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# NEW ARCHAEOZOOLOGICAL DATA CONCERNING THE CUCUTENI A SETTLEMENT OF PODURI-DEALUL GHINDARU (BACAU COUNTY, ROMANIA)

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The *Tell* of Poduri-Dealul Ghindaru is located in the county of Bacau, in eastern Romania (46 2759 N, 26 3210 E).

The site stands at 429 m above sea level on a 30 m-high terrace on the right bank of the Tazlau Sarat river and has a known extent of c. 1.2 ha.



➤ Relative large assemblages of animal remains were recovered from excavations in the *Tell* of Poduri-Dealul Ghindaru, being chronologically assigned to the Chalcolithic (Cucuteni A, Cucuteni B) and Bronze Age.

- ✓ Archaeozoological analyses began in 2001-2002, carried out by Balasescu and Radu. Their research focused on the taxonomic frequency distributions of the remains in the faunal assemblages (Monah *et al.*, 2001; 2002).
- ✓ Later, Cavaleriu & Bejenaru (2009), Bejenaru *et al.* (2009), Oleniuc (2010), and Bejenaru (unpublished data) were interested in subsistence patterns associated with Chalcolithic and Bronze Age settlements in Poduri-Dealul Ghindaru.
- ✓ A ritual deposition of two pig skeletons in the Cucuteni level of the *Tell* was discussed by Balasescu (2009).
- ✓ During the 2005 campaign, an unusual deposit of 25 astragali (twenty-one of the astragali from cattle, three from red deer, and one from sheep/goat) was discovered in the Cucuteni A level; it was interpreted as a ritual deposit designed to bring good fortune to a new dwelling (Bejenaru *et al.* 2010).

Bejenaru, L., Oleniuc, C. & S. Stanc, 2009. A faunal assemblage from the Chalcolithic settlement of Poduri-Dealul Ghindaru (Bacau County). Preliminary data on subsistence patterns associated with Cucuteni-phase B level. *Analele Stiintifice ale Universitatii „Al. I. Cuza” Iasi, s. Biologie animala*, LV, 223-227.

Bejenaru, L., Monah, D. & G. Bodi, 2010. A deposit of astragali at the Copper Age tell of Poduri-Dealul Ghindaru, Romania. *Antiquity*, Project Gallery, 084/323, <http://www.antiquity.ac.uk/projgall/bejenaru323/>.

Cavaleriu, R. & L. Bejenaru, 2009. *Cercetari arheozoologice privind Cultura Cucuteni, faza A*. Editura Universitatii “Alexandru Ioan Cuza” Iasi.

Monah, D., Popovici, D., Dumitroaia, Gh., Monah, F., Lupascu, Gh., Cotiuga, V., Bem, C., Balasescu, A., Moise, D., Radu, V., Haita, C. & N. Sorloauca, 2001. Poduri, com. Poduri, jud. Bacau. Punct: Dealul Ghindaru. *Cronica Cercetarilor Arheologice din Romania. Campania 2000*, cIMec-Institutul de Memorie Culturala, Bucuresti, 190-198.

