

Leisler's bat (*Nyctalus leisleri*) in Lithuania

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With 1 Figure

Abstract

The aim of the present report is to confirm the occurrence of Leisler's bat in Lithuania.

Since 1978, only three reliable records of this species have been known from Lithuania, that is why this species is considered as very rare in Lithuania. The first specimen of this species was trapped at the coast of the Curonian (Kurshiu) Lagoon in Vente Cape (Shilute district) on 12th September 1980. Two more recent findings of Leisler's bat in Lithuania are referred to hunting bats that were identified using an ultrasonic bat detector with heterodyne system. In both latter cases, Leisler's bats were found in the western part of the country (near to Plunge and Shilute) and in July. Therefore, these recorded specimens may be considered as local and non-migrating Leisler's bats in Lithuania. The nearest to Lithuania localities of occurrence of this bat species are known from Latvia, Poland and Byelorussia. In Latvia, this species is assumed as a regular inhabitant of the Latvian territory. Hence, the present records of Leisler's bat in Lithuania together with records of this species from Latvia have to be considered as the northernmost localities of the distribution of Leisler's bat in Europe along the Baltic Sea Coast.

Zusammenfassung

Der Kleinabendsegler (*Nyctalus leisleri*) in Litauen

Das Ziel des Beitrags ist es, das Vorkommen des Kleinabendseglers in Litauen zu bestätigen.

Seit 1978 sind nur 3 zuverlässige Funde dieser Art in Litauen bekannt, deshalb gilt sie als sehr selten. Das erste Exemplar wurde an der Kurshiu Lagoon Küste in Vente Cape (Shilute Distrikt) am 12.9.1980 gefangen. Zwei weitere Funde von Kleinabendseglern beziehen sich auf jagende Fledermäuse, die mit Hilfe eines Ultraschall-Fledermausdetektors mit Überlagerungssystem identifiziert wurden. In beiden letzterwähnten Fällen wurden die Kleinabendsegler im Juli im westlichen Teil des Landes entdeckt (nahe Plunge und Shilute). Darum könnten die registrierten Exemplare vielleicht als lokale und nicht-wandernde Kleinabendsegler in Litauen betrachtet werden. Die zu Litauen nächsten Standorte, wo Kleinabendsegler vorkommen, sind aus Lettland, Polen und Weißrußland bekannt. Man nimmt an, daß der Kleinabendsegler ein regelmäßiger Bewohner des lettischen Territoriums ist. Folglich müssen die vorliegenden Funde des Kleinabendseglers in Litauen, zusammen mit den Funden der Art in Lettland, als die nördlichsten Verbreitungsstandorte des Kleinabendseglers in Europa entlang der Ostseeküste betrachtet werden.

Résumé

La Noctule de Leisler (*Nyctalus leisleri*) en Lituanie

Le but de ce rapport est de confirmer la présence de la Noctule de Leisler en Lituanie.

Depuis 1978, seulement 3 découvertes fiables de cette espèce sont connues, d'où elle est considérée comme très rare. Le premier spécimen fut capturé à la côte de Kurshiu Lagoon en Vente Cape (district de Shilute) le 12 septembre 1980. Deux autres découvertes récentes se rapportent à chauves-souris chassantes, identifiées par détecteur à ultrasons avec système hétérodyne. Dans les deux cas, les Noctules de Leisler furent enregistrées à l'ouest du pays (près de Plunge et Shilute) et au mois de juillet. Pour cette raison, les spécimens enregistrés se laissent considérer comme Noctules de Leisler locales et non migrantes en Lituanie. Les lieux de présence de cette espèce les plus proches de Lituanie se trouvent en Lettonie, Pologne et Biélorussie. Il est à supposer que cette espèce soit un habitant régulier en Lettonie. Par conséquent, les découvertes de *Nyctalus leisleri* en Lituanie et celles en Lettonie sont à considérer comme lieux de propagation les plus au nord en Europe le long de la côte de la mer Baltique.

Introduction

Knowledge on the distribution of Leisler's bat (*Nyctalus leisleri*) in Eastern Europe is far from complete and appears to be patched (VAN DEN BRINK 1968, HUTSON 1995, Atlas of European Mammals 1999). It seems likely that so far the northern limit of occurrence of this species in Europe is for the most part hypothetical and, therefore, further studies are necessary.

According to KUZJAKIN (1950), STRELKOV (1963) and KURSKOV (1981), it was considered that in northern Russia this species reaches the Novgorod and Yaroslavl regions. Based on nine trapped specimens in Pape (the west-southernmost part of Latvia) as well as on a few of their findings with the aid of ultrasonic detectors, PETERSONS & VINTULIS (1998) assume that this species is a regular inhabitant in Latvia. Other authors, however, presuppose that the northern distribution of Leisler's bat is more associated with distribution of deciduous forests and,

towards north, this species spreads no farther than up to the middle of Poland and Byelorussia (PELIKAN et al. 1979, SCHOBBER & GRIMMBERGER 1987, STEBBINGS 1988). Consequently, the occurrence of Leisler's bat in Lithuania should deserve attention since the region of the Baltic States may appear as an area with the most northern populations of Leisler's bat, at least in the middle of Europe.

In Lithuania, unfortunately, the history of bat investigations is brief because there was little interest on bats except for 2 (PAUZA & PAUZIENE 1998). Lithuanian bats have mostly got an interest of local naturalists by accident and, as a rule, most of their conclusions regarding bats have not been documented and today many of them are rather doubtful. Therefore, the aim of this report is to show records of Leisler's bats from Lithuania that have been reliably substantiated either by traditional faunistical methods or with the aid of ultrasonic bat detectors.

