

Agreement on the conservation of bats in Europe National Report from Belgium (Flemish part) 2005

A. General information

Name of Party: Flanders (Belgium)

Date of Report: 15 January 2006

Period Covered: 2000 – 2005

Competent Authority: Ministry of the Flemish Communities, Nature Department

Report Prepared by: Alex Lefevre

Appointed Member of the Advisory Committee: Mr Nico Verwimp & Ms Els Martens

Membership of other committees/working groups: Chiroptera Specialist Group IUCN

B. Status of bats in Flanders

Species Accounts¹

Species	Status in Flanders
<i>Rhinolophus ferrumequinum</i>	Probably extinct
<i>Barbastella barbastellus</i>	Probably extinct
<i>Myotis myotis</i>	Extremely rare
<i>Myotis emarginatus</i>	Very vulnerable
<i>Myotis bechsteinii</i>	Very vulnerable
<i>Myotis daubentoni</i>	Common
<i>Myotis mystacinus</i>	Threatened
<i>Myotis brandtii</i>	Vulnerable
<i>Myotis dasycneme</i>	Vulnerable
<i>Nyctalus noctula</i>	Threatened
<i>Nyctalus leisleri</i>	Very vulnerable
<i>Plecotus auritus</i>	Threatened
<i>Plecotus austriacus</i>	Vulnerable
<i>Eptesicus serotinus</i>	Common
<i>Vespertilio murinus</i>	Status unknown
<i>Pipistrellus pipistrellus</i>	Common
<i>Pipistrellus nathusii</i>	Threatened
<i>Pipistrellus pygmaeus</i>	Status unknown

Rhinolophus ferrumequinum

Flanders is situated at the border of the distribution area of the greater horseshoe bat. Since the second half of the 20th century the numbers of this species have declined in Belgium. Only in 1995, a small group of 12 animals was found in an old barn in the Voerstreek (province of Limburg). The barn was renovated and the animals disappeared.

Myotis bechsteinii

The Bechstein's bat is clearly one of our most rare species in Flanders. Till now no summer colonies have been found in Flanders. Most observations are from captured animals between August and September in some marl caves in the province of Limburg. Sometimes some individuals are found hibernating in those marl caves and in an underground tunnel in a forested area south of Brussels, indicating that there might be a (small) population in this large beech forest.

Myotis brandtii

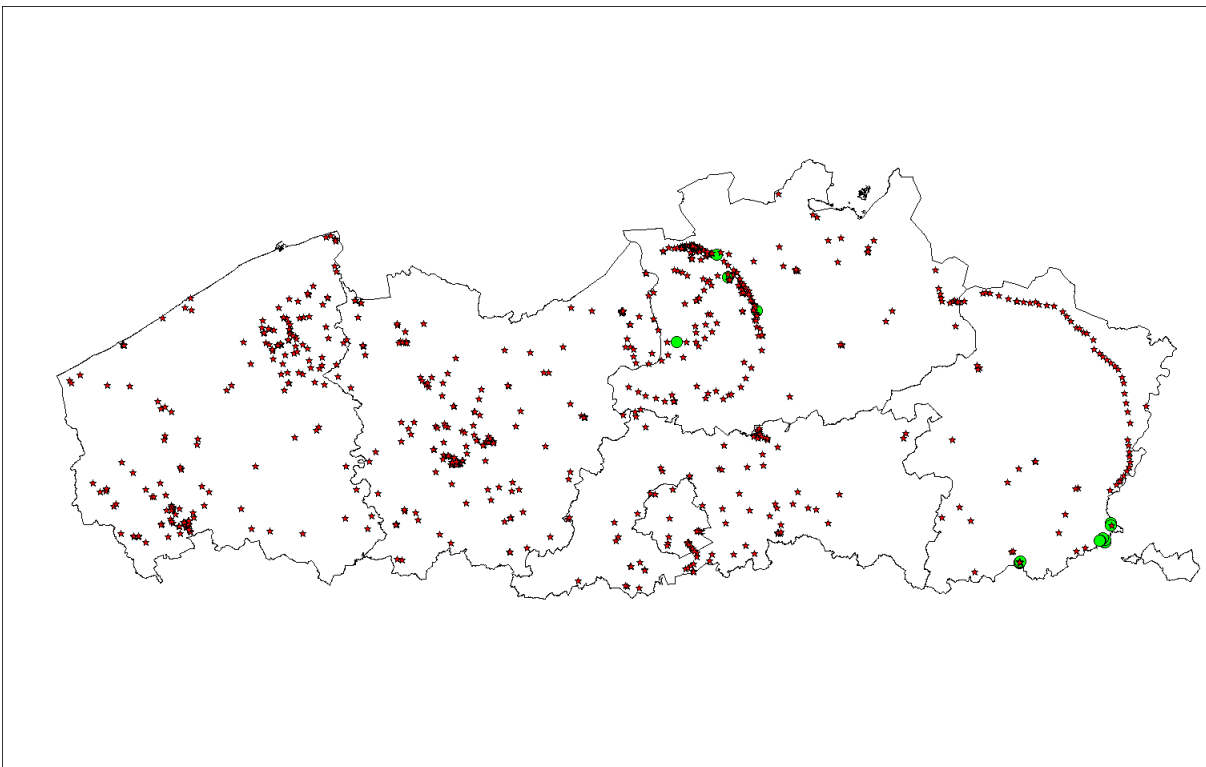
Since in most cases no distinction has been made between the whiskered bat and the Brandt's bat, (which can only be made by capturing and handling them) it is clear that there are only few reliable records. Up till now Brandt's bat was only found in Gaasbeek (province of Vlaams-Brabant) during the summer of 2002. Every year some individuals are captured at the marl caves of Lacroixberg and Koegat during the swarming period (end August – beginning October).

