AGREEMENT ON THE CONSERVATION OF BATS IN EUROPE
Report on the implementation of the agreement in Latvia

A. General Information

Non-Party Range State: Latvia
Date of Report: May 2003
Period covered: until 2003
Competent Authorities: Ministry of Environmental Protection and Regional Development.

B. Status of Bats within the Territory of the Range State

1. *Summary Details of Resident Species*

In all, 15 species of bats are found in Latvia. Recently two phonic types of *Pipistrellus pipistrellus* have been found in the country. Adding the newly described species *Pipistrellus pygmaeus* to the fauna of Latvia the number of species increases to 16. Maternity colonies are known for 9 species. However we believe that the other species are breeding in Latvia too. The only exception is *Myotis myotis*. This species is recorded in Latvia only once in 1988. The only specimen was trapped during the period of autumn migration and should be regarded as vagrant. At least 8 species hibernate in Latvia, but 5 species are long-distance migrants. According to the published data from Estonia and NW Russia there are four species, which reach the border of the distribution range in the territory of Latvia and have not been found in the territories to the north-east. These are *Eptesicus serotinus*, *Nyctalus leisleri, Barbastella barbastellus* and *Pipistrellus pygmaeus*.

2. *Status and Trends*

The distribution of hibernating bat species during the winter season depends mainly on the availability of appropriate hibernation roosts. The distribution pattern of bats in summer is well studied in species, which can be relatively easy identified during the flight by means of bat detectors or by visual observations. The knowledge on the occurrence of some "problematic detector species" like *Myotis nattereri*, *M. brandtii* and *M. mystacinus* is still very poor.

Species	Distribution in summer	Season of occurrence	Status in the Red Book of Latvia
Myotis myotis	vagrant	vagrant	-
Myotis nattereri	?	all year	rare
Myotis brandti	widespread	all year	rare
Myotis mystacinus	rare	all year	insufficiently known
Myotis daubentoni	widespread	all year	
Myotis dasycneme	widespread	all year	endangered
Eptesicus serotinus	rare	summer/ all year?	-
Eptesicus nilssoni	widespread	all year	-
Vespertilio murinus	widespread	summer	rare
Pipistrellus pipistrellus/P. pygmaeus	rare	summer	rare
Pipistrellus nathusii	widespread	summer	-
Nyctalus noctula	widespread	summer	-
Nyctalus leisleri	rare	summer	rare
Barbastella barbastellus	?	all year	rare
Plecotus auritus	widespread	all year	-

There is a lack of long-term counts of bats in Latvia providing data on the trends of bat populations. The monitoring of bats at hibernation sites has been carried out since the beginning of 1990's, but there are no significant changes found in the numbers of annually counted individuals of hibernating species. We are not able also to provide reliable data on the population size of our bat species.
Eight species are included in the Red Book of Latvia, six of them being considered as rare, one as insufficiently known. The only species considered to be endangered is the pond bat *Myotis dasycneme.* The reason for this is the drastic decline of this species at the largest hibernation site of this species in the second part of 1980th and the status of the species in Europe on the whole.

3. *Habitats and Roost Sites*

Feeding habitats

The feeding sites of the bat species have been studied during the project "Latvian bat fauna" in 1993-1998. The most important feeding sites for the common bat species are different kind of woodland and eutrophic lakes and rivers. Considerable changes in land use system occurred in Latvia during the recent 15 years. The total area of the agricultural land decreased leading in growth of fallow land and forested area. At the same time the farming became more intensive in areas, which more favourable for agriculture. An intensive disafforestation took place during the last decade. The influence of the changes in landscape structure on the bat populations is not documented. However it is possible that the loss of old and extensively used forests and semi-natural meadows can negatively influence the food resources of certain bat species.

Roosts

Mainly overground roosts are used as summer roosts by Latvian bats. The only exception known is *Myotis daubentonii,* which we have found in underground roosts in summer. There are some observations on presence of numerous individuals of this species in basement type rooms of a fortress Daugavpils in July. There are also some observations on swarming individuals of this species and the pond bat at the entrances of caves in autumn.
Nyctalus noctula use mainly tree holes for breeding, maternity colonies of *Myotis brandti*, *Eptesicus nilssoni, Vespertilio murinus* and *Pipistrellus pipistrellus / P. pygmaeus* have been found only in buildings. Some other species occupy both buildings and tree holes during the summer.
Mainly underground habitats are used by species hibernating in Latvia. However there are some records of hibernating *Eptesicus nilssoni* in wood. Caves, fortifications and large cellars are unevenly distributed in the country affecting the winter distribution pattern of most bat species. Two species – *Plecotus auritus* and *Eptesicus nilssonii* are adopted to hibernate in small cellars, which are traditionally used by rural population for storage of vegetables everywhere in the country. This is probably the most important type of winter roosts used by the first species.

