

## Short note on the distribution and status of Leisler's bat *Nyctalus leisleri* (Kuhl, 1817), in the Netherlands

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With 1 Figure

### S u m m a r y

Despite intensive survey work in recent decades, the knowledge of the distribution, status and reproduction of Leisler's bat *Nyctalus leisleri* (NL: bosvleermuis) in the Netherlands is still quite poor, with single records since 1955, but mostly after 1981. Only 2 maternity roosts have been known in the 1980's, and since the 1990's just individual observations, among which a sexually active male in a bat box, have been made. Although the species undoubtedly is rare, bat box schemes in the east part of the country are expected to reveal more observations.

### R é s u m é

**Courtes remarques touchant à la distribution et au statut de la Noctule de Leisler, *Nyctalus leisleri* (Kuhl, 1817), aux Pays-Bas**

En dépit de travaux de recensement intensifs pendant les dernières décades, les connaissances sur la distribution, le statut et la reproduction de la Noctule de Leisler *Nyctalus leisleri* aux Pays-Bas sont toujours très lacuneuses, avec seulement quelques observations depuis 1955, dont la plupart datent d'après 1981. Seulement deux colonies de reproduction (maternités) étaient connues dans les années 1980 et à partir des années 1990 uniquement des observations individuelles – notamment un male sexuellement actif dans un nichoir – ont été faites. Bien que l'espèce soit sans aucun doute rare, on s'attend à ce que les campagnes de placement de nichoirs dans l'est du pays rapportent de nouvelles observations.

### Z u s a m m e n f a s s u n g

**Kurze Bemerkungen zur Verbreitung und zum Status des Kleinabendseglers, *Nyctalus leisleri* (Kuhl, 1817), in den Niederlanden**

Trotz intensiver Erfassungen in den letzten Jahrzehnten sind die Kenntnisse zu Verbreitung, Status und Fortpflanzung des Kleinabendseglers, *Nyctalus leisleri* (NL: bosvleermuis), in den Niederlanden sehr gering. Einzelne Beobachtungen existieren seit 1955, die meisten aber aus der Zeit nach 1981. In den 1980er Jahren waren 2 Wochenstuben bekannt. Seit den 1990er Jahren gelangen allerdings nur vereinzelte Beobachtungen, unter diesen auch ein sexuell aktives Männchen in einem Fledermauskasten. Obwohl die Art sicher selten ist, wird von Fledermauskastenprojekten im Osten des Landes erwartet, daß diese neue Nachweise erbringen.

In the Netherlands, the genus *Nyctalus* is represented by the noctule bat, *Nyctalus noctula*, and Leisler's bat, *Nyctalus leisleri*. The Greater noctule bat, *Nyctalus lasiopterus*, is known from only one record (VERBEEK 1993). While the noctule is relatively common and widespread in the Netherlands, the knowledge of the distribution, status and reproduction of Leisler's bats *Nyctalus leisleri* (NL: bosvleermuis) is still quite poor.

### D i s t r i b u t i o n (see Fig. 1)

The first record in the Netherlands of the Leisler's bat originates from the village of Wilp near Deventer in July 1955 where it was collected in an attic. It was not until 30 years later that it was recognised as *Nyctalus leisleri* (HOEKSTRA 1985). In 1981 the first maternity roost with a maximum of 35 individuals was found in a tree in the forest on the glacier end moraine, the St. Jansberg near Mook, south of Nijmegen, on the very east border of the Netherlands. Netting some of these bats revealed their identity and reproductive status (HELMER 1982, LINA et al. 1982).

Since then only one other roost, with a maximum of 18 individuals, has been found in a crevice in a tree in the forest of Imstenraderbos near Heerlen in the south east of the country (HELMER 1987). A mating group, consisting of four individuals, with at least one female, was observed in a bat box in the Rimburgerbos near Landgraaf in August 1998.

