Cultural Heritage Importance.

Action not yet implemented at governmental level.

Resolution 5.12: 2008 – Global Year of the Bat

The Global year of the bat has been postponed to 2011-2012.

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