Material and methods

Material for this paper involves bat records collected by standard methods (animal capture and trapping) and using heterodyne bat detector SBR-1200 (UK) during the 1978 - 1999 period. The Universal Transverse Mercator (UTM) geographic grid, with squares 10x10 km, was accepted to describe geographical localities of recorded bats in Lithuania (Table 1). Sound analyses were performed on computer using

BatSound software (v.1.3.1; Pettersson Elektronik AB, Sweden) and species identification was made according to recommendations by AHLEN AND BAAGØE (1999).

Results and discussion

Till now, only three reliable records of Leisler's bat from Lithuania may be scientifically confirmed (Table 1). First record of this species done in 1932 near Shvencionys may be considered only as probable because it is based only on personal communication of A. Machionis who is widely recognised by Lithuanian zoologists as an experienced theriologist.

First confirmed finding of Leisler's bat was registered in Vente Cape (Shilute district) in 1980 (Table 1). It was a male with a forearm length of 42.2 millimetres. This specimen was captured together with migrant *Nathusius' Pipistrelles* and Common Noctules by a Tuttle bat trap that was installed inside a Helholand type bird trap (Fig. 1). Therefore, there is no objection to suggest that the captured specimen of this species was a migrant bat as well.

Last two recent findings of this species in Lithuania (Table 1) were recorded using an ultrasonic bat detector with the heterodyne system and, thereby, are documented by tape recordings of the sounds that were identified as rather typical for Leisler's bats according to frequency, rhythm and intervals of pulses (Fig. 1). Moreover, presence of the Leisler's bats in

Tab. 1. Records of Leisler's bat (*Nyctalus leisleri*) from Lithuania.

Tab. 1. Nachweise von Kleinabendseglern (*Nyctalus leisleri*) in Litauen.

Tab. 1. Preuves de *Nyctalus leisleri* en Lituanie.

No	UTM	Locality	Type of roost	Number	Date	Confirmation
1.	MB2c3	Shvencionys D., Antalie- de	tree hole	1?	July 1932	Not available
2.	EG2b2	Shilute D., Vente Cape	?	1	12.9.1980	Stuffed specimen in Museum of Natural History in Klaipeda
3.	EH4c3	Mazheikiai D., deciduous park in Plinkshes	?	2-3	25.7.1997	Tape record: 6A/355-374; 6B/170-310.
4.	EG2a5	Shilute D., deciduous park in Zhemaichiu Naumiestis	?	3-5	19.7.1998	Tape record: 8B/062-130

a deciduous park in Zhemaiciu Naumiestis is also substantiated by our observations that could be easily performed therein in an open sports ground in a light sky of the early sunset. Nevertheless, there is a comprehensible doubt with respect to both these recent records because of absence of other confirmations that would be more reliable than the bat sounds.

As was noted in the introduction, the nearest to Lithuania localities of occurrence of this bat species are known from Latvia (PETERSONS & VINTULIS 1998), Poland (SERAFINSKI 1977, STEBBINGS 1988, Atlas of European mammals, 1999) and the southern regions of Byelorussia (KURSKOV 1981). In Latvia, this species is assumed as a regular inhabitant of the Latvian territory in spite of that Leisler's bat in Latvia is known from nine specimens handled only in one locality at the Pape Ornithological Station during autumn bat migration in 1985-1989 as well as from three observations of this species

using a bat detector in the eastern regions of Latvia (PETERSONS & VINTULIS 1998). According to KURSKOV (1981), all the records of Leisler's bat in Byelorussia are of single specimens, except one that refers to a colony of 32 females. In Poland, Leisler's bat deserves a status of very rare species that occur mostly in east, south and west central Polish areas (SERAFINSKI 1977, STEBBINGS 1989, Atlas of European Mammals, 1999). Hence, the present records of Leisler's bat in Lithuania together with records of this species in Latvia have to be considered as the northernmost localities of distribution of this species in Europe along the Baltic Sea Coast. Regarding the status of Leisler's bat in Lithuania, presumably it is an extremely rare species with the unknown status because only 3 findings of this species have been recorded in Lithuania since 1978.

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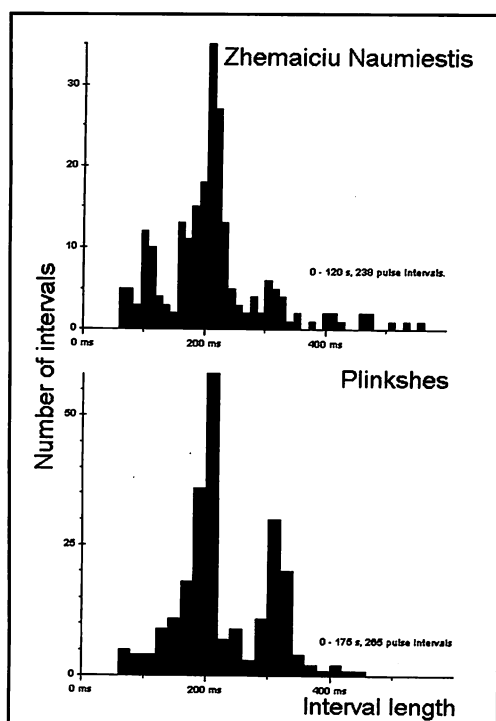


Fig. 1. Leisler's bat in Lithuania.

Abb. 1. Kleinabendsegler in Litauen.

Fig. 1. Noctule de Leisler en Lituanie.

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