NATIONAL REPORT ON THE IMPLEMENTATION OF THE AGREEMENT ON THE CONSERVATION OF POPULATIONS OF EUROPEAN BATS (EUROBATS)

2003-2005

THE KINGDOM OF THE NETHERLANDS

Prepared by the Ministry of Agriculture, Nature and Food Quality

July 2006

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A. General information

Name of the Party	Kingdom of the Netherlands
Date of entry	17 March 1992
Date of report	July 2006
Period covered	2003-2005
Competent Authority	Ministry of Agriculture, Nature and Food Quality, Department of Nature, Division of International Affairs, Mr Jan-Willem Sneep till 1 July 2005 As from 1 July 2005 Ms Gelare Nader, PO Box 20401, 2500 EK The Hague The Netherlands, Tel. +31 (0)70 3785457, Fax: +31 (0)70 3786146 E-mail: g.nader@minlnv.nl
Appointed member of the Advisory Committee,	Mr Peter H.C. Lina, Ministry of Agriculture, Nature and Food Quality c/o Reference Centre for Bat Studies and Conservation PO Box 835, 2300 AV Leiden, The Netherlands. Tel. +31 (0)71 5314979 Tel. +31 (0) 653516942 Fax: +31 (0)71 5766268 E-mail:phc.lina@tiscali.nl E-mail : lina@naturalis.nl

As from 15 August 1999, Mr. Lina is acting Chairman of the Advisory Committee to the Agreement and is member of several of the Committee's Intersessional Working Groups.

B. Status of bats within the territory of the Party

1. Summary details of resident species

Thus far 21 bat species have been recorded in the Netherlands. Two single specimens of *Eptesicus nilssonii* were recorded from oil rigs in the North Sea and a single male was found in the central part of the country in 2003. *Nyctalus lasiopterus* was observed in one case only.The remaining 19 species are recognised as being native, although two of them, *Rhinolophus ferrumequinum* and *Rhinolophus hipposideros*, are regarded as being extinct. *Barbastella barbastellus* has not been recorded since several years, and *Myotis bechsteinii,* is rare. However, it has to be taken into account that the latter 4 species have their northern range limits in the southernmost part of the Netherlands. Breeding colonies have never been recorded for

Rhinolophus ferrumequinum, Myotis brandtii, Myotis bechsteinii, and *Barbastella barbastellus.* All materinty colonies of *Myotis myotis* known from earlier times have been disappeared. Of both *Vespertilio murinus* and *Myotis emarginatus* two maternity colonies have been found in respectively the provinces of Utrecht and Groningen. *Pipistrellus nathusii* is regarded as a common species but a maternity colony has been recorded once only. From the second half of May to the first half of August, the majority of its population consists of males; in contrast with autumn, winter and spring, when females are also common. *Myotis daubentonii, Pipistrellus pipistrellus,* and *Eptesicus serotinus* are also common species. *Pipistrellus pygmaeus* has not yet recorded so far. See below for population estimates of all native species.

2. Status and trends

Population estimates* and Red List categories

Species	Population estimates	Category
Rhinolophus ferrumequinum	-	extinct
Rhinolophus hipposideros	-	extinct
Myotis mystacinus	2,500-4,000	not threatened
Myotis brandtii	275-350	susceptible
Myotis nattereri	1,500-3,000	vulnerable
Myotis emarginatus	300-500	endangered
Myotis daubentonii	15,000 - 30,000	not threatened
Myotis dasycneme	8,000 - 10,000	not threatened
Myotis myotis	10 - 15	endangered
Myotis bechsteinii	?	susceptible
Pipistrellus pipistrellus	300,000 - 600,000	not threatened
Pipistrellus nathusii	50,000 - 100,000	not threatened
Eptesicus serotinus	30,000 - 50,000	not threatened
Nyctalus noctula	6,000 - 8,000	not threatened
Nyctalus leisleri	100 - 500	not threatened
Vespertilio murinus	50 - 250	not threatened
Barbastella barbastellus	?	susceptible
Plecotus auritus	4,000 - 6,000	not endangered
Plecotus austriacus	25 - 100	susceptible

*) after H. Limpens, K. Mostert & W. Bongers (eds), 1997. Atlas van de Nederlandse Vleermuizen, Onderzoek naar de verspreiding en ecologie [Atlas of the Dutch Bats, Research on the distribution and ecology]. KNNV Uitgeverij, Utrecht.

