

# AGREEMENT ON THE CONSERVATION OF BATS IN EUROPE

## REPORT ON THE CONSERVATION AND MONITORING OF BATS IN BELARUS

### A. General Information.

Name:	The Republic of Belarus
Period:	2002 – 2005
Place and date of information:	Brest, 4 May 2006
Competent Authorities:	National Academy of Sciences of Belarus The Polesia Agrarian Ecological Institute, Bats working group PO “Ahova Ptushak Bacikaushchyny” (“Birds Protection in Belarus”) Victor Demjanchik
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### B. Status of Bats in Belarus.

There are 19 species of bat resident during the period from 1930s till 2005 in Belarus. Three of them are rare, not resident: *Rhinolophus hipposideros*, *Nyctalus lasiopterus*, *Myotis myotis*. Two species (*Rhinolophus hipposideros*, *Nyctalus lasiopterus*) have not been registered since 1930s. Presence of 17 species has been confirmed.

- a. *Pipistrelle* was found using detector method (55kHz) near Brest in June 2002. It gives the reason to presuppose the dwelling of *Pipistrellus pygmaeus* on the territory of Belarus.
- b. In July 2002 for the first time in Belarus there was found a maternity colony of the gray long-eared bat (*Plecotus austriacus*) in Brest District.
- c. In 2002 in Brest Region there were found maternity colonies of *Vespertilio murinus*, *Eptesicus nilssonii*, *Nyctalus leisleri*, *Myotis nattereri*, *Pipistrellus nathusii*. The facts of breeding of these species are very rare in Belarus.
- d. There was found a breeding colony of *Myotis dasycneme* in 2003 on Vygonoschanskoje Lake in Brest Region. (the 3<sup>rd</sup> fact of this species reproduction in Belarus)

The first hibernation colony of *Vespertilio murinus* was generated in Belarus (Brest) in 2004-2005.

The maternity colony of *Nyctalus noctula* (first in Belarus) is revealed in a building. Before maternity colonies of *Nyctalus noctula* were found out exclusively in hollow of trees.

It was registered the first attempt (unsuccessful) winterings of *Pipistrellus nathusii* in Belarus during the winter in 2004-2005.

Table 1. Distribution, Seasonal Roost and Population Status of Bats in Belarus (1993 – 2005).

Species	Distribution, area	Summer Roost	Winter Roost	Status
<i>Myotis myotis</i>	Beyond the western border	+		Rare, not resident
<i>Myotis brandti</i>	Break in its population area on the largest part of Belarus	+		Very rare
<i>Myotis daubentonii</i>	On all the territory	+	+	Common

<i>Myotis nattereri</i>	Spread	+	+	Rare
<i>Myotis dasycneme</i>	Spread	+	+	Rare
<i>Myotis mustacinus</i>	Spread	+		Rare
<i>Plecotus auritus</i>	On all the territory	+	+	Common
<i>Plecotus austriacus</i>	The north-east border of its population area	+	+	Rare
<i>Barbastella barbastellus</i>	The eastern border of its population area	+	+	Rare
<i>Pipistrellus pipistrellus</i>	On all the territory	+		Common
<i>Pipistrellus nathusii</i>	On all the territory	+		Common
<i>Pipistrellus pygmaeus</i>	In 2001 – a colony on the Polish-Belarusian border (Rachwald, Szkudlarek, 2001); 2002 – one individual detected in Brest	+		?
<i>Nyctalus leisleri</i>	The northern border of its population area	+		Rare
<i>Nyctalus noctula</i>	On all the territory	+	+	Common
<i>Nyctalus lasiopterus</i>	Not registered documentary after the 1930s			Very rare, not resident, in the past
<i>Eptesicus serotinus</i>	The northern border of its population area	+	+	Common
<i>Eptesicus nilsoni</i>	The southern border of breeding area	+	+	Rare
<i>Vespertilio murinus</i>	On all the territory	+		Rare
<i>Rhinolophus hipposideros</i>	Not known after the 1930s			Very rare, not resident, in the past

Table 2. Trends of Population and Protection Status of Bats in Belarus.

