

Agreement on the conservation of bats in Europe

Update to the National implementation report of Finland, 2005

A. General Information

Party: Finland

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B. Status of Bats within the Territory of the Party

1. Summary Details of Resident Species

Eleven species of bats have been observed in Finland. Five of them are widespread in Southern and Central Finland and occur with regularly reproducing populations (table 1). One further reproducing species, *Myotis nattereri*, is considered as endangered (Rassi 2001). One hibernating *Myotis nattereri* has been observed again in Turku, SW Finland, in winter 2004-2005. There are only few previous records of this species in Finland (Stjernberg 1996, 1998, Siivonen & Wermundsen 2003 b, Vihervaara *et al.* 2003). Apparently also *Pipistrellus nathusii* reproduces in Finland. In recent years this species has been regularly observed in potential breeding habitats in southern Finland (Siivonen & Wermundsen 2003 a, Vihervaara 2004). *Pipistrellus pipistrellus* has been observed only a few times in Finland (Salovaara 2001, Siivonen & Wermundsen 2003 b, however, for *Pipistrellus pipistrellus* confer Salovaara 2001). Wermundsen & Siivonen 2004 give an overview of the current data about the distribution of *Pipistrellus* species in Finland.

2. Status and Trends

The situation is similar to the previous report. Table 1 shows the distribution and status of bat species recorded in Finland. No estimates of population size are yet available.

Table 1. Status and distribution of the bat species recorded in Finland. Status categories: CR (critically endangered), E (endangered), V (vulnerable). No species was classified as NT (near threatened). Rassi *et al.* 2001.

Species	Distribution/status
<i>Nyctalus noctula</i>	restricted, S Finland, vagrant
<i>Eptesicus nilssonii</i>	widespread, to S Lapland, a few records even further north
<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, first record 1982
<i>Pipistrellus pipistrellus</i>	restricted, S Finland (first record 2001)
<i>Myotis nattereri</i>	rare, S Finland/ Endangered
<i>Myotis brandtii</i>	widespread, S & Central Finland, to 64-65° N
<i>Myotis mystacinus</i>	widespread, S & Central Finland, to 64-65° N
<i>Myotis daubentonii</i>	widespread, S & Central Finland, to 63-64° N
<i>Myotis dasycneme</i>	restricted, E Finland (1 hibernating specimen 2002)

3. Habitats and Roost Sites

Some data on bat habitats and roost sites in Finland has been accumulated from recent research projects and surveys. More research is needed before an updated table of habitat use and roosts of different bat species in Finland can be compiled. Data on hibernating sites of bats has been collected by the Finnish Museum of Natural History in co-operation with researchers and amateurs. An overview of the current knowledge on hibernation sites of bats in Finland was given by Kyheröinen *et al.* 2004. The collecting of data will be continued.

4. Threats

The situation is similar to the previous report.

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.

Basic information on hibernation, faunal composition and distribution in this report has been received from bat researchers and amateurs in Finland, as well as from published reports.

The Finnish Chiropterological Society is also collecting data on distribution and abundance of bat species as well as on the location of roosts and hibernacula.

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

The legislation concerning bat conservation is mostly similar to the previous report (see text below). Few changes concerning the Nature Conservation Act have been approved: the wording “clearly identifiable” (breeding and resting sites) in § 49 was excluded.

[All bats in Finland have been protected by law since 1923 (Nature Conservation Act 71/1923). All bats, both regularly occurring and vagrant species (bats), are protected according to the new Nature Conservation Act (1096/1996). According to its § 39, 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 the regional environment centre has made an official decision of the borders of the site.

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) following 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

The situation is similar to the previous report.

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. In summer 2003 systematic bat surveys in Natura 2000 sites in SW Finland were conducted (Vihervaara 2004). In summer 2004, bats were surveyed by Nina Hagner-Wahlsten in several protected forest areas in SW Finland. The aim was to get data on the occurrence and abundance of bat species as well as to give advice regarding bat friendly forest management in these areas.

