



## **EUROBATS**

### **EUROBATS National Implementation Report MoP9**

This questionnaire reflects obligations of the Parties listed in Resolution 8.11 Implementation of the Conservation and Management Plan (2019 - 2022) and other effective Resolutions.

In case of technical issues and questions, please use a support center button in the bottom before contacting the Secretariat.

## A. General Information

Name of your country

>>> Estonia

Period covered by this report

>>> 2019-2021

Is your country a party to EUROBATS Agreement?

Yes

Competent authority

Title, address, phone, fax, e-mail and other contact details

>>> Ministry of Environment

Keskkonnaministeerium

Paldiski mnt 96,

Tallinn 13522

Maris Pärn, maris.parn@envir.ee

Personal details of administrative focal point (s)

>>> Kaja Lotman Environmental Board kaja.lotman@keskkonnaamet.ee +3725247899

Please give details of designated scientific focal points

>>> Maris Pärn Ministry of Environment, Department of Nature Conservation

Compilers and contributors to this report

>>> Kaja Lotman and Maris Pärn

### Bats species which occur in the territory

Please select only species which were recorded from your country

**Species: Eptesicus nilssonii (Keyserling & Blasius, 1839)**

### Status of the species within the territory

Status of occurrence

Please give details if the species is not resident. E.g. year of extinction, description of occasional findings etc. Text boxes are expandable.

Resident: breeding

Resident: hibernation

### Conservational status

Overall national trend

Stable

Status in the National Red List

Please indicate status of the species in the national red data list or similar document

>>> LC

Year of the Red List assesment

>>> 2020

### Natura2000 or Emerald reports

Has the national status reported under the Article 17 of the Habitat Directive(2019) or for the Emerald network (non-EU countries) changed since the previous assessment?

Yes

If yes, explain reasons for changes or provide a link to the report

>>> [https://loodusveeb.ee/sites/default/files/inline-files/elk\\_2020\\_est.pdf](https://loodusveeb.ee/sites/default/files/inline-files/elk_2020_est.pdf)

## **Species: Myotis brandtii (Eversmann, 1845)**

### **Status of the species within the territory**

Status of occurrence

Please give details if the species is not resident. E.g. year of extinction, description of occasional findings etc. Text boxes are expandable.

Resident: breeding

## **Species: Nyctalus noctula (Schreber, 1774)**

### **Status of the species within the territory**

Status of occurrence

Please give details if the species is not resident. E.g. year of extinction, description of occasional findings etc. Text boxes are expandable.

Resident: breeding

Other

>>> Good conditions

### **Conservational status**

Overall national trend

Stable

Year of the Red List assesment

>>> 2020

### **Natura2000 or Emerald reports**

Has the national status reported under the Article 17 of the Habitat Directive(2019) or for the Emerald network (non-EU countries) changed since the previous assessment?

Yes

If yes, explain reasons for changes or provide a link to the report

>>> No change

<https://nature-art17.eionet.europa.eu/article17/species/report/?period=5&group=Mammals&country=EE&region=>

## **1. Legal Requirements**

### **Resolution 4.6. Guidelines for the issue of permits for the capture and study of captured wild bats**

Does the system of permits or licenses for the capture of bats exist in your country?

Yes

System of permits or licences for the keeping of bats for educational or animal welfare purposes

In place

System of permits or licences for sampling, ringing, killing of bats for scientific study

Exists

Comments

>>> <https://www.riigiteataja.ee/en/eli/515112018002/consolide>

### **Resolution 6.5. Guidelines on ethics for research and field work practices**

National Code of Practice that addresses the context and legitimacy of acquisition, due diligence, long-term care, documentation, relevance and institutional aims

Exists

Please give details or provide links

>>> <https://www.riigiteataja.ee/en/eli/ee/Riigikogu/act/527122021007/consolide>

Please, give details of the legislation which is protecting bats

>>> <https://www.riigiteataja.ee/en/eli/ee/Riigikogu/act/513072022001/consolide>

Which species are not protected and why?

