

AGREEMENT ON THE CONSERVATION OF BATS IN EUROPE

National report on the implementation of the agreement in Estonia during 2000—2001

A. General information

Name of country: Republic of Estonia

Period covered by this report: 2000—2001

Place and date of report: Tartu, 12 April 2002

Competent authorities: Department of Nature Conservation of the Estonian Ministry of Environment in co-operation with the Estonian Bat Group of Sicista Development Centre

Member of the Panel of the Agreement: Dr. Matti Masing

Composer of this report: Dr. Matti Masing

B. Status of bats in Estonia

11 species of bat have been found in Estonia so far (table). 2—4 more species can probably occur which inhabit near southern border of Estonia.

Table. Bat species and rough estimates of their populations in Estonia (ref. Masing, 2001)

Species	Estonian name	Distribution pattern	Frequency estimate	Population size	Season of occurrence in Estonia
<i>M. dasycneme</i>	tiigilendlane	local	relatively rare	5000—10000	All year round
<i>M. daubentonii</i>	veelendlane	widespread	common	20000—40000	All year round
<i>M. brandtii</i>	brandti lendlane	local	relatively common	10000—20000	All year round
<i>M. mystacinus</i>	habelendlane	local	rare	1000—3000	All year round
<i>M. nattereri</i>	nattereri lendlane	local	rare	2000—5000	All year round
<i>P. auritus</i>	pruun-suurkõrv	widespread	common	30000—50000	All year round
<i>P. nathusii</i>	pargi-nahkhiir	widespread	common	20000—40000	From May till September
<i>P. pipistrellus</i>	kääbus-nahkhiir	local	rare	1000—3000	From May till September

E. nilssonii	põhja-nahkhiir	widespread	very common	100000—300000	All year round
V. murinus	hõbe-nahkhiir	local	rare	1000—3000	From May till September
N. noctula	suurvidevlane		rare	2000—5000	From May till September

C. Progress in Estonia towards joining the Agreement

In May 2001 Peter Lina visited Estonia, and in connection with this a special meeting was held in the Estonian Ministry of Environment in Tallinn concerning the Agreement.

During 2000—2001 members of Estonian Bat Group (Matti Masing, Lauri Lutsar & Kaja Lotman) had special discussions on bat research and bat conservation with the authorities of nature conservation in Tallinn (Riinu Rannap & Hanno Zingel) as well as in some counties (Hiiumaa, Läänemaa, Harjumaa).

The Agreement has been reviewed in press as well as in electronic media (Masing, 2000, 2001).

D. Measures to implement Article III of the Agreement

Legislation

Legislation about nature conservation, incl. bats, can be found on the following Internet sites (mostly in Estonian): <http://www.envir.ee/loodus/>, <http://seadus.ibs.ee/aktid/rk.s.19950628.48.1996aktid/rk.s.19940601.376.19940709.html>, <http://seadus.ibs.ee/aktid/rk.s.19981118.105.19981221.html>, <http://www.riigiteataja.ee/m/m415.html>, <http://www.miksike.ee/lingid/Oppematerjal/Uhiskond/Seadused/Lingid/>, <http://www.ee/www/Riik/Seadused/>, <http://www.andmevara.ee/estlex/>, <http://www.tallinn.ee/keskkond/seadused/>, etc.

All species of bat are legally protected in Estonia since 1958. Larger hibernation colonies of bats in artificial caves (underground parts of fortifications and abandoned mines) are specially protected at Piusa, southeast Estonia since 1981 and around Tallinn since 1989. Summer habitats of bats are generally protected in several nature reserves.

Implementation of bat conservation measures

The level of implementation of bat conservation measures is still poor in Estonia. In most places the practical measures undertaken are insufficient to support hibernation colonies. In years 2000 and 2001 bat conservation research at hibernation sites has been funded in some counties of Estonia for the first time (see the list of events and the list of projects below). In year 2001 special work has been done to map some of the important bat sites for the Natura 2000 network, and a small project was funded to map the known sites of *Myotis dasycneme* in Estonia.

