AGREEMENT ON THE CONSERVATION OF BATS IN EUROPE

Report on implementation of regulations of the Agreement in Lithuania

A. General Information

* Name of Party: Lithuania
* Date of Report: 22 April 2000
* Period Covered: November 1978 - April 2000
* Competent Authorities: Lithuanian Society for Bat Conservation; Theriological Society of Lithuania; Ministry of Environment of Lithuania

B. Status of Bats Within the Territory of the Lithuania

1. Summary details of Resident Species

To date, 14 species have been recorded in Lithuania (Table 1). The presence of Myotis mystacinus in the Lithuania was reported in 1995, but there are no recent reports for this species. Therefore, Myotis mystacinus does not have any status in this table. The same is characteristic for Nyctalus leisleri, because so far only one individual of Leisler's bat was found during the autumn bat migration in 1980 in western part of Lithuania. It should be pointed out that the theriological literature published in Lithuania before 1988 (Elisonas, 1932; Ivanauskas et al., 1964; Prusaite, 1972, etc.) includes other bat species. In the latest review of the mammals of Lithuania (Prusaite, Mazeikyte, Pauza, Pauziene et al., 1988) two bat species, Bechstein's Bat (*Myotis bechsteinii*) and Lesser Horseshoe Bat (*Rhinolophus hipposideros*), have been rejected from the list of bats of Lithuania. An old reference to a record of Bechstein's Bat from Vilnius (Kupffer, 1937) and to one of the Lesser Horseshoe Bat from Lyda near Druskininkai (Elisonas, 1932) were not accepted as reliable because of lack of any evidence of the occurrence of these species in Lithuania at any time. Nevertheless, these bat species may occur in Lithuania, because it is possible that these bat species, as well as the Greater Mouse-eared Bat (*Myotis myotis*) found in Latvia in 1988 (Petersons, 1993) and the Grey Long-eared Bat (*Plecotus austriacus*) occuring in central Poland (Bogdanowicz, 1983), might be recorded in Lithuania in the future.

Taken together, in Lithuania the study of bats is at the stage of record collection and the knowledge of distribution and status of the Lithuanian bat species is far from complete. However, it might be temporary concluded that:

(b) the northern limits of distribution of *Barbastella barbastellus* and *Eptesicus serotinus* reach the middle of Lithuania between 55^{o}N and 56^{o}N and, possibly, the southern limit of high abundance of the *Eptesicus nilssoni* occurs at the same latitude.
the vaults of Kaunas fortress are the most important wintering sites for bats in Lithuania. Annual censuses give the following estimates: *Myotis daubentonii* 400-500, *Myotis nattereri* 200-300, *Myotis brandtii* 80-100, *Barbastella barbastellus* 200-300, *Plecotus auritus* 40-60, *Myotis dasycneme* 15-20 and a few *Eptesicus serotinus* and *Eptesicus nilssoni*.

(c) *Myotis daubentonii, Pipistrellus nathusii, Plecotus auritus* and *Eptesicus serotinus* are the most abundant and widespread species in Lithuania.

(d) *Myotis dasycneme* is rare and probably endangered.

(e) *Pipistrellus nathusii, Nyctalus noctula, Pipistrellus pipistrellus, Eptesicus nilssoni,* and *Vespertilio murinus* are common species during autumn bat migration along the Baltic Sea Coast.

2. Status and Trends

Table 1 shows the status and the knowledge of population trends of the species known in Lithuania.

TABLE 1. Status and apparent population trends of the species known in Lithuania. Main data published in 1998 in the Mammal Review, **28**, 53-67.

E - endangered, **V** - vulnerable, **R** - rare, **K** - insufficiently known, **I** - indeterminate, **?** - doubtful status, **NT** - not threatened, **Mig** - migrant species.

