

Ministry of the Environment

**POLAND
NATIONAL REPORT
ON THE IMPLEMENTATION
OF THE AGREEMENT
ON THE CONSERVATION
OF BATS IN EUROPE
1999 - 2000**

Warsaw, December 2000

ACTIVITIES IN THE FIELD OF OBLIGATIONS RESULTED FROM THE ARTICLE III OF THE AGREEMENT ON THE CONSERVATION OF BATS IN EUROPE

I. GENERAL INFORMATION

Party - State: Poland

Date of Report: 30 December 2000

Period Covered by the Report: January 1999 - 30 December 2000

Competent Authority: The Ministry of the Environment

Appointed member of the Advisory Committee:

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Article III, Item 1

II. LEGAL MEASURES TAKEN TO PREVENT THE DELOBERATE CAPTURE KEEPING OR KILLING OF BATS

There are not changes in relation to the legal status of bats in Poland. All species of bats existing on Polish territory have been protected since 1952. At the present there is in force the Minister's of Environmental Protection, Natural Resources and Forestry the enactment of January 6, 1995 on the species protections of the animals (O.J. no. 13. 61., 1995). In this year (2000) new regulation concerning nature protection is under preparation.

III. BAT SPECIES

Until now 21 species of bats occur in Poland

Family: Horseshoe bats (*Rhinolophidae*) - 2 species

Family: Common bats (*Vespertilionidae*) - 19 species

8 species of bats are included in new edition of the "Polish Red Book of Animals":

1. Lesser horseshoe bat

Rhinolophus hipposideros

Order - Chiroptera

Family - Rhinolophidae

Status: Lesser horseshoe bat is strictly protected by law

ED

Distribution: The distribution of Lesser horseshoe bat in Poland includes East Sudetes, West and East Beskids, Kraków-Częstochowa Upland, Bieszczady Mountains and Sandomierz Lowland, in which area the extreme north-east locality of whole distribution of this species is recorded.

Population: Lesser horseshoe bat occurs locally in the south of the country, numbered only in hundreds. The catastrophic decline of the lesser horseshoe bat in Poland has been noted in recent decades. The number of these bats inhabiting the caves of the Kraków-Częstochowa Upland has decreased hundred-fold since 1950s. During the national wide bat censuses made since 1988 we observe slow growth of the population.

Protection: The sites need to be dispersed among suitable feeding areas and free of excessive human disturbance. One of these sites may be used for breeding if number of animals will be high, otherwise a suitable building is needed which has one or more attics warmed by the sun. This species is threatened mainly by human disturbance of its roosts, loss of habitat by restoration or demolition of old buildings, and the chemical treatment of the cultivated areas. *R. hipposideros* occurs in Poland on the northern edge of its range so its decline may be attributed partly to natural factors affecting small, peripheral populations. Protection of its roosting sites is needed.

2. Greater horseshoe bat

Rhinolophus ferrumequinum

Order - Chiroptera

Family - Rhinolophidae

LC

Status: Greater horseshoe bat is strictly protected by law.

Habitat: Mostly cave dwelling but it has adapted to larger buildings for nurseries, especially in northern part of its area of distribution. It needs to fly very low in order to feed. Distribution: The Greater horseshoe bat occurs in the entire Palearctic Region from Britain to Japan. It occurs only in three localities in Poland, i.e. two in Kraków-Częstochowa Upland: Jaskinia Nietoperzowa, near Kraków, where it was found for the first time in 1962, and Wierna Cave near Myszków, and in Szkieletowa Cave near Tarnów in Beskid Niski Mountains.

3. Bechstein's bat

Myotis bechsteini

Order - Chiroptera

Family - Vespertilionidae

V

Status: Strictly protected by law. The present population of the Bechstein's bat is declining due to loss of natural shelters (i.e. removal of old trees), human intruding to winter quarters, and use of insecticides which reduce its food supply.

Habitat:

Distribution: The distribution of Bechstein's bat is limited to eastern, southern, central and western Poland. This species probably does not occur in the north-eastern part of the country.

Population: The number of the individuals of this species have been estimated at several thousands.

Protection: Safeguarding of its hibernacula and the installation of bat boxes in forest is postulated.

4. Geoffroy's bat

Myotis emarginatus

Order - Chiroptera

Family - Vespertilionidae

E

Status: Strictly protected by law. A dozen or a little more localities have been reported, mainly in the vicinity of Kraków. In Poland the Geoffroy's bat reaches the northern limit of its range.