Trends in species with a current status of extinct, rare, or endangered

The distribution of both Rhinolophoid species was restricted to Southern Limburg.

Rhinolophus ferrumequinum: No records since March 1998.

Rhinolophus hipposideros: No records since 1983.

The winter population of *Myotis emarginatus* in the limestone area of Southern Limburg is still slightly increasing. The maternity colonies in the attics of two monastries near the town of Echt (province of Limburg), are still present and consist of several hundreds of individuals.

The current winter population of *Myotis myotis* is very small but more or less stable. Maternity colonies are no longer known since the 1960s. See for trends Section 5 of this report.

Myotis bechsteinii is a rare species but might be more common than the records show.

Barbastella barbastellus: No records since 1995.

Vespertilio murinus: There is an increasing number of single records, especially in autumn. Both maternity colonies, reported previously, are still present.

3. Habitats and roost sites

Hollow trees are the only available natural roosts for bats in the Netherlands. Apart from these roosts, there are many types of man-made constructions available that can also be used by bats either in summer or winter, e.g. subterranean limestone quarries, old fortresses, ice-houses, bunkers, cellars, spaces under roofs, and cavity walls of buildings. Bat boxes are being applied in several localities. A diversity of landscapes can provide suitable feeding habitats for bats.

4. Threats

The threats to bat populations are due to loss of suitable habitats from the reconstruction of roof cavities and insulation of cavity walls of buildings, the felling of hollow trees, the deterioration and fragmentation of the landscape, the improved management in agriculture and forestry, the loss of linear landscape elements like hedgerows and tree lanes, and feeding grounds, the use of pesticides, and pollution.

5. Data collection

Data are still collected by a few national and regional natural history bodies and are entered into compatible databases. Data are mainly used to determine species distribution and population changes (monitoring). Every winter period, the number of bats are monitored in 800 – 900 hibernacula across the country. The majority of the hibernacula are subterranean lime stone quarries, 19th century fortresses, World War II bunkers, and ice houses. The monitoring of hibernating bats in these roosts is co-ordinated by the Society for the Study and Conservation of Mammals. The Statistics Netherlands is in charge to elaborate the collected data.
Since 1986, a national annual monitoring programme (Network Ecological Monitoring) is running for bats in hibernation sites with emphasis on *M. mystacinus/brandtii, M. nattereri, Myotis emarginatus, M. myotis, M. daubentonii, M. dasycneme,* and *Plecotus auritus/austriacus.* These species provide comparative data for trend analyses. The trend indexes of their winter populations are shown in the following table*.

Species	1986	2003	2004	2005	Trend
Myotis mystacinus.brandtii	100	233	245	298	+
Myotis nattereri	100	709	829	962	++
Myotis emarginatus	100	1166	1485	1578	++
Myotis myotis	100	195	239	294	+
Myotis daubentonii	100	198	196	217	+
Myotis dasycneme	100	239	206	241	+
Plecotus auritus/austriacus	100	233	205	203	+

*) after the Central Bureau of Statistics.