Species	Summer roosts	Hibernation roosts
Myotis nattereri	?	caves, cellars
Myotis brandti	buildings (M)*	caves, cellars
Myotis mystacinus	?	caves, cellars
Myotis daubentoni	hollow trees (M), cellars	caves, cellars
Myotis dasycneme	buildings (M), hollow trees, bird boxes	caves, cellars
Eptesicus serotinus	?	?
Eptesicus nilssoni	buildings (M), bird and bat boxes	caves, cellars

Vespertilio murinus	buildings (M)	-
Pipistrellus pipistrellus/P. pygmaeus	buildings (M)	-
Pipistrellus nathusii	buildings (M), hollow trees (M), bird and bat boxes	-
Nyctalus noctula	hollow trees (M)	-
Nyctalus leisleri	?	-
Barbastella barbastellus	?	cellars, caves
Plecotus auritus	buildings (M), hollow trees (M), bird boxes (M)	cellars, caves

(M) – roost sites of maternity colonies

4. *Threats*

Loss of roost sites. The disafforestation has been extremely intensive during the last decade causing decrease of hollow trees in forests. The old wooden houses have been renovated using modern technologies and materials. Thus there are fewer possibilities for bats to find roosting sites. In some cases the old basements of manors or castles are rebuild for use as restaurants or exhibition halls. For example two of three hibernation sites of *Barbastella barbastellus* have been destroyed this winter. Disturbance of bats at the hibernation sites is the next threat to bats. The tourism's activities of people are increasing. Visiting of caves during the winter becomes more popular. The changes in landscape and land use system can also have a negative affect to bats as mentioned before.

5. *Data Collection and Research*

The project "Latvian bat fauna" has been carried out in Latvia in 1993-1998 with financial and professional support from Sweden. The objectives of the project have been to summarize all available historical information on record of bat species in Latvia and to carry out a country-wide survey on bat populations in Latvia. The database Ļatvian bats" has been developed during the project. It includes a complete faunistical and ecological information on bats in Latvia till 1998. Afterwards information on monitoring results of bats has been collected and stored by programme leaders in several databases – "Monitoring of hibernating bats" (V. Vintulis), "Migrating bats"(G. Pētersons).

C. Measures Taken to Implement Article III of the Agreement

6. *Legal measures taken to protect bats, including details of enforcement actions to support such measures*

All bat species in Latvia are included in the List of Specially Protected and Limitedly Exploitable Specially Protected Species (Nr. 396/14.11.2000) according to the Law on Conservation of Species and Habitats (2000). The killing, capture, keeping and disturbance of bats in their roosts sites is prohibited according to this regulation.

Latvia is also bound by the provisions of the Bern Convention on the Conservation of European Wildlife and Natural Habitats.

7. *Sites identified and protected which are important to the conservation of bats*

Inventory of the hibernation sites since the 1970, particularly during the project "Latvian bat fauna" in 1993-1998. At present only one site is legally protected as important site for hibernation of bats (one building of the fortress in Daugavpils).

8. *Consideration given to habitats which are important to bats*

9. *Activities to promote the awareness of the importance of the conservation of bats*

Published information in newspapers and magazines

Lecturing in schools

Published guide on field identification of Latvian bat species (1998)

Website "Latvian bats": http://latvijas.daba.lv/dzivnieki/hordainhi/ziidiitaaji/sikspaarnhi/ (in Latvian)
Bat night events:

Lectures and observation of migrating bats at the Ornithological station Pape (1999); lectures, films, games for children in Museum of Nature history in Riga (2001); lectures and bat excursions at the National Park Kemeri (2000, 2002)

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

Not yet nominated.

11. ***Additional action undertaken to safeguard populations of bats***

12. ***Recent and ongoing programs (including research) relating to the conservation and management of bats***

- The country-wide survey " Latvian bat fauna" (1993-1998), supported by Swedish government and Swedish bat specialists
- Large scale banding programme of migrating bats at the ornithological station Pape (1985-1992)
- Inventory of bat fauna in the National Park Kemeri (2000), in the National Park Kemeri (2001)
- Survey on the occurrence of the pond bat *Myotis dasycneme* at the feeding habitats in the protected areas and inventory of the of Latvia (2001-2003)
- Monitoring of bats at underground hibernation sites since 1992.
- Monitoring of migrating bats with bat detectors during the autumn period at the Ornithological station Pape since 1993

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***

None

D. Functioning of the Agreement

14. ***Co-operation with other Range States***

Latvian bat specialists have been educated in the use of bat detectors by Swedish bat specialists Prof. I. Ahlen and Dr. Johnny de Jong in Sweden (1992, 1994) and in Latvia (1991, 1995).
German bat workers Wigbert Schorcht and Matin Biedemann participated at the monitoring of migrating bats at the Pape Ornithological station in Latvia.
Three Latvian bat workers took part at the project "Habitat use of *Myotis dasycneme"* in south-eastern Latvia under guidance of Dr. Johnny de Jong (Sweden).
Four Latvian bat workers participated at the workshop in Lithuania "On identification of bats & localisation of roosts using bat detectors", conducted by Herman Limpens and financed by Germany"(2001)

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

The monitoring of bats is included in the National Biological Diversity program and will be financed by state in 2003.