

# Agreement on the conservation of bats in Europe

## Report on implementation of the agreement in Finland , 2000

### A. General Information

Party: Finland

Date of Report: April 2000

Period covered by report: 1999-2000 but also includes summaries for the last few years.

Competent Authority: Senior Adviser Matti Osara, Ministry of the Environment, P. O. Box 380, FIN-00131 Helsinki, Finland

Appointed Member of the Advisory Committee: Dr. Torsten Stjernberg (Finnish Museum of Natural History, P.O. Box 17; FIN-00014 University of Helsinki, Finland).

### B. Status of Bats Within the Territory of the Party

#### 1. Summary Details of Resident Species

9 species of bats have been observed in Finland. 5 of them occur with regularly reproducing populations and one further reproducing species is considered as endangered in the Finnish Red Data Book 2000, 3<sup>rd</sup> ed. (Rassi, P. et al. 2000).

#### 2. Status and Trends

Table 1 shows the status and apparent population trends of the species known in Finland.

Table 1. Status, distribution and apparent population trends of the bat species known in Finland. Status: CR (critically endangered), E (endangered), V (vulnerable). No species was classified as NT (near threatened). Rassi et al. 2000: Finnish Red Data Book 2000.

Species in	Population estimate	Distribution/status	Estimated trends the last 10 years <sup>1)</sup>
<i>Nyctalus noctula</i>		restricted, S Finland, vagrant	
<i>Eptesicus nilssonii</i>		widespread, to S Lapland	
<i>Vespertilio murinus</i>		restricted, S Finland, vagrant	
<i>Plecotus auritus</i>		widespread, S & Central Finland, to 63° N	
<i>Pipistrellus nathusii</i>		restricted, S Finland, vagrant	
<i>Myotis nattereri</i>		rare, S Finland/E	
<i>Myotis brandti</i>		widespread, S & Central Finland, to 64-65° N	
<i>Myotis mystacinus</i>		widespread, S & Central Finland, to 64-65° N	
<i>Myotis daubentoni</i>		widespread, S & Central Finland, to 63-64° N	

1) It is not possible to give a shorttime trend.

#### 3. Habitats and Roost Sites

Habitat and roost sites of bats in Finland have not yet been systematically investigated at any depth. Table 2 comprise some data on these topics.

Table 2. Habitat of the species known in Finland. B (buildings), S (woodland), Sb (gallery forests, glades), V (ponds or lakes), Vv (streams), P (parks), R (roads), U (urban).

	<b>Habitat</b>	<b>Hibernating sites</b>	<b>Summer roost sites</b>
<i>Nyctalus noctula</i>		only migrating?	None known
<i>Eptesicus nilssoni</i>	S, U, R, P, V, Vv	Cellars, mines, caves, buildings	Buildings, hollow trees
<i>Vespertilio murinus</i>		only migrating?	None known
<i>Plecotus auritus</i>	P, S, B	Cellars, caves, mines & bird	Churches, buildings, bat boxes, hollow trees
<i>Pipistrellus nathusii</i>	P, S	only migrating?	(brick pile, bat box)
<i>Myotis nattereri</i>	S, Sb	none known	Building
<i>Myotis brandti</i>	S, R, P	crevices?	Buildings, hollow trees
<i>Myotis mystacinus</i>	S, R, P	crevices?	Buildings, hollow trees
<i>Myotis daubentoni</i>	V, Vv, S, Sb	Cellars, caves, mines	Hollow trees, buildings, old bridges, bat & bird boxes

Further, there are several indications that bats (species not confirmed) may hibernate within the ground, under stones, and in crevices in the bedrock, as well as in wooden buildings and even hollow trees. During the last decades the number of summer cottages in Finland has increased and currently it is estimated that there are about half a million cottages. Some of them are also heated to a certain degree during wintertime. There are indications that bats also use these buildings for hibernation, but no systematic studies on this topic have yet been conducted in Finland.

