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THE FIRST WINTER RECORD OF *NYCTALUS NOCTULA* IN NORTHEASTERN UKRAINE

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The first winter record of *Nyctalus noctula* in northeastern Ukraine. — I. Merzlikin. — The common noctule is considered a typical species of migratory bats in the forest-steppe of northeastern Ukraine. In the last few years, the species has shown a tendency to expand its wintering range. Wintering common noctules were recorded throughout Ukraine, including neighbouring with the current record regions. The first record of the species during winter in the territory of Sumy region is noted. The finding of an individual (young male) of the common noctule in the basement of a multi-storey building in Sumy city on 10 January 2017 is described. The present record expands the boundaries of the currently recognized wintering range of the species to 150 km northward and 200 km eastward from other known winter record localities of the species.

Key words: *Nyctalus noctula*, wintering, winter finds, northeastern Ukraine, Sumy.

Перша зимова знахідка *Nyctalus noctula* на північному сході України. — І. Мерзлікін. — Вечірниця дозріла є типовим перелітним видом кажанів лісостепу північно-східної України, який в останні роки проявляє тенденцію до розширення зимівельного ареалу. Вечірницю дозрілу реєстрували на місцях зимівлі по всій Україні, у тому числі і в суміжних із Сумською областях. Відмічено перший випадок реєстрації виду в зимовий час на території Сумської обл. Описано знахідку однієї особини (молодий самець) вечірниці дозрілої у підвалі багатоповерхового будинку в м. Суми 10.01.2017 р. Ця реєстрація розширює межі відомого зимового ареалу виду на 150 км північніше і на 200 км східніше від інших відомих місць знахідок виду в зимовий час.

Ключові слова: *Nyctalus noctula*, зимівля, зимові знахідки, північно-східна Україна, Суми.

Introduction

The current state of the development of fauna is characterized by significant changes of the migration status of a number of species, including bats. Among the species that during the last decades have shown a tendency to expand their wintering range is the common noctule (Zagorodniuk, Rebrov, 2014). It is a typical migrant bat species of the forest-steppe of northeastern Ukraine (Abelentsev, Popov, 1956; Zagorodniuk, 2001). However, during recent years several cases of findings of wintering individuals of this species were reported throughout Ukraine, including the neighbouring regions such as Kharkiv, Chernihiv, and Poltava (Vlashchenko, 1999; Rodenko et al., 2014; Prilutskaya, Vlashchenko, 2013; Godlevska, 2015), thus it was expected to find the species in the Sumy region as well.

The author have gathered data on records of bats in Sumy city and in the Sumy region for many years. They include results of the author's own investigations, as well as data on animals brought by colleagues, students, and townspeople who are interested in this group of animals. A special attention is paid to synanthropic species and those which are in the process of synanthropization.

The aim of the present work is to describe the first case of finding of the common noctule during winter in the territory of the Sumy region.

Results and discussion

A bat identified as a common noctule was brought to the Department of Human and Animal Biology. It was a young male with unworn tooth crowns. The bat was found on 10 January 2017 in a basement of a multi-storey building in Sumy city. It was a single record and no bats were discovered here earlier. Since the common noctule hibernates in groups (Abelentsev, Popov, 1968), it is possible that this individual got to the basement due to disturbance of the wintering colony in which it was hibernating originally. The bat was severely exhausted because it was kept in a cardboard box without proper care or several days, and, eventually, died. The length of its forearm was 55 mm, its weight 20.5 g. The species identification was confirmed by colleagues (I. Zagorodniuk, pers. comm.).

Currently, the wintering of the common noctule is known for 23 of the 25 administrative regions of Ukraine (Godlevska, 2015). The described here record expands the known boundaries of the wintering range of the common noctule in Ukraine. It is possible that the species hibernated in the Sumy region earlier, but it remained unknown until recently. Curiously, the present finding is from the basement of a multi-storey building, which is not a characteristic wintering shelter of the common noctule in Ukraine (Godlevska, 2012).

