Avian finds from the Early Neolithic settlement near Kapitan-Dimitrievo village (Pazardzhik Region)

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Abstract. Two finds of Great bustard (*Otis tarda*) and Rook (*Corvus frugilegus*) have been identified among the materials of the kitchen debris from the Early Neolithic (ca. 6000 BP) settlement near Kapitan-Dimitrievo village (Pazardzhik Region). They indicate open grassland habitats in its vicinities.

Key words: Subfossil, birds, Holocene.

Introduction

The settlement mound is situated in the periphery of the Kapitan-Dimitrievo village (Pazardzhik Region). It was formed during ca. 4000 years through the accumulation of the remains of several dozens of villages, built at the same place one over other. First cultural layers are dated at the beginning of 6th millennium BC. The settlement lasts until the beginning of 2nd millennium BC, being one of the longest-lasting occupied settlements in Europe.

The archaeological excavations started in 1947-1948, followed by a long interruption. Half a century later, they started again in 1998. The environmental conditions were favorable in the past, as a small river (Pishmanka River) flow nearby, besides many springs. Fertile soils in the river valley and forested slopes of the Rhodope Mountains were favorable both for agriculture and hunting.

Up to 2005 a total of 1470 animal bones and mollusk shells have been excavated (Nikolay Spassov, Nikolay Iliev, Zlatozar Boev – unpubl. data) under the leadership of Prof. Vasil Nikolov (National Archaeological Institute and Museum, BAS).

Accotiated fauna: A total of 14 species/forms of wild and domestic animals have been collected: domestic - pig (Sus scrofa domestica Erxleben, 1777), sheep (Ovis aries Linnaeus, 1758), goat (Capra hircus Linnaeus, 1758), cattle (Bos taurus Linnaeus, 1758), and dog (Canis familiaris (Linnaeus, 1758)); wild - red deer (Cevus elaphus Linnaeus, 1758), wild boar (Sus scrofa Linnaeus, 1758), roe deer (Capreolus capreolus (Linnaeus, 1758)), aurochs (Bos primigenius (Bojanus, 1827)), chamois (Rupicapra rupicapra Linnaeus, 1758), hare (Lepus europaeus Pallas, 1778), red fox (Vulpes vulpes (Linnaeus, 1758)), wildcat (Felis silvestris Schreber, 1777) and a mollusk (Unio Philipsson, 1788 sp. indet.) (identifications of Nikolay Spassov and Nikolay Iliev).

Material and Methods

All animal remains came from the leftovers of the prehistoric dwellers of the settlement, s. c. kitchen debris). The collected bird finds consists in 2 bones of the wings of 2 large birds. They have been identified through the comparative osteological collections of the Vertebrate Animals Department of the National Museum of Natural History, Bulgarian Academy of Sciences, and are kept at the same department.

Results

Great bustard (Otis tarda Linnaeus, 1758). Material: NMNHS 15083, male ad. phalanx digiti majoris dex. Dimensions: general maximal length - 51.45 mm, maximal width of proximal epiphysis - 11.5 mm, maximal width of the distal epiphysis - 7.2 mm. Notes: The site of Kapitan-Dimitrievo lies out of the recent species' breeding range (Hagemeijer & Blair, 1997). The great bustard was found in many sites in the Thracian Plain (Boev, 2003, 2017). With regard to the preferred breeding habitat, O. tarda is a dweller of the open grasslands steppes. It is a terrestrial breeding bird and was a traditional hunting object from the Paleolithic to the (almost) modern times (until 1950-s).