	Species	***Status in Lithuania*** *(summer / winter)*	***Apparent Trend***
1.	*Myotis dasycneme*	K(R?) / R	probably declining
2.	*Myotis daubentonii*	NT / NT	probably stable
3.	*Myotis brandtii*	K(R?) / NT	unknown

4.	*Myotis mystacinus*	I / I	unknown
5.	*Myotis nattereri*	I / NT	unknown
6.	*Barbastella barbastellus*	K / NT(V?)	unknown
7.	*Plecotus auritus*	NT / R(V?)	unknown
8.	*Pipistrellus pipistrellus(45 KHz type)*	K(R?) / Mig	unknown
9.	*Pipistrellus nathusii*	NT / Mig	unknown
10.	*Nyctalus noctula*	K(R?) / Mig	unknown
11.	*Nyctalus leisleri*	I / Mig	unknown
12.	*Eptesicus serotinus*	NT / R(Mig?)	stable
13.	*Eptesicus nilssoni*	K(R?) / (Mig?)	unknown
14.	*Vespertilio murinus*	K(R?) / Mig	unknown

3. Habitats and Roost Sites

In Lithuania there are many habitats that can be used by bats. We have widely distributed estates with old parks that are used by many bat species during the breeding season. In winter time, the vaults of Kaunas fortress are the most important hibernacula for bats in Lithuania, in which more than 2000 bats of 7 species hibernate every year.

4. Threats

The major threats that occur in Lithuania are:

(1) Disturbance

In the last years there has been an increase in the number of people taken an interest in bats and we often were able to find signs of the recent presence of visitors inside the breeding and hibernating sites. The disturbance is particularly dangerous during the hibernation and breeding seasons. In some vaults of Kaunas fortress we even found signs of fires and explosions of mines, in spite of the facts of establishment of reserves for hibernating bats there in 1991.

(2) Roost destruction

In Lithuania, there are no specialized regulations regarding to protection of bats distributed in parks of estates. Therefore, any cleaning or reconstruction of such parks and buildings of the estate are fatal to bat colonies occurring therein. The similar situation presents with respect to destruction of hibernating roost. There are no conservation officers that would be competent to ensure the safety of roosts. Consequently, there are no data on the numbers of roost destruction in the Lithuania. Efforts are being made to avoid the roost destruction in bat reserves of Kaunas by the initiatives of the Lithuanian society for bat conservation and local authorities.

(3) Loss of feeding areas

Lithuanian landscape is slowly changing because of low economy and agriculture of the Lithuania. However, the Lithuanian forestry that currently became in part private started evidently to go up due to an increased requirement of the cheap Lithuanian timber in western Europe. This was the reason, why a lot of coniferous forests in Lithuania have been entirely cut off. Therefore, it may be implied that populations of tree-dwelling bat species distributed in woodlands could be damage following such managing in the Lithuanian forests. Nevertheless, it should be pointed that there are no accurate data on this issue.

(4) Pesticides

Pesticides are little using in Lithuania because of an inability of Lithuanian farmers and landowners to purchase them. However, it is believable that some forbidden pesticides purchased previously may be still in use and, thereby, may act negatively on bats in Lithuania.

5. Data Collection

Data are collected by Lithuanian Society for Bat Conservation, Institute of Ecology of the Lithuanian Academy of Sciences and Ministry of Environment of Lithuania.

There are a few data-sets prepared by Lithuanian Society for Bat Conservation, Institute of Ecology of Lithuanian Academy of Sciences and Ministry of Environment of Lithuania: (a) Bat observations (based on bibliography, information and field work), (b) Monitoring of eight selected bat species, and (c) Banding of bats (captures and recaptures) in Lithuanian Ringing Centre.