Myotis mystacinus

Together with the Brandt's bat, the whiskered bat is found all over Flanders during the hibernation period in fortresses, bunkers, ice-cellars, marl caves and different man made (small) underground tunnels. By bat-detector surveys the species is also found everywhere in small numbers. The data recorded by bat-detectors is mainly made by experienced bat-detector users, so the distribution of this species is clearly underestimated.

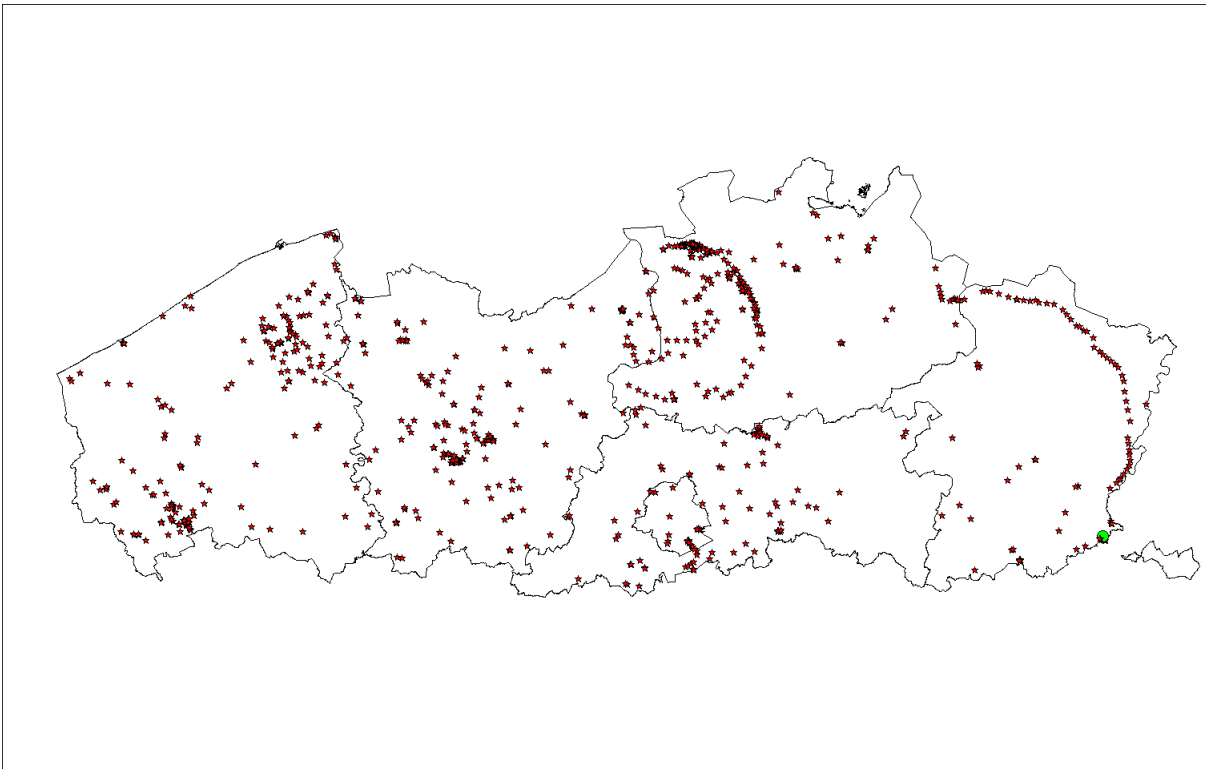
Myotis dasycneme

Since many years the pond bat was in Flanders considered as an exclusively hibernating species. But bat-detector research revealed that the species was also present during summertime. A small maternity roost (31 animals) was found in the surroundings of Ieper. The present distribution coincides closely with large rivers, lakes and channels. At this moment the species is found almost anywhere in Flanders during summer time, but till now no other maternity roosts were detected. Small numbers (between 50 – 100) are yearly