C. Measures taken to implement Article III of the Agreement

6. Legal measures taken to prevent the deliberate capture, keeping or killing of bats, including details of enforcement actions used to support such measures

All bat species are strictly protected under the Flora and Fauna Act. The competent authority for this Act is the Ministry of Agriculture, Nature and Food Quality

In addition to being a Party to the Bats Agreement, the Netherlands is also a Party to the Convention on the Conservation of European Wildlife and Natural Habitats (Council of Europe, Bern Convention). All bat species, apart from *Pipistrellus pipistrellus*, are listed in Appendix II to this Convention. *Pipistrellus pipistrellus* is listed in Appendix III to the Convention. However, in the Netherlands, *Pipistrellus pipistrellus* has the same conservation status as the Appendix II species. The Netherlands is also bound by the provisions of Directive 92/43/EEC of 21 May 1992 on the Conservation of Natural Habitats and Wild Fauna and Flora (Habitats Directive). Seven native or formerly native species, (*Rhinolophus ferrumequinum), (Rhinolophus hipposideros), Barbastella barbastellus, Myotis bechsteinii, Myotis dasycneme, Myotis emarginatus* and *Myotis myotis*, are listed in Annex II to this Directive, and their conservation requires the designation of Special Areas of Conservation (SACs). A number of such areas has been selected for some of these species (see Section 7) of this report). Due to their rarity no SACs could be selected for *Myotis dasycneme* and *Barbastella barbastellus,* and for both Rhinolophid species since they are extinct in the Netherlands. All native bat species are included in Annex IV to the Directive, indicating the need for strict protection of these species.

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

As mentioned in Section 6, a number of Special Areas of Conservation (SACs) has been selected for some species listed Annex II of the Habitats Directive and the specification of these areas has been submitted to the European Commission in March 2003: Twenty five foraging areas and areas with hibernacula for the pond bat, *Myotis dasycneme,* five areas with hibernacula for the mouse-eared bat, *Myotis myotis,* and four foraging areas, and two maternity roosts in respectively a monastery and a former nunnery for the Geoffroy's bat, *Myotis emarginatus.* The selection of the areas has been adopted by the European Commission

8. Consideration given to habitats which are important to bats

As reported previously, the Dutch government adopted the Nature Policy Document in June 1990. The main objectives of this plan are the sustainable conservation, rehabilitation and development of nature and landscape in the Netherlands, also in the field of international species conservation. The Nature Policy Plan contains a long-term strategy. The plan sets out the objectives and outlines the government's nature and landscape policy and priorities for a period of approximately thirty years.

Since 1990, many projects and actions have been implemented. The realisation of the National Ecological Network (NEN) has also begun. The NEN is a coherent network of areas, forming a sustainable basis for the ecosystems and species considered to be important in the (inter)national context. The network consists of core areas, nature development areas and ecological corridors. The sustainable development is supported by a buffer policy aimed at removing or minimising negative external influences on the core areas. Conservation measures for bat species will be taken partly in the form of habitat conservation, particularly through the realisation of the NEN.

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

Following the Landscape Management Foundation of the province of Limburg and the Landscape Management Foundation of the province of Groningen, the Landscape Management Foundation of the province of Gelderland has also set up a network of volunteers and of local government officials involved in pest control to act as consultants in cases of problems with bat colonies in houses and other buildings.

In 2002 the National Pest Control Reference Centre has started a 3-days bat conservation and management training for pest control officers, land managers, nature conservationists and others who can meet problems with bats in buildings or are involved in the management of other types of bat dwellings. This training programme is a contribution to the implementation of the provisions of article III, paragraph 5, of the Bats Agreement. Due to bankruptcy of the concerning foundation, the

continuation of the training was adjourned. The revival of the training is in preparation.

Due to organisation problems the European Bat Night was not held in 2003. In September 2004 the European Bat Night was held in de zoos of Rotterdam and Tilburg and was organised by the Netherlands Bat Group, the Bat Group of the province of Noord-Brabant and the Mammal Working Group of the province of Zuid-Holland. The event counted about 150 participants. In September 2005, the European Bat Night was held in the zoos of Amsterdam, Amersfoort, Rotterdam, Apeldoorn, Arnhem, and Hilvarenbeek and was organised by the Netherlands Bat Group in co-operation with the Bat Groups of the provinces of Noord-Brabant, Gelderland, and Utrecht and the Mammal Working Group of the province of Zuid-Holland. About 750 participants were visiting the lectures, excursions and information stands.