Species	Estimated trend	RDBB – 1993	RDBB – 2004
<i>Myotis myotis</i>	0	III	
<i>Myotis brandti</i>	-		III (VU)
<i>Myotis daubentonii</i>	++		
<i>Myotis nattereri</i>	+	III	IV (NT)
<i>Myotis dasycneme</i>	0	III	II (EN)
<i>Myotis mustacinus</i>	-		
<i>Plecotus auritus</i>	-		
<i>Plecotus austriacus</i>	++		
<i>Barbastella barbastellus</i>	-	III	II (EN)
<i>Pipistrellus pipistrellus</i>	+		
<i>Pipistrellus nathusii</i>	++		
<i>Pipistrellus pygmaeus</i>	?		
<i>Nyctalus leisleri</i>	0	III	III (VU)
<i>Nyctalus noctula</i>	-		
<i>Eptesicus serotinus</i>	++		
<i>Eptesicus nilsoni</i>	+	III	III (VU)
<i>Vespertilio murinus</i>	-		

**Estimated trend** – Estimated trends during the last 30 years:

0 changes in population were not found;

+ increase in population;

++ considerable increase of population;

- decrease of population.

**RDBB – 1993** – Red Data Book of Belarus, 1993 (III – protection category, rare)

**RDBB – 2004** – Red Data Book of Belarus, 2004

II (EN) includes taxa, now disappearances not taking place under direct threat on territories of the country, but having adverse international or European security status, low number, the tendency to steady reduction of number and-or an area and deterioration of the status predicted in the near future.

III (VU) includes taxons, disappearances not taking place under direct threat, but subject to risk of extinction in the long term valid morphophysiological and-or the behavior features doing them vulnerable at anyone even minor alterations of an environment.

IV (NT) unites taxa, not taking place to three previous categories, but close to them, having unfortunate trends in surrounding territories or protection dependent on carried out measures.

## **C. Preservation (Bats Protection)**

### **1. The legislation.**

The legislative base on protection of bats is advanced. According to the Appendix to the Decree of the President of Belarus № 580 from 8.12.2005. About some measures on increase of efficiency of conducting the hunting facilities and activity of fish facilities, perfection of the government by them.

1. Law on hunting and hunting management (1997).

– hunting and catching of hiroptera is forbidden;

– penalty for killing Chiroptera.

2. Provision on zoological collection (1997).

– provides set of rules on collection, preparation, use, storage and exchange of objects of wild life, including hiroptera.

3. Provision on creation of nature reserves in the Republic of Belarus (1995).

– provides legislation on creation of nature reserves for wild animals, including Chiroptera.

4. Provision on the Book of rare species of animals and plants – Red Data Book of Republic of Belarus (1979).

### **2. Red Data Book of Belarus**

Detailed inventory of populations of bats is lead to 2003-2004 in Belarus. The estimation of statuses under last versions IUCN is lead. The list and specific sketches of species for inclusion in the Red book of 3-rd edition is prepared. And preservations of the environment of Belarus from June, 9, 2004 № 14 are authorized by the decision of the Ministry of natural resources of 6 species: *Myotis dasicineme*, *Myotis nattereri*, *Myotis brandti*, *Eptesicus nilssoni*, *Barbastella barbastellus*, *Nyctalus leisleri*.

In 2004 « the Red book of Belarus: species of wild animals Rare and taking place under threat of disappearance » it is published.

### **3. Protected territories and objects.**

– Specialized reserve «Barbastella» was created in Brest Region in 2000. The purpose is protection of the largest in Belarus hibernation congestions bats. Here more than 1000 individuals *Barbastella barbastellus*, 50-100 individuals *Eptesicus serotinus*, *E. nilssoni*, *Plecotus auritus*, *P. austriacus*, *Myotis daubentonii*, *M. nattereri* form winter aggregations.

– The biosphere reserve UNESCO « Pribuzhskoe Polesie » was created in 2004, where one of main priorities – maternity colonies and migratory congestions Bats. The most important among them are colonies of *Nyctalus noctula*, *Pipistrellus nathusii*, *P. pipistrellus*.