found hibernating in some large hibernating sites like the fortresses around Antwerp and the marl caves in Southern Limburg. Probably in the near future new foraging areas and summer roosts will be discovered.



Myotis myotis

The greater mouse-eared bat has always been a very rare species. It is more than 25 years ago since the last summer record, but a maternity roost is now at a distance of less than 10 km from Flanders. During hibernation every year 1 or 2 bats are found in the marl caves of Southern Limburg or around Brussels.



Myotis daubentonii

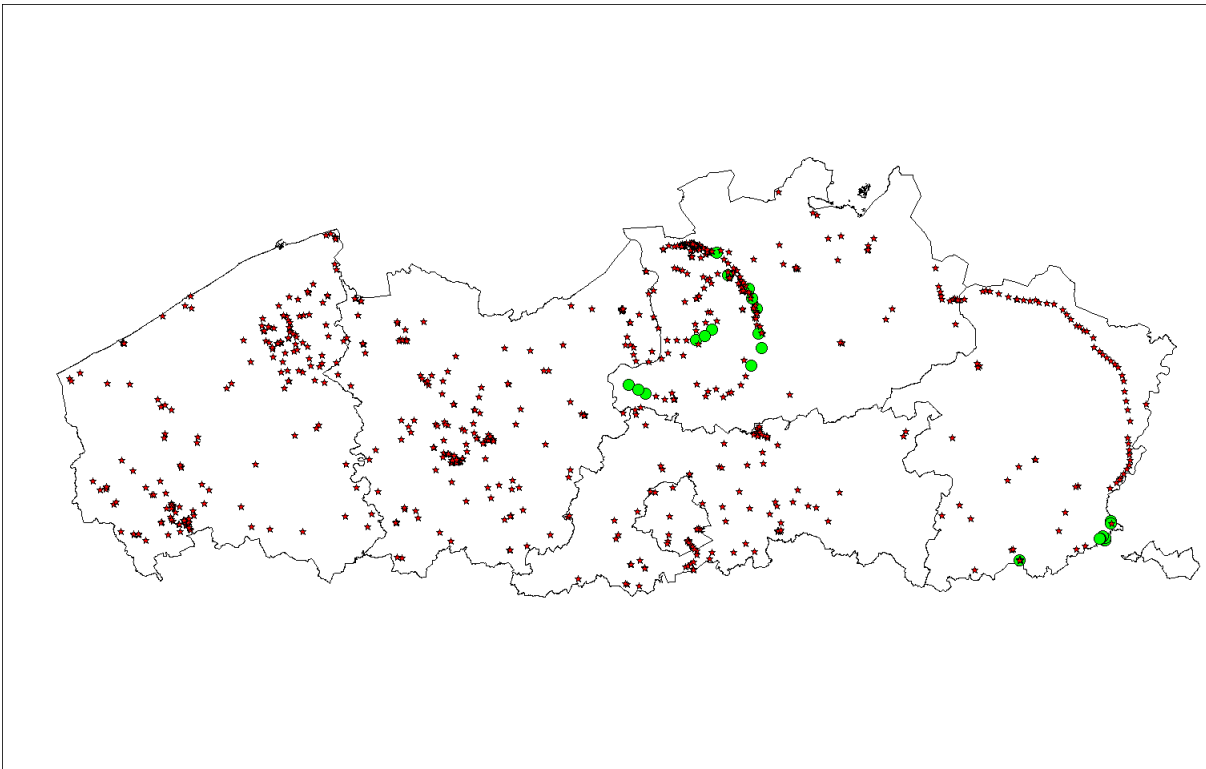
The Daubenton's bat is one of our most common bat species in Flanders. The number of summer roosts is small, but this is probably due to the fact that it is not so evident to find tree roosts. During the winter time this species is well distributed all over Flanders, especially in larger hibernating quarters, like the fortresses around Antwerp and the marl pits in Limburg. In smaller objects, such as ice-cellars, the numbers are lower.

