

LUXEMBOURG
National Report on the Implementation on the
‘European Bat Agreement’
March 2003

A. General informations:

Name of the Party: Grand-Duchy of Luxembourg

Date of Report: 15th February 2003

Period Covered: May 2002-May 2003

Competent Authority:

Administration des Eaux et Forêts
Direction/ Service Conservation de la Nature
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B. Status of bats within the territory of the Party:

B. 1. Summary details of resident species:

At this stage 19 bat species have until now been recorded for Luxembourg. Two species (*R. hipposideros* and *B. barbastellus*) have unfortunately to be declared extinct. This brings the actual number of bat species in Luxembourg at only 17.

Family Rhinolophidae

Rhinolophus

1. *Rhinolophus ferrumequinum* (SCHREBER, 1774); Cat.: 1: Threatened by extinction
2. *Rhinolophus hipposideros* (BECHSTEIN, 1800); Cat.: 0: Extinct

Family Vespertilionidae

Barbastella

3. *Barbastella barbastellus* (SCHREBER, 1774); Cat.: 0: Extinct

Eptesicus

4. *Eptesicus nilssonii* (KEYSERLING & BLASIUS, 1839); Data deficiency
5. *Eptesicus serotinus* (SCHREBER, 1774); Cat.: 3: Threatened

Myotis

6. *Myotis bechsteinii* (KUHL, 1817); Cat.: 2: Highly threatened
7. *Myotis brandtii* (EVERSMANN, 1845); Cat.: 1: Threatened by extinction
8. *Myotis daubentonii* (KUHL, 1819); Cat.: 3: Threatened
9. *Myotis emarginatus* (GEOFFREY, 1806); Cat.: 1: Threatened by extinction
10. *Myotis myotis* (BORKHAUSEN, 1797); Cat.: 2: Highly threatened
11. *Myotis mystacinus* (KUHL, 1817); Cat.: 2: Highly threatened
12. *Myotis nattereri* (KUHL, 1817); Cat.: 2: Highly threatened

Nyctalus

- 13. *Nyctalus leisleri* (KUHL, 1817); Cat.: 3: Threatened
- 14. *Nyctalus noctula* (SCHREBER, 1774); Cat.: 2: Highly threatened

Pipistrellus

- 15. *Pipistrellus nathusii* (KEYSERLING & BLASIUS, 1839); Data deficiency
- 16. *Pipistrellus pipistrellus* (SCHREBER, 1774); Cat. V : Potentially endangered

Plecotus

- 17. *Plecotus auritus* (LINNAEUS, 1758); Cat.: 3: Threatened
- 18. *Plecotus austriacus* (FISCHER, 1829); Cat.: 2: Highly threatened

Vespertilio

- 19. *Vespertilio murinus* LINNAEUS, 1758; Data deficiency

The atlas on the distribution of bats in Luxembourg has been (finally) published:

***Harbusch, C.; E.Engel & J.B. Pir (2002): Die Fledermäuse Luxemburgs
(Mammalia: Chiroptera). – Ferrantia 33: 149pp.
(ISSN 1682-5519)***

The atlas on the distribution of bats in Luxembourg has been published and presents winter and summer distribution maps for each species in Luxembourg. A summary for each species in French and English is closing each chapter. The atlas can be obtained at ferrantia@mnhn.lu.

B. 2. Status and Trends:

For the status of species: see chapter above.

B.3. Habitats and roost sites:

Due to the lack of an official survey and monitoring program, only the last roosting site of *R. ferrumequinum* (ca 180 bats) in the southeast of Luxembourg is surveyed regularly since 1982.

Unfortunately there is no monitoring of the follow-up and the success of realized bat protection programs (e.g. LIFE- program ...) installed in Luxembourg.

Nevertheless Forest Administration is trying to set up a monitoring program for bat species of appendix II of Habitat Directive (92/43/CEE). In 2002, all known colonies of *R. ferrumequinum*, *M. myotis* and *M. emarginatus* In Luxembourg have been monitored and other species like *Myotis emarginatus* will be monitored by radiotracking in the next weeks.

In may this year, the Forest Administration has monitored and localised by radiotracking a vast colony of *Myotis bechsteinii* species so far not detected In Luxembourg. This colony lives In a very vast within 10-15 km perimeter In an oak-wood In the southern of Luxemburg which has been declared by the Gouvernement protected wood-site (In french réserve forestière en libre évolution) so that they will be for sure more populations of *Myotis bechsteinii* to discover. Of course the Eurobats Secretary will be Informed If other populations of this species will be detected in the next weeks and months.