Rook (*Corvus frugilegus* Linnaeus, 1758). Material: NMNHS 15084, carpometacarpus sad., dex. Dimensions: general maximal length - 45.8 mm, maximal width of proximal epiphysis – 5.5 mm, thickness at the middle of os metacarpalis majus - 2.8 mm. Notes: The site of Kapitan-Dimitrievo lies out of the recent species' breeding range (Hagemeijer & Blair, 1997). The rook is known 12 sites dated from the late Pleistocene to the Middle Ages Devetashka cave, Cave No 16, Gledachevo, Malak Preslavets, Nicopolis-ad-Istrum, (Boev, 1999, 2004), Gornik Cave (Boev, 2012), Topchii (Mitev & Boev, 2006), Shirokovo, Pisanets, Popmartinova cave, Isperih, and Karapelit (Mitev, 2016). With regard to the preferred breeding habitat, *C. frugilegus* is a dweller of the open tree-less habitats. It nests in the crowns of tall single trees with a wide view around. Rooks could be exploited for meat.

Conclusions

The birds found in the site represent an indication for extensive open spaces in the vicinity of the settlement. Most likely, we have to assume that there were territories to the north of it related to the Thracian lowland. This fact leads to the assumption that this area of the Thracian lowland at the beginning of the Neolithic period was less forested than in the late historic times, when there was evidence of the presence of vast ancient forests (Boev, 2010). Such an assumption corresponds to the appearance of vegetation in the early Holocene in general (Prof. E. Bozhilova, Sofia University - personal comm.).

The hunting in the economy of the Neolithic settlement near Kapitan-Dimitrievo had an important share.

References

- Boev, Z. (1999) Neogenski i kvaternerny ptitsi (Aves) ot Balgariya (Neogene and Quaternary birds (Aves) from Bulgaria). Natsionalen prirodonauchen muzey, Balgarska akademiya na naukite, Sofia, D. Sci. Thesis, Tom I, Osnovna chast, 1-243; Tom II, Dopalnenie 1 Fuguri, 1-135; Tom II, Dopalnenie 2 Tablitsi, 1-108. (in Bulgarian).
- Boev, Z. (2003) Distribution of the Little Bustard (*Tetrax tetrax* /Linnaeus, 1758/) and the Great Bustard (*Otis tarda* Linnaeus, 1758) (Aves: Otididae Gray, 1845) in Bulgaria during the Late Pleistocene and the Holocene. *Annual of Sofia University "St. Kliment Ochridski"*, Faculty of Biology, Book 1 Zoology, 93-94, 41-47.
- Boev, Z. (2004) Middle and Late Holocene birds from the Eastern Upper Thracian Plane (S Bulgaria). *Historia naturalis bulgarica*, 16: 123-132. (in Bulgarian, English summary).
- Boev, Z. (2010) Pliocene and Quaternary paleoenvironment in Bulgaria a brief review. *In*: Petkov (Ed.). *Bulgaria and the Bulgarians in Europe*. Union of the Scientists in Bulgaria. Veliko Tamovo Branch. Faber Publ. House, Veliko Tamovo. 266-384. (in Bulgarian, English summary).
- Boev, Z. (2012) Sub-recent avian remains from two cave localities of the Devetashko Plateau (Lovech Region, CN Bulgaria). *ZooNotes*, 31: 1-3.

- Boev, Z. (2017) Late Neolithic and Late Antiquity avian finds of Chavdarova Cheshma (Simeonovgrad, Haskovo Region). *ZooNotes*, 111: 1-3.
- Hagemeijer, W. & Blair M. (eds.) (1997). *The EBCC Atlas of European Breeding Birds*. Their Distribution and Abundance. T & A D Poyser, London, 903 pp.
- Mitev, I. (2016) Subfossil fauna of birds and mammals (Aves et Mammalia Vertebrata) from localities of North-Eastern Bulgaria. *In*: Mitev, I. 2016. *Collected Works. Vol. 1 Bulgarian Nature*. Logis Publ. House, Sofia, 203-691.
- Mitev, I., Boev, Z. (2006) Food spectrum of the Eagle Owl (*Bubo bubo* (L., 1758)) (Aves: Strigiformes) from two Holocene localities in NE Bulgaria. *Historia naturalis bulgarica*, 17: 153-165.