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Upper Pliocene and Lower Pleistocene Bird Remains from Poland

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Górnoplioceńskie i dolnoplejstocieńskie szczątki ptaków z Polski

Верхнеплиоценские и нижнелейстоценские останки птиц из Польши

Abstract. The author describes the Villafranchian bird faunas from Polish fossil localities Węże I (4 species), Rębielice Królewskie I and II (17 species) and Kadzielnia (2 species). Among them 2 species and 4 subspecies are new: *Lagopus lagopus atavus* n. ssp., *Tetrao conjugens* n. sp., *Francolinus (Lambrechtia) minor* n. sp., *F. capeki wenzensis* n. ssp., *F. capeki villanyiensis* n. ssp. and *Athene noctua veta* n. ssp. A detailed morphological description of the remains is given and the systematic and stratigraphic position of the particular forms is discussed.

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I. INTRODUCTION

The materials described were collected in 3 localities in Southern Poland (Kraków-Wieluń Jurassic Ridge and the Holy Cross Mountains) and are kept in the collection of the Institute of Systematic and Experimental Zoology of

a remarkable fact, that a foramen nutricium on the lower surface (volar view) of the distal part of this damaged phalanx can be seen. The position and form of the foramen point for *Bubo*, but the distance of this element from the proximal end of the corresponding phalanx of the Eagle Owl is considerably longer than in the fossil piece. This distance measures in the above mentioned male specimen of *Bubo* (with the proximal width of 7.6 mm) 16.4 mm, at the fossil specimen (with the proximal width of 6.0 mm) 10.9 mm. Therefore the fossil animal must have had a considerably shorter and broader phalanx than the recent European Eagle Owl.

It is clear, that even the generic position of the fragment is uncertain.

Genus: *Athene*

Athene noctua veta n. ssp.
(see Plate XXIV. Phot. 1)

Material: Rebielice Królewskie I: proximal part of left coracoideum.

A detailed comparison of the fossil bone with the corresponding ones of the recent European forms of the same size category, as *Glaucidium*, *Aegolius*, *Athene* and *Otus* proves a very close resemblance with the Little Owl *Athene noctua*. The form of the acrocoracoid, of the groove between the procoracoid and the shaft of the bone, as well as the facies (or fossa) glenoidalis and scapularis speak unambiguously for the belonging to the genus *Athene*. I have for comparison 13 specimens of the Little Owl so that the morphological variation of the bone can be stated. One can observe, that the position and depth of the foramen pneumaticus (below the acrocoracoid) are very variable, but it is never so reduced in the recent specimens as in the fossil one. Especially characteristic for the fossil form is the shape and size of the fovea coracoidea (following LAMBRECHT (1933); in BALLMANN (1969a): „foramen supracondyloideum”; in BALLMANN (1969b) erroneously „foramen pneumaticum”). This foramen is evidently smaller than in all recent specimens. The measurements of this element of the fossil specimen are 0.7×0.4 mm, in the smallest recent bone 1.1×0.6 mm, in the largest one 2.0×0.9 mm.

Due to these slight but visible constant differences I propose to use for this form the subspecific name *Athene noctua veta* n. ssp.

According to the conception in the recent literature the array of *Athene noctua* is one taxonomical unit except for South Asiatic species *Athene brama* TEMMINCK and *A. blewitti* (HUME), not differing in size from the typus generis, but only in the colour of plumage. So a comparison of the fossil form with the recent ones is of no reason for.

It has to be mentioned, that the Little Owl was uncommon in the Upper Pleistocene of Europe (LAMBRECHT, 1933, and BRODKORB, 1971: 7 records, partially stratigraphically uncertain).

I had the possibility to study the only remain of this owl from the Lower-

Middle Pleistocene of Europe (a phalanx III digiti 4 from Betfia (= Püspökföld) described by CAPEK, 1917), which seems to originate not from an owl but rather from a diurnal bird of prey (? *Circus* sp.). The determination is in any case uncertain. The remain from Rebielice Królewskie is therefore the first sure record of *Athene* from the Villafranchian of Europe.

Order: *Passeriformes*

As it is well known, the Song Birds are osteologically very homogeneous and therefore difficult to determine specifically. This is especially true for Lower Pleistocene and older remains, which must be compared not only with European forms but also with species of other continents. In spite of these difficulties I tried to determine some bones of Song Birds from Rebielice Królewskie, although a part of them must have remained undetermined.

Suborder: *Passeres*

Family: *Sittidae*

Subfamily: *Sittinae*

Genus: *Sitta*

Sitta sp. (small species)

Material: Rebielice Królewskie I: distal end of left tarsometatarsus.

On the contrary to the great homogeneity of tarsometatarsi of all Song Birds of Europe, the families *Sittidae* and *Certhiidae* form an exception. There is a more or less deep groove in the middle line of the middle trochlea of the tarsometatarsus, distinctly different in the mentioned two families. On the basis of this feature the bone fragment from Rebielice Królewskie unambiguously belongs to a Nuthatch. The entire bone must have been considerably smaller than that of *Sitta europaea* (see fig. 3).

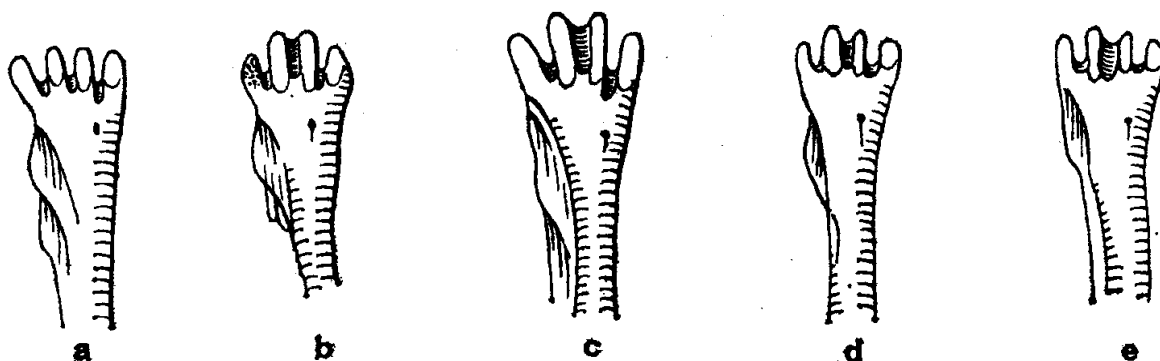


Fig. 3. The sketch of distal part of tarsometatarsus: a — *Certhia familiaris* (recent), b — *Sitta* sp. (fossil from Rebielice Królewskie I), c — *Sitta europaea* (recent), d — *Sitta pusilla* (recent), e — *Sitta canadensis* (recent)

Plate XXIV

Athene noctua veta n. ssp. from Rębielice Królewskie I.:

Phot. 1. Cranial fragment of left coracoideum, ventral view,

Aquila (Hieraeetus) sp. from Rębielice Królewskie I.:

Phot. 2. Phalanx II digiti 3 pedis, dorsal view,

Phot. 3. The same phalanx, lateral view.

Lagopus lagopus atavus n. ssp. from Rębielice Królewskie I.:

Phot. 4. Fragment of mandibula, ventral view,

Phot. 5. Proximal end of left femur, dorsal view,

Phot. 6. Proximal end of right humerus, cranial view,

Phot. 7. Left carpometacarpus, ventral view,

Phot. 8. Distal end of right tarsometatarsus, dorsal view.

All photographs are enlarged.

Photographed by G. SZEGVÁRI