The situation with bat research in Estonia

There has been almost no support from the government and no support at all from private sector or companies for bat research in Estonia between 1996—1999. Since 2000 the situation has somewhat improved, although the shortage of resources is still a major obstacle in gaining bat-related knowledge. Bat-scientists are traditionally not paid for their expert work in accordance with their contribution to bat science and bat conservation. In fact the situation with conservation research is even poorer in other groups of officially protected animals in Estonia like Flying Squirrel, non-flying small mammals, amphibians etc.

E. Bat-related events in Estonia in 2000

1. Regular bat counts in winter and summer monitoring sites under project “Bats” of the National Environmental Monitoring Programme (Matti Masing, Vello Keppart, Kaja Lotman & Lauri Lutsar).
2. Fieldwork of the project “The inventory of bats in winter in Hiiumaa County” (March 2000; Matti Masing).
3. First study of hibernating bats in Naissaare Island (March 2000; Matti Masing & Lauri Lutsar).
4. Public Bat Night in Tartu (22 June 2000; organized by Matti Masing).
5. Renovation of doors of bat hibernation cellars at Suuremõisa (Hiiumaa) and at Raadi (Tartu), and special events dedicated to this activity (October 2000).
6. Fieldwork of the project “The inventory of bats in winter in Läänemaa County” (November 2000; Kaja Lotman, Lauri Lutsar & Matti Masing).

F. Bat-related projects in Estonia in 2000

1. Project “Bats” of the National Environmental Monitoring Programme (Matti Masing, Vello Keppart, Kaja Lotman & Lauri Lutsar).
2. The inventory of bats in winter in Hiiumaa County (March 2000; Matti Masing).
3. The inventory of bats in winter in Läänemaa County (November 2000; Kaja Lotman, Lauri Lutsar & Matti Masing).

G. Bat-related events in Estonia in 2001

(Extract from the *Eptesicus* Newsdesk, www.hot.ee/sicista/eptesicus, October 2001)

Connected with the “International Year of the Bat 2001”, the First Baltic Bat Detector Workshop and the increasing activities of bat-workers in Estonia (because of the start of regular financial support to the local bat projects since 2000) many bat-related events were carried out by the Estonian Bat Group in 2001.

1. International expedition to the bat hibernation sites of northwestern Estonia (03—18 March 2001; Matti Masing, Kaja Lotman, Yrjö Siivonen, Mikko Erkinaro & Eeva-Maria Tidenberg & Seppo Neuvonen).
2. Regular bat counts in winter monitoring sites under project “Bats” of the National Environmental Monitoring Programme (March 2001; Matti Masing and Lauri Lutsar). The counting of bats in Piusa caves gave a record value of 4,573 bats in six caves which is the largest aggregation of hibernating bats known in northern Europe.
3. Fieldwork of the project “The inventory of bats in winter in Läänemaa County” (March 2001).
4. The first official meeting of the Estonian Bat Group with the authorities of nature conservation in Estonia, Tallinn, 9 May 2001; Kaja Lotman, Lauri Lutsar, Matti Masing & Riinu Rannap).
5. Participation in the First Baltic Bat Detector Workshop, Zhemaitia, Lithuania, 16-20 May 2001 (Matti Masing, Lauri Lutsar, Eve Roos, Maili Palubinskas & Tiia Möller).
6. Peter Lina’s visit to Estonia, 21-23 May 2001, incl. Bat-Night over Kasari River and search for *Myotis dasycneme* near northern coast (guided by Kaja Lotman, Lauri Lutsar & Matti Masing).
7. Official meeting of Peter Lina, the authorities of nature conservation in Estonia (Hanno Zingel & Riinu Rannap) and members of Estonian Bat Group (Kaja Lotman, Lauri Lutsar & Matti Masing) in Tallinn on 22 May 2001.
8. Regular bat counts at eight summer monitoring stations (16 June – 10 July, project “Bats” of the National Environmental Monitoring Programme; Matti Masing, Vello Keppart, Kaja Lotman & Lauri Lutsar).
9. Public Bat–Day in Tartu, 20 June 2001 (guided by Lauri Lutsar & Matti Masing).
10. Bat-Night at Kirna near Puurmani. Learning echolocation calls of *Vespertilio murinus* at Pedja River, 21 June 2001 (guided by Lauri Lutsar, for the members of Estonian Bat Group; Lauri Lutsar, Matti Masing, Eve Roos & Maili Palubinskas).
11. Bat-Night at Vissi near Peedu, 22 June 2001 (guided by Talis Markovskis & Matti Masing, for the members of Estonian Bat Group; Lauri Lutsar, Matti Masing & Eve Roos).
12. Public Bat–Day in Pärnu, 12 July 2001 (guided by Matti Masing; Matti Masing, Eve Roos & Merike Palginõmm).
13. Bat-Night around Omedu and Alatskivi, 17 July 2001 (guided by Mrs. Vaarma & Matti Masing, for the members of Estonian Bat Group; Lauri Lutsar, Matti Masing, Eve Roos & Mikk Vaarma).
14. Public event “Nightlife in Suuremõisa park” (Hiiumaa), 23 August 2001 (guided by Matti Masing).
15. International expedition to the bat hibernation sites of northern Estonia (10—11 November 2001; Matti Masing, Lauri Lutsar, Yrjö Siivonen, Mikko Erkinaro & Terhi Wermundsen).

