Fennoscandian Bats #3

Mapping advertisement calling *Vespertilio murinus*

A larger project on mapping potential localities of advertisement calling *Vespertilio murinus* L., 1758 was initiated in 1993. All cities along the Norwegian coast from Halden to Bergen are being investigated. Some inland cities including Karlstad, Örebro and Aalborg are being checked. The project's aim is to cover 32 cities with some 230 potential localities.

Leif Gjerde

Potential localities of *Vespertilio murinus* were visited in September and October from ca. 1-2 hours after sunset. Surveying was carried out only in good weather conditions, with no precipitation, little or no wind, and temperatures above +2°C. The ultrasound detector was fixed at 25 kHz to enable detection of foraging bats. It turned out, however, that it is more useful not to use the detector while locating advertisement calling males.

The media were used to inform the public of the project. People were urged to call in their observations on *Vespertilio murinus* to NØBI's mobile phone number.

All the previous observations were collected from literature and observations made by colleagues. Cities thought to be large enough to contain tall artificial structures were listed first. These structures were mapped by checking first with the local taxi drivers, police stations and fire departments, which had usually a fairly good knowledge of the local geography. Furthermore, I got a triple check of the city. They were contacted by phone before the cities were visited at night. Potential localities discovered during the survey were added to the list, while unsuitable localities were ruled out. In the case of the cities of Drammen and Oslo, locals were not contacted. All 9 story-tall buildings were mapped during the day in Oslo, Kristiansand, Sandnes and Stavanger. Other cities were checked during the trip to, and bats surveyed fro. Whenever possible, the local caretaker was contacted.

In Drammen, however, the localities were not mapped prior to the survey at all, because of the good aerial view while driving.

Natural habitats were surveyed as well. A list of them was obtained from the County Environmental Departments, Project Peregrine Falcon and Project Eagle Owl.

Each potential locality was visited at least three times, every time for five minutes or more. When advertisement calling males were confirmed from a locality, it was visited no more. The reason for this was that the survey mainly register the presence of advertisement calling males. Posters were hung up in all localities where bats were not detected, with a request for observations.

In addition, the local newspapers were used, and in a few cases a radio station.

A Pettersson D100 ultrasound detector was chosen , in contrast to the D980, since it has a loudspeaker. It was important to be able to hear the audible sounds from the advertisement calling males, as well as the search calls. Headphones were therefore not used.

All pipes, churches, silos, apartment buildings, forts, industrial buildings and cliffs over a certain height were checked. Some localities not exceeding this height were occasionally checked.

Figure 1.

	total	mapped	bats
cities	32	14	14
pot. loc.	230	167	52

The temporary results (see figure 1) from 14 cities where the species was found (52 inhabited localities), show a very patchy distribution. Only the cities around the Oslo Fjord seem to constitute a continuos distribution. The best city so far, seems to be Drammen, where 17 of 23 potential localities were occupied (Gjerde 1994). In Drammen, advertisement calling males were also found in housing estate area. The use of this type of habitat had been previously reported only from Halden (Hardeng 1992) previously.

The township of Romsås in Oslo had also a good population. Advertisement calling males were recorded from all potential localities (Gjerde 1994).

The project is being organized by Nordre Øyeren Biological Station (NØBI) as a

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Fennoscandian Bats no. 3

20. December 1995
NØBI, 1995

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Fennoscandian Bats is published occasionally by Nordre Øyeren Biological Station (NØBI). The newsletter contains news from the geographic areas of Fennoscandia and Denmark.

Quotations should contain full acknowledgement. Unless stated otherwise, articles are written by the editor. *Fennoscandian Bats* is available free of charge upon request.

Editor: Leif Gjerde.
Editoral staff: Anna Wagner.
Newsletter logo drawn by Martin Tjernberg.
Lay-out: Leif Gjerde.
Circulation: 1000.
Printed at Lillestrøm Trykkerier A/S.

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ISSN 0805-570X

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Continued from page 1.

part of a larger program on this species. A similar project is also being initiated in Warszawa, in cooperation with NØBI.