Myotis nattereri

Thanks to the recent advances in bat-detector research (time-expansion) and intensive research for tree-roosts different new colonies of the Natterer's bat have been found. Therefore we can conclude that the summer distribution of this species is not well known. Even with low numbers of records, it is clear that this species is always found where old forest are present. During hibernation the numbers are yearly increasing, especially at the fortresses around Antwerp (with several hundreds of individuals), the region around Brugge and the marl caves in the province of Limburg.

Myotis emarginatus

The Geoffroy's bat reaches his most northern distribution area for Western Europe in Flanders. The last 5 years different new roost-sites were discovered, with a total of 10 know roosts. During hibernation the species is almost exclusively found in the fortresses around Antwerp (ca. 400 individuals) and in the marl caves in Limburg (ca. 100 bats). There number found during hibernation is increasing every year, especially in protected sites.



Pipistrellus pipistrellus

The common pipistrelle is the most common bat in Flanders and widely distributed. The species is found almost everywhere. Due to its roosting behaviour in houses, a lot of data are obtained by phone calls of concerned house-owners who wanted to know more about their inhabitants. Only a limited number of recordings of hibernating common pipistrelles are known, mostly in some crevices in fortresses, marl caves or ice-cellars.

Pipistrellus nathusii

Bat-detector research has revealed that this species is distributed all over Flanders. During spring and autumn the numbers are higher than in summer, indicating a migration of the population. Different banded nathusius' pipistrelles from northern Europe have been found. The number of known roosts is very low and till now it is not clear whether or not this species is reproducing in Flanders. The limited numbers of observations made in summer were roosts in hollow trees. During winter there are almost no records, except from 2 cases of hibernating nathusius' pipistrelles found in woodpiles.

Pipistrellus pygmaeus

The soprano pipistrelle was only recently discovered in Flanders thanks to the use of bat-detector with time-expansion. The first record was made in May 1988 in Ieper, later single recordings were made all over Flanders. Till now we don't know if the soprano pipistrelle is a reproducing species in Flanders or only a migrant.

Nyctalus noctula

During summer this species is widely distributed in Flanders, but almost missing in the least forested regions of Flanders. Due to a lack of roosting sites, there seems to be a tendency that the population of this species is decreasing. During winter there are only few scattered data of hibernating animals, most observations are done during cutting trees.

Nyctalus leisleri

The new techniques in bat-detector research and analysis of sounds from time-expansion recordings have made it possible to now more about the distribution of this species. The Leisler's bat seems to be well distributed in the forests in the south of Brussels. Also in the Voerstreek (province of Limburg) a record from this species has been made. And even in the surroundings of Ieper (province of West-Vlaanderen) a single Leisler's bat has been heard for different days. Probably due to the intensification of bat-detector research the current distribution of this species will reveal some new data.

Eptesicus serotinus

The serotine bat is one of our most common bat species and colonies are found almost exclusively on church lofts. From time to time some animals are observed together with pipistrelles in houses. Till now around 40 roost-sites are known, with the largest concentration in the eastern part of the province of Antwerp, the northern part of Limburg and around Brugge (province of West-Vlaanderen). According to bat-detector surveys this species is found almost everywhere in Flanders. Only some very rare observations have been made during hibernation in some fortresses.

Eptesicus nilssonii

There are no certain records of this species in Flanders. The nearest observation was made in 1998 in the province of Namen (Wallonia).

Vespertilio murinus

Till now most of the records of the parti-coloured bat are situated along the coast, suggesting migrations. Observations made in July and August might suggest that not all animals are migrants. According to a house-owner in Knokke indicated that parti-coloured bats flew in and out during the night earlier in the season, which might indicate the existence of a small (maternity) roost. Till now no hibernation recordings of this species were made.

Barbastella barbastellus

This species is almost extinct in Flanders. During summertime some animals were found in a ruins of an old castle at Beernem (province of West-Vlaanderen) till 2000, after this date the castle was renovated and the barbastelles disappeared. During the winter of 2000-2001 one individual was found hibernating in a tunnel in Ursel (not so far away from the first place). Till today no other observations were made of this very rare species.