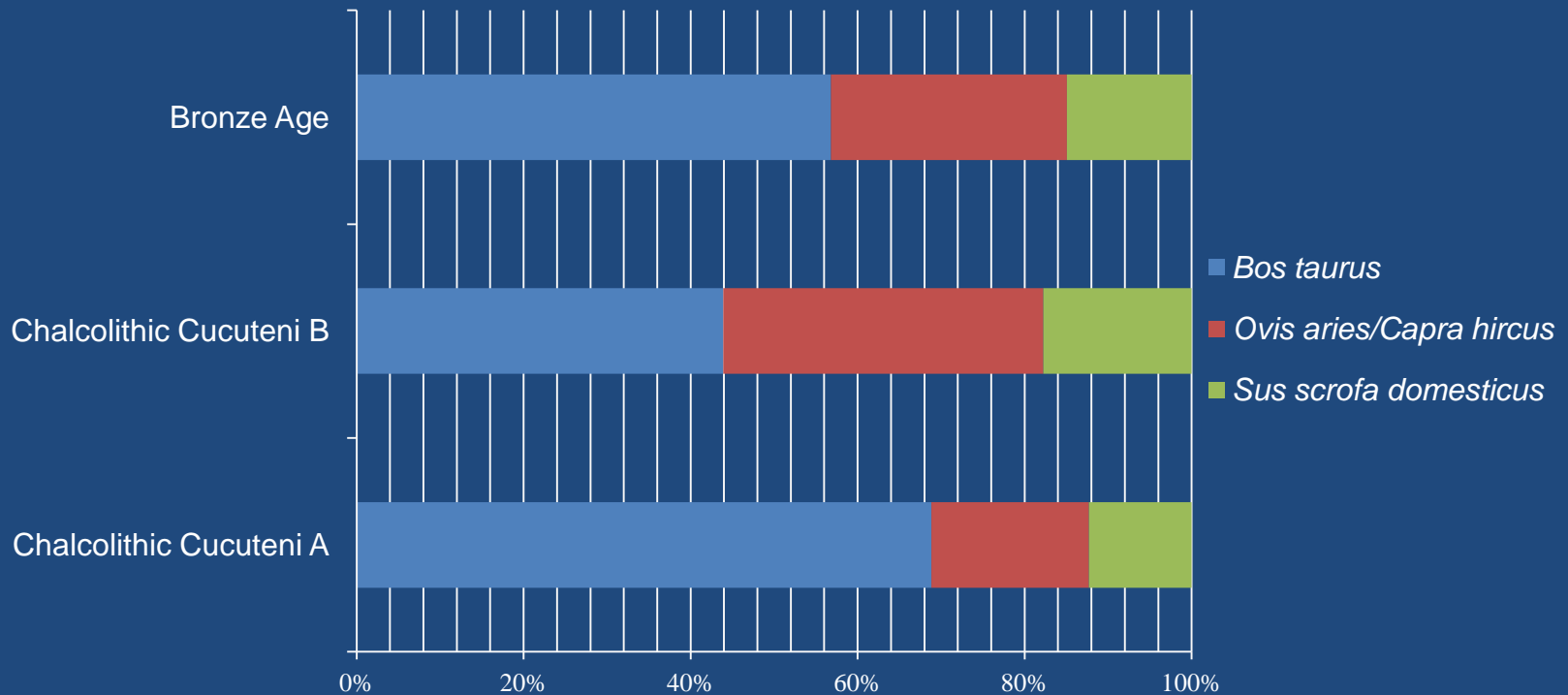
Monah, D., Popovici, D., Dumitroaia, Gh., Monah, F., Bem, C., Balasescu, A., Moise, D., Radu, V., Haita, C., Preoteasa, C., Lupascu, Gh. & V. Cotiuga, 2002. Poduri, com. Poduri, jud. Bacau. Punct: Dealul Ghindaru. *Cronica Cercetarilor Arheologice din Romania. Campania 2001*, cIMec- Institutul de Memorie Culturala, Bucuresti, 242-246.

Oleniuc, F.C., 2010. *Cercetari arheozoologice privind Cultura Cucuteni, faza B*. Doctoral Thesis, Faculty of Biology, “Alexandru Ioan Cuza” University of Iasi.

- The majority of animal remains are from mammals, and only few pieces from birds, fish and molluscs.
- The Chalcolithic settlements of Poduri-Dealul Ghindaru have a relative large faunal spectrum, especially in Cucuteni *B* (17 wild mammal species).