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

The dissemination of information about bats via e-mail posting lists as well as through articles in magazines, newspapers, radio and television programmes as well as during excursions has continued. This work has been conducted by the staff of different museums, nature conservation authorities as well as by researchers and amateurs engaged in bats in Finland.

A leaflet on bats, issued by the Ministry of the Environment, has been sent to people asking for information on bats as well as to people participating in field trips. Information on bat boxes has been distributed during many years.

Several field trips (in different municipalities) for introducing bats to public have been very popular.

The Bat CD "We are your friends", provided by EUROBATS, was sent by the EUROBATS Secretary to the Finnish Broadcasting Company and it has been used in nature programmes. The Chiropterological Society of Finland, which was founded in 2002, has now ca 70 members and quite a lot of activity.

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

The topic 'bats in buildings' has aroused quite a lot of discussion and guidelines for these situations are needed to safeguard house dwelling bat colonies. Guidelines for property owners and others are in preparation.

General guidelines on how species listed in Habitats Directive's Annex IV a and Birds Directive can be considered in project planning and land use planning processes outside Natura 2000 sites were published in 2004 (Sierla *et al.* 2004).

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

Several Master's theses on bat ecology are in preparation in different universities. The results of these studies may later be applied in nature conservation. Several survey projects are going on or have just been completed in southern Finland. Data on hibernating sites of bats is being collected by the Finnish Museum of Natural History from different sources, i.a. with the aid of bat researchers and amateurs as well as the public.

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

The situation is similar to the previous report. A report to EUROBATS was provided by Matti Osara 2001. The most harmful pesticides are forbidden in Finland.

D. Functioning of the Agreement

14. Co-operation with other Range States

The University of Turku together with the Finnish Museum of Natural History, The Finnish Chiropterological Society (FCS) and the Environmental Office of the City Turku organized the first Baltic Bat Meeting 2003, on 24th-25th October, on the Sjalö/Seili Island, near the city of Turku, SW Finland. The aim of the meeting was to establish an effective network between bat researchers from the Northern Baltic, and to promote bat studies and bat conservation research. The presentations and notes of the meeting can be read on the web-site of FCS (<http://www.lepakko.org>). As an outcome of the meeting, a project plan of migration study in the Baltic area has been prepared by professor Ingemar Ahlén, Dr. Johnny de Jong and Mr. Lothar Bach. The project has not yet been started, mainly due to lack of funding. However, there have recently been discussions about starting the project and funding opportunities will be investigated.

15. Measures taken to implement Resolutions adopted by Meetings of Parties

Resolution 2.1 Consistent Monitoring Methodologies.

In Finland, line transect method seems to be the most used monitoring method. Olli Haukkoavaara and Kari Salovaara are preparing guidelines of the line transect monitoring method, adapted to Finnish conditions.

Resolution No. 3. Transboundary Programme: Species Proposals

Similar to the previous report.

Resolution 2.4. Transboundary Programme: Habitat Proposals

As the knowledge of hibernating bats in Finland still is rather scanty, 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 and data on important underground sites will be submitted to the database maintained by the secretariat.

Resolution 4.3 Guidelines for the protection and Management of Important Underground Habitats

So far, only some underground sites with more than a few bats have been found in Finland. However, the guidelines will be taken into consideration when managing underground hibernacula.

Resolution 4.4 Bat Conservation and Sustainable Forest Management

The new Forest Act i.a. safeguards the key biotopes of forests, e.g. small bodies of water, which could be of great importance also for bats. However, more research on bats using forest habitats as well as co-operation with forest managers is needed.

Resolution 4.5 Guidelines for the Use of Remedial Timber Treatment

See point 13.