– 2 hibernation colonies of bats are protected in the National Park Belovezhskaja Puscha.

#### **4. The Creation of Bats Working Group in Belarus.**

Amendments, September 2003.

“Ahova Ptushak Bacikaushchyny” APB (“Birds Protection in Belarus”) is the leading public (non-state) organization of nature protection in Belarus. APB is supported by the Royal Society for the Protection of Birds, partner of BirdLife International (United Kingdom). APB is the best known organization in Belarus. It created protected areas for disappearing species: *Acrocephalus paludicola*, *Aquila clanga*, *Crex crex*, *Haliaeetus albicilla*, *Gallinago media*. It is also known for its educational work among population.

In 1997-2000 in Belarus with APB support there was organized mass ringing of birds in the first reserve for wintering protection of 8 bats species “*Barbastella*”. During the winter season up to 3000 (max) individuals of bats stay in the reserve. *Barbastella barbastellus* make 90% of them, *Myotis dasycneme* (with global status VU A2c) are rare. APB spread new information about necessity to protect bats.

In March 2002 at the meeting of the Central Council of APB in Minsk there was taken a decision to create the *Working Group of Bats Research*. It was adopted the project of the statute of the *Working Group of Bats Research*. Officially adopted 12.09.03r. The following national long-term programmes for bats research and protection are recommended for working out:

- a. “*Pipistrelle* in Belarus — a guest or a host?” The programme to make the status of bats in 6 regions of Belarus precise.
- b. “Bats and biodiversity.” Bats monitoring program in Belarus.
- c. “Bats at home — fear or admiration?” Propaganda program to stop killing of bats and biotechny of bats preservation in domestic and other man’s buildings.
- d. “Bats and forestry.” Programs of development and introduction of measures to protect bats in forests, parks and gardens.
- e. “The Best.” Educational and entertainment programs to attract attention to bats and spread knowledge about them among students.
- f. “Bats and nature protection.” The system of official measures to make Belarus a member of EUROBATS, to update official norms of bats protection and licensed inspection of bats colonies and creation of new specialized protected areas, important for bats.

#### **5. Informing of population by the advertising - information literature.**

The advertising leaflet « Bats - our friends and kind neighbors on the house » with 15 illustrations is prepared for the edition. The information necessarily preservations of bats in settlements is resulted. Brief recommendations on practical ways of preservation of maternity colonies and wintering congestions of bats in constructions of the person are stated. This advertising - information publication of a mass edition are the first in Belarus on protection of bats. It is intended for a wide range of readers.

#### **6. Consultations of the organizations and people**

The advisory nature protection help is rendered for 45 organizations and private owners to decide not clear and disputed situations connected with bats in buildings and settlements.

#### **7. Propaganda of knowledge and urgency of protection**

Annually (6-8 times one year) materials, connected with protection of bats are broadcast in the central newspapers, national channels of telecasting and broadcasting and 10-15 performances in one year in local mass-media.

– Night is lead for the first time with wide attraction of different categories of people bats (Brest) in 2005.

– In 2000 – 2005 a scientific-popular film “In the Kingdom of Bats” was run on the National and regional channels for 12 times.

#### **8. Introduction of the experience of studying and protection in the environment of schoolboys and students**

- On the base of high school № 3. Ivacevichi in 2005-2006 the experience of studying and protection of bats by forces of teachers and schoolboys is fulfilled.

- It is annually carried out till 5-10 regional trainings by a technique of studying of bats in the nature with students of Brest and Minsk.

## **9. Monitoring**

Complex monitoring actions are carried out since 1996 in a southwest of Belarus.

The studying of bats began in the north of Belarus (reserve Berezensky).

Near 30-50 maternity colonies and 30-40 hibernation colonies are estimated annually. It was ringed 2050 individuals of 13 kinds in 1996-2004. The ringing is temporarily stopped, but the control of marked individuals is not over.