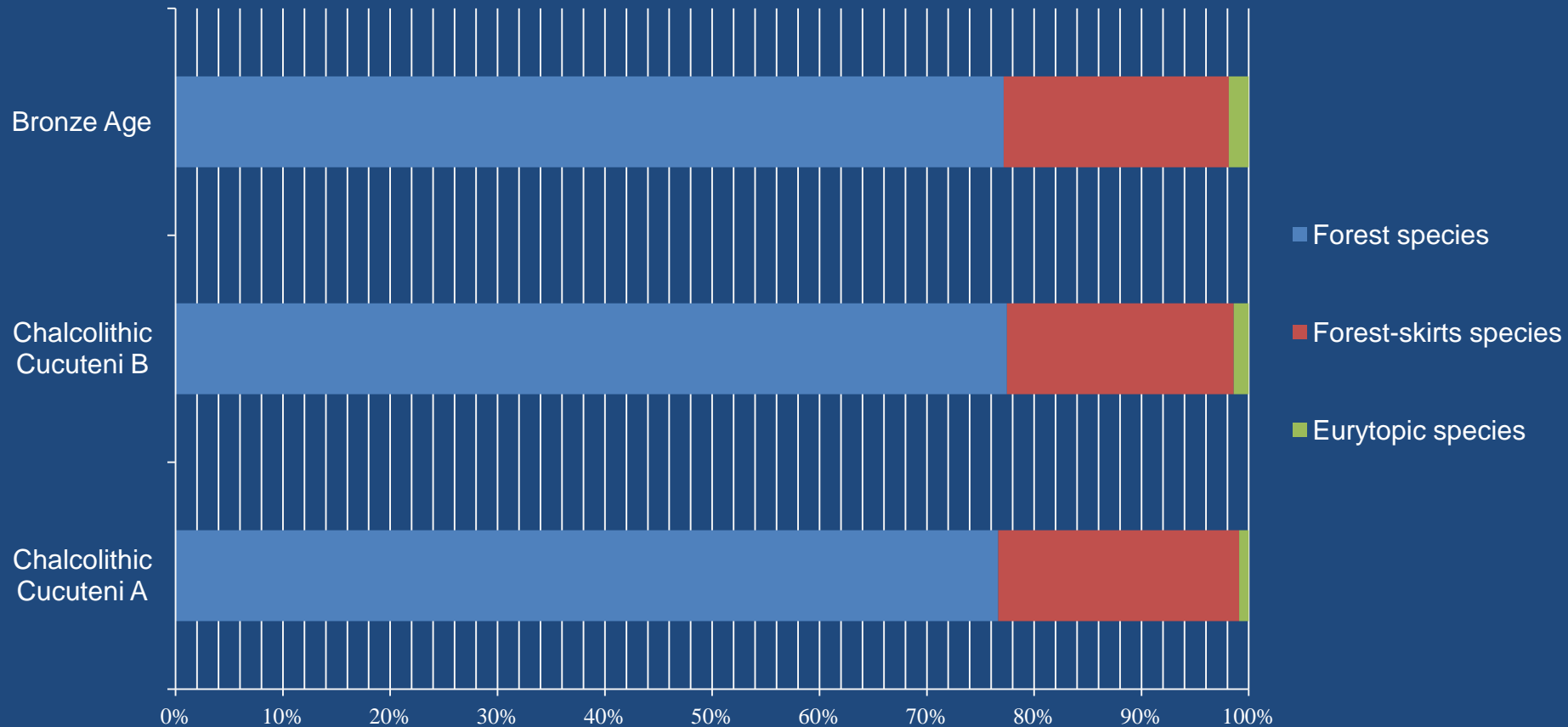
Order	Species	Chalcolithic Cucuteni A (Cavaleriu & Bejenaru. 2009)		Chalcolithic Cucuteni B (Oleniuc. 2010)		Bronze Age (Bejenaru. unpublished data)	
		NISP	%	NISP	%	NISP	%
Artiodactyla	<i>Bos taurus</i>	1895	58.1	3465	38.6	1109	50.8
	<i>Ovis aries/Capra hircus</i>	519	15.9	3029	33.7	552	25.2
	<i>Sus scrofa domesticus</i>	339	10.4	1402	15.6	292	13.3
Carnivora	<i>Canis familiaris</i>	57	1.7	134	1.4	36	1.6
Perissodactyla	<i>Equus caballus</i>	-	-	-	-	18	0.8
<b>Total domestic mammals</b>		<b>2810</b>	<b>86.2</b>	<b>8030</b>	<b>89.5</b>	<b>2007</b>	<b>92.4</b>
Artiodactyla	<i>Bos primigenius</i>	43	1.3	76	0.8	11	0.5
	<i>Cervus elaphus</i>	170	5.2	359	4	56	2.5
	<i>Capreolus capreolus</i>	53	1.6	89	0.9	17	0.7
	<i>Dama dama</i>	1	0.03	4	0.05	0	0
	<i>Alces alces</i>	0	0	2	0.02	0	0
	<i>Sus scrofa ferus</i>	133	4.08	304	3.3	59	2.7
Rodentia	<i>Castor fiber</i>	10	0.3	12	0.1	3	0.1
	<i>Sciurus vulgaris</i>	0	0	4	0.05	0	0
Lagomorpha	<i>Lepus europaeus</i>	3	0.09	30	0.3	6	0.2
Carnivora	<i>Canis lupus</i>	0	0	3	0.03	1	0.05
	<i>Vulpes vulpes</i>	1	0.03	7	0.07	1	0.05
	<i>Ursus arctos</i>	24	0.7	16	0.1	7	0.3
	<i>Martes sp.</i>	2	0.06	6	0.06	1	0.05
	<i>Mustela putorius</i>	1	0.03	2	0.02	1	0.05
	<i>Meles meles</i>	2	0.06	1	0.01	0	0
	<i>Felis silvestris</i>	0	0	14	0.1	0	0
Perissodactyla	<i>Equus caballus</i>	7	0.2	8	0.09	-	-
<b>Total wild mammals</b>		<b>450</b>	<b>13.8</b>	<b>937</b>	<b>10.4</b>	<b>163</b>	<b>7.5</b>
Total identified mammals		3260	100	8967	100	2170	100
Mollusca+Fish+Aves		60		38		13	
Total identified remains		3320		9005		2183	

