

Winter breeding of the Long-eared Owl (*Asio otus*) in South-Western Slovakia

Zimné hniezdenie myšiarky ušatej (*Asio otus*) na juhozápadnom Slovensku

Michal NOGA

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Abstract: On February 9, 2005, 3 juveniles of the Long-eared Owl *Asio otus* aged 14–18 days were observed in the urban area of Trnava. During the same period, breeding of the Long-eared Owl was reported from the Czech Republic and Italy. Winter breeding probably occurs more frequently with this species than anticipated, but has so far escaped our attention.

Abstrakt: Dňa 9. februára 2005 boli v intraviláne mesta Trnava pozorované 3 mláďatá myšiarky ušatej *Asio otus* vo veku 14–18 dní. Predpokladaný termín začiatku inkubácie je 25.–30. december 2005. V rovnakom období bolo zaznamenané hniezdenie i v Čechách a Taliansku. Zimné hniezdenia tohto druhu sú pravdepodobne častejšie, len unikajú pozornosti.

Key words: *Asio otus*, winter breeding

Michal Noga, Lubovníkova 34, SK–841 07 Bratislava, Slovakia. E-mail: noga@dravce.sk.

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Introduction

The Long-eared Owl (*Asio otus*) belongs to the most frequent breeding owl species in Slovakia, preferring open agricultural land in the lowlands and piedmont areas. Breeding population in Slovakia comprises approximately 2500–4000 breeding pairs. This species shows a high variability of migration behaviour – sedentary, nomadic and migratory (Kropil 2002). In the post-breeding and predominantly winter period, the Long-eared Owls gather to form flocks of 5–140 individuals, which inhabit conifer stands in the rural areas. The final owls leave the wintering grounds (in South-Western Slovakia) in the middle of March (Noga 2006). The Long-eared Owl breeds once or twice a year where the second breeding is not regular and depends on the availability of food (Konig & Weick 2008). The majority of egg-laying in the Czech and Slovak Republic occurs in the second half of March and beginning of April (Hudec et al. 2005).

Record

On February 9, 2005 during a routine monitoring of the winter gathering grounds in South-Western Slovakia, occurrence of 3 juveniles of the Long-Eared Owl was recorded in the North-Eastern part of Trnava (146 m a. s. l., Trnava Hills). Juveniles resided in a small fir stand with

a nest of the European Magpie (*Pica pica*), where the owls nested. The juveniles were aged 14–18 days. They seemed to be in a good physical condition. Pellets and remains of prey were found under the trees, including at least 3 individuals of the Common Vole *Microtus arvalis*.

Hatching was calculated between January 22–26, 2005. Considering an incubation period of 25–30 days (Cramp 1985), the expected date of egg-laying falls between December 25–30, 2004.

Discussion

Winter breeding of the Long-eared Owl in Europe is probably not a rare phenomenon. 2 other records were reported from the Czech Republic – March 1, 1964, dead juvenile owl was found under the nest (Martínek in Hudec 2005), and on February 4, 2005 five juveniles were found at the Slavkov u Brna (Hrabovský 2006). Two other records from the same winter period were reported from Italy, where 3 juveniles aged 2–3 weeks were found on January 18, 2005 at Campobasso (Central Italy) and one 3–4 week old juvenile was found on January 19, 2005 at Valderice in the province Trapani (Gustin & Provenza 2006). Similar reports of winter breeding are known from Hungary (Monóki A. in litt.) and Serbia (Ružič M. in litt.), or early spring breeding from Germany (Benedikt & Dick 1975).

The question of whether winter breeding of Long-eared Owls is caused by favourable trophic conditions at the given location and/or above average daily and night temperatures remains unanswered. During research in 1974–1979 in the Netherlands, positive correlation between the gradation of the Common Vole and the number of eggs of the Long-eared Owl was recorded, as well as earlier egg-laying (beginning of March). However, winter breeding was not recorded (Wijnandts 1984). In the period 1996–2007, collection of pellets and analysis of the diet of the Long-eared Owl was carried out (Noga 2007). During the winter period 2004/2005, when breeding was recorded in Slovakia, the Common Vole comprised 47.5% of the prey, which was the lowest proportion recorded during the whole research period. The examination of pellets was not carried out directly at the nesting location, therefore local gradation of the Vole in the close surroundings cannot be ruled out.

Considering the climate conditions, during the period before the incubation including the first two weeks of December, unusually warm weather was observed with average daily temperatures between 1–10 °C above the long term average. In contrast to the two winter breedings reported from Italy, temperatures were not significantly above the 25-year temperature average (Gustin & Provenza 2006).

Winter breeding was also recorded with the second species from the genus *Asio*, the Short-eared Owl *Asio flammeus* (Hořice 1937). Both species often occur together on common hunting grounds in winter (Lengyel et al. 2006). Common wintering of these two species has been recorded several times. (Škorpíková et al. 2005, Noga 2008). It appears that winter breeding is another common characteristic of these two species.

Conclusion

In the winter period 2004/2005, breeding of the Long-eared Owl (*Asio otus*) was recorded in the suburban area of Trnava. On February 9, 2005, three juveniles aged 14–18 days were observed. According to calculations, incubation must have started between December 22–27, 2004. In the same period (December 2004 – February 2005), breeding was also recorded in the Czech Republic (location Slavkov u Brna, Hrabovský 2006) and in Italy (Valderice at Campobasso, Gustin & Provenza 2006). It appears that winter breeding of the Long-eared Owl in Trnava may have been caused by the unseasonably warm weather in November and December, since the population of the Common Vole as the main prey species of the Long-eared Owl in the South-West Slovak region was the lowest within the observed period 1996–2007.

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