This is the first winter record of the common noctule in northeastern Ukraine. It can serve as evidence for the formation of a new part of the species' wintering range located far from the closest winter sightings, namely ca. 150 km northward and northwestward from Poltava and Kharkiv and 200 km eastward from Nizhyn.

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References • Література

- Abelentsev, V. I., B. M. Popov. 1956. The order of bats — Chiroptera. *Fauna of Ukraine. Volume 1, Issue 1*. Publishing House of Acad. Sci. of Ukr. RSR, Kyiv, 229–446. (In Ukrainian)
- [Абелентцев, В. І., Б. М. Попов. 1956. Ряд Рукокрилі, або кажани — Chiroptera. *Фауна України. Том 1, вип. 1*. Вид-во АН УРСР, Київ, 229–446.]
- Godlevska, L. V. 2012. Results of the work of the bat contact-center (Ukraine). *Scientific Notes of Taurida V. I. Vernadsky National University. Series: Biology, Chemistry*, **25** (64), № 4: 12–20. (In Russian)
- [Годлевская, Е. В. 2012. Результаты работы контакт-центра по рукокрылым (Украина). *Ученые записки Таврического национального университета им. В. И. Вернадского. Серия: Биология, химия*, **25** (64), № 4: 12–20.]
- Godlevska, L. V. 2015. Northward expansion of the winter range of *Nyctalus noctula* (Chiroptera: Vespertilionidae) in Eastern Europe. *Mammalia*, **79**, No. 3: 315–324.
- Prylutska, A. S., A. S. Vlaschenko. 2013. Materials on the bat distribution on the base of results of contact-center in Kharkov (2008–2012). *Biological systems*, **5**, Is. 4: 532–537. (In Russian)
- [Прилуцкая, А. С., А. С. Власченко. 2013. Материалы по распространению рукокрылых, по итогам работы контакт-центра в Харькове (2008–2013 гг.). *Биологичні системи*, **5**, вип. 4: 532–537.]
- Rodenko, E. E., K. A. Kravchenko, A. S. Vlaschenko et al. 2014. The finding of the common noctule (*Nyctalus noctula*) in wintertime in Poltava (Ukraine). *Plecotus et al.*, **17**: 43–51. (In Russian)
- [Роденко, Е. Е., К. А. Кравченко, А. С. Власченко и др. 2014. Находка рыжих вечерниц (*Nyctalus noctula*) в зимнее время в Полтаве (Украина). *Plecotus et al.*, **17**: 43–51.]
- Vlaschenko, A. V. 1999. Finding common noctule *Nyctalus noctula* wintering in Kharkov. *Vestnik zoologii*, **33**, No. 4–5: 76. (In Russian)
- [Власченко, А. В. 1999. Находка рыжей вечерницы *Nyctalus noctula* на зимовке в Харькове. *Вестник зоологии*, **33**, № 4–5: 76.]
- Zagorodniuk, I. 2001. General picture of bat fauna dynamics in Ukraine. *Migration Status of Bats in Ukraine*. Kyiv, 157–168. (Novitates Theriologicae; Pars 6). (In Ukrainian)
- [Загороднюк, І. 2001. Загальна динаміка хіроптерофауни України. *Міграційний статус кажанів в Україні*. Київ, 157–168. (Novitates Theriologicae; Pars 6).]
- Zagorodniuk, I., S. Rebrov. 2014. Pattern of geographic distribution of *Nyctalus noctula* (Mammalia: Chiroptera) in eastern Ukraine and the formation of new hibernating groups in urban landscapes. *Visnyk of the Lviv University. Series Biology*, **67**: 138–147. (In Ukrainian)
- [Загороднюк, І., С. Ребров. 2014. Структура ареалу *Nyctalus noctula* (Mammalia) на сході України та формування нових зимівельних груп в урболандшафті. *Вісник Львівського університету. Серія Біологічна*, **67**: 138–147.]