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

Nine bat species, as endangered, vulnerable or of unknown status, has been protected in Lithuania by law of the Red

Data Book since 1991. It is expected that Red Data Book of Lithuania will be updated in 2000 and, instead of nine species, a revised edition of this law will include all bat species known recently in Lithuania. Although in other laws of the Republic of Lithuania, such as (1) 'Biodiversity Conservation Strategy and Action Plan' (BCSAP, 1996) or (2) 'Action Program of Lithuanian Environmental Strategy', there are no specialized topic or actions for protection of the national bat fauna, these documents include the priority actions that have also an importance for bats and conservation of their habitats. For instance, the mentioned documents have the following aims:
To amend a law on forests with provisions on the protection of biodiversity;
To develop a program of biodiversity conservation in forests;
To develop a program for establishment of small strict nature reserves for the protection of the diversity of forest types;
To monitor forest communities and to forecast their change per decade;
To highlight measures for the protection of natural landscape and biodiversity;
To evaluate the development of general city plans;
To identify the most biologically valuable areas in the cities and suburban zones;
To develop and to implement a biological monitoring program for urban areas;
To highlight measures for the conservation of natural landscape and biodiversity while preparing land management plans;
To prepare recommendations and action plans for protection of species and habitats, which conservation requires international protection;
To prepare an action plans for conservation of rapidly declining species.
Moreover, a 'Monitoring of status of eight selected bat species in Lithuania' is a part of the national environmental monitoring program that was approved in 1998. Issues on wildlife protection (including the protection of bats) also are described in:
The Republic of Lithuania law on environmental protection (1992);
The Republic of Lithuania law on protected areas (1993);
The Republic of Lithuania law on forests (1994);
The Republic of Lithuania law on environmental impact assessment (1996);
The Republic of Lithuania law on wildlife (1997);
The Republic of Lithuania law on protected plant, animal and fungi species and their communities (1997).

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

The survey of the hibernating roosts is far from complete in Lithuania. There are well investigated more than 50 underground sites, in a part of which, as in most important for bats, a monitoring of hibernating bats is carrying out since 1978. The breeding roosts of the bats are still poorly known, although there has been an effort to identify important roosts of house- and tree-dwelling bats in some areas of Lithuania. Lithuanian Society for Bat Conservation (LSFBC) already selected several sites to be included in a list of sites that should be considered as most significant for the Lithuanian bat fauna, and is now going to select some more sites, but which still are not completely investigated due to a lack of financial support. We hope that many areas suggested by the LSFBC will be included in Natura 2000.

8. Consideration given to habitats which are important to bats

Since a lot of the known roosts and habitats important for bats in Lithuania are located inside of protected areas (national or regional parks, reserves, etc.), it is hoped that the general rules to protect the wildlife and landscapes in these areas will, in general, also benefit bats.

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

So far, the LSFBC has prepared only 1 leaflet and 1 poster to increase awareness of bat issues. Regular members of the LSFBC wrote several papers in environmental magazines. Talks about bat conservation have been given in meetings of amateurs and in schools.

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

Although certain members of the LSFBC have an experience of more than 20 years in a field of bat conservation in Lithuania, the Government of the Republic of Lithuania has not been implemented this point yet.

11. Additional action undertaken to safeguard populations of bats

By the opinion of the LSFBC, the main action undertaken in Lithuania in order to safeguard populations of bats has been the establishment in 1991and maintenance of 11 reserves for hibernating bats in Kaunas fortress. These reserves are considered as hibernacula of more than 2000 bats, while some of them are of species that are endangered and vulnerable both in Lithuania and through out Europe.

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

According to information available to the LSFBC, there is alone ongoing program connected with bats, i.e. a monitoring of eight bat species is in progress since 1999. This program involves the estimation of bat numbers present in the most important wintering roosts and breeding sites. The surveys are carried out annually.

On the non-governmental level during 1996 - 1998, there was done an evident progress in the field bats studies that were aimed to determine the sites in Lithuania that are to be the most important for bats. These studies were performed by the LSFBC and Theriological Society of Lithuania and were in full supported by local authorities. As a result of this, 10 from 34 Lithuanian regions have been sufficiently investigated during a few years. Intensive bat surveys have been carried out in the Lithuanian national and regional parks that financed those bat surveys from their scanty budgets.

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

There was no special consideration for this point in Lithuania.

D. Functioning of the Agreement

The Republic of Lithuania has not signed the Agreement yet. According to her legislation on wildlife, however, the Republic of Lithuania should be considered as State in which territory the Agreement on conservation of bats in Europe is functioning in practice.