In april, a vast population of *Pipistrellus pipistrellus* (over 350 Individuals) has been delocalised from a building In undergoing renovation In the underground caves of the casemattes In Luxembourg-City.

B.4. Threats:

All factor threats to bats population recording to the last report are still remaining.

One of the most rich chiropteracoenosis in the 'Grünewald' forest massif has been destroyed by a motorway. It seems that economic growth has a severe impact on bat populations in Luxembourg since another road building project is going to cross one of the 'hot spots' of Luxembourg countryside with at least 13 different bat species recorded!

A considerable impact on important bat populations will have the planned construction of 17 by-pass roads. Some of these by-pass roads will cross the hunting habitats of *M. myotis* nursing colonies (Mersch) or *R. ferrumequinum* and *M. emarginatus* (Bous I and II)....

Several important roosting sites of *M. myotis* and *M. emarginatus* have been or are beeing renovated within the next years. Due to efforts of Forest Administration, most of the colonies could be conserved, but due to a missing professional 'fulltime' structure so far, the maintain of this colonies is not guaranteed at a long stage.

B. 5. Data Collection:

The data of a national bat survey project by the Natural History Museum are collected in the national database LUXNAT. All available bat data are published in the atlas of bats of Luxembourg. New data (e.g. monitoring) will be entered in the new database Recorder 2000 of Natural History Museum in Luxembourg.

C. Measures taken to implement article II of the Agreement:

C. 6. Legal Measures taken:

All bat species are protected by law in Luxembourg (Laws of 11.08.1982 and 8.04.1986). The Bat Agreement came into force at 5th august 1993. *Tadarida teniotis* is included to the Agreement by law project 4583 (march 2000).

C.7. Sites identified and protected:

In relation with the EC-Life program: Trans-boundary Protection of Bats in Western Central Europe LIFE 95/A22/D/EU/00045) six sites major sites (with several hundred kilometers of underground habitats) could be protected in Luxembourg. Actually no bat site is protected by a federal nature protection reserve.

If the major roosting sites of house dwelling bats and most of the underground hibernating sites are well known, efforts have still to be made to identify key sites for tree living bats (e.g. *M. bechsteinii*,...) in forests in Luxembourg.

C. 8. Consideration to important bat habitats

During establishing the list of 'proposed Sites of Special Scientific Interest (pSSSI) of the Habitat Directive (92/43/CEE) all bat species of the appendix II were considered within the SSSI for Luxembourg. Unfortunately no management plans for bat populations within these sites are existing.

C. 9. Promotion Activities

Before all a certain number of conferences and bat detector excursions were organized during the last summer months. The leaflet: *Trans-boundary bat protection* and a full color information magazine (36 pp in all) *science & nature: special bats* is available for free in french and german. Press articles of the rescue of a hibernating colony of several hundreds of *P.pipistrellus* were published in local press.

In late august 2002 the VIth European Bat Night was organized at the 'Château de Colpach' (Red Cross Luxembourg). 200-250 persons watched live Infrared camera transmission from a mixed nursing colony of *M.myotis*/*M.emarginatus* as well as emerging *M.myotis*. A bat detector watch closed this successful organization.

The next European Bat Night will be held 5th of July 2003 in Bastendorf in the Northern part of the country.

C. 10. Responsible Bodies in Accordance with article III.5.

No responsible body in accordance on article III.5. of the Agreement is existing in Luxembourg. The Forest Administration, the Natural History Museum and a few private persons do some advice to the public homing bats in their houses.

C. 11. Additional actions:

Together with competent authorities and available volunteers, a decentralized network for bat work In Luxembourg is under construction and will be hopefully operational by the end of 2003.

C. 12. Recent and ongoing protection programs (including research):

Protection:

Protection Program: „Combles et Clochers” (“attics and church-towers“) done by SICONA/'*Station Biologique de l'Ouest*' in opening 48 churches for bats in the Western part of the country. This program is hopefully extended for 2004 to all churches in Luxembourg.

Forest Administration is trying to establish a system of responsible persons (foresters) to survey and monitor all major nursing colonies of bats of appendix II of Habitat Directive, this project will also be operational by the end of 2003.

Research:

- A research program of *Myotis emarginatus* (roosting and habitat preferences) is planned for 2003/2004 in Luxembourg.
- An inventory of potential tree holes and bats is done under Forest Administration/'*Station Biologique de l'Ouest*' in two forest reserves in Luxembourg during spring/early summer 2003. As a pre-study, the radiotracking of *M. bechsteinii* in order to find nursing colonies of this species will be tested.

C. 13. Potential effects of pesticides:

There has been until now no research on the effects of pesticides on bats in Luxembourg. A list of harmless timber treatment products is available upon demand.