

Observation of daylight migration of *Nyctalus noctula* in NE Ukraine (Chiroptera: Vespertilionidae)

Наблюдение дневной миграции вечерниц (*Nyctalus noctula*) в СВ Украине (Chiroptera: Vespertilionidae)

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Abstract. Daylight migration of several groups of noctule bats (*Nyctalus noctula*) was observed in the Kharkov region, Ukraine, in September 2010. The bats were foraging above steppe slopes and were moving from the north-east to the south-west. It is the first evidence of such unusual behavior of bats in NE Ukraine.

Key words. Noctule bats, migration, daylight, steppe slopes, Kharkov region, Ukraine.

The daylight migration of bats in the south of Ukraine is well-known from the literature (OGNEV 1928, KUZÁKIN 1950, ABELENCHEV et al. 1956) and from zoologists working in that region (A. M. VOLOKH, pers. obs.). One of the most valuable observations was done by A. N. FORMOZOV in the Askania-Nova Biosphere Reserve. He observed about 20 bats foraging above a steppe area during the period from 8.00 till 13:00 in early September, 1923 (OGNEV 1928). Observations of such migration behavior of bats in the northern regions of Ukraine were unknown.

On 17 September 2010, daylight-flying and feeding bats were observed above steppe slopes near the Petrovka village (50° 06' N, 36° 31' E), Kharkov region, north-eastern Ukraine. The weather was clear, calm and the temperature was +20 °C. For identification of bat species we used the Pettersson D200 ultrasound detector and a binocular. The first registration was made at 17:30 (1 hour and 15 minutes before sunset). During 20 minutes, a foraging group of over 15 noctule bats (*Nyctalus noctula*) was observed at a height of 15–30 m. One bat had an injured wing and because of that it was flying rather low. Later on, we fixed three more places of concentration and foraging noctule bats southwest of Petrovka, along 18 km of the road leading to the Kharkov city. Two groups consisted of more than 50 bats and one consisted of five bats. The bats were foraging solely above natural steppe vegetation and avoided the fields. The last group of noctule bats was noticed at the outskirts of the Kharkov city during sunset.

The daylight activity of bats is known for different species in Britain (SPEAKMAN 1990, 1991) and for *N. azoreum* at the Azores archipelago (MOORE 1975). *N. azoreum* shows a strong tendency to fly and hunt during the day, while in Britain such behavior of bats is irregular. One of the main causes of diurnal activity during summer is to feed to compensate for the energy deficits that have accrued because of inadequate intake during nocturnal foraging (SPEAKMAN 1990). In most cases, the observations of bats in Britain were single individuals and they were active between 12:00 and 16:00 both in winter and in summer (SPEAKMAN 1990). In our case we observed groups of noctule bats moving from the north-east to the south-west

and possibly heading for their hibernation sites. The nearest hibernation site, where mass wintering of *N. noctula* is known, is situated in the Kharkov city at the distance of 1.25 km from the places where the groups of noctules were observed (VLASCHENKO 1999, VLASCHENKO & GUKASOVA 2009). Migration of noctules in the Kharkov region begins in the second part of August (GUKASOVA & VLASCHENKO 2011). In western Poland it was shown that flight and foraging activity of *N. noctula* was higher in the first part of the night during autumn migration than during spring (FURMANKIEWICZ & KUCHARSKA 2009). Thus our observation could be an example of such migration behavior. This is the first evidence of daylight migration of noctule bats in north-eastern Ukraine.

РЕЗЮМЕ

Наблюдение дневной миграции нескольких групп вечерниц было сделано в сентябре 2010 г. в Харьковской области, Украина. Рукокрылые охотились над степными склонами и перемещались с северо-востока на юго-запад. Это первая регистрация такого необычного поведения рукокрылых в СВ Украине.

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