- The subsistence economy was dominated in all three settlements by domestic mammals, especially cattle, a pattern similar to other Chalcolithic and Bronze Age sites in the region. However, a change in the economy appear to the end of Chalcolithic period (in Cucuteni *B*). when sheep and goat became more important, probably in correlation with a drier natural environment.
- A Chalcolithic community with economic specialization in cattle husbandry is proposed for phase A of the Cucuteni culture. In this phase, the frequency of pig is lower (10%) than in the next periods. The NISP percentage for pig is higher towards the end of Chalcolithic. with a value of 15% and again lower in the early Bronze Age level, with a value of 13%. We may suppose that as result of an increasing mobility of people, pig production became less efficient in the early Bronze Age compared to husbandry in herding of other species such as sheep/goat.



Frequencies of cattle, sheep/goat and pig remains (% NISP).

➤ Forest species (*Cervus elaphus*, *Dama dama*, *Alces alces*, *Sus scrofa ferus*, *Ursus arctos*, *Felis silvestris*, *Sciurus vulgaris* and *Castor fiber*) are dominant in all the assemblages.



Distribution of wild mammal remains according to the ecological characteristics of species (% NISP).

The present study provides new archaeozoological results concerning the faunal remains found in the 2008 excavation campaign in the Cucuteni A site of Poduri-Dealul Ghindaru (Bacău County, Romania).



<http://www.cimec.ro/Arheologie/cronicaCA2009/cd/index.htm>

During the 2008 archaeological campaign, several pits, a clay surface and two Cucuteni A2 dwellings were investigated.