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New Newsletters

Greek Bat News

The Hellenic Bat Society have published through the Athens Bat Project the newsletter *Greek Bat News*. Interested subscribers may contact the General Secretary, Anna C. Harrisson, P.O.Box 3277, Athens 102-10, Greece.

Mopek

Mazovian Bat Research Group (MBRG) was established in 1989. The area of our scientific interest covers the central and northeastern Poland (about 65,000 km^2). MBRG have over 20 members including 4 professional bat workers.

Our bulletin, *Mopek* (the Barbastelle), presents yearly reports of our activity. The first issue was published in 1993. A second number (1994) has also been published. Editors are Marek Kowalski and Grzegorz Lesinski. Potential subscribers may write to Grzegorz Lesinski, Instytut Ekologii PAN, Zaklad Ekologii Kregowcow, Dziekanow Lesny, PL-05 092 Lomianki, Poland.

Grzegorz Lesinski

Errata

In the last issue of Fennoscandian Bats we had written the wrong first-author of the Norwegian broshure *Flaggermus som gjester i våre hus.* The correct reference is therefore: Gerell, R. & L. Gjerde...

We appologize for the mistake.

Workshop on bats in Norway

Nordre Øyeren Biological Station invites you to a workshop on bats at Riddersand school near Øyeren during the weekend 28-30 June 1996.

The aim of the workshop is to strengthen the contacts between Norwegian bat workers and increase knowledge and experience among these and other interested parties.

One night will be spent at Sørumsneset Nature Reserve where the densest population of *Vespertilio murinus* in Norway has been measured. Also high densities of *Eptesicus nilssonii* exist, and a *Myotis daubentonii* and *Pipistrellus pipistrellus* colony will be visited.

During the second night Østensjøvannet in Oslo will be visited. This is by far the best foraging locality for bats in Norway. Six species occur and densities of *Eptesicus nilssonii* reaches over 100 per kilometer.

A day excursion will take us to churches used by bats, and some talks will be held.

For more information contact Leif Gjerde by phone (922 10800) or write to NØBI, Postboks 28, N-1920 Sørumsand.

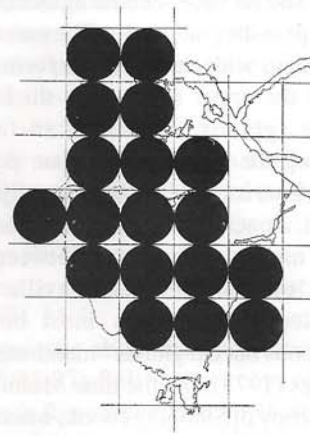
Deadline for registration is 24 June.

Pettersson launces the D240 detector

In September Pettersson Elektronik AB added a new detector to the D 200 family, the D 240. It has the same design and size as the other detectors, but combines a heterodyne system and a time expantion system in the same box. A digital system is used to store and replay the signals. The maximum storage time is 1.7 seconds. The price is SEK 9800.

Publications

Gjerde, Leif. 1994. **Notes on the distribution of bats on Jæren.** NØBI Report 20. Nordre Øyeren Biological Station. 17 pp. ISBN 82-90827-14-8. Price: NOK 100,-. This report includes faunistic data from a survey in Southwestern Norway. Maps with 10x10 UTM squares are included.



Gjerde, Leif. 1995. **Methods in Monitoring Bat Populations.** NØBI Brief 5. Nordre Øyeren Biological Station. 17 pp. ISBN 82-90827-21-0. Price: NOK 50,-.

This report contains a provisional evaluation of methods developed by the biological station.

Gjerde, Leif. 1995. **A provisional assessment of the management of Bats in Norway.** NØBI Brief 7. Nordre Øyeren Biological Station. 12 pp. ISBN 82-90827-22-9. Price: NOK 50,-.
This report is a contribution to the first conference of the parties to the agreement on the conservation of bats in Europe. The meeting was held in Bristol (UK) during 18 - 20 July 1995.

were removed on 28 September 1987. Two days later (30/9) it was released by Helgø in a shed only 10 meters away.

