

## Animal remains from the Late Byzantine settlement (4th-7th c. AD) Gradishteto near Gabrovo City (CN Bulgaria)

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**Abstract.** A total 747 animal remains of 11 taxa have been established in the medieval (Late Byzantine) settlement (4th-7th c. AD) near Gabrovo City (Gabrovo Region, CN Bulgaria). Some wild mammals as Red deer, Roe deer and Wild boar were rarely hunted, while livestock breeding (cattle, pig, goat, sheep, horse and donkey) was the basic source of meat for the settlement's inhabitants.

**Key words:** subfossil vertebrates, archaeozoology, Holocene animal remains.

### Introduction

The Gradishte Fortress was inhabited in the Thracian period, during antiquity and the Middle Ages and is located 2.5 km northeast of the center of the city of Gabrovo. Altitude: 674 m a.s.l.; GPS coordinates: 42°53'01" N and 25°20'30" E. Gradishte Peak has an excellent view of the surrounding area. It offers wide visibility in all directions, to the Yantra River valley, as well as to all the fortresses around. The total area of the archaeological site amounts to about 18.9 decares (Gardev, 2024).

### Material and Methods

The studied material was collected in a total of 49 assemblages/samples in 2024 and is dated to the 4th-7th centuries AD (early Byzantine period). It was provided for examination (November 2024) by Dr. Rosen Yosifov (Regional History Museum - Gabrovo) for archaeozoological analysis. Material numbers 747 bone/tooth fragments of mammals and birds. It was determined through the osteological collections of the National Museum of Natural History at the Bulgarian Academy of Sciences (Vertebrates Department). All samples have been analyzed and the archaeozoological composition of the finds is described separately for each of them.

### Results

The established species composition is relatively uniform. The studied remains belong to 11 taxa (wild animals and domestic forms) – an average of over 67 remains/taxon. No remains of invertebrates (shellfish), as well as those of fish, amphibians and reptiles have been established. The general distribution of the material includes: birds – 3 pcs., mammals – 744 pcs.

A significant part of the collected bone remains, due to the nature of their deposition, is unsuitable for taxonomic determination. A total of 240 pcs. (32.1 %) represent unidentifiable fragments (so-called bone splinters), on which no species-diagnostic features for their osteological identification have been preserved. 64 pcs. bone fragments (8.6 %),

presented in Table 1 as “small even-toed animals *Ovis / Capra*” – sheep/goat, are also partly undetermined.

Domestic cattle are the most common species/breed of animals. Their remains account for 34.1% of the total material studied. The domestic pig is next, accounting for 12.0%.

Of the birds, only one domestic form has been identified – the domestic chicken, which accounts for only 0.4% of all remains found. Although birds played an important role in the life of the population in most of the settlements of the First and Second Bulgarian Empires studied so far (Boev, 1995, 2024), in Gradishte birds are very poorly represented in the studied material. This can only be explained by the imperfection in the methodology of collecting animal remains during excavations (without sieving and washing) - a practice that is often necessary due to the shortened deadlines or limited financial resources for excavations.

Of the wild animals (game), 3 species have been identified – wild boar, roe deer and red deer. All three species are representatives of the forest fauna. Among them, the wild boar has a significant predominance. The ratio of the three species is 9:1:1 in favour of the wild boar. The studied material proves the practice of two main livelihoods of the population – animal husbandry and hunting.

Hunting had very little importance as a source of food supplies. Traces of processing on the bones (knife/axe cuts) were identified on 18 bones. All of them are cut marks obtained during the dismemberment of the animal's carcass. The detailed distribution of the archaeozoological remains is presented in Table 1.

**Table 1.** Distribution of the collected archaeozoological material from the early Byzantine site "Gradishteto" (Gabrovo region) during the 2024 season.

No	Taxa	English name	Total number of finds	Number of samples	Number of processed finds
<b>AVES</b>					
<b>Galliformes</b>					
1.	<i>Gallus gallus domestica</i>	Domestic chicken	3	3	
	<b>Birds total</b>		<b>3</b>	<b>3</b>	
<b>MAMMALIA</b>					
<b>Artiodactyla</b>					
2.	<i>Sus scrofa domestica</i>	Domestic pig	90	5	5
3.	<i>Sus scrofa scrofa</i>	Wild boar	18	19	
4.	<i>Capra hircus</i>	Domestic goat	36	6	2
5.	<i>Ovis aries</i>	Domestic sheep	37	12	
6.	<i>Ovis / Capra</i>	Small even-toed	64	20	1
7.	<i>Bos taurus</i>	Domestic cattle	255	39	10
8.	<i>Cervus elaphus</i>	Red deer	2	2	
9.	<i>Capreolus capreolus</i>	Roe deer	2	2	
	<b>Artiodactyls total</b>		<b>504</b>		
<b>Perissodactyla</b>					
10.	<i>Equus ferus caballus</i>	Domestic horse	2	1	
11.	<i>Equus africanus asinus</i>	Domestic donkey	5	2	
	<b>Perissodactyls total</b>		<b>7</b>		
	<b>Mammals indet.</b>	<b>Bone splinters</b>	<b>240</b>		
	<b>Mammals total</b>		<b>744</b>		<b>18</b>
	<b>Vertebrates total</b>		<b>747</b>		<b>18</b>

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