Plecotus auritus

Since it is not easy to determinate both long-eared species on external characteristics, the majority of the findings are recorded in our database as *Plecotus* species. In summer it seems to be the most common species found on church lofts. The number of bat-detector records is much lower, because of their low intensity sonar. During winter the brown long-eared bat is found all over Flanders in all kinds of hibernations places. Although based on some local studies it seems that the brown long-eared bat is more common than the grey long-eared bat (90 % versus 10%).

Plecotus austriacus

Colonies of the grey long-eared bat are scarce and mainly situated in the north-eastern part of Flanders (the Kempen), which is known to have a slightly warmer climate. Hibernating grey long-eared bats have been found all over Flanders, mostly in small hibernations sites likes bunkers, ice-cellars, ...

Trends and threats

The most important threats are town and country planning. Lost of roads, agricultural monocultures of grassland and maize, villages not build around a center but along the roads cut the landscape into little pieces for bats. This becomes a large major problem since bats needs natural landmarks to orientate themselves and to hunt.

Monitoring & Surveys & Data collection

Every year all known hibernating quarters are visited and the number of hibernating bats is registered. In a certain amount of objects the exact location of the hibernating bats is noted. Some of them are also monitored with temperature and relative humidity dataloggers. Figure 1 gives an overview of all known hibernating quarters

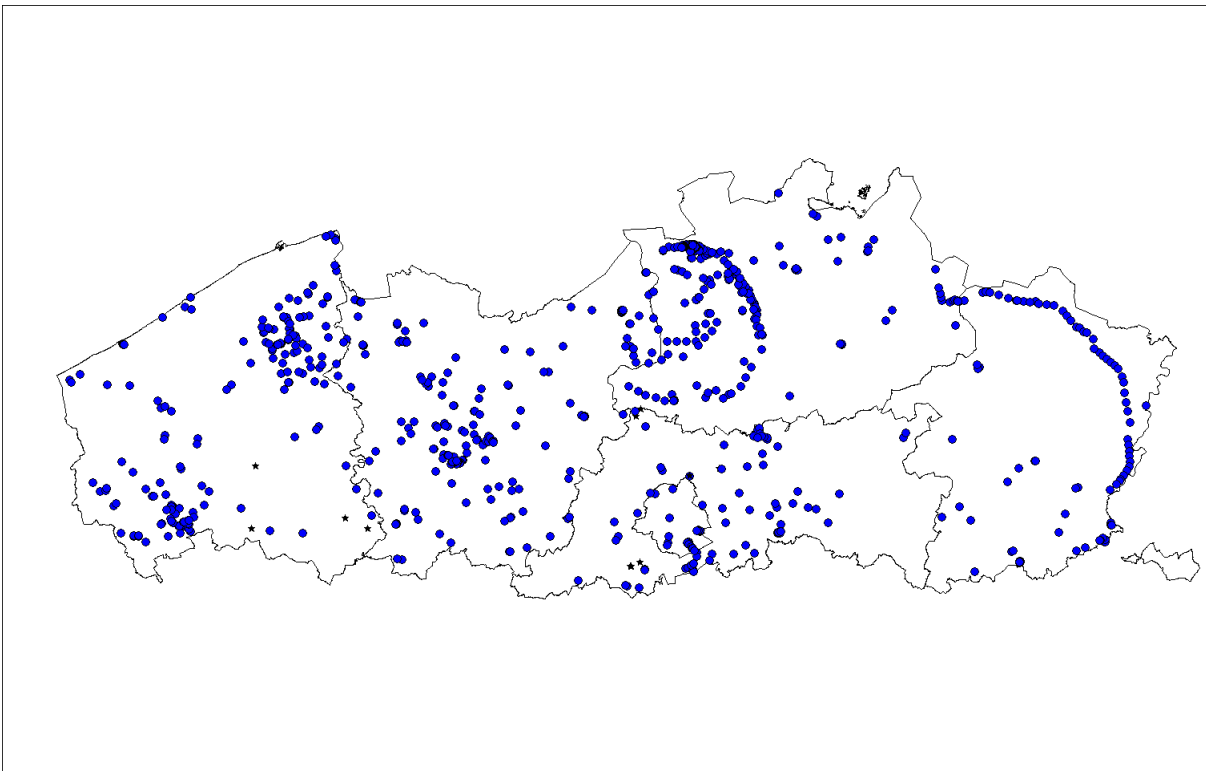


Figure 1: overview of all known hibernating quarters in Flanders.