The bat was photographed in a warm and light glass livingroom. As it livened up, it became less sour. It crawled on the present persons and allowed to be patted and scratched with the same joy as any domestic cat (it closed its eyes and stretched itself). Ectoparasites were abundant, and therefore gloves were used. Every person who had the rare oportunity of watching the bat, became more positive to bats in general. They thought it was cute. Even when the teeth were inspected, it didn't bite.

Description

Head and body length was measured to be a little more than 8 cm. Forearm was 5.5 cm. The wingspan was carefully measured, under a lot of protests (screaming first time) to be ca. 36 cm.

Fur color was tawny, brownish yellow. The fur base seemed lighter (more yellow) than the guard hairs. The ears were small, tragus with characteristic form. The sides of the upper snout were thick and swollen (glands, vortelike surface). Inspecting the mouth cavity, one polyp-like tumor on each side of the upper lip was revealed. Attached to the inside of the lip, the two tumors were hidden between the canines of the occluded maxilla and mandible. These polyps must be the "conspicous buccal glands" mentioned by Stebbings (1977). (At the time Moltu sent Helgø a copy of Stebbings book, where the description of *Nyctalus noctula* was detailed). The post calcarial lobe was forgotten to be inspected. The wings were conspicuously hairy along the entire humerus and radius.

Norwegian status

Nyctalus noctula has been positively identified at 13 localities in Østfold, Akershus, Oslo, Buskerud and Rogaland. It seems to be most abundant in Oslo and Akershus. It has been observed regularly from three localities, but most other localities have only been surveyed once. It would be to speculate when considering the size of the Norwegian population at this state. However, a minimum population of 30 - 50 individuals has been mentioned by Gjerde (1995b).

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Figure 3. Close-up pickture of Nyctalus noctula *on Finnøy, Southwestern Norway. Credit: Halvard Helgø.*

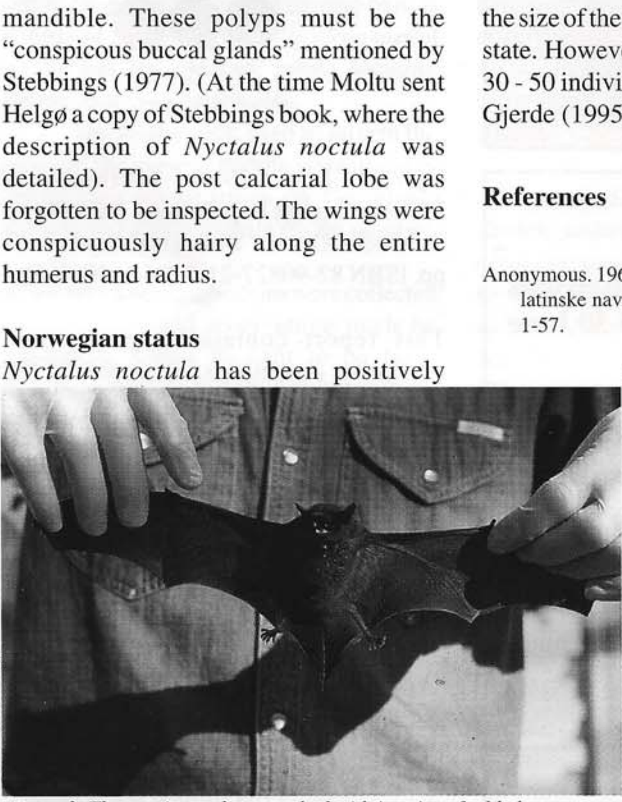

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Figure 2. The specimen photographed with its wings foulded out. Credit: Halvard Helgø.

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First record of *Nyctalus noctula* (Schreber, 1774) in Norway

For the last few years there have been some disagreements concerning the first record of *Nyctalus noctula* in Norway. This article will clarify all the speculations on the first record ever to be confirmed from Norway.

Leif Gjerde
and
Halvard Helgø

Figure 1. Map of Fennoscandia with recent records of Nyctalus noctula *from Norway indicated.*

Collett (1912) mentions that this species was shot at Slemmestad (Røyken, Buskerud) on 20 May 1909 and it is described from Fredrikstad in Østfold County where it was observed in June of 1896. He also mentions some records from Hatfjelddalen in Søndre Helgeland and Susendalen, both in Nordland county. The two latter observations, he states himself, are not certain.