Habitat:

Distribution: In Poland Geoffroy's bat occurs in a small number of localities, distributed in the Kraków-Częstochowa Upland, West Beskid and Bieszczady Mountains.

Population:

Protection: Currently the Geoffroy's bat is endangered by extinction. Its population is very low and number of its former breeding places have been abandoned. Human intruding to winter quarters, loss of suitable roosting places are probably responsible for its decline. On the other hand some recent observations seems to indicate that. Increased protection of its natural shelters (caves) is suggested. Its potential summer roosts in old buildings also should be safeguarded.

5. Pond bat

Myotis dasycneme

Order - Chiroptera

Family - Vespertilionidae

E

Status: An endangered species which population has declined substantially most probably due to remedial timber treatments and pollution of watercourses.

Habitat: Hibernates in caves, cellars and mines but probably also in the woods.

Distribution: The geographical range of the pond bat includes the whole Poland .

6. Leisler's bat

Nyctalus leisleri

Order - Chiroptera

Family - Vespertilionidae

R

Status: Protected by law. It is one of the most rarely encountered species of bat in Poland but it seems to be more common and widely distributed than current knowledge suggests.

Habitat: This bat finds shelters in hollow trees. Small colonies are sometimes found in garrets.

Distribution: Only relatively a few records of the lesser noctule has been reported in Poland.

Population: It is one of the rarest native forest species of bats and we have no exact data on the population of this species.

7. Northern bat

Eptesicus nilssoni

Order - Chiroptera

Family - Vespertilionidae

R

Status: Northern bat occurs in different parts of the country in forested areas.

Habitat: Northern bat

Distribution: The northern bat has recently been observed in the majority of the territory of Poland..

Population: Northern bat seems to be rare, except the mountains regions where the greatest part of records were made (in some mountains regions this species seems to be relatively common).

Protection: Protected by law. Northern bat as the majority of our native bats is threatened by the contamination of the environment and the lost of natural shelters due to the destruction of old tree stands with the hollow-trees.

8. Parti-coloured bat

Vespertilio murinus

Order - Chiroptera

Family - Vespertilionidae

R

Status: Strictly protected by law. Parti-coloured bat is reported in a few dozens of localities in different parts of Poland. The species often occurs in mixed colonies with other bats. More detailed information on the native population of the bat in Poland is lacking.

Habitat: It is a forest species.

Distribution: Parti-coloured bat occurs probably on the whole territory of Poland.

Article II, Item 4

IV. ACTIVITIES CARRIED OUT TO PROMOTE AWARENESS OF THE IMPORTANCE OF THE CONSERVATION OF THE BATS

IV.1. Professional and amateur bat researches:

* Journals:

- Acta Chiropterologica (International journal of chiropterology)

Editor-in-chief: Dr Wiesław Bogdanowicz, Museum and Zoological Institute, Polish Academy of Sciences in Warszawa.

Up today tree issues have been edited: vol. 1 no. 1 and 2

- Bulletin CIC

- "Mopek" bulletin of the All-Polish Society for Bat Conservation

- "Nietoperze" vol. 1 no1 (2000), Polish Society of Wildlife Friends "Pro Natura", Wrocław.

* Annals:

- Studia Chiropterologica. Annals of the Chiropterological Information Center in Kraków. First volume 1: 1-142 (2000).

Editor-in-chief: Prof. Bronisław W. Wołoszyn, Institute of Animal Systematics and Evolution Polish Academy of Science, 31-016 Kraków, Sławkowska 17, Poland

*Publication in book form:

- Kowalski, M., Lesiński, G. (eds.). Poznajemy nietoperze. ABC wiedzy o nietoperzach ich badaniu i ochronie. OTON, Warszawa, 1-140.

- Zagorodniuk, I., Postawa, T., Wołoszyn, B.W. 1999. A field Key to Bats from the underground of Eastern Europe (in Ukrainian). Publication of the Chiropterological Information Center Polish Academy of Sciences in Kraków.

- Wołoszyn, B.W. and Cruz M. (in press): VIIIth EBRS Looking back - a memory of the VIIIth EBRS in Kraków.

- Proceedings of the VIIIth EBRS (under preparation)

B.W.Wołoszyn (ed.). Vol. 1: Approaches to Biogeography and Ecology of Bats.

Vol. 2: Distribution, Ecology, Palaeontology and Systematics.

Vol. 3: Actual Problems of Bat Protection in Europe.

*Other publication:

Miss Minnie Cruz, Peace Corp Volunteer prepared an interactive CD-room in two versions: Polish and English.