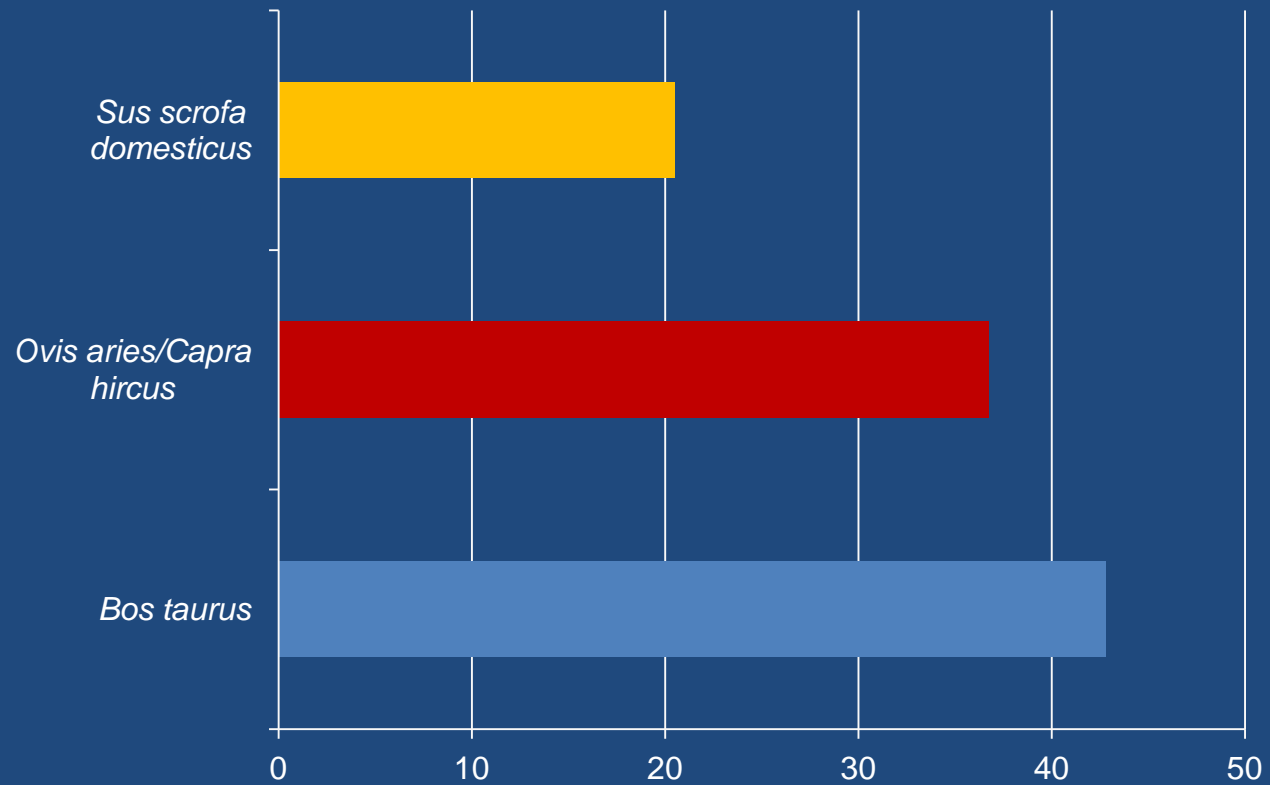
The collection of artefacts discovered in 2008 is extremely rich, comprising pottery, stone, copper, bone and antler tools, animal and vegetal remains.



