

## **Animal remains of the medieval settlement (9<sup>th</sup>-10<sup>th</sup> century A. D.) near Nedan village (Veliko Tarnovo Region, CN Bulgaria)**

ZLATOZAR BOEV\*, GEORGI POPGEORGIEV\*\*

*National Museum of Natural History, Bulgarian Academy of Sciences, 1 Blvd. Tsar Osvoboditel, 1000 Sofia, Bulgaria, \*boev@nmnhs.com; zlatozarboev@gmail.com; \*\*georgi.popgeorgiev@gmail.com*

**Abstract.** A total 1142 animal remains of 18 taxa (incl. man) have been established in the medieval settlement (9th - 10th century A. D.) near Nedan village (Veliko Tarnovo Region, CN Bulgaria). Some wild mammals as Grey wolf, Red deer, Roe deer were rarely hunted, while livestock breeding (cattle, sheep, goat, horse and pig) was the basic source of meat for the settlement's inhabitants. In addition numerous remains of the Caspian whipsnake and Grass/Dice snake have been found.

**Key words:** Subfossil mammals, Archaeozoology, Holocene animal remains.

### **Introduction**

Ancient monuments of the vicinities of Nedan village (Pavlikeni Municipality; Veliko Tarnovo Region) are known long ago (Sultov 1962, Lyutskanova-Zografova 1976, Anonym 2021). The salvage archaeological excavations in 2020 revealed new abundant artefacts, as well as some animal remains, that are subject of the present short note.

### **Material and Methods**

The material studied has been handed for examination by the archaeologist Dr. Emiliya Evtimova (National Archaeological Institute and Museum, Bulgarian Academy of Sciences) in July 2020. It was collected from a grave of 9<sup>th</sup>-10<sup>th</sup> century A. D. during the excavating works for the construction of the Balkan Stream Gas Pipeline in June-July 2020 at a depth of ca. 0.93 m. The material consists of shell, bone and teeth finds and numbers 1142 finds, collected in 19 samples (Table 1).

### **Results and Discussion**

Remains of a total of 17 animal taxa have been identified (Table 1). Among the terrestrial vertebrates, only remains of wild and domestic mammals have been found, as well as human remains. Human remains were found in two samples - a small fragment of the frontal bone of the skull and bones of the limbs (phalanges of the fingers and metacarpal bones of the palm).

The remains of domestic cattle belong to a small short-horned brachycerous breed. Cattle, horses and sheep were the most numerous domestic animals. The finding of the remains of 2 species of deer (Red deer and Roe deer) shows that large game was hunted and extensive mixed deciduous forests were spread in the region of the locality.

Particularly impressive is the almost complete wolf skeleton, from which 131 bones, teeth and bone fragments were collected (Fig. 1).



**Fig. 1.** Part of the bone remains of Grey wolf (*Canis lupus*): mandibula sin. (above), mandibula dex. (bellow). Photo: Z. Boev.

A significant part of the collected osteological material (32.2%) is indeterminate bone fragments (bone splinters) of small size and unpreserved diagnostic features. No bones with traces of processing or burns were found. There are no signs of being bitten or chewed by predators.

The abundant remains of squamate reptiles (3 species of snakes and 1 species of lizard) (Fig. 2) are an interesting record. It is very likely that they were penetrated later among the deposited archaeological remains through the soil cavities.

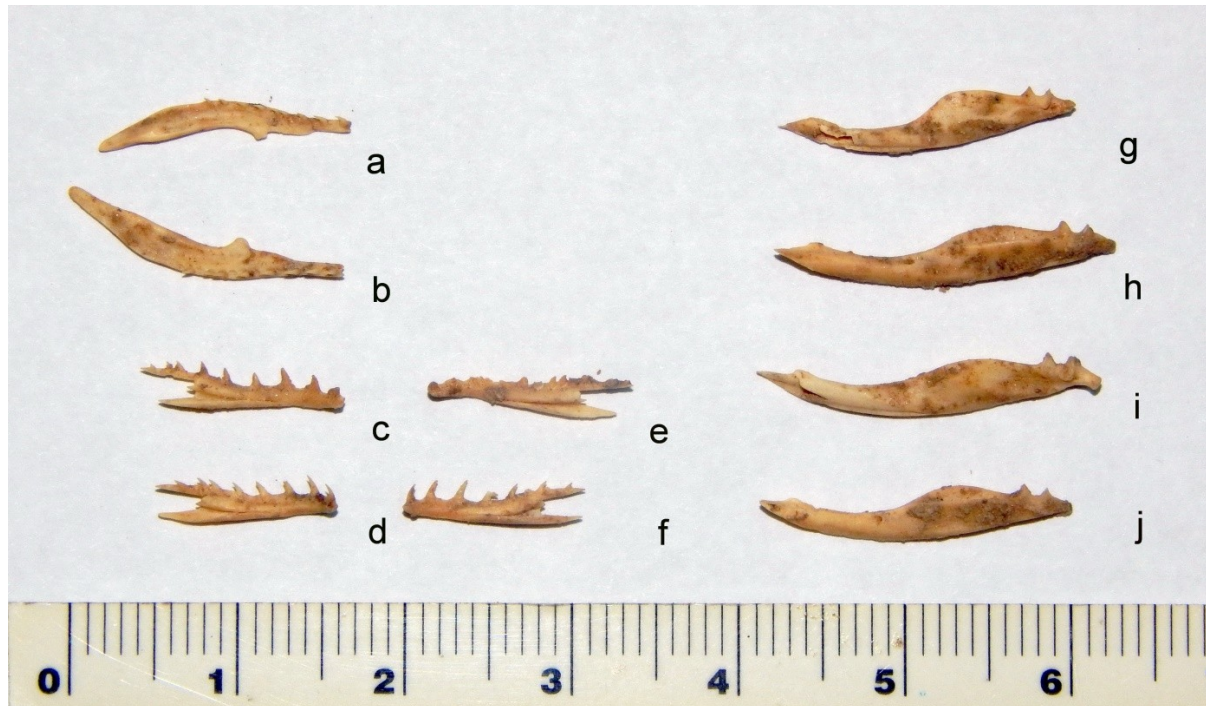
Two aquatic animals (Painter's mussel and an unidentified small cypriniform fish) confirm exploitation of water faunal resources by the medieval population of the settlement along with the hunting of large wild mammals (Red deer, Roe deer, Grey wolf), and breeding of domestic animals (cattle, sheep, goat, and pig).

