## Late Pleistocene birds of Karlukovo, Bulgaria

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Karst fissures in northern slopes and outscops of the Balkan Mts. (Stara planina) in Bulgaria yielded interesting record of birds (BOEV, 1992). The number of excavated avian bones is usually small (but see BOCHENSKI, 1982; BOEV, 1994). Nevertheless, a variety of boreal birds used during the late Pleistocene to meet limits of their distribution in the Balkans (TYBERG, 1991; 1995), so that these records are of particular value in distributional analyses.

In the present paper, I will describe avian bones collected in the Karlukovo 4 cave. The cave and its vertebrate fauna were described by HORÁČEK (1982), who studies the site in 1976 and 1979. The cave is located north of Karlukovo village (ca. 43°12′N, 23°02′E) in a cliff of the Iskar river, some 50 m above the river, and ca. 300 m a.s.l. According to HORÁČEK (1982), the site is probably identical with "Locus 4" of GARROD and HOWE (1939). The vertebrate taphocenosis of the cave originated during the last glacial (HORÁČEK, 1982).

I am obliged to Ivan Horáček (Praha) for handing the avian bones over to me. They were originally mentioned as "Aves g. spp." by HORÁČEK (1982: 100), and are currently deposited in my private collection in Praha.

Avian bones from Karlukovo 4 belong to two species: specifically unidentified thrush (*Turdus* sp.), and the Alpine Chough *Pyrrhocorax graculus* (Linnaeus, 1766). The remains are distributed as follows:

Turdus sp.: symphysial fragment of mandibula, cranial fragment of scapula sin.; MNI (sensu CRAYSON, 1984) = 1.

Pyrrhocorax graculus: cranial part of scapula sin., phalanx prox. digiti majoris sin., 2 femora (sin., dex.), tarsometatarsus sin.; MNI = 1.

So far, the Alpine Chough was recorded in the late Pleistocene of Bulgaria only twice, in the Bacho Kiro cave (BOCHENSKI, 1982), and in the Temnata cave (BOEV, 1994). The record from Karlukovo 4 is thus the third. The Alpine Chuogh is still inhabiting the Balkan Mts. (ΠΑΤΕΒ, 1950). Birds are only accidental component of fossil bat assemblages formed in caves (HORÁČEK, LOŽEK, 1988), as is the case of Karlukovo 4 (HORÁČEK, 1982). Hence, they are of no cue for their taphonomical and ecological analyses. None of the identified bones showed any signs of injuries or pathological changes. After the addition of birds to other vertebrate groups identified earlier (HORÁČEK, 1982), the vertebrate fauna of Karlukovo 4 consists of 32 species (1 frog, 1 lizard, 2 birds and 28 mammals, include 13 bats).

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## Късноплейстоценски птици от Карлуково, България

### Иржи МЛИКОВСКИ

(Резюме)

Съобщават се находките на два вида птици от пещера No. 4 в Карлуковския карстов район, събрани от чешки геолози в периода 1976-1979 г.: Pyrrhocorax graculus и Turdus sp. Това е трето съобщение за жълтоклюната хайдушка гарга от късния плейстоцен в България.