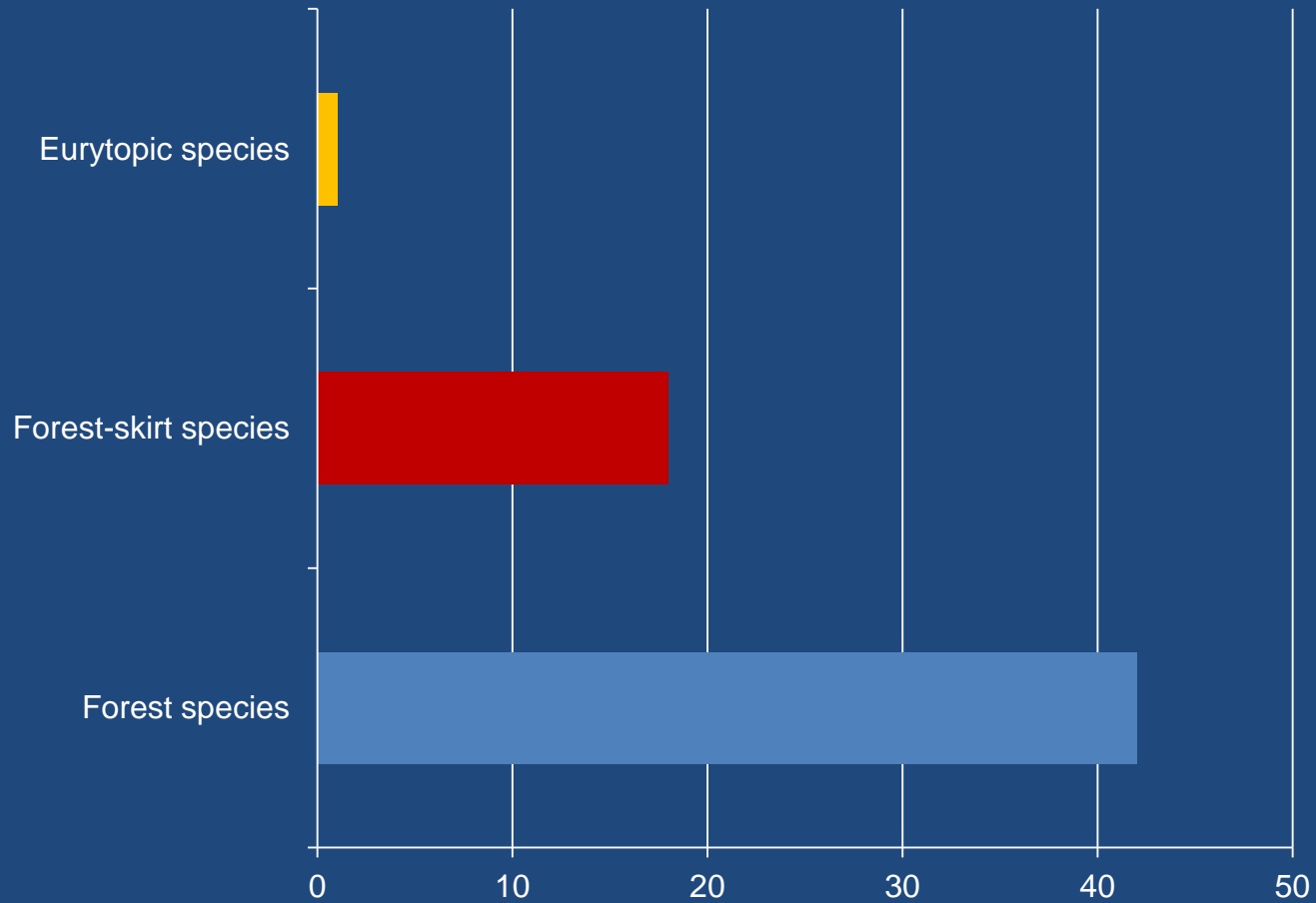
Animal remains are described in terms of their frequencies (based on the number of identified specimens and on the minimum number of individuals), and according with the economical significations.

	NR	%	NMI	%
<i>Bos taurus</i> (cattle)	554	40.08	13	25.49
<i>Ovis aries/Capra hircus</i> (sheep/goat)	475	34.37	11	21.56
<i>Sus scrofa domesticus</i> (pig)	265	19.17	9	17.64
<i>Canis familiaris</i> (dog)	26	1.88	3	5.88
<b><i>Felis domesticus</i> (cat)</b>	<b>1</b>	<b>0.07</b>	<b>1</b>	<b>1.96</b>
<b>Total domestic mammals</b>	<b>1321</b>	<b>95.58</b>	<b>37</b>	<b>72.54</b>
<i>Cervus elaphus</i> (red deer)	19	1.37	3	5.88
<i>Capreolus capreolus</i> (roe deer)	14	1.01	2	3.92
<i>Sus scrofa ferus</i> (wild boar)	19	1.37	4	7.84
<i>Castor fiber</i> (beaver)	3	0.21	1	1.96
<i>Lepus europaeus</i> (hare)	2	0.14	1	1.96
<i>Canis lupus</i> (wolf)	1	0.07	1	1.96
<i>Ursus arctos</i> (bear)	1	0.072	1	1.96
<b>Total wild mammals</b>	<b>59</b>	<b>4.26</b>	<b>13</b>	<b>25.49</b>
<i>Equus caballus</i> (horse)	2	0.14	1	1.96
<b>Total identified mammals</b>	<b>1382</b>	<b>100</b>	<b>51</b>	<b>100</b>
Total unidentified mammals	<b>1216</b>			
Total sample	2598			

Animal remains are described in terms of their frequencies (based on the number of identified specimens and on the minimum number of individuals), and according with the economical significations.



Animal remains are mainly described in terms of their frequencies (based on the number of identified specimens) and according with the ecological significations.





*Thank you for your attention!*