Article III, Item 2.

V. SITES IDENTIFIED AND PROTECTED WHICH ARE IMPORTANT FOR THE CONSERVATION OF BATS

Apart from the most important sites for bat's protection listed in former report (see p.3 - 4 of the former Report) some new very important localities were found:

- Jaworki in the Pieniny Mountains. summer, breeding colony of *Rhinolophus hipposideros*
- Zbójnicka Cave in Łopień, the Polish Carpathians, winter colony of *Rhinolophus hipposideros* approximately 500 animals.
- another several localities both summer and winter were located in different region of Poland.

Article III, Item 3.

VI. AREAS OF PARTICULAR IMPORTANCE FOR KEEPING THE ACTUAL STATE OF BATS POPULATION IN POLAND

Works on the selection of such areas are undertaking. At this moment two areas have a particular importance:

Krakowsko-Częstochowska Upland and Polish Carpathians.

The Programme "Monitoring of Nature" has been started in Poland since November 2000. The monitoring of the bats populations becomes the integral part of this programme and it is conducted by the Chiropterological Information Center Polish Academy of Sciences in Kraków.

Article III, Item 4

VII. ACTIVITIES CARRIED OUT TO PROMOTE THE AWARENESS OF THE IMPORTANCE OF THE CONSERVATION OF BATS

VII.1. In 1999 the main purpose of the activity of chiropterologists in Poland was the organisation of VIIIth European Bat Research Symposium. It was organised by Chiropterological Information Center of the Institute of Animal Systematics and Evolution Polish Academy of Sciences in Krakow, from 23 to 27 August 1999. Chairman: Prof. Bronisław W. Wołoszyn.

The VIIIth EBRS was under the highest patronage of the President of the Republic of Poland Mr. Aleksander Kwaśniewski and fellow patrons: The Polish Academy of Sciences, the State Committee for Scientific Research, The Ministry of the Environment and the Polish Academy of Arts and Sciences. Over 200 chiropterologists from 34 countries (mainly from Europe) took part in the Symposium.

VII.2. Another important conference was "The 4th European Bat Detector Workshop" organised by Polish Society of Wildlife Friends "Pro Natura" (Wrocław) and Pieniny National Park, 27 - 30 August 1999.

VII.3. Several actions both regional or national-wide were undertaken:

VII.3.1. Three annual national-wide Chiropterological Conference were organised:

- 12th. Krzyklina Mała (near Wrocław, Western Poland) on 14-15 November 1998. It was organized by Group on Bat Researches and Conservation PTPR "Pro Natura" (Wrocław).
- 13th. Błaziejewko (near Poznań) on 5-7 November 1999. It was organized by Polish Society for nature Conservation "Salamandra" (Poznań).

- 14th. Rogów (near Łódź) 10-12 Nov. 2000. It was organised by the Polish Zoological Society, Division Łódź and the University of Łódź.

VII.3.2. Fifth and Sixth International Bat Nights were celebrated by Chiropterological Information Center on 21 of September of 1999 and 2000.

VII.3.3. Third International Symposium "Sacral Architecture in Animal Protection" Third SAAP was organized on 20 and 21 October in Kalwaria Pałacowska (near Przemyśl). The conference was devoted to the problems of protected animal species (including bats) that inhabit the sacral buildings. During the conference despite of the lectures, the workshop on the methods of the non-affected the animals building management took place also.

VII.3.4. 2nd SCB (Second Seminar on the Carpathians Bats). This seminar was held on 6 and 7 December 2000 in Kraków. Seminar was conducted by Chiropterological Information Center PAS in Kraków, Nature Conservation Committee Polish Academy of Sciences and Polish Copernicus Society of Natural History. The main purpose of the meeting of the chiropterologists from Czech Republic, Poland, Slovakia, Romania and Ukraine was discussion about the current state of realisation of ABC Project: Atlas on Bats of the Carpathians.

VII.3.5. Several information in mass-media on bats and protection of bats.

VII.3.6. Dissemination of information materials on significance of bats protection (posters, postcards, printing, leaflets, folders etc. were published)

VII.3.7. Exhibition "Face to face with bats" was presented in April 2000 in Ministry of the Environment. The exhibition was organised by Chiropterological Information Center and Bureau of Education and Public Relations of the Ministry of the Environment. There were presented the photograms of Mr Krzysztof Sroka, children's painting and the current problems of the bats conservation in Poland.