## **10. The scientific maintenance of preservation of bats in systems of the state departments: the Ministries of woods, the Ministries of housing and communal services.**

In 2006-2010 in the National academy of sciences of Belarus under the state program the project « Scientific-practical bases of preservation and monitoring of bats » is carried out. The main tasks of this project:

- To carry out scientific-methodical support of monitoring and the necessary actions for improvement of conditions during migrations species of bats included in the Appendices of the Convention on preservation of migrating species of wild animals (Bonn conventions), according to the duties accepted by Belarus under this convention;

- To develop and offer for mass application in of the Ministry of a forestry, the Ministry housing-communal facilities, the Ministries of Education ways of practical increase of bats.

## **11. The international ecological right and scientific maintenance of integration of Republic of Belarus in EUROBATS**

Protection of places of dwellings, settled and migrating populations bats is stipulated by Conventions which are signed by Belarus: About a biological variety (1994); Bonn conventions (2003).

One of tasks of the project « Scientific-practical bases of preservation and monitoring of bats » is:

- To develop scientific - practical maintenance under the introduction and performance of the main conditions of the All-European agreement by Belarus on preservation of bats EUROBATS.

## **D. The Main Scientific Publications.**

Published during the period 1999 – first half 2006.

### **Books**

1. Demjanchik V.T., Demjanchik M.G. Bats of Belarus – Information Edition: Brest 2000. – 216 p.

2. Demjanchik V.T., Demjanchik M.G. Ecological Biotechny. Minsk-Brest 2001. – 120 p.

3. The Mammals of Belarus. – Minsk, 2003. Kurskov A.N., Demjanchik V.T., Demjanchik M.G. (Part *Bats* – 30 p).

4. Savickii B.P. et all. The Mammals of Belarus. – Minsk, 2005 (Part *Bats* – 7 p.).

5. Demjanchik V.T. Biosphere reserves Pribuzhskoe Polesie. – Brest, 2006. – 202 p. (the material on bats is widely submitted).

### **Articles**

6. Shimalov V.V., Demjanchik M.G., Demjanchik V.T. Dopolnenia k helmintofaune rukokrylyh (Chiroptera) Belarusi // Vesci NAN Belarusi, ser.biol. 2003. № 1. – p. 114-116.

7. Demjanchik M.G. Features macrotops and an estimation of number nochnicy vodianoï (*Myotis daubentonii*) and kogana pozdnego (*Eptesicus serotinus*) in the West of the Belarus Polesie // Environmental problems of Polesie and adjacent territories. Materials V of the International scientific-practical conference Gomel October 2003. – Gomel, 2003. – P. 70-71.