In 2004, the Road and Hydraulic Engineering Institute of the Ministry of Transport, Public Works and Water Management and the Society for the Study and Conservation of Mammals issued the brochure “Bats and road constructions”. This brochure describes the ways in which practical measures can be taken to observe the legal duty of care for bats in planning, constructing, reconstructing and managing roads.

10. Responsible body, in accordance with article III.5 of the Agreement, nominated for the provision of advice on bat conservation and management

The responsible body in accordance with article III.5 of the Agreement has not yet been established. For the time being, advice on bat conservation and management was provided by individual bat experts on request.

11. Additional actions undertaken to safeguard populations of bats

Several bat roosts were restored or newly constructed.

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

The monitoring project on bat rabies, started in 1986, was continued. Till 1 January 2006, 4051 bat specimens consisting of 12 species were tested for rabies. The main carrier of bat rabies is *Eptesicus serotinus*.
The previously reported long-term study on the ecology of *Pipistrellus nathusii* in the Netherlands and to its seasonal migration between the Netherlands and Central and Eastern European countries was continued.
The radio-tracking, transponder, and ringing project on the pond bat, *Myotis dasycneme,* was started in the province of Zuid-Holland in 2002 to determine the use of landscape by this species and to find additional maternity colonies was continued and will be carried on through in 2006.
In 2005, an extensive surveillance took place on the distribution of the pond bat, *Myotis dasycneme*, in the province of Friesland.
In de period of review the Society for the Study and Conservation of Mammals organised several workshops for individuals, like landscape architects, landscape and environmental consultants, and landscape managers, to improve and involve bat conservation in landscape management and physical planning
Also in 2005, a pilot study was carried out on the management of a number 19th century fortresses to identify the influence of various human use to the fortress dwelling bat populations.
The Landscape Management Foundation of the province of Flevoland started in 2005 an inventory to the distribution pattern of the pond bat in this province. This project will be carried on through 2006 and 2007.
Several environmental impact assessment reports focused on bats and management approvals for the conservation of bats were issued.

13. Consideration being given to potential effects of pesticides on bats, efforts to

replace timber treatment chemicals which are highly toxic to bats, and the potential effects of veterinarian anti-parasitic on bats.

As reported previously, the supply and use of remedial timber treatment (rtt) chemicals is regulated by the Board for the Authorisation of Pesticides. The registration process includes an assessment of ecotoxicity to animals, plants and parts of plants whose preservation is desired, or to soil, water or air although bats are not specifically included in such an assessment. The instructions for the use of rtt products do not refer to possible hazard to bats. Neither are recommendations given to the industry to minimise any hazard to bats as a result of rtt. Approved chemicals for rtt are synthetic pyretroids, boron compounds, propiconazole, azaconazole, and alkyldimethyl-benzyl-ammoniumchloride. The use of pentachlorphenol, aldrin, dieldrin, lindane, DDT, tributyl tin compounds, zinc compounds tebuconazole and polyphase iodo-propynyl-butyl-carbamate have been prohibited for rtt. The estimated number of roof cavities treated annually for wood-boring insects or wood-rotting fungi is less than 0.01% of private dwellings and public buildings.
The potential effects of veterinarian anti-parasitic drug on bats has not yet been studied.