Resolution 4.6 Guidelines for the Issue of Permits for the Capture and Study of captured Wild Bats

Referring to this resolution, the Ministry of the Environment asked the Finnish Museum of Natural History to organize ringing and marking of bats in Finland. Ringing of bats in Finland started as a pilot project in 2004, according to the Guidelines in EUROBATS Resolution No. 4.6. These guidelines have been translated into Finnish and supplemented with guidelines concerning license practices etc. in Finland. All ringing of bats in Finland is coordinated by the Finnish Museum of Natural History. All bat ringers must have a special bat ringer's license which presupposes an examination on identification, sexing and ageing as well as on the legislative status of bats. The bat ringer's license also presupposes a proper research / project plan, proved ability to handle living bats or birds as well as vaccination against bat rabies.

Resolution 4.7 Wind Turbines and Bat populations

There is no published data about the impacts of wind turbines on bats in Finland. However, a study on the effects of wind turbines on birds was published in October 2004. Several aspects of wind turbines were discussed in a one day seminar organized by the Ministry of the Environment.

Resolutions (2.8, 3.8 &) 4.9 On the implementation of conservation and management plan

This report presents efforts to implement this resolution.

Appendix 1. References and recent publications, including some articles promoting awareness on bats in Finland

(addenda to the bat bibliography in Finland's national report 2003, Inf.EUROBATS.AC8.23 are marked with *)

* Erkinaro, M. 2005 a: Kellareissa nukutaan talvisin [They sleep in cellars in the wintertime].

– Kaleva 13.3.2005: 32

* Erkinaro, M. 2005b: Lahden lepakot. Kartoitus 2003 ja suuntaviivoja tulevaisuuteen [Bats of the city of Lahti. Survey report, 2003, and guidelines for the future]. – Valvonta- ja ympäristökeskuksen tiedonantoja sarja A 2/2005. 21 pp. + 4 appendices.

* Hagner-Wahlsten, N. 2004: Våra fladdermöss - var håller de hus under vintern? [Our bats – where do they live in winter time?] – Finlands natur 2/04:18-20

* Hagner-Wahlsten, N. 2004: Rekommendationer om beaktande av fladdermössens habitatbehov vid uppgörandet av skötsel- och dispositionsplaner för landområden – baserat på case-studier i