>>> The species that are not in the list of mammals of Estonia

## 2. Population survey and monitoring

### Resolution 2.2. Consistent monitoring methodologies

Implementation of EUROBATS guidelines published in EUROBATS Publication n°5 to ensure consistency and information exchange between Parties and Range States

Yes

Please give details

>>> In order to detect changes in distribution, range and abundance and provide long-term population trends there is worked out national monitoring system for bats which consists monitoring of winter hibernation sites, summer transects (from 1994) and species survey in 10 km UTM squares. Data is collected to the EELIS (Estonian Environmental Data System) and analysed by the Environmental Board and Environmental Agency.

### Resolution 5.4. Monitoring bats across Europe

Involvement in a long-term pan-European surveillance to provide trend data

Yes

#### Involvement details

Please, give details of involvement

>>> Estonia is providing data on bat population status by reporting in frames of Habitat Directive.

Awareness-raising of the importance of underground sites

Yes

Collaboration and information exchange with other Parties and range states on surveillance and monitoring activities

Yes

Please provide details

>>> Experts and officials are in close contact with Latvian colleagues share information through official webinars or personal contacts. In frames of LIFE EstBat project there was started close contacts with experts in the Neatherlands.

Monitoring bats in accordance with EUROBATS Publication n°5

Yes

Capacity building of bat workers and surveyors to support the undertaking of bat surveillance projects

Exists

Other activities under Resolution 5.4.

>>> Estonia and Latvian colleagues have shared information on windparks monitoring scemes and survey methods on marine areas in 2022. Information on monitoring of underground roosts have been shared with the Neaderland experts and Latvian experts in 2019 and 2020.

There have been some high school and universities students research works on bat topics:

Aru, Marianne. „Maastikumuutused nahkhiirte talvituspaikade ümbruses“, 2020. Lõputöö, Tallinna

Tehnikakõrgkool (Landscape changes around the wintering sites of bats)

Piiskoppel, Tiit. „Parkide tähtsus Eesti nahkhiirte asurkonnale“, 2020. Räpina aianduskool (Importance of parks to bat populations in Estonia).

Truu, Murel. „Nahkhiiremoodul puitsõrestikseinas. Uudse piirdetarindi tootearenduse protsessi kirjeldus“,

2020. Kursuseprojekt. Tallinna Tehnikaülikool (The model of artificial roosts for bats in wooden walls of houses)

### Resolution 6.13. Bats as indicators for biodiversity

Does your country support a development of national, regional and pan-European biodiversity indicators

for appropriate target audiences, using bat data

Yes

Please provide details

>>> Bat data is used for example to introduce for public biodiversity in ecosystems:  
<https://greenmeter.eu/about-rohemeeter/>

Bat data is incorporated within high profile national multi-taxa indicators

Yes

Body in charge for gathering the data for these indicators

>>> Environmental Agency <https://keskkonnaagentuur.ee/en>  
[https://pmk.agri.ee/sites/default/files/uploads/sites/2/2017/01/KLV\\_metoodika\\_2016\\_PMK.pdf](https://pmk.agri.ee/sites/default/files/uploads/sites/2/2017/01/KLV_metoodika_2016_PMK.pdf)  
AGRICULTURAL RESEARCH CENTRE (ARC)  
Tartu University: <https://rohemeeter.ee/>, which is using the data of all possible species data platforms

Cooperation platforms that facilitate the required data exchange

Exist

Please specify or give links

>>> The species data is registered in different platforms which can exchange data: e-Elurikkus, PlutpF, Loodusvaatalused etc. There is still spce for improvements  
<https://elurikkus.ee/observations>

Other activities carried out under this resolution (optional)

>>> Agriculture and biodiversity. <https://heapold.ee/teemad/elurikkus/>

## **Resolution 7.7. Bat conservation and sustainable forest management**

National guidance has been developed based on the principles in the EUROBATS Bats and Forestry leaflet

No

Examples of best practice for forest management are submitted to the Secretariat

No

If no, provide explanations or give links to available examples

>>> Woodland Key Habitats are supported by state for privat forest owners and these are valuable for bats also  
<https://www.riigiteataja.ee/akt/13148925>

Research in forest management that is sustainable for bats (attach file or provide links)