D. Functions of the Agreement

14. Co-operation with other Range States

In the framework of the Dutch International Program for Nature Management in Middle and East Europe (BBI-MATRA), there are a number of possibilities for conserving the nature and biological diversity including the European bat species in the Pan European region. Organisations from the Middle and East Europeans countries can apply for projects and programs depending on the duration of their project and program and the required funding. For more information contact can be sought from the local embassies or the Dutch ministry of Agriculture.
The BBI-MATRA regulation has committed itself to a three-year project for Bats and Environmental assessment in Bulgaria and Romania, which focused on the tools for implementation of the European Habitat Directive and EUROBATS agreement in these countries.
For smaller projects there is also a small budget available for KNIP-MATRA projects which are small nature initiatives.
The countries that can participate in the BBI-MATRA regulation are Armenia, Bulgaria, Georgia, Jordan, Croatia, Morocco, Moldova, Ukraine, Romania, Russia, Serbia and Montenegro, Turkey and Belarus.
The Dutch government has further a development co-operation regulation with a number of countries, in which small nature initiative projects (KNIP-OS) can be set out via the local embassies.
The European countries in which such development co-operation regulations are available include Armenia, Georgia, Moldova, Bosnia Herzegovina, and Macedonia.

Several bat workers from the Netherlands attended the 13th International Bat Research Conference, held in Mikołajki (Poland), 23-27 August 2004 and the 10th European Bat Research Symposium, held in Galway (Ireland), 21-26 August 2005, and contiguous bat detector workshops

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

Resolution 2.2, Consistent Monitoring Methodologies
Bat species dwelling in underground habitats are monitored since a long time and include *Myotis myotis* and *M. bechsteinii.* Monitoring programmes for colonies of *Pipistrellus pipistrellus* and frequently through reliable data couldn't be obtained. A monitoring programme on *Nyctalus noctula* was also suspended since it was causing a too high pressure of work to the involved volunteer bat workers.*Eptesicus serotinus* were suspended since these species are changing their summer roosts

Resolution 2.4, Transboundary Programme: Habitat proposals
The Netherlands has no natural underground habitats for bats but has numerous artificial ones like

subterraneous limestone quarries, (semi-) subterraneous bunkers, fortresses, ice houses, cellars etc. which are serving as underground habitats for bats, mainly being winter roosts. Records of bats in all known underground habitats are available in a central database.

Resolution 2.5, Geographical Scope of the Agreement
A long-term study on the ecology and seasonal migration of *Pipistrellus nathusii* is carried out.

Resolutions 2.7 and 3.3, Format of National Report
This report has been prepared in accordance to the adopted format

Resolutions 2.8 and 3.8, On the implementation of the conservation and management plan
Efforts to implement the provisions of article III of the Agreement are presented in this report.

Resolution 3.7, Amendment to the Agreement.
Accepted on 18 December 2003 by Declaration of the Minister of Foreign Affairs.

Resolution 4.1, Financial and Administrative Matters (Budget 2004 – 2006).
The consecutive annual contributions as given in Annex 4d for the Netherlands have been paid.

Resolution 4.2, Guidelines for the Protection and Management of Important Underground Habitats for Bats.
The identification of the important underground habitats, as required in Resolution 2.4, is carried out and will be submitted to the EUROBATS Secretariat in autumn 2006.
All underground habitats are protected by the provisions of the Flora and fauna act and are, where appropriate, physically protected against unauthorised entry.

Resolution 4.4, Bat Conservation and Sustainable Forest Management.
The types of forests and land management as causing problems for bats in forests have not yet been identified.
In 2004, the brochure “Bats, trees and forest” has been issued with tips how to take bats into account when improving the sustainability of forestry practices.

There are not yet incentive schemes in use to provide resources for bat conservation measures in forests.

Measures are not fully yet taken to identify the management and enhancement of key elements and key areas for bats in forests. A code of conduct for foresters was agreed to save hollow trees as much as possible and to identify prior to the logging of trees if they are roosts of tree dwelling bats. A similar code exist for the management of potential bat roosts in urban public parks and gardens and in other urban plantations like shoulder plantations.

Resolution 4.5, Guidelines for the Use of Remedial Timber Treatment.
Not yet implemented. See also Section 13 of this Report.

Resolution 4.6, Guidelines for the Issue of Permits for the Capture and Study of Captured Wild Bats.
The Guidelines were translated into the Dutch language, but are not yet in full operation.

Resolution 4.7, Wind Turbines and bat Populations.
Investigations and research on the impact of wind turbines on bats are planned.