

# First record of an albino long-eared bat *Plecotus auritus* in The Netherlands

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Every summer, we carry out a survey of church loft dwelling bats in the northern half of the Dutch province of Limburg (figure 1). This survey is part of a nation-wide monitoring program (De Wijs 1995, Buys et al. 1999), and focuses on both indigenous *Plecotus* species, *P. auritus* and *P. austriacus*.

On September 18th 1999, we observed an albino specimen of *P. auritus* in the loft of the (partially medieval) church in the village of Nunhem (figure 2, 51°14' N – 05°57' E). The animal was one of a group of 21 individuals of the same species (figure 3). The bat was brightly white, except for the eyes, which showed black. This indicates that the retina had the usual pigment. As far as visible, other parts of the body lacked any pigment. Therefore, we conclude this was a case of partial albinism. To use the alternative qualification, leucism, the fur should have had pigmentation to some extent.

Whereas both *Plecotus* species occur in this area (Buys & Vergoossen 1997), we paid particular attention to the identification of this albino specimen. In this survey we never handle the animals, in order to minimise disturbance of the bats. Moreover, there is a practical reason as most animals hang out of reach in the top of the loft. Hence, we based the identification of the group on the shape of the head, the colour of the skin and tragus, and the colour of the fur (Buys 1996). All animals had the *P. auritus* characteristics. Although the characteristic 'colour of the fur' and 'colour of skin and tragus' were not applicable to the albino bat, the shape of the head was typical for *P. auritus*. The albino bat had the typical blunt nose and swollen glands between the nostrils and eyes. The shape of the head is the most distinctive criterion, for it is related to the measurable differences in skull characteristics between both *Plecotus* species.

We revisited the Nunhem church twice afterwards in 2000 and 2001. In both visits a group of *P. auritus* was present. However, the albino bat was not found, suggesting that the animal either had not survived or used another, unknown, roost at the time.

This is the first record of an albino *P. auritus* in the Netherlands. Bekker (1989) and Van Laar (1994) describe partial albinism in *Myotis daubentonii* and *M. mystacinus* respectively. An albino *Myotis dascyneme* was reported from the village of Kollum (province of Friesland) around 1955 (W. Bongers, personal communication).

Albinism is known to exist in both European *Plecotus* species. Haensel et al. (1993) describe a whitish specimen of *P. austriacus*. Lehnert (1991) and Weidner (1994) report a completely and a partially albino specimen of *P. auritus* respectively. It is unlikely that the specimen of Lehnert migrated to Nunhem because the animal Lehnert describes had reddish / pink eyes. Moreover, the distance between Berlin and Nunhem and the reputation of *P. auritus* as a rather sedentary species exclude migration.

Uieda (2000) gives an overview of complete albinism in bats. Altogether he mentions 64 cases, which underlines the rarity of the phenomenon. Uieda also comments on the occurrence and survival rate of albino bats. First of all, he notes that albinism is seldom found in bats roosting in unsheltered places. This might imply that the survival rate of albino bats in sheltered roosts (like buildings, tree hollows, nesting-boxes, etcetera) is higher. Nevertheless, Uieda (2000) is not clear whether or not this can be

Figure 1. The survey area



Figure 2. The Nunhem church

attributed to a relatively higher inspection frequency of these types of roosts. He even argues that in the case of bats roosting in foliage a light (or white) fur is an advantage, as it reflects the (green) colour of the foliage, thus making the bats less visible. Uieda mentions several cases in which albino bats have been observed for several years, which shows that albinism does not necessarily imply a short life for a bat. This is not very surprising, considering the nocturnal habits of bats and the dark roosts they generally select.



Figure 3. Albino *P. auritus*

### Acknowledgements

We thank Chris Smeenk, Peter Lina, Ben Verboom and Wim Bongers for bringing up references, and two anonymous referees for useful suggestions to improve the manuscript.

### Samenvatting

In 1999 troffen we tijdens de jaarlijkse kerkzolderinventarisatie een albino gewone grootoorvleermuis (*Plecotus auritus*) aan op de zolder van de kerk in Nunhem (provincie Limburg). Een tamelijk unieke waarneming, getuige het kleine aantal meldingen van albino vleermuizen in de literatuur. Gezien de zwart gepigmenteerde ogen, kunnen we hier niet spreken van volledig albinisme. Tijdens bezoeken in 2000 en 2001 werd geen albino grootoorvleermuis meer aangetroffen; steeds waren er wel gewone grootoorvleermuizen op de zolder aanwezig.

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