>>> There is no such research

Other activities carried out under this resolution (optional)

>>> No other activities

## **Resolution 7.10. Bat Rescue and Rehabilitation**

Animal rescue and rehabilitation systems are effective in the country

Yes

Collaboration between bat rehabilitators and scientists

Exists

Provide examples of collaboration

>>> There is cooperation between Life Science University departement of Veterinay and Environmental Board

Bat rehabilitators submit their data to a national database

No

Other activities carried out under Resolution 7.10 (optional)

>>> The state aid telephone number 1247 have been worked out and the advising information was provided to the staff by the Environmental Board

## **Resolution 7.12. Priority species for autecological studies**

### **Priority Species**

**Rhinolophus blasii Peters, 1866**

Some studies have been conducted (are ongoing) for this species in the country

No

**Priority Species**

**Eptesicus isabellinus (Temminck, 1840)**

Some studies have been conducted (are ongoing) for this species in the country

No

**Priority Species**

**Myotis escaleraei Cabrera, 1904**

Some studies have been conducted (are ongoing) for this species in the country

No

**Priority Species**

**Nyctalus azoreum (Thomas, 1901)**

Some studies have been conducted (are ongoing) for this species in the country

No

**Priority Species**

**Nyctalus lasiopterus (Schreber, 1780)**

Some studies have been conducted (are ongoing) for this species in the country

No

**Priority Species**

**Pipistrellus hanaki Hulva & Benda, 2004**

Some studies have been conducted (are ongoing) for this species in the country

No

**Priority Species**

**Pipistrellus maderensis (Dobson, 1878)**

Some studies have been conducted (are ongoing) for this species in the country

No

**Priority Species**

**Plecotus kolombatovici Dulic, 1980**

Some studies have been conducted (are ongoing) for this species in the country

No

**Priority Species**

**Plecotus sardus Mucedda, Kiefer, Pidinchedda & Veith, 2002**

Some studies have been conducted (are ongoing) for this species in the country

No

**Priority Species**

**Plecotus teneriffae Barrett-Hamilton, 1907**

Some studies have been conducted (are ongoing) for this species in the country

No

**Resolution 8.3. Monitoring of daily and seasonal movements of bats**

**Studies on daily/seasonal movements**

References

Provide references to completed or ongoing studies on daily/seasonal movements of bats in your country in the text field below or attach a file

>>> Seasonal movements on marine areas is in process. The research is carried out by Lauri Lutsar from 2018

## **Resolution 8.4 Wind Turbines and Bat Populations**

Raising awareness on the impact of turbines on bats and the existence of some unsuitable habitats or sites for construction

Yes

If yes, how?

>>> In the process of planning of marine areas there have been introduced this topic for public in 2021

<https://leht.postimees.ee/6898206/mida-arvavad-loomad-ja-linnud-tuulikutest>

<https://loodusveeb.ee/et/themes/energeetika-ja-elurikkus/tuuleparkide-moju-elurikkusele>

<https://jupiter.err.ee/1149915/osoon-nahkhiired>

Are impact assessment procedures and post-construction monitoring undertaken by appropriately experienced experts?

Yes

Please, give details

>>> The reports have been accepted by the other experts who have given second opinion

National guidelines have been developed following Eurobats Pub. No. 6

No

National guidelines are implemented

Partially

Please, provide implementation details

>>> There are no such national guidelines but we use Eurobats guidelines and the new scientific information. The national guidelines are in the processe.

You have attached the following Web links/URLs to this answer.

[The impact of onshore wind parks on biodiversity and recommendations of the Estonian Environmental Board regarding their planning](#)

Investigations and research for mitigating bat mortality have been undertaken

Yes

Please, list references, attach reports and articles

>>> The investigations were made before 2019 and were reported in previous report

Post-construction monitoring, if possible, is undertaken by suitably experienced bat experts

If yes, give details

No

Developers of wind energy projects and responsible authorities make raw data from impact assessment and post-construction monitoring available for independent analysis.