8. Demianchik M.G., Demianchik V.T. The modern status of bats of a southwest of Belarus // Environmental problems of Polesie and adjacent territories. Materials V of the International scientific-practical conference Gomel October 2003. – Gomel, 2003. – P. 72-73.
9. Demianchik M.G., Demianchik V.T. Dynamics of border nidifugous areas нетопыря wood (*Pipistrellus nathusii*) in Belarus Polesie // Environmental problems of Polesie and adjacent territories. Materials V of the International scientific-practical conference Gomel October 2003. – Gomel, 2003. – P. 74-75.
10. Demianchik M.G. Indicator role and the basic limiting factors in ecology of bats of Belarus // the Biotest: the Collection of proceedings. – Brest, 2003. – P. 26-30.
11. Demianchik V.T., Demianchik M.G., Kashtaljan A.P. Prudovaia nochnica // the Red book of Belarus: kinds of wild animals Rare and taking place under threat of disappearance. – Minsk, 2004. – P. 18-19.
12. Demianchik V.T., Demianchik M.G., Kashtaljan A.P. Nochnica Natterera, or resnitchataia // the Red book of Belarus: kinds of wild animals Rare and taking place under threat of disappearance. – Minsk, 2004. – P. 20-21.
13. Demianchik M.G., Demianchik V.T. nochnica Brandta // the Red book of Belarus: kinds of wild animals Rare and taking place under threat of disappearance. – Minsk, 2004. – P. 22-23.
14. Demianchik V.T., Demianchik M.G., Kashtaljan A.P. Shirokoushka evropeiskaia // the Red book of Belarus: kinds of wild animals Rare and taking place under threat of disappearance. – Minsk, 2004. – P. 23-25.
15. Demianchik V.T., Demianchik M.G., Kashtaljan A.P. Malaia vechernica // the Red book of Belarus: kinds of wild animals Rare and taking place under threat of disappearance. – Minsk, 2004. – P. 26-27.
16. Demianchik V.T., Demianchik M.G., Kashtaljan A.P. Koganok severnyi // the Red book of Belarus: kinds of wild animals Rare and taking place under threat of disappearance. – Minsk, 2004. – P. 28-29.
17. Demianchik V.T., Demianchik M.G. Distribution and number koganka severnogo (*Eptesicus nilssonii*) in Belarus and adjacent regions // the Bulletin of the Brest university – 2004 – № 3 – P. 66-71.
18. Demianchik M.G. The major features of existential dynamics of bats (Chiroptera) in the south of Belarus in second half 20-th - the beginning of 21 centuries // Shackii nacionalnii prirodnyi park: navukovi doslidzenni 1994-2004. Mater. nauk.-prakt. konf. Up to 20-richnia parka (Svitiaz, 17-19 travnia 2004). – Lutsk, 2004. – P. 188-190.
19. Demianchik M.G. The first registration in Belarus nidifugous colonies вечерницы red *Nyctalus noctula* in a construction of the person // Environmental problems of Polesie and adjacent territories. Materials of VII International scientific-practical conference, October, 19-21, 2005 – Gomel, 2005. – P. 64-66.
20. Demianchik M.G. Joint dwelling nidifugous colonies of different kinds of bats to Polesie // Environmental problems of Polesie and adjacent territories. Materials of VII International scientific-practical conference, October, 19-21, 2005 – Gomel, 2005. – P. 66-67.
21. Demjanichik M.G., Demjanichik V.T. Modern condition of bats of a Belovegskaja pusha // Belovegskaja pusha of research – Mn., 2006. – P. 85-94.
22. Demjanichik M.G. Bats in wood and selitebnyh biotops in Belovegskaja pusha and adjacent territories // the Ecologe-economic mechanism of preservation of a biodiversity of especially protected natural territories. – Brest, 2006. – P. 286-289.

### **Abstracts**

23. Shimalov V.V., Demjanichik M.G., Demjanichik V.T. Addition to helminth fauna of the bats (*Chiroptera*) Belarus // Messages NAS of Belarus: a series of biological sciences – 2003. – № 1.
24. Demianchik M.G., Demianchik V.T. Breeding *Chiroptera* of Belavezhskaja Pushcha (*Belarusian Part*) // XVII Ogólnopolska konferencja chiropterologiczna: mater. konferen., Janów Lubelski 07-09. 11. 2003 r. – Janów Lubelski, 2003. – P. 19.
25. Demianchik V.T., Demianchik M.G. Status of *Myotis brandtii* in Belarus // XVII Ogólnopolska konferencja chiropterologiczna: mater. konferen., Janów Lubelski 07-09. 11. 2003 r. – Janów Lubelski, 2003. – P. 20.
26. Demianchik M.G., Demjanichik V.T. Features of distribution of bats in water-marsh landscapes of the Brest area // Environmental problems of a woodlands and adjacent territories: Materials of VI International scientific-practical conference, Gomel, October, 2004. – Gomel, 2004. – P. 93.
27. Demianchik M.G. Bats in agrarian landscapes of a southwest of Belarus // Environmental problems of a woodlands and adjacent territories: Materials of VI International scientific-practical conference, Gomel, October, 2004. – Gomel, 2004. – P. 95.
28. Demjanichik V.T., Demianchik M.G. Kinds Bats, included in the new edition of the Red book of Belarus // Anthropogenous dynamics of landscapes and problems of preservation and steady use of a biological variety: Abst. of II Republ. Scientific-practical conf., Minsk, 1-2.12.2004 – Мн., 2004. – P. 120.