16. First Estonian Bat Conference – Tartu, 12 December 2001 (with oral presentations by Linda Poots, Matti Masing, Lauri Lutsar, Eve Roos & Tiia Möller).

H. Bat-related projects in Estonia in 2001

Review of important sites of bats, amphibians and reptiles in Tartu, May 2001 (Matti Masing, for Tartu Loodusmaja).

Observation of bats in northern Tartu, since June 2001 (Eve Roos).

Observation of bats at Häädemeeste, since August 2001 (Maili Palubinskas).

Observation of bats at Melliste, since August 2001 (Tiia Möller).

Observation of bats in southeastern Tartu, since September 2001 (Matti Masing).

“Pond Bat – a species of special interest under Natura 2000”, July – September 2001 (Lauri Lutsar & Matti Masing, project “Natura 2000”).

“Small mammals of Hiiumaa Island, 2001”, August 2001 (Matti Masing).

“Small mammals on the islets of Saarnaki and Hanikatsi”, August 2001 (Matti Masing, to Hiiumaa Islets Landscape Reserve).

“The inventory of hibernating bats in Harjumaa County”, November 2001 (Matti Masing & Lauri Lutsar).

“A review of Estonian bats”, November 2001 (Matti Masing, to the Department of Nature Conservation of the Estonian Ministry of the Environment).

I. Bats in Radio and on TV in Estonia in 2001

20 June 2001: Information about Public Bat–Day in Tartu (Radio Tartu).

12 July 2001: Information about Public Bat–Day in Pärnu (Radio Kuku).

21 October 2001: A short film about bat sites at Aruküla and Piusa (Estonian TV).

December 2001: information about the Estonian bat conference (Vikerraadio).

J. Manuscripts (2000—2001)

Masing, M. 2000. Nahkhiirte talvituspaigad Hiiumaal, 1977—2000. – Nahkhiirte Uurimise Töörühm, Sicista Arenduskeskus. Tartu, 88 lk. (käsikiri)

Masing, M. (koostaja) 2000. Nahkhiirte talvituspaigad Läänemaal, 1975—2000. – Nahkhiirte Uurimise Töörühm, Sicista Arenduskeskus. Tartu, 67 lk. (käsikiri)

Masing, M. 2000. Nahkhiirte talvituspaikade inventeerimine Hiiumaal novembris 1999 ja märtsis 2000. Tartu, 12 lk. (käsikiri)

Masing, M. (koostaja) 2000. RKSP Seireprojekti "Nahkhiired" esimese seire-viisaastaku (1995—1999) töö kokkuvõte. Riiklik Keskkonnaseire Programm, Tartu, 45 lk. (käsikiri)

Masing, M. (koostaja) 2000. Seireprojekti "Nahkhiired" 2000. aasta töö kokkuvõte. Riiklik Keskkonnaseire Programm, Tartu, 63 lk. (käsikiri)

Masing, M. & Lutsar, L. 2000. Nahkhiirte talvitumisest Naissaarel 2000. a. märtsis. Tartu, 5 lk. (käsikiri)