No

Measures such as blade feathering, higher turbine cut-in wind speeds and shutting down turbines are implemented

No

Other activities carried out under Resolution 7.5 (optional)

>>> The national guidelines for investigations for impact assessment will be ready next year

## **Resolution 8.10 Recommended Experience and Skills of Experts with regard to Quality of Assessments**

### **Compliance with Annex to Resolution 8.10**

Experts/groups of experts carrying out assessment of projects, plans and programmes on populations of European bats meet the minimum standard of skills, knowledge and experience as described in the Annex

to Resolution 8.10

Yes, completely or partially

## If yes

Please provide details

>>> The expert teams minimum standard is to:

- Know and understand the legislation and the protection (and limits to protection) afforded to bats and how it is administered and comply with it;
- Be able to identify bat species;
- Know and understand species conservation status, range, and threats at the appropriate geographic levels;
- Know and understand the general aspects of physiology of bats including adaptations to flight, echolocation, torpor, hibernation and energetics;
- Know and understand the general aspects of ecology of bats – life cycles, local phenology, habitat selection, foraging behaviour and migration behaviour.

## 3. Roosts

### Resolution 4.5. Guidelines for the use of remedial timber treatment

Small projects to provide basic data to allow an assessment of the potential impact of industry on bat populations

No

Raising awareness of product users is taking place

No

Legislation on products which have any adverse effects on bats

Doesn't exist

### Resolution 5.7. Guidelines for the protection of overground roosts, with particular reference to roosts in buildings of cultural heritage importance

List of national important overground roosts (including legal/physical protection status)

Exists

Please, give details or links

You have attached the following documents to this answer.

[nahkhiirlaste\\_tk.pdf](#) - Action Plan of protection of Bats

National guidelines for custodians of historical buildings on the protection of bat roosts have been developed

Yes

### Resolution 7.6. Guidelines for the protection and management of important underground habitats for bats

List of important underground sites for bats and measures of their protection (including Natura 2000, Emerald or other status) was submitted to EUROBATS

Yes

Updated counts of bats at each listed site are submitted to the Secretariat

Yes

Management of important underground sites for bats is in accordance with EUROBATS Publication n°2

Yes

## 4. Habitats

Click "expand" to see the questions!

### Resolution 7.8. Conservation and management of critical feeding areas, core areas around colonies and commuting routes

Are national guidelines which are based on the general guidance given in EUROBATS Publication No. 9 are



developed and published? Please provide details or add a file.

>>> Will be provided in the new version of Action Plan for Bat Protection 2022-2025

Other activities carried out under this resolution (optional)

>>> Special exhibition about bats was erected in National Museum.

<https://www.loodusmuuseum.ee/en/exhibitions/terribly-adorable-bats>

## **Resolution 7.9. Impact of roads and other traffic infrastructures on bats**

Bats are taken into account during the planning, construction and operation of roads and other infrastructure projects

Yes

Please give details or attach a file with description

>>> In cases where bats roost or flights have been registered the research of impact for bats should be carried out.

Kalda, Oliver, and Rauno Kalda. „Nahkhiirte inventuur Mustakivi tee pikenduse ehitustööde mõjualas ja eksperthinnang“, 2020. Tellija: Tallinna Keskkonna- ja Kommunaalamet, Teostaja: OÜ Elustik (The bat inventory at area of Mustakivi road prolongation in Tallinn)

Pre-construction strategic and environmental impacts assessment procedures are mandatory

Required occasionally

Post-construction monitoring

Required occasionally

Raw data from environmental impact assessment and post-construction monitoring is available for independent scientific analysis

No

Research into the impact of new and, where appropriate, existing roads and other infrastructure on bats and into the effectiveness of mitigation measures

No

Other activities carried out under Resolution 7.9 (optional)

>>> Rail Baltic impact assesment [https://www.railbaltica.org/wp-content/uploads/2021/08/RB-Tootsi\\_P%C3%A4rnu-KMH-programm-ja-Lisa-1.pdf](https://www.railbaltica.org/wp-content/uploads/2021/08/RB-Tootsi_P%C3%A4rnu-KMH-programm-ja-Lisa-1.pdf)

## **Resolution 8.6. Bats and Light Pollution**

Is national guidance taking due account of the EUROBATS Publication Series No. 8 on Bats and Light Pollution developed and promoted? If yes, please give details or attach a file.