VII.4. Ecological education in the field of chiropterology:

VII.4.1. Specialistic (monographic) lectures "**Natural History of Bats**" are delivered for students of Biology and Earth Sciences of the Jagiellonian University in Kraków. The course take place during the winter semester. The course was finished in test. 55 students participated in the one of fall in 1999 and 46 students in fall 2000 from Departments of Biology and of Nature Protection of the Jagiellonian University in Kraków take part in it..

VII.4.2. Doctor's and master's thesis prepared in or in co-operation with the Chiropterological Information Center:

Doctor's thesis:

- Aleksander RACHWALD (SGGW Warszawa) "Activity and environmental preferences of bats in natural forest in Białowieża National Park" (1988)

- Krzysztof PIKSA (Akademia Pedagogiczna in Kraków) "Bats from caves in the Tatra Mountains and its relation to history of region, geography and ecology " (1999)

- Tomasz JARZEMBOWSKI (Gdańsk University) "Ecology of *Pipistrellus nathusii* during seasonal migration on Mierzeja Wiślana (Northern Poland)" (2000)

Master' thesis:

- Aneta DUSZYŃSKA (Szczecin University): "Evaluation of the bat' fauna in some biotops of the Cedyński Landscape Park" (1998)

- Jakub NOWAK (Jagiellonian University): "Dynamic of the temporal changes of bats hibernating in some caves of Tatra Mountains. in relation to the bat fauna of the mountains." (1999)

- Katarzyna OCHMAN (Jagiellonian University): "Analysis of holocene bat fauna from Pod Sokolą Górą Cave in systematics and zoogeographical aspects" (1999)

- Radosław WIERTEL (Jagiellonian University): "Ectoparasits of bats from Southern Poland: *Diptera: Nycteribidae, Siphonaptera: Ischnopsyllidae, Acari: Ixodidae*" (1999)

- Agnieszka KLESZOWSKA (Jagiellonian University): "Diurnal activity and behaviour of bats *Rousettus aegyptiacus* Geoffroy in captivity in ZOO Kraków" (2000)

- Mateusz CIECHANOWSKI (Gdańsk University): "Bats (*Chiroptera*) of the Darżlubka Forest - species composition and some aspects of ecology and biometry" (2000)

VII.5. Non-Governmental Organisations concerned with the conservation of bats:

The below mentioned centers took over in significant degree, amateurs training. They are also concerned with research and monitoring of bats on neighbouring areas:

The most important of them are as follows:

- All-Polish Society for Bat Conservation (All-Polish headquarter Warsaw)

- Chiropterological Section of the Copernicus Naturalists Society (All-Polish Headquarter Kraków)

- Mazovian Group of Bat Researches (Warsaw)

- Polish Society for Nature Conservation "Salamandra" (Poznań)

- Polish Society of Wildlife Friends "Pro Natura" (Wrocław)

Article III, Item 5

VIII. RESPONSIBLE BODIES NOMINATED FOR THE PROVISION OF ADVICE ON BAT CONSERVATION AND MANAGEMENT

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Article III, Item 6

IX. ADDITIONAL ACTIVITIES CONNECTED WITH BAT PROTECTION

* National programme of bat conservation is under preparation in co-operation with the Ministry of Environment

* Every year, at the first half of February winter bat censuses in caves and cave-like shelters are organised. This action entitled: "Winter Bat census" (DSN) was realised in 1999 (12th DSN) and in 2000 (13th DSN). This action is developed by Chiropterological Information Center and as well as by regional centers, which conduct permanent monitoring of bat population in regions.

* "ABC - project" - Atlas of Bats of the Carpathians. An international project with participation of Czech Republic, Hungary, Romania, Slovakia, Poland and Ukraine.

* "3rd ICCB" (International Conference on the Carpathians Bats) organized in September 2000 by Ukrainian Chiropterologists in Rachiv (Ukraine). During this Conference we have presented the current results of the study of bats in Polish Carpathians.

* "1st CNS" (The Carpathians North - South - First Polish Romanian Chiropterological Expedition to the Carpatians". This expedition was organized by the Chiropterological Information Center in Kraków and Institute of Spelology in Cluj and Museum of Natural History "Grigore Antipa" in Bucuresti. It was an official exchange between Polish Academy of Sciences and Romanian Academy of Sciences (Participants: Polish part: Anna GAS, Krzysztof MORAWIEC, Katarzyna OCHMAN, Tomasz POSTAWA, Przemysław SZWED, Danuta WOŁOSZYN and Bronisław W. WOŁOSZYN (head of expedition)
Romanian part: Andrei GURGINCA, Victor GEORGHIU, Dr. Dumitru MURARIU, Zoltan NAGY, Laszlo SZANTO, with collaboration Daniela BORDA, Dr Vasile DECU, Prof. Constantine RADULESCU, dr. Marton VENCZEL
The expedition operated mainly in Bihor Mountains, Oltenia and Banat in western Romania.

