

New records of some rare rodents (Mammalia: Rodentia) from South-East Bulgaria

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Abstract. New records of three rare rodent species from SE Bulgaria are reported, as follows: European Snow Vole (*Chionomys nivalis*) – Madzharovo Town, Eastern Rhodope Mountains (UTM MG01); Gray Dwarf Hamster (*Cricetulus migratorius*) –Matochina Village (UTM MG 63); and Roach's Mouse-tailed Dormouse (*Myomimus roachi*) –Malki Voden Village, Eastern Rhodope Mountains (UTM MG11). All three species were found in the food remains of two owl species: the Barn Owl (*Tyto alba*) and the Tawny Owl (*Strix aluco*), and the Eastern Imperial Eagle (*Aquila heliaca*).

Key words: *Chionomys nivalis*, *Cricetulus migratorius*, *Myomimus roachi*, *Tyto alba*, *Strix aluco*, *Aquila heliaca*, South-East Bulgaria.

Introduction

Studying the food spectrum of owls is of particular interest to experts in ornithology, zoology, ecology, zoogeography, paleontology, etc. (Simeonov *et al.* 1998). Some prey species, considered extremely rare or extinct, were found and came back to “life” in owl pellets, The Katinka's Shrew *Crocidura katinka* (Bate, 1937), described from fossil material, made a “comeback” in an owl pellet (Hutterer & Kock 2002).

Examining owl pellets to assess small mammal species diversity is considerably more effective than traditional trapping methods (Bonvicino & Bezerra 2003, Torre *et al.* 2004).

Here I report new records of three rare rodent species – European Snow Vole (*Chionomys nivalis* Martins, 1842), Gray Dwarf Hamster (*Cricetulus migratorius* Pallas, 1773), and Roach's Mouse-tailed Dormouse (*Myomimus roachi* Bate, 1937) as part of the food of three species birds of prey from South-East Bulgaria.

Materials and Methods

The investigation was based on the analyses of pellets contains and food remains of Barn Owl (*Tyto alba* Scopoli, 1769), Tawny Owl (*Strix aluco* Linnaeus, 1758), and Eastern Imperial Eagle (*Aquila heliaca* Savigny, 1809). The material was collected during the bird's breeding seasons in 2006 - 2009 in various regions of South-East Bulgaria. The pellets were dried up and then all prey remains (bones, skulls, jaws, etc.) were carefully cleaned. The small mammals were identified according to Peshev *et al.* (2004).

Results and Discussion

European Snow Vole (*Chionomys nivalis* Martins, 1842). The analysis of food remains of a Tawny Owl (*Strix aluco*) from the vicinities of Madzharovo (UTM MG01) (Eastern Rhodopes) identified fifty-three specimens of small mammals including four specimens of European Snow Vole (*Chionomys nivalis*) (Fig. 1a). Being a petrophilous species, the European Snow Vole inhabits rocky areas, stone rivers, screes, etc., all found in the region of Madzharovo. This record provided the first evidence of the species' presence in the Eastern Rhodope Mountains (Minkova 2004). The nearest record of the species was some 70 km away, near Zlatograd Town (UTM LF38) (Peshev & Angelova 1967).

Gray Dwarf Hamster (*Cricetulus migratorius* Pallas, 1773). The collected material (August 20th, 2008) from a Barn Owl in Matochina Village (UTM MG 63) comprised fifty specimens of small mammals, including the skull and the mandible of an adult specimen of Gray Dwarf Hamster (Fig. 1b). The nearest records of this species were reported from Sladun Village (UTM MG53), Raykova Mogila Village, and Shtit Village (UTM MG 43), also found in Barn Owl pellets (Georgiev 2004).

Another adult specimen was found in the food remains of the Eastern Imperial Eagle (material collected by Dimitar Demerdzhiev, March 15th, 2008) in the vicinities of the city of Sliven (UTM MH32). This is an evidence for the presence of the Gray Dwarf Hamster, 45 years after the first record of the species in the food remains of a Long-eared Owl (*Asio otus* Linnaeus, 1758) (Simeonov 1963, 1964).

Roach's Mouse-tailed Dormouse (*Myomimus roachi* Bate, 1937). Bones, jaws, and a skull of an adult specimen (Fig. 1c) were identified among the remains from 70 small mammal specimens found in pellets of a Barn Owl (*Tyto alba*) collected on July 28th, 2007 in Malki Voden Village (UTM MG11) (Eastern Rhodopes). This is the second record of the species from the Eastern Rhodope region. The nearest records were reported from the vicinity of Svilengrad Town (UTM MG32) (Peshev *et al.*, 1960) and Ivaylovgrad Town (UTM MF29) (Peshev & Angelova 1967).

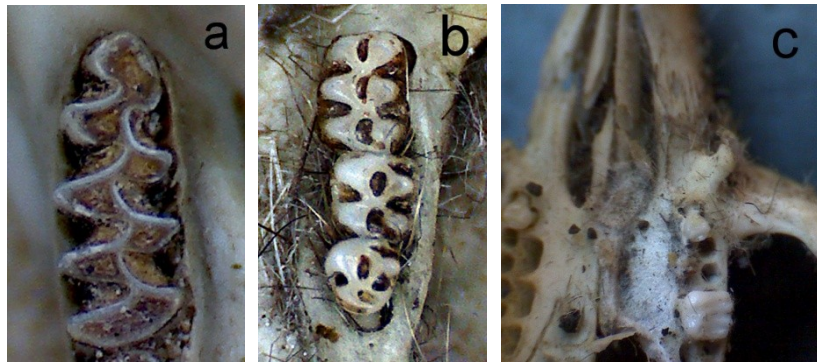


Fig. 1. **a** – First right lower molar of *Chionomys nivalis*; **b** – left maxilla of *Cricetulus migratorius*; **c** – part from cranium with left maxilla of *Myomimus roachi*, with clearly visible peculiarities – long *foramina icisivi* and separated *anteroloph* from *protoloph* on M2.

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