>>> The national guidance for Environmental Board is to accept EUROBATS guidance

## **5. Promoting Public Awareness of Bats and their Conservation and Providing Advice**

Click "expand" to see the questions!

International Bat Night. Give details for each year: number of events and number of people participated

>>> 2019 5 excursion or public walks appromtely 100 people

2020 was a bat year in Estonia and bat excursions appromtely 300 people

2021 3 excursions 100 people

Details of other important activities which are worth to mention (educational centres, etc.)

>>> The permanent exhibition in National Nature Museum was erected

<https://www.loodusmuuseum.ee/en/exhibitions/terribly-adorable-bats>

Exhibitions and media

Exhibitions: Interactive and multilingual exhibition „Terribly adorable bats“ was opened in 2020 in the Estonian Museum of Natural History (EMNH) and it was open until the end of 2021. In the autumn-winter

of 2020 EMNH organised a multilingual outdoor poster exhibition

„Superpowerful Bat“ in the central park of Tallinn and that exhibition

started to travel around Estonia. Copy of that poster exhibition is

permanently put up into Piusa Visitor Centre. EMNH also held a separate

exhibition of Bat Photos.

Campaigns: During the year 2020, in cooperation with Estonian

Theriological Society was organised an awareness rising campaign

„Bat – Animal of the Year 2020“. About 1300 articles were published, among them about 130 directly linked to the project. Many times experts broadcasted in TV or radio. Estimated auditorium reached was close to 5,5 million. Among other events a very popular competition of bat bed-time stories was organised.

Bat-Camera: Wintering Pond Bats in online way showing nature camera has been working in Piusa wintering site for two winters. In cooperation with portal looduskalender.ee there is set an internationally very popular web-forum attached to the online Pond Bat web camera. Bat-Camera streams have been watched more than 62 500 times.

Website: Since the start of the project website in three languages is working at the url: [elfond.ee/bat](http://elfond.ee/bat)

Trainings, Camps, Bat-Days, Bat-Nights and knowledge sharing Voluntary camps: 8 camps, more than 140 participants. 6 camps for cleaning wintering sites from trash (in total 25 tons of trash). Camp for closing illegal cavity in Vääna-Posti and camp for building wooden bat boxes in Soomaa.

Bat-Nights: 24 Bat-Nights all over the Estonia. More than 700 persons trained on bats.

Training of nature guides: 2 trainings with theory and practice. More than 40 nature guides trained all over the Estonia. Training material on bat biology was prepared for outdoor use and distributed to nature guides as well as for nature schools and centres around Estonia.

Bat-Days: 3 Bat-Days for local stakeholders around project sites were held (for Piusa in 2019, for Vääna in 2019 and for Ülgase virtually in 2021. Every Bat-Day had at least 40 participants.

International knowledge sharing: 3 times bat experts participated in EUROBATS AC meetings – 2018 in Tallinn, 2019 in Skopje and 2021 virtually. Experiences were shared also on training-trip to the Netherland.

At Vääna-Humala wintering site: large information board with information in three languages at the edge of the protected area; 9 small information plates on fences around 9 entrance area, with most important information in three languages.

Vääna-Posti wintering site: : large information board with information in three languages at the largest entrance area; 6 small information plates on fences around 4 entrance area, with most important information in three languages

Ülgase wintering site: large information board with information in three languages at the edge of protected area; 7 small information plates on fences around 6 entrance area, with most important information in three languages

Piusa wintering site: large information board near visitor centre, with information in three languages and map of the area; 10 small information plates on fences around 8 entrance area, with most important information in three languages.

[https://media.voog.com/0000/0037/1265/files/ELF\\_Layman\\_nahkhiired\\_A6\\_ENG\\_web.pdf](https://media.voog.com/0000/0037/1265/files/ELF_Layman_nahkhiired_A6_ENG_web.pdf)

Information on training and awareness raising for forest managers and workers, farmers, road workers, stakeholders involved in insulation of buildings, etc.

