

## Sub-recent avian remains from two cave localities of the Devetashko Plateau (Lovech Region, CN Bulgaria)

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**Abstract.** Eighteen bone finds of 6 species (incl. one domestic form) of two cave localities from the Devetashko Plateau have been examined.

**Key words:** Quaternary birds, avian bone remains, Devetashko Plateau, Bulgaria.

### Introduction

Although a number of Holocene sites containing avian remains have been explored in Bulgaria during the last two decades, most of them lie in the S Bulgaria and very few of them are known from the central parts of the Northern Bulgaria: Telish (Chalcolithic, 3450-3320 BC), Pipra (Thracian period, 4200 BC - 6 century AD), Storgozia (Middle Ages, 13-14 century AD), Kaylaka (Middle Ages, 13-14 century AD), Nicopolis-ad-Istrum (Roman period, 1-6 century AD), and Breste (Late Holocene, undated) (Boev 1999). The roman town of Nicopolis-ad-Istrum is the most abundant settlement of the Antiquity in Bulgaria (Boev 1991; Boev & Beech 2007).

### Material and methods

The material (18 bone finds) has been collected in two caves in the Devetashko Plateau (Lovech Region, CN Bulgaria): (1) Gornik Cave near the Krushuna village (19.07.1982) – 13 finds: NMNHS 15082, 16625-16636; and (2) Brashlyanska Cave near the Aleksandrovo village (24.07.1982) – 5 finds: 16620-16624. The excavations have been carried out within the joint expedition of the National Museum of natural History, BAS and the Mathematical Secondary School "Geo Milev" in Pleven. The material is kept at the Vertebrate Animals Department of the National Museum of Natural History, Bulgarian Academy of Sciences (VAD-NMNHS) in Sofia.

### Results and discussion

The collected avian finds represent prey remains of carnivore mammals (most probably *Vulpes vulpes* Linnaeus, 1758) in the Gornik Cave) or nocturnal raptors (*Bubo bubo* (Linnaeus, 1758) in the Brashlyanska Cave). All finds have been collected from the uppermost 20-centimeter layer of deposits. They bear the features of initial fossilization

(altered towards crystallization) and could not be accepted as recent. According to the associated fauna of Micromammalia from Gornik Cave, at least part of the deposits may be dated Latest Pleistocene, while these of the Brashlanska Cave could be referred to the Late Holocene (Dr. Vassil Popov, Institute of Biodiversity and Ecosystem Research, BAS – pers. data).

Both, wild and domestic birds have been established (Table 1). All species of wild birds (Common Pheasant, Grey Partridge, Common Starling, Western Jackdaw, Rook and Eurasian Bullfinch), except the last one, are of large to medium size. All they are still widely spread in the region. The nominate subspecies of the native Colchic Pheasant is now extinct from Bulgaria (Boev 2011).

The established species composition suggests a former distribution of both openland and wooded habitats, where the former dominated. Only one species, the Bullfinch, is a typical woodland bird. All other species inhabit open habitats with scattered trees and shrubs, sometimes rocky massifs in grassy or shrubby areas (Harrison 1982).

Domestic birds are represented only by the Domestic Chicken, although the bones of chicken prevail and consist of 1/3 of all finds. The terrestrial and narrow entrance of the Gornik Cave excludes the possibility of an avian accumulation of remains.

Although innumerable, the examined finds contribute our scanty information on the subfossil record of the Quaternary birds from the CN Bulgaria.

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**Table 1.** Taxonomic list, collection numbers and measurements of the Late Holocene avian remains from some localities of the Devetashko Plateau (NW Bulgaria)

Species	Skeletal element/ Age	NMNHs collection number	Measurement	Dimension	MNI
<b>Gornik Cave (Latest Pleistocene – Late Holocene)</b>					
Grey Partridge <i>Perdix perdix</i> (Linnaeus, 1758)	tibiotarsus sin., ad.	16626	maximal width of dist. epiphysis	6.8	1
Common Pheasant <i>Phasianus colchicus</i> Linnaeus, 1758	coracoid deax.	16631	length of facies articularis sternalis	12.9	1
<i>Gallus gallus</i> f. <i>domestica</i> (Linnaeus, 1758)	synsacrum, pars dextra	16636	width of antitrochanter	5.5	3
	synsacrum, pars sin., ad.	16632	width of antitrochanter	5.9	
	synsacrum, corpora vertebrorum, ad.	16627	total length of corpora vertebrorum	69.9	
	synsacrum, corpora vertebrorum, ad.	16628	width of facies articularis cranialis	ca.8.0	
	synsacrum, pars acetabularis dex. ad.	16630	width of antitrochanter	6.5	
	femur dex., ad.	16634	total length	85.4	
	coracoid dex., ad.	16635	total length	65.2	
Common Starling <i>Sturnus vulgaris</i> Linnaeus, 1758	humerus dex. prox., ad.	16625	maximal width of prox. epiphysis	8.2	1
Western Jackdaw <i>Corvus monedula</i> (Linnaeus, 1758)	tibiotarsus dex., ad.	16633	diameter of condyles medialis	7.2	1
<i>Corvus frugilegus</i> Linnaeus, 1758	sternum	15082	distance between pr. costalis 1 and 3	7.9	1
	coracoid dex., ad.	16629	length of facies articularis sternalis	ca.12.1	
<b>Brashlyanska Cave (Late Holocene)</b>					
Eurasian Bullfinch <i>Pyrrhula pyrrhula</i> (Linnaeus, 1758)	coracoid dex.	16623	total length	17.3	1
<i>Sturnus vulgaris</i>	os quadratum dex.	16620	total length of the pro. orb. quadr. direction	5.9	1
	femur dist. dex.	16621	width of distal epiphysis	4.5	
	tarsometatarsus sin. dist.	16624	width of distal epiphysis	3.1	
	synsacrum, corpora vertebrorum	16622	total length	22.7	
Total		18 finds			11