During summertime some forests are monitored by transects (1 km long) with bat-detectors, all bats are counted and registered by means of time expansion and mapped on a GIS system. Important colonies of *Myotis emarginatus* are also very strictly monitored and counted. And 2 swarming sites at limestone caves are yearly monitored between half august and end september.

Education

Every year the Flemish Government participate in the financial support of the European Bat Night. An organisation of the volunteers of the batgroup of Natuurpunt. There are always between 30 and 40 excursions with yearly between 2500 and 4000 participants. This activity is especially a success for the children, who attend this meetings.

The evolution of activities and participants at the European Bat Night.

Year	Number of activities	Number of participants
1999	46	7000
2000	57	6000
2001	40	4600
2002	40	4800
2003	76	6000
2004	33+	3000+
2005	41+	4700+
2006	31	

A special bat-box was developed to be used in schools. This box contains a slide-kit about bats and a powerpoint presentation, a bat-detector and lamp, a CD with bat-detector recordings, lessons for the different degrees, posters, a batbox, ... Teachers can use this box for free to give a lesson about the life of bats.

C. Measures taken to implement Article III of the Agreement

Legal measures taken

Belgium is a small federal state with 3 relatively autonomous regions: Flanders in the north, Wallonia in the south and the centrally located Brussels), with each their own government and legislation about bat protection.

On 4th December 1991 Belgium signed the bat-agreement, but due to the complexity between the 3 regions the Bat-agreement was only ratified on **14th May 2003.**

Some other important key facts about bat legal measures taken in Belgium

1980: All bats are protected in Flanders

1983: All bats are protected in Wallonia

1991: The Brussels region protects all their bat species

1991: Date of signing the bat agreement

1993: start of a conservation project called 'Operation churches and lofts' in Wallonia, the aim of the project was to protect as much as possible bat roosts on churches

1995-1999: as a joint venture between WWF Belgium and the bat group, a five year census of summer roosting sites was conducted.

1998: First Belgian Bat symposium.

1999: First participation of Belgium at the European Bat night, on which different activities were presented like slide presentations, bat-detector excursions, bat-pubs, video sessions, visits in fortresses & ice-cellar and even a real bat party. Since more than 7 years the European Night is organised by 2 large NGO's: the 'Vleermuizenwerkgroep of Natuurpunt', 'Plecotus, the batgroup of Natagora', financially and logistically supported by the 3 regions: by the Division for Nature from the Ministry of the Flemish Community, the Brussels Institute of Environment of the Brussels Region and finally the Environment department of the Walloon region.

2003: Date of Ratification of the bat agreement by the Belgian government.

Recently the Ministry of the Flemish region of Belgium supported a project from Eurobats to produce public awareness leaflets in seven Eastern and South-Eastern European countries

2003: On demand of the Ministry department of Environment, Section Forestry a study about the importance of forests for bats has been carried out by volunteers.

Sites identified and protected and consideration given to habitats

All the important sites are identified, but only a limited number of sites are protected. But those who are protected are the most important: the fortress of Steendorp with around at least 1200 hibernating individuals, the fortress of Brasschaat with around 800 animals. The complex of

fortresses around Antwerp is very important (more than 6000 hibernating bats) and therefore most of this sites have been classified as Natura 2000 sites. Also the marl caves of Lacroixberg and Koegat are of great importance for hibernating bats and have been designed as Natura 2000 sites. Above this more than 200 small sites, like ice-cellars, bunkers,.. have been protected.

Activities to promote awareness about bats

The yearly participation at the European Bat Night.

A financial contribution to Eurobats for developing leaflets about bats for Eastern Europe.

Recent and ongoing programs relating to the conservation and management of bats

Restauration of an important hibernating site (Natura 2000 site) in the south of Brussels: Groenendaal (Flanders, Belgium).

Research projects on conservation problems of importance to the bat fauna

For the moment no important research projects on conservation problems have been conducted. A Life II project on bat protection will start from this year (2006) on.

D. Functioning of the Agreement

Cooperation with other parties and range states

There is a close cooperation with the Brussels and Walloon Governements and Batgroups in organising every year the European Night.

Literature

1/ Verkem S., De Maeseneer J., Vandendriessche B., Verbeylen G. & Yskout S. (2003). Zoogdieren in Vlaanderen. Ecologie en verspreiding van 1987 tot 2002. Natuurpunt Studie & JNM-Zoogdierenwerkgroep, Mechelen & Gent, Belgium.