>>> The guidance materials for rescue information centre (rescue telephone number 1247) workes where worked out <https://keskkonnaamet.ee/elusloodus-looduskaitse/looduskaitse/hattasattunud-metsloom>

#### **Resolution 4.11. Recognising the important role of NGOs in bat conservation**

Details of NGOs participating in /contributing to bat protection and most valuable activities that have the potential to substantially improve transboundary cooperation and mutual assistance

>>> NGO Estonian Fund for Nature was supported to arrange LIFE project EstBat <https://elfond.ee/bats/the-project>

#### **Resolution 8.13. Insect Decline as a Threat to Bat Populations in Europe**

Awareness of the multiple ecological services provided by bats, especially for the agricultural sector and regarding the concerns about the published evidence of dramatic loss of insect biomass in open land is raised with land managers and other stakeholders.

Please, give details

>>> <https://novaator.err.ee/909713/uuring-kaimas-on-putukate-massiline-valjasuremine>

## 6. Insect declines

### Resolution 8.13. Insect Decline as a Threat to Bat Populations in Europe

Activities to encourage and support scientific research on the impact of the insect decline on bat populations

Please give details of such activities.

>>> no activities

Requirements to ensure that bats are being considered in pesticide risk assessments

Please describe these requirements, in case they exist

>>> Helth Board in in chrg to control the chemicals use and production: <https://www.terviseamet.ee/en>

Describe measures to avoid the use of pesticides, particularly those problematic for bats and their food resources, in and around important areas for bat conservation

Please give details in case such measures have taken place

>>> There is no specific regulation regarding bats. There is a protection zone around waterbodies where agricultural activities are forbidden and the inspection of use hazardous agricultural chemicals is arranged by Agriculture and Food Board.

## 7. International co-operation

Implementation of Resolutions 7.10, 7.12, 8.3, 8.7

Please give information on the international cooperation with the aim of implementing the recommendations of Resolutions 7.10, 7.12, 8.3, 8.7.

>>> There is close cooperation with bird banding centre and bat researches. The banding bats takes place every year but 2019-2021 there have no recoveries from abroad.

Cooperation have been successful with Latvian and Finnish colleques. There has bee cooperation with the experts in the Neatherlans in order to learn best practices to protect winter roosts 2019-2021.

## 8. Diseases

Click "expand" to see the questions!

### Resolution 5.2. Bat rabies in Europe

National bat rabies surveillance network

No

Vaccination of risk groups against rabies is compulsory

No

Details of the institution(s) in charge of recording of all test results and their submission to the World Health Organisation

>>> Helth Board <https://www.terviseamet.ee/en>

Other activities carried out under this resolution (optional)

>>> The researcher are informed about possible danger. Regulation about rabies avoidance:

<https://www.riigiteataja.ee/akt/111122019011>

### Resolution 6.6. Guidelines for the prevention, detection and control of lethal fungal infections in bats

Surveillance for the presence of fungal infections

Yes

Please provide details

>>> The presence of fungal infections as white nose syndrome is monitored in frames of winter roost monitoring schem.

## 9. EUROBATS Projects Initiative (EPI)

Donations to Eurobats Project Initiative

Has your country provided funding to EPI? Please give details below.

>>> no

## **10. Climate change**

### **Resolution 8.7. Bats and Climate Change**

#### Resolution 8.7 Bats and Climate Change

Please provide details on changes in species migration, hibernation, reproductive and range shift patterns and consequent species interactions, if those changes have been studied in your country. Add files if required

>>> There are more wintering Vespertilio murinus in last years <https://elfond.ee/nahkhiired/nahkhiirtest/hobe-nahkhiir>

### **11. Further important activities to share with other Parties and Range States**

Give details or provide links

>>> Successful project results to ensure protection of Pond Bat hibernation sites

<https://elfond.ee/bats/the-project>

You have attached the following Web links/URLs to this answer.

[ELF](#)

## **C. Confirmation**

### **Confirmation of information verification and approval for submission**

#### **Please confirm:**

In addition a scanned copy of an official letter from the relevant state institution, approving the report for submission, can be attached.

I declare that the information provided in the Report on the implementation of EUROBATS has been verified and the report has been approved for submission by the appropriate state institution in the country.