#### 4. Threats

Threats against nursery colonies and roosts are: felling of hollow trees, “modern” forest management that does not create new suitable hollow trees as well as monoculture and evenly aged forests, rebuilding and repairing of houses, both private wooden houses and summer cottages, but in some extent also houses built of stone, private as well as buildings such as churches. Rebuilding of old bridges might also be disastrous for bats, although this topic is not very well known in Finland. Using of chemicals for treatment of timber is not considered as a serious problem today. Threats against hibernating sites are mainly disturbance by people, especially of young people making fire in caves, or using them for other activities. But also curiosity among people and in recent years combined with nature tourism has caused some disturbance.

The abandoning of traditional pastures and meadows in southern, but also to some extent in central Finland, may have affected the feeding habitats of some species of bats but this topic has not yet been investigated.

Lack of knowledge among the public of what bats are, what they do and which their demands are, might also be considered a threat.

## **5. Data Collection**

The source of data is the Zoological Museum, Finnish Museum of Natural History, P. O. Box 17, FIN-00014 University of Helsinki.

However, some basic information in this report has been received via an inquiry made in March 2000 to all known bat researchers and amateurs in Finland.

## **C. Measures Taken to Implement Article III of 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**

All bats in Finland have been protected by law since 1923 (Nature Conservation Act 71/1923). All bats, both regularly occurring and vagrant bats, are now protected according to the new Nature Conservation Act (1096/1996). According to its § 39, which concerning individuals of a protected species, following is forbidden: deliberate killing and capture, deliberate harming, deliberate disturbance particularly during the breeding or on any other sites of significance to their life cycles.

The Natterer's bat is considered as a species under strict protection (Nature Conservation Decree (160/1997, § 22, Appendix 4), hence a special action plan for its protection can be made. The deterioration and destruction of a habitat important for the survival of the Natterer's bat is prohibited after that the regional environment centre has made an official decision of the site's borderline.

All bat species in Finland belong to those species mentioned in the EC Council directive 92/43/EEC, Annex IV (a). Hence, according to § 49 (Nature Conservation Act 1096/1996) it is forbidden:

- the destruction and deterioration of clearly identifiable breeding sites and resting places
- to keep bats
- to transport bats
- to sell or exchange bats or to offer them for selling or exchange

It is possible to derogate from these provisions only for reasons mentioned in the habitats directive Article 16 (1). The permission can be given by the regional environment centre or the Finnish Environment Institute.

Finland is also a member of the Bern convention (since 21.3.1986), the Bonn convention (since 1.1.1989) and is, since October 20 1999, also a member of EUROBATS.

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The Åland Islands have a legislation of their own on nature conservation. According to the Nature Conservation Act of the Åland Islands (82/1998), § 14, all mammals except game species, are permanently protected.

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

In 1994 the uppermost floor of the Hämeenkyrö Museum, a local arts-and crafts museum, was protected for bats, by a voluntary agreement of the owner, the Hämeenkyrö municipality. In the summer 1990 the colony of the building comprised 230-325 animals, but in 1996, in spite of the protection, the numbers had decreased to ca 50, according to following tabulation presenting the figures in 1990 and (in parenthesis) 1996: *Eptesicus nilssoni* 80-120 (50), *Plecotus auritus* 3-5 (0), *Myotis brandti* 140-180 (0) and *Myotis mystacinus* 10-20 (0) (Haukkovaara 1997).

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

Bat habitats have not, generally, affected the choice of sites to the Natura 2000 programme in Finland, but in a few areas in SW Finland bats were mentioned as a strengthening protectional value.

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

Information about bats has been disseminated through articles in magazines, newspapers, radio and television programmes as well as during excursions. This kind of work has been conducted by the staff of the Zoological museums in Helsinki, in Oulu and Kuopio, as well as by some of those slightly more than 20 amateurs engaged in bats in Finland. Also administrators at the regional environment centres, administrators in different municipalities, especially in Turku, researchers at the Universities of Helsinki, Oulu and Turku have been active informers as well as by persons engaged in NGOs.

