

## On some owls (Aves: Strigidae) in the high parts of Pirin (SW Bulgaria) and their parasitic flies (Diptera: Hippoboscidae)

Petar BERON

**Abstract.** In the Pirin Mts. (SW Bulgaria) very high localities of owls were recorded. The Tengmalm's owl (*Aegolius funereus*, new for Pirin) was netted at 2340 m, the Long-eared owl (*Asio otus*) - at 2760 m. Six parasitic flies (*Ornithomyia avicularia* L. - Diptera: Hippoboscidae) were collected on *Aegolius funereus*.

**Key words:** owls, Strigidae, Pirin, Diptera, Hippoboscidae, high altitude

While netting bats in Pirin in August 2002, Boyan Petrov and the author had the chance to catch two species of owls (Strigidae). As the information on the occurrence of owls in the high mountains of Bulgaria is very scarce, we give here the data of these rare observations.

On 23.8.2002 a Tengmalm's owl (*Aegolius funereus* L.) was caught in a net in the circus Bayuvi dupki at 2340 m of altitude (well above the upper forest limit, with patches of *Pinus mugo*). In his review of the birds of Pirin SIMEONOV (1986) does not mention *Aegolius funereus* among the 6 species of Strigiformes known from this mountain. According to SIMEONOV, MIČEV & NANKINOV (1990), this bird is known from Rila, Central Balkan and Rhodopes Mts. (Pirin is not mentioned). These authors write that *Aegolius funereus* lives in Bulgaria in old spruce forests at altitude from 1100 to 1800 m. The same limit (1800 m) is indicated for the entire areal of the species by Korpimäki (1997). We assume that our observation adds this species to the fauna of Pirin and to the fauna of the orophyte zone in Bulgaria. There is information that some colleagues have heard the voice of this bird in Pirin (Baumgart, 1987), but this is the first certain capture. The recent distribution of Tengmalm's Owl in Bulgaria has been outlined by Nankinov (1997) and Nikolov et al. (2001).

Another owl was netted even higher. Spending a night in the shelter "Koncheto" (2760 m), we netted 4 bats (*Vespertilio murinus*) (Petrov & Popov, in prep.). One of them was attacked by Long-eared owl (*Asio otus*), which was



also captured. According to SIMEONOV (1986), in Pirin *Asio otus* inhabits areas with altitude from 600 to 1900 m. This is the upper limit of this species in Bulgaria (SIMEONOV et al., 1990). According to GLUE & NILSSON (1997), the highest altitude record of the Long-eared owl is in Armenia (2750 m). The bird was crossing the ridge, flying from one valley to another, but certainly the orophyte zone is part of its hunting territory, a fact not known in Bulgaria.

According to SIMEONOV et al. (1990), the only owl in Bulgaria recorded above 1900 m is the Little owl (*Athene noctua indigena* Brehm) - up to 2300 m. SIMEONOV (1986) mentions it as occurring in Pirin at Todorin vrah (2300 m). The next highest recorded owls in Bulgaria are the two species, subject of this paper, however recorded much lower than our findings.

Six specimens of parasitic flies (Diptera: Hippoboscidae) have also been collected on the *Aegolius funereus* caught by us. The finding of these flies at such a high altitude is interesting and contributes to the knowledge of the unknown parasitofauna of one rare bird. BERON (1972) reviewed the 11 species of the family Hippoboscidae known to exist in Bulgaria until this time. For 30 years following this publication only one species has been added to the list of Bulgarian Hippoboscidae: *Crataerina melbae* (Rond.) by POPOV (1995). According to BERON (1972), only the species *Ornithomyia avicularia* (L.) and *Pseudolynchia rufipes* (Macquart) have been known to parasitize owls in Bulgaria, both on *Athene noctua* in the Southeast of the country. No bird fly has been recorded so far in Pirin. The entire tribus Ornithomyini has not been known to occur in Bulgaria above 2000 m. The specimens found by us belong to the species *Ornithomyia avicularia* (L.).

## References

- BAUMGART W. 1987. Observations on rare and protected birds in PR Bulgaria. - Orn. inf. bull., 21/22: 10-15. (In Bulgarian).
- BERON P. 1972. Revue des mouches de la famille des Hippoboscidés en Bulgarie et notes sur leurs Acariens - hyperparasites. - Bull. Inst. Zool. Mus., Sofia, 34: 189-195. (In Bulgarian).
- GLUE D., NILSSON J.N. 1997. Long-eared Owl (*Asio otus*). - In: Hagemeyer W. J. M. & Blair M.J. (Eds), The EBCC Atlas of European Breeding Birds, their distribution and abundance. Poyser Publ., 416-417.
- KORPIMÄKI E. 1997. Tengmalm's Owl (*Aegolius funereus*). - In: Hagemeyer W. J. M. & Blair M.J. (Eds), The EBCC Atlas of European Breeding Birds, their distribution and abundance. Poyser Publ., 420-421.
- NANKINOV D. 1997. Status of Tengmalm's Owl, *Aegolius funereus*, in Bulgaria. - Riv. ital. Orn., Milano, 66 (2): 127-136.
- NIKOLOV B., HRISTOV I., SHURULINKOV P., NIKOLOV I., ROGEV A., DUTSOV A., STANCHEV R. 2001. New data on some poorly-studied forest species of owls (*Strix uralensis*, *Glaucidium passerinum*, *Aegolius funereus*) in Bulgaria. - Forest Science, 1-2: 75-86. (In Bulgarian).
- PETROV B., POPOV V. In prep. On the bat fauna of Pirin mountain (Bulgaria) with review of the high-altitude occurrence of bats in Europe (Mammalia: Chiroptera).
- POPOV A. 1995. *Crataerina melbae* (Rond.) - neu für die Balkanhalbinsel (Diptera, Hippoboscidae). - Acta ent. bulg., 1 (2): 21-22. (In Bulgarian).



- SIMEONOV S.D. 1986. The birds of Pirin. - Fauna of Southwestern Bulgaria, 1: 61-81. (In Bulgarian).
- SIMEONOV S.D., MIČEV T.M., NANKINOV D.N. 1990. Fauna of Bulgaria. 20. Aves, Part 1. - Ed. Acad. Sci. Bulg., Sofia, 350 p. (In Bulgarian).

*Received on 05.11.2002*

Author's address:  
Dr Petar Beron  
National Museum of Natural History  
Tsar Osvoboditel Blvd. 1  
1000 Sofia, Bulgaria  
E-mail: beron@mail.bg

**Върху някои сови (Aves: Strigidae)  
във високите части на Пирин и техните  
паразитни мухи (Diptera: Hippoboscidae)**

Петър БЕРОН

(Резюме)

При лов на прилепи с мрежи Боян Петров и авторът уловиха и два вида сови (*Aegolius funereus* на 2340 m в циркуса Баюви гупки и *Asio otus* на 2760 m при заслона "Кончето"). И за двата вида това са първите находки в България над 2000 m. Пернатоногата кукумявка се съобщава за пръв път със сигурност на Пирин. По нея бяха събрани паразитни мухи - *Ornithomyia avicularia* L. (Diptera: Hippoboscidae).