Masing, M. (koostaja) 2001. Eesti nahkhiirte ülevaade. – Nahkhiirte Uurimise Töörühm, Sicista Arenduskeskus. Tartu, 44 lk. (käsikiri)

Masing, M. 2001. Kahepaiksed, roomajad ja nahkhiired Tartu linnas. Tartu, 10 lk. (käsikiri)

Masing, M. 2001. Pisiimetajad Hiiumaal (1982—2001). Sicista Arenduskeskus, Tartu, 66 lk. (käsikiri)

Masing, M. 2001. Pisiimetajad Saarnakil ja Hanikatsil 2001. a. Sicista Arenduskeskus, Tartu, 11 lk. (käsikiri)

Masing, M. (koostaja) 2001. Seireprojekti "Nahkhiired" 2001. aasta töö kokkuvõte. Riiklik Keskkonnaseire Programm, Tartu, 49 lk. (käsikiri)

Masing, M. & Lotman, K. 2001. Nahkhiirte talvituspaikade inventeerimine Läänemaal 2001. a. märtsis. Sicista Arenduskeskus, Tartu, 33 lk. (käsikiri)

Masing, M. & Lutsar, L. 2001. Nahkhiirte talvituspaikade inventeerimine Harjumaal 2001. a. novembris. Sicista Arenduskeskus, Tartu, 81 lk. (käsikiri)

K. Publications (2000—2001)

K1. Abstracts of the First Estonian Bat Research Conference, Tartu, 12 December 2001

Lutsar, L. 2001. Uued nahkhiireliigid Rāpinas, 2001. – Masing, M. (koostaja). Esimene Eesti Nahkhiireuurimise Konverents. Kava ja teesid. Nahkhiirte Uurimise Töörühm, Tartu, 5.

Masing, M. (koostaja) 2001. Esimene Eesti Nahkhiireuurimise Konverents. Kava ja teesid. – Nahkhiirte Uurimise Töörühm, Tartu, 7 lk.

Masing, M. 2001. Nahkhiirte aktiivsusest Tartus, sügisel 2001. – Masing, M. (koostaja). Esimene Eesti Nahkhiireuurimise Konverents. Kava ja teesid. Nahkhiirte Uurimise Töörühm, Tartu, 7.

Masing, M. & Poots, L. 2001. Nahkhiirte uurimisest Eestis 55 aasta jooksul, 1946—2000. – Masing, M. (koostaja) 2001. Esimene Eesti Nahkhiireuurimise Konverents. Kava ja teesid. Nahkhiirte Uurimise Töörühm, Tartu, 3.

Möller, T. 2001. Nahkhiirte detektor-loendusest Mellistes, 2001. – Masing, M. (koostaja). Esimene Eesti Nahkhiireuurimise Konverents. Kava ja teesid. Nahkhiirte Uurimise Töörühm, Tartu, 6.

Poots, L. & Masing, M. 2001. Suur-nahkhiir (*Vespertilio murinus*) Tartumaal. – Masing, M. (koostaja). Esimene Eesti Nahkhiireuurimise Konverents. Kava ja teesid. Nahkhiirte Uurimise Töörühm, Tartu, 4.

Roos, E. 2001. Nahkhiirte detektor-loendusest Tartus, 2001. – Masing, M. (koostaja). Esimene Eesti Nahkhiireuurimise Konverents. Kava ja teesid. Nahkhiirte Uurimise Töörühm, Tartu, 5—6.

K2. Scientific papers published on paper elsewhere

Lutsar, L., Masing, M. & Poots, L. 2000. Changes in the numbers of hibernating bats in the caves of Piusa (Estonia), 1949—1999. – *Folia Theriologica Estonica*, 5, 101—117.

Masing, M. 2000. Counting small terrestrial animals in Estonia over 50 years: amphibians, reptiles, hedgehogs, bats etc. – 7th Nordic Herpetological Symposium, 15—17 August 2000. [Abstracts]. Romerike, Norway.

Masing, M., Lutsar, L. & Lotman, K. 2000. Monitoring bats (*Chiroptera, Vespertilionidae*) in summer habitats in Estonia 1995—1999. – *Folia Theriologica Estonica*, 5, 118—130.