In 1995 an article on batting and how to use bat-detectors was issued in an ornithological journal in Finland (de Jong et al. 1995). Apparently that paper inspired some persons to buy bat-detectors, since 10 out of a total of 27 detectors now existing in Finland were bought in 1995-1996. The first bat-detectors in Finland were introduced in 1981-1982. In Hanko a field course on how to use bat detectors has been conducted.

Since batting is so popular in Central Europe and UK it could be mentioned that in Finland there is only one bat club, an informal one in the parish of Valkeakoski in the County of Häme. These "Bat boys" have actively informed the local audience on bats and bat protection during many years and have made successful bat mapping work.

In connection with the tragic death of a Swiss-born bat researcher in Finland in 1985 a large campaign directed to the general public was conducted, simultaneously with a research project on the eventual occurrence of rabies or rabies-like virus in bats. No sick animals were found.

During the summer 2000 a leaflet on bats will be issued by the Ministry of the Environment. Information on bat boxes has been distributed during many years.

In 1990's an exhibition on bats and bat biology was prepared by the Finnish Museum of Natural History in Helsinki. It was also circulated to different museums. An international exhibition on bats was also shown in Museum Centre Vapriikki in Tampere. Several field trips have been organized in order to introduce bats to public.

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

(a) Zoological Museum, Finnish Museum of Natural History, P.O. Box 17, FIN-00014 University of Helsinki.

(b) The Finnish Environment Institute, P. O. Box 140, FIN-00251 Helsinki.

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

In connection with hundreds of telephone calls concerning bats and especially bats in houses, information on bat biology and bat conservation has been provided.

Several enquiries on the occurrence of bats have been directed to the public, and the results have been published in journals on nature and/or nature protection, as well as on radio and TV. In the summer 1999 the Finnish Association for Nature Conservation organized together with the Finnish Museum of Natural History a large enquiry of bat observations covering all the country.

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

Torsten Stjernberg, together with Juhani Lokki and Olli Haukkovaara, have since the early 1980s registered the occurrence and distribution of bat species in Finland. The registration has been carried out with bat detectors in a 10 x 10 km grid system (Grid 27<sup>0</sup> E). Combined with data on specimens in museum collections provisional Atlas maps for the different species have been worked out. These data have also been used for the Atlas of European mammals, but will, together with new data, be published as an atlas on bats in Finland. They have also tried to elucidate hibernation sites of bats in Finland, via field studies and enquiries.

Several students are currently working on their master's thesis on bats. In 1997 the feeding activity of the Northern bat was studied in the vicinity of Lammi Biological Station (University of Helsinki). The flying activity and habitat use of the Northern bat is also studied by the University of Oulu at the arctic circle. The University of Turku started a research project on the distribution and occurrence of bats in 1999. The program continues in the summer of 2000.

There are several inventory studies going on or just commencing in different parts of Southern and Central Finland, most of them conducted by amateurs. In 2000 at least one monitoring project has been started. In some parts of Southern Finland monitoring on nursery colonies has been conducted for some years.

**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**

None at the moment

However, during many years cooperation with professor Ingemar Ahlén (Sweden) and his colleagues has been most valuable on many topics concerning bats, bat research and bat conservation, as well as on nomenclatory matters.

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

**Resolution No. 2. Consistent Monitoring Methodologies.**

Guidelines on the recommended methodologies to be employed for the monitoring of bat species in Finland are under preparation.

**Resolution No. 3. Transboundary Programme: Species Proposals**

Information on the status of *Myotis dasycneme* and *Pipistrellus nathusii* has been provided to the compilers.

**Resolution No. 4. Transboundary Programme: Habitat Proposals**

Since the knowledge of hibernating bats in Finland still is rather scarce, and wintering strategies here presumably differs, at least in details, from those in more southern regions, basic inventories of potential sites will be continued. A report of what is known is under preparation.