Although relatively numerous, the collected material has highly uneven representation. Over 45 % of the remains belong to 3(4) snakes, preserved with their almost complete skeletons. Another overrepresentation is the case of the Grey wolf (11.4 % of finds). Over 1/3 of the bone finds (32.3 %) are unidentifiable because of their high degree of fragmentation.

The record of Grey wolf, Red deer and Roe deer indicate the former distribution of forest habitats with lawns and shrub vegetation in the vicinity of the medieval settlement.

The presence of Painter's mussel and an unidentified small cypriniform fish could be explained with the Lomya River, which flows in the region. It is 38 km long, but ca. 1000

years ago presumably the river was much more deep-water and played a significant role in the everyday life of the medieval inhabitants of the settlement.



**Fig. 2.** Part of the reptilian bone remains: unidentified bones (a, b); *Vipera* sp. (cf. *ammodytes*), dentary (dental part) of mandible (c, d, f); Lacertidae gen. indet. (mandible)(e); *Dolichophis caspius*, compound bone (articular part) of mandible (i); *Natrix natrix/tessellata*, compound bone (articular part) of mandible (j); Colubridae gen. indet., compound bone (articular part) of mandible (g, h). Photo: Z. Boev.

**Acknowledgements.** We thank Dr. Emilia Evtimova for handing the material for examination.

## References

- Anonym (2021) Permanent Exhibition “Archaeology”. Available at: <http://www.museumpavlikeni.com/Archeology.htm> (Accessed on 03.02.2021).
- Lyutskanova-Zografova, A. (1976). Unique centre of antique ceramics. *Vecherni novini*, No 7622/14.08.1976. (In Bulgarian).
- Sultov, B. (1962) A Contribution towards antique history of Pavlikeni outskirts. *Mitteilungen des Bezirksmuseums Tirnovo*, 1: 7-20. (In Bulgarian, German summary).

**Table 1.** Species composition and number of the bone the remains of the Late Iron Age and medieval settlement near Nedan village.

No	Taxa	Number of bone finds
<b>Mollusca - Molluscs</b>		
1	<i>Unio pictorum</i> Linnaeus, 1758 - Painter's mussel	1
2	Gastropoda terrestria fam. indet. - Terrestrial snail	3
<b>Osteichthyes - Bony fish</b>		
3	Cypriniformes fam. indet. Carp-like fish	2
<b>Reptilia - Reptiles</b>		
4	Lacertidae gen. indet. Lizard	1
5	<i>Natrix natrix</i> Linnaeus, 1758 / <i>Natrix tessellata</i> (Laurenti, 1768) – Grass snake/ Dice snake	1
6	<i>Dolichophis caspius</i> (Gmelin, 1789) – Caspian whipsnake	1
	Colubridae gen. indet.	2
7	<i>Vipera</i> sp. (cf. <i>ammodytes</i> Linnaeus, 1758) Viper (nose-horned viper)	3
	Serpentes fam. indet. – Snake ( <i>Dolichophis</i> , <i>Natrix</i> )	509
<b>Mammalia - Mammals</b>		
<b>Wild mammals</b>		
8	<i>Canis lupus</i> Linnaeus, 1758 - Grey wolf	131
	cf. <i>Canis</i> sp. - Dog/Wolf/Jackal	1
9	<i>Capreolus capreolus</i> (Linnaeus, 1758) - Roe deer	5
10	<i>Cervus elaphus</i> Linnaeus, 1758 - Red deer	1
<b>Domestic mammals</b>		
11	<i>Bos taurus</i> Linnaeus, 1758 - Domestic cattle	41
12	<i>Bos taurus</i> /? <i>Bos primigenius</i> (Bojanus, 1827) - Domestic cattle / ? Aurochs	1
13	<i>Sus scrofa scrofa domestica</i> - Domestic pig	3
14	<i>Capra hircus</i> (Linnaeus, 1758) - Domestic goat	6
15	<i>Ovis aries</i> Linnaeus, 1758 - Domestic sheep	17
	<i>Ovis</i> / <i>Capra</i> - Sheep/ Goat	16
16	<i>Equus ferus caballus</i> Linnaeus, 1758 - Domestic horse	25
17	<i>Canis familiaris</i> Linnaeus, 1758 - Domestic dog	
<b>Modern Man</b>		
18	<i>Homo sapiens</i> Linnaeus, 1758 - Wise man	13
	Unidentifiable bone splinters	369
	<b>Total</b>	<b>1142</b>