From autumn 1995 and spring 1996 onwards, individual Leisler's bats were observed almost yearly in this area in bat boxes (VERHEGGEN & PÖSCHKENS 1996). In Overijssel

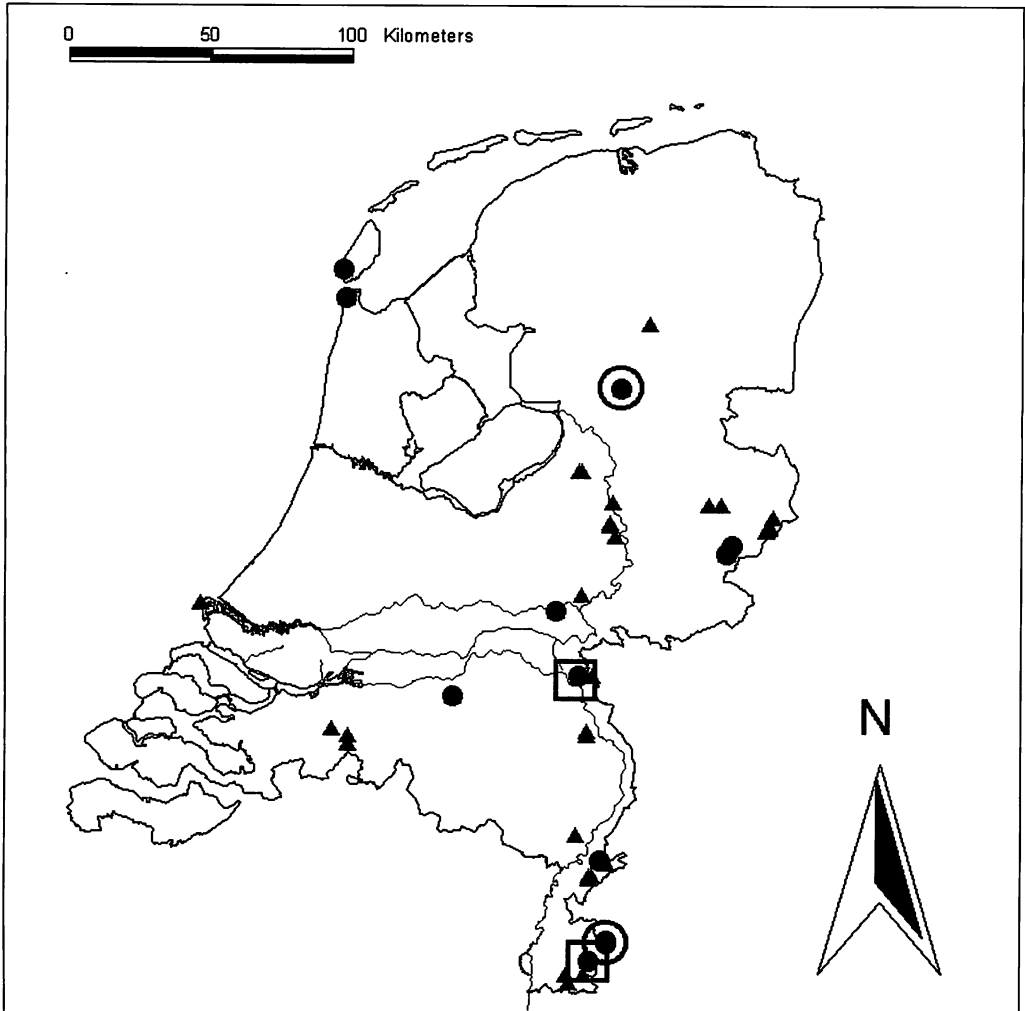


Fig. 1. Distribution of *Nyctalus leisleri* in the Netherlands (1981-2003): Presented in grid cells of 1x1 kilometre (centre of symbol). Mean number of occupied boxes for the various roost communities (mean results of the years 1981 to 2003)

Abb. 1. Vorkommen des Kleinabendseglers (*Nyctalus leisleri*) in den Niederlanden (1981-2003)

Fig. 1. Nombre moyen des boîtes occupées par les différentes communautés de gîte (résultats moyens des années 1981 à 2003)

