New Quaternary remains of terrestrial vertebrates of some caves in Bulgaria

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Abstract. New data on the occurrence of some terrestrial mammals and amphibians collected from 15 caves in Sarnena Sredna Gora Mts (4 caves), Stara Planina Mts (7 caves), and Rhodopes Mts (4 caves) was reported. Evidence for breeding of cave bears in/around the Kokalenata Cave was registered as finding of a skull fragment of a single juvenile specimen.

Key words: animal remains, caves, Bulgaria.

Introduction

Many caves in Bulgaria are still not well investigated for animal bone remains (Beron *et al.* 2006).

The study collects and classifies all new data we obtained in our visits in caves and to contribute the knowledge of these caves. Such information also throws some light on the ways of animal bone deposition in caves, recent regional and/or extinct faunal elements around these areas, and the importance of caves as den sites for some animal species.

Material and Methods

Caves situated in the Sarnena Sredna Gora Mts, Stara Planina and Rhodopes were investigated during 2002-2013. Animal bones were collected from the caves floor or in shallow clay deposits. The bone material was stored in the collections of Department of Ecology and Environmental Conservation at the Faculty of Biology of Plovdiv University, the Regional Natural History Museum (Plovdiv) and the Department of Veterinary Anatomy, Histology and Embryology, Faculty of Veterinary Medicine, Trakia University (Stara Zagora). Where possible the bones were classified into one of the groups: recent (without any indications of fossilization and with organic matter remains on), fossil (covered and filled with calcite but with unknown age), and Pleistocene (fossil bones in a stratum with *Ursus spelaeus* complex bones). The material was determined using a reference bone collections of Plovdiv and Trakia Universities.

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Results

Sarnena Sredna Gora Mts

- Mechata Cave (Vasil Levski), village of Ostra Mogila: Anura indet. phalanges, 20.10.2002, D. Georgiev Leg.
- Tsepnatinata Cave (Labirinta), village of Ostra Mogila: Ranidae indet. leg bones, Serpentes indet. vertebrae; *Sus scrofa* ad. fragment of distal part of left *tibia* (fossil), Muridae indet. fragment of right mandible with an incisive, 20.10.2002, D. Georgiev Leg.
- Yamd Cave, village of Novo Selo: *Erinaceus roumanicus* bones from the entire body of many specimens; *Capra hircus* bones from entire body from at least two specimens (all recent), D. Georgiev, L. Yankov, G. Dilovski Leg.
- Karachka Cave, village of Borilovo: bones from the entire bodies of many specimens of domestic animals as *Capra hircus*, *Ovis aries*, *Sus scrofa* f. *domestica*, *Canis familiaris*, and *Bos taurus*, D. Georgiev, L. Yankov, T. Tanev Leg.

Stara Planina Mts

- Toplata Dupka Cave , village of Borushtitsa: *Felis silvestris* fragment of left mandible, atlas, fragment of proximal part of humerus; *Bos* sp. juv. distal part of metatarsus; *Bos* sp.
- incisive; Glis glis fragment of left mandible without teeth, 30.08.2008, D. Georgiev Leg.
- Mazeto Cave (Mazata), village of Hristo Danovo: *Canis lupus* mandible; *Cervus elaphus* mandible and feet bones; *Capreolus capreolus* vertebrae, ulna, radius (all Pleistocene fossils), D. Georgiev, L. Yankov, G. Dilovski Leg.
- Maglivia Snyag Cave, Tvarditsa town: *Ursus spelaeus* complex and *Ursus* sp. phalanges (fossil), T. Madzharov Leg., *Bos/Bison* sp. tibia (fossil), *Vulpes vulpes* feet bones, D. Georgiev, T. Tanev Leg.
- Pchena Cave, Tvarditsa town: Bos sp. tibia; Martes foina skull fragments and feet bones, D. Georgiev Leg.
- Kokalenata Cave, Balgarka hut: *Ursus spelaeus* complex juv. fragmented skull (Fig. 1), 26.06.2012, L. Yankov Leg.
- Rochova Dupka Cave, Gabrovo town: *Vulpes vulpes* bones from the entire body, G. Dilovski Leg.
- Peshterata pri Suhia Vodopad Cave, Natural Park Balgarka, village of Zeleno darvo: *Ursus spelaeus* complex molar tooth, L. Yankov, D. Georgiev Leg.

Rhodopes

- Modarskata Peshtera Cave, village of Lilkovo: *Cervus elaphus* phalanx, *Sus scrofa* juv. humerus; *Ursus* sp. juv. os coxae, D. Georgiev Leg.
- Pavla Cave, village of Ravnogor: *Lepus europaeus* left mandible with teeth, D. Georgiev Leg.
- Cave near village of Hvoyna: *Erinaceus roumanicus* bones from the entire body; *Lepus europaeus tibia*;
- Razklonenata Peshtera Cave, village of Oreshari: *Ovis aries* scapula, humerus, radius, femur (from one specimen); *Lepus europaeus* tibia, D. Georgiev Leg.

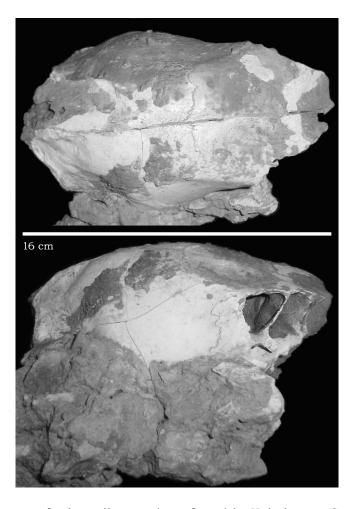


Fig. 1. Skull fragment of a juvenile cave bear found in Kokalenata Cave near Balgarka hut, Stara Planina Mts (26.06.2012).

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References

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