Collett's findings are treated differently in later publications (Wollebæk 1927, Ryberg 1947, Tambs-Lyche 1947, Wollebæk 1947, Christiansen 1972, 1982). In 1960 (Anonymous 1960) this species was included on the Norwegian Zoological Society's list of vertebrates from Norway. It was not until 1987 when the first real documentation of this species was made.

During the summer of 1993 the author was censusing bats in a township of Oslo. The project was financed by the Center for Development and the Environment at the University of Oslo. The project was entitled *Habitat selection of bats (Chiroptera) from an urban area of Oslo*. During this work the lake Østensjøvannet was visited three times. On two of these visits a bat seemingly different from *Vespertilio murinus* was noted, and a recording was made at one of the visits. Later the same fall the recording was brought to the II European Bat Detector Workshop. It was played for two Dutch scientists and Dr. Hans Baagøe from Denmark. Baagøe could with certainty confirm the recording to be of *Nyctalus noctula*. During the VI European Bat Research Symposium in Evora, just one week earlier, Syvertsen *et al.* (1995) had a poster stand mentioning a finding of *Nyctalus noctula* in Norway. However, the observation was not certain (Syvertsen & Starholm 1993). It was therefore assumed that Gjerde's two observations from Østensjøvannet were the first ever of this species to be confirmed in Norway. A note was published in *Norwegian EMMA Project Update* no. 1 (Gjerde 1993).

It was then drawn to Gjerde's attention that *Nyctalus noctula* was actually first recorded from Østensjøvannet in 1992 by several persons. However, they had not in any way mentioned this previously.

During NØBI's work in Rogaland, Gjerde was at several occasions both in the local newspaper (Stavanger Aftenblad) and radio (Radio 1). Through these media, persons were urged to report to NØBI about any colonies people were aware of, so NØBI could check them.

Halvard Helgø then contacted Gjerde and told about his findings from 1987 from Finnøy. It showed out that Helgø had told about his findings through two channels. First through Stavanger Museum where he contacted Moltu (letter dated 1/11-87). Moltu seemed, however, not too enthusiastic about the observation (reply of 18/11-87). Still he sent a copy of Helgø's letter to Roar Solheim in September 1988.

Later, in January 1992, Helgø sent his slides to Jørgen A. Pedersen at the Zoological Museum in Oslo. Pedersen could, with no doubt, confirm the species. Unfortunately Helgø's two approaches did not bring about any public acknowledgement of the species. Solheim (1990) published in Norges Dyr that the species could not be confirmed from Norway. Yet he had the copy of Moltu's letter where the measurements of the specimen and drawings were included. Also Syvertsen *et al.* (1994) and Starholm *et al.* (1993) do not acknowledge Helgø's finding, though referring to the Finnøy observation which was mentioned by Moltu (undated). The record was referred to as an indication and that the measurements pointed in the correct direction.

year	# obs.	# localities	new location	reference
1896	*1	1	Fredrikstad, Østfold	Collett 1912.
1909	*1	1	Røyken, Buskerud	Collett 1912.
1987	1	1	Finnøy, Rogaland	this article
1988	*1	1	Donavall, Vestfold	
1992	2	1	Østensjøvannet	Syvertsen *et al.* 1994.
1993	2	1		Gjerde 1993.
1994	38	7	Tunevatnet, Østensjøvatnet, Bjørkelangen, Sørumsand, Bærum Verk, Yddersnes.	Gjerde 1995 a, b; Wergeland Krog 1995a, b.
1995	7+	6	Gjersjøen, Häljeboda, Brua, Drammen, Romsås, Rakkestad.	Gjerde 1995 a,b; Wergeland Krog 1995b.

Table 1. Confirmed and unconfirmed Nyctalus noctula *records in Norway up till now. Unconfirmed observations are indicated with *.*

The Finnøy observation

A bat became visible when the boards on the wall at Rygjabø videregående skole