In addition to the above mentioned examples, several local projects on definite bat sites conservation are implemented in Poland. These local projects are conducted by the regional chiropterological NGO groups on the areas of National Parks, landscape parks, forest complexes or administration units (for example in Ojcowski National Park, Tatrzański National Park, Group of Jurajski Landscape Parks. These projects are implemented mainly in the framework of the environmental evaluation and preparation of regional protected areas conservation plans.

* Another very interesting enterprise conducted by the Polish Society for Nature Conservation "Salamandra" in Poznań consisted in the building of the bats observatory named "Batmanówka", at the attic of school at Kopanki. At the attic the summer breeding colony of *Myotis myotis* can be found. The behaviour of the animals can be watched throughout the transparent copula that makes the barrier between the observers and the colony of bats. The colony can be lighted up by the red light that prevent from disturbance.

Article III, Item 8

X. BAT CONSERVATION AND WOOD CONSERVATION

During last 7 years low-toxic substances are applied to wood conservation (i.e. "Cuprinol" or other similar).

XI. Bibliography

During past two years a several papers concerning ecology, distribution or bat protection or reporting results of the newest researches were published (some examples):

Ciechanowski, M. 1999. Nietoperze Puszczy Darżlubskiej - badania nad strukturą i dynamiką zespołu. Materiały konferencyjne, XIII Ogólnopolska Konferencja Chiropterologiczna, Błaziejewko, 5-7.XI.1999.PTOP "Salamandra". 13-14. Poznań.

Hejduk, J., Stopczyński, M., Pawenta, W., Damański, J. 1999. Chiropterofauna Parku Krajobrazowego Wzniesień Łódzkich (wyniki wstępne). Materiały konferencyjne, XIII Ogólnopolska Konferencja Chiropterologiczna, Błaziejewko, 5-7.XI.1999.PTOP "Salamandra". Poznań, 21.

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- Ochman, K. 1999. Analysis of Holocene bat fauna from Pod Sokolą Górą cave in systematics and zoogeographical aspects. Abstracts of the VIIIth EBRS, Kraków, p. 44
- Paszkiewicz, R., Szkudlarek, R., Węgiel, A., Węgiel, J., Węgiel, W. 1998. Materiały do chiropterofauny Pienin - letni stanowiska nietoperzy. *Pieniny - Przyroda i Człowiek*. 6: 31-46.
- Paszkiewicz, R., Szkudlarek, R., Węgiel, A., Węgiel, J. 1998. Letnie stanowiska nietoperzy na strychach Beskidu Wyspowego, Sądeckiego i Niskiego. XII Ogólnopolska Konferencja Chiropterologiczna, Wrocław '98, Krzyklina Mała 14-15.11.1998. Abstrakty.26-27.
- Piksa, K., Nowak, J. 1999. The bat fauna of the Polish Tatra caves. Abstracts of the VIIIth EBRS, Kraków, p. 50
- Postawa, T. 1999. Monitoring cave microclimates by external climate conditions and its influence on populations of bats hibernating inside the cave. Abstracts of the VIIIth EBRS, Kraków, p. 82.
- Ruczyński, I., Ruczyńska, I. 1999. Roosting sites of Leisler's Bat, *Nyctalus leisleri* in the Białowieża Forest. Abstracts of the VIIIth EBRS, Kraków, p. 58
- Szkudlarek, R., Paszkiewicz, R. 1999. Zimowe stanowiska rzadkich gatunków nietoperzy w Sudetach Zachodnich. *Przyroda Sudetów Zachodnich*, 2: 81-88.
- Wołoszyn, B.W. 1998. Chiroptera [in:] *Encyclopaedia Biospeologica* (C.Juberthie and V.Decu eds.). Moulis - Bucarest., p.1267-1296.
- Wołoszyn, B.W. 1999. Nietoperze - oznaczanie gatunków krajowych i ich rola w ekosystemach. W: *Diagnostyka szkodników roślin i ich wrogów naturalnych*, T. III. J.Boczek (red). Wyd. SGGW, s. 297-351.
- Wołoszyn, B.W., Gałusz, W. 2000. Ssaki (Mammalia). *Flora i Fauna Pienin - Monografie Pienińskie*, 1: 255-264.
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