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|---|---|
| <p>○ Mating group, identification by finding or sighting<br/>           Paarungsgruppe, Identifikation durch Auffinden oder Sichten<br/>           Groupe d'accouplement, identification par découverte ou vue</p> <p>● Observation, identification by netting, finding or sighting<br/>           Nachweis, Identifikation durch Netzfang, Auffinden oder Sichten<br/>           Observation, identification par capture au filet, découverte ou vue</p> | <p>▲ Observation, identification by bat detector<br/>           Nachweis, Identifikation mit Fledermaus-Detektor<br/>           Observation, identification par détecteur de chauve-souris</p> <p>□ Colony, identification by netting, finding or sighting<br/>           Kolonie, Identifikation durch Netzfang, Auffinden oder Sichten<br/>           Colonie, identification par capture au filet, découverte ou vue</p> <p>┆ Rivers<br/>           Flüsse<br/>           Rivières</p> |
|---|---|

near the village of Staphorst in 1999 one male with swollen bucal glands was observed in a bat box in autumn (DOUMA 2000, 2001). And more recently in May 2002 a female Leisler's bat was reported hanging in one of the office rooms of an industry complex in Herkenbosch, Limburg (VERHEGGEN 2002).

Identification of bats found dead and brought in by the general public in the framework of bats and rabies research revealed two individual Leisler's bats from the villages Oosterbeek and Haaksbergen (LINA 1990). Hibernating *Nyctalus leisleri* have never been observed in the Netherlands.

In general, observations from the summer period, and certainly bat detector-aided observations of hunting Leisler's bats, are concentrated in the east and south-east of the country and originate from landscapes with older forest.

Autumn observations on the Isle of Texel (animal found dead in a barn), in the city of Den Helder in the north-west of the country (BOSHAMER 1991, KAPTEYN 1995), and near a light house on an artificial Island de Maasvlakte west of Rotterdam (MOSTERT & WONDERGEM 1993), are assumed to be of migrating Leisler's bats.

In 1998 the regions of the *Imstenrade* forest (SPOELSTRA 1999) and the *St. Jansberg* (LIMPENS 1999) were intensively surveyed with bat detectors to check the presence of the species. Despite special attention and survey approach for Leisler's bats there was no trace of any Leisler's bats, whereas observations of foraging animals, roosts and mating roosts of the noctule were quite abundant.

### Statu s

Between 1986 and 1993 in the course the Dutch Bat Survey Project, the landscape of the Netherlands was thoroughly surveyed. Despite this intensive survey work bat detector records of Leisler's bats were made in only 27 5 x 5 km grid cells (< 2 % of grid cells, < 1 % of the total number of observations) (LIMPENS et al. 1997).

We assume that due to the rarity of the species and – partly as a result of that – the dif-

ficulty for many voluntary observers to get familiar with its sound and flight characteristics, the species may have been overlooked. Nonetheless we may conclude that in our country on the western border of its distribution on the European mainland, it is a rare to very rare species with irregular occurrence.

Since the last confirmed record in 1982 from Sint Jansberg near Nijmegen no further evidence of reproduction in the Netherlands has been found. The observation in 1998 of a mating group in the Rimburgerbos near Landgraaf indicates that the species could still be reproducing in the Netherlands, although this site is close to the border of Germany.

### Fu t u r e

Regular survey work directed at the species in the forests in the eastern part of the country and training of volunteer observers with respect to recognition of the species with bat detectors is needed to systematically assess and monitor its presence in the future (DIJKSTRA et al. 1999). Observations in recent years, in bat boxes in regions close to our eastern boarder with Germany (where coincidentally the bat detector work in the mapping project between 1986 and 1993 was less intensive, and during this project only few bat box schemes existed) could indicate that the species has always been present in this region, or again is present in small numbers in a very patchy distribution. Initiation and intensification of bat box schemes in these regions is needed to reveal more insight into the species occurrence in these eastern and south-eastern parts of the Netherlands.

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