- Nagu, Pargas, Halikko och Töfsala. [Recommendations for taking the habitat needs of bats into account in conservation and management plans for grove areas – based on case studies in Nagu, Pargas, Halikko and Töfsala]. Rapport till Forststyrelsen, 10.12.2004 [Report for the state enterprise on forestry, Metsähallitus]. 27 pp.
- * Kyheröinen, E.-M. 2004: Lepakoiden (Chiroptera: Vespertilionidae) elinympäristönvalinta ja saalistusaktiivisuus Etelä-Hämeen maisemamosaiikissa [Habitat selection and feeding activity of bats in the landscape mosaics of Southern Tavastland]. – Pro gradu -tutkielma. Bio- ja ympäristötieteiden laitos, Helsingin yliopisto [Master's thesis, University of Helsinki]. 50 pp. + 5 appendices.
- * Kyheröinen, E.-M., Vihervaara, P., Vehviläinen, H., Karhilahti, A., Aarnio, E., Lappalainen, M. & Kiviluoto, J. 2004: Observations of bat hibernation in their northernmost distribution area, in Finland. – A review of known hibernation sites and a case study of the phenological fluctuations of bat activity in Heikkilä cave. – Poster in 13th International Bat Research Conference. – P. 93 in: Programme and abstracts of 13th International Bat Research Conference. Poland, Mikolajki, 23. – 27. August 2004. Museum and institute of zoology PAS, Warszawa, 120 pp.
- Rassi, P., Alanen, A., Kanerva, T. & Mannerkoski, I. (Eds.) 2001: Suomen lajien uhanalaisuus 2000. Uhanalaisten lajien II seurantatyöryhmä (The 2000 Red List of Finnish Species, pp.385–390). – Ympäristöministeriö & Suomen Ympäristökeskus, Helsinki, 432 pp.
- Salovaara, K. 2001: Vaivaislepakko havaittu ensi kerran Suomessa [*Pipistrellus pipistrellus* observed for the first time in Finland]. – Luonnon Tutkija 105:130
- * Sierla, L., Lammi, E., Mannila, J. & Nironen, E. 2004: Direktiivilajien huomioon ottaminen suunnittelussa (Summary: How species listed in EU directives should be considered in planning processes). – Suomen ympäristö 742:1-113.
- * Siivonen, Y. 2003: Raision kaupungin lepakkokartoitus 2003. Kartoitusraportti. [Bat survey in the city of Raisio, 2003. Report]. 23 pp.
- * Siivonen, Y. 2004 a: Helsingin lepakkolajisto ja tärkeät lepakkoalueet vuonna 2003 [Bat species and important bat areas in the city of Helsinki, 2003]. Helsingin kaupungin ympäristökeskuksen julkaisuja 3/2004. 36 pp.
- * Siivonen, Y. 2004 b: Ikaalisten kaupungin lepakkokartoitus 2004 [Bat survey in the city of Ikaalinen, 2004]. Kartoitusraportti. Batcon group. 25 pp + 2 appendices.
- * Siivonen, Y. 2004 c: Nurmijärven lepakkokartoitus 2004. Kartoitusraportti [Bat survey in Nurmijärvi municipality, 2004]. Batcon Group. 24 pp. + 1 appendix.
- * Siivonen, Y. & Wermundsen, T. 2003 a: Distribution of Nathusius' Pipistrelle *Pipistrellus nathusi* (Keyserling & Blasius, 1839) in Finland. – Studia Chiropterologica 3-4:43-47
- Siivonen, Y. & Wermundsen, T. 2003 b: First records of *Myotis dasycneme* and *Pipistrellus pipistrellus* in Finland. – Vespertilio 7: 177-179
- Stjernberg, T. 1996: Fransfladdermusen i östra Fennoskandien. – In: Gärdenfors, U., Carlson, U. (Eds.): Med huvudet före. Festskrift till Ingemar Ahlén's 60-årsdag. – Sveriges lantbruksuniversitet, Institutionen för viltekologi. Rapport 33:56-62
- Stjernberg, T. 1998: *Myotis nattereri* [Natterer's bat]. – Pp. 185-186 in: Kotiranta, H., Uotila, P., Sulkava, S. & Peltonen, S.-L. (Eds.): Red data book of East Fennoscandia. Ministry of the Environment, Finnish Environment Institute, Botanical Museum, Finnish Museum of Natural History. Helsinki.
- Vihervaara, P., Vehviläinen, H., Karhilahti, A. & Lappalainen, M. 2003: Talvehtiva ripsisiippa Turussa [A hibernating *Myotis nattereri* in Turku]. – Luonnon Tutkija 107:19–20
- * Vihervaara, P. 2004 a: Turun ja Kaarinan Natura 2000 -alueiden lepakkokartoitus 2003 [Bat survey in Natura 2000 - areas in the municipalities of Turku and Kaarina]. – Turun kaupunki, Ympäristönsuojelutoimisto, julkaisuja 1/2004. 28 pp.
- * Vihervaara, P. 2004 b: Lepakoiden (Chiroptera: Vespertilionidae) alueelliseen ja ajalliseen vaihteluun vaikuttavat tekijät Saaristomerellä ja Varsinais-Suomessa sekä niiden huomioon ottaminen luonnonsuojelussa [Factors affecting the spatial and temporal variation in bat occurrence in the Archipelago Sea and South-Western Finland and taking these into consideration in nature conservation]. – Tutkielma. Turun yliopisto, Biologian laitos [Master's thesis, University of Turku]. 55 pp + 4 appendices.
- * Wermundsen, T. & Siivonen, Y. 2004: Distribution of *Pipistrellus* species in Finland. – *Myotis* 41-42: 93-98.