K3. Selected electronic publications on bats, scientific (in English)

Masing, M. 2001. Bat research in Hiiumaa Island in 1999—2000. – *Eptesicus*, electronic newsletter on boreal bats, 1, topic 2.6. (www.hot.ee/sicista/eptesicus)

Masing, M. 2001. Notes on the nomenclature of Vespertilionid bats (*Chiroptera, Vespertilionidae*) concerning the two phonic species of *Pipistrellus pipistrellus* s.l. in Europe. – *Eptesicus*, electronic newsletter on boreal bats, 1, topic 2.4. (www.hot.ee/sicista/eptesicus)

Masing, M. 2001. Observations of bats above the Baltic Sea. – *Eptesicus*, electronic newsletter on boreal bats, 1, topic 2.3. (www.hot.ee/sicista/eptesicus)

Masing, M. 2001. The 45 kHz pipistrelle (*Pipistrellus pipistrellus* s.str.) found in Estonia. – *Eptesicus*, electronic newsletter on boreal bats, 1, topic 2.5. (www.hot.ee/sicista/eptesicus)

K4. Other publications on paper

Anonymus (BNS-SL). 2000. Nahkhiired ohus. – *Sõnumileht*, 14.3.

Anonymus (ETA). 2000. Turistid ohustavad Piusa nahkhiiri. – *Postimees*, 14.3.

Masing, M. 2000. Eesti esimesed nahkhiirekeldrid – oktoober 2000. *Sicista* voldik nr. 15, Tartu, 6 lk.

Masing, M. 2000. Häid tegusid Supilinnas. – *Linnaleht/Tartu*, 15.6.

Masing, M. 2000. Loodusesõprade suvekursus Lahemaal. – *Tartu Valla Kuukiri*, 8 (45), 6—7.

Masing, M. 2000. Nahkhiireöö Lähtel. – *Tartu Valla Kuukiri*, 9 (46), 12.

Masing, M. 2000. Piusa: koopad, nahkhiired ja looduskaitse. *Sicista* voldik nr. 2a, Tartu, 6 lk.

Masing, M. 2000. Piusa: the caves, bats and nature conservation. *Sicista* leaflet no. 2aE, Tartu, 6 pp.

Masing, M. 2000. Raadil Eesti esimene korrastatud nahkhiirte kelder. – *Linnaleht/Tartu*, 26.10.

Masing, M. 2000. *Sicista* Arenduskeskus: 1999. a. tulemused. *Sicista* voldik nr. 11, Tartu, 6 lk.

- Masing, M. 2000. Sicista Development Centre: the results of 1999. Sicista leaflet no. 11E, Tartu, 6 pp.
- Masing, M. 2000. Sicista Arenduskeskus 2000. Sicista voldik nr. 12, Tartu, 6 lk.
- Masing, M. 2000. Sicista Development Centre 2000. Sicista leaflet no. 12E, Tartu, 6 pp.
- Masing, M. 2000. Wildlife exploration in Estonia 2000/2001. Sicista leaflet no. 18E, Tartu, 6 pp.
- Masing, M. 2001. Looduses elavad loomad pole kauplemiseks. – Linnaleht/Tartu, 25.10.
- Masing, M. 2001. Loodusesõprade kalender 2001, I poolaasta. – Tartu Valla Kuukiri, 12 (61), 7—8.
- Masing, M. 2001. Nahkhiireaasta konverents. – Postimees/Tartu, 10.12.
- Masing, M. 2001. Nahkhiired talvel [Bats in winter] (in Estonian). Sicista Development Centre, superleaflet no. 1.
- Masing, M. 2001. Nahkhiirte tundmaõppimine heterodüün-detektoriga [Learning bats using a heterodyne detector] (in Estonian). Sicista Development Centre, leaflet no. 19.
- Nuust, V. & Masing, M. 2001. Nahkhiir üritas talvituda korteri elutoas [A bat tried to hibernate in a room in Tartu (about *Vespertilio murinus*)] (in Estonian). – Tartu Postimees, 17.10.

L. Electronic newsletters on bats in 2001

Eptesicus no. 1, January 2001 – www.hot.ee/sicista/eptesicus.

(the end of report)