

Separatum ex *Aquila*
Vol. 98. 1991. pp. 13-35.

**D. Jánossy: Late Miocene bird remains
from Polgárdi (W-Hungary)**

A searching comparison of the bone fragment with the same ones of waders of Europe and the Middle East shows the most common features with the Courser (*Cursorius cursor*), but the fragment enables no further conclusions.

Order: *Strigiformes* (Wagler 1830)

Family: *Tytonidae* Ridgway 1914

Genus: *Tyto* Billberg 1828

Tyto campiterrae n.sp.

Derivatio nominis: campiterrae, named after the close geographical territory (Mezőföld. mező-campus, föld-terra) in which the type locality lies.

Diagnosis: Smaller sized member of the genus with allometrically different limb-bones as in the hitherto described species of the same size category: especially coracoideum and femur are relatively smaller, carpometacarpus and tarsometatarsus comparatively larger.

Type locality: Karst cavities of the Hill Szárhegy, Polgárdi, W-Hungary.

Type level: Upper Miocene (former named Pontian or Upper Turolian; Lower Pliocene); international biostratigraphical unit: MN 13.

Holotype: complete left tarsometatarsus, Polgárdi, Loc. 5., Geological Institution, Budapest, Vt 148 – V 18.097.

Further material: Loc. 4.: Distally damaged coracoideum (Loc. uncertain); 2 dist. fragm. of ulnae; femur (complete); dist. fragm. of tibiotarsus; prox. and 2 dist. fragm. of tarsometatarsi; 2 phalanx I. dig. 1; phal. II. dig. 2; phal. I. dig. 3; phal. III. dig. 3; phal. III. dig. 4; 4 ungual phalanges [all phalanges pedis (posterior)].

Loc. 5.: neurocranium fragm.; mandibula fragm.; coracoideum: 1 complete, 6 fragm.; scapula: 2 prox. fragm.; humerus: 1 prox., 3 dist. fragm.; ulnae: 2 prox. fragm.; radius: 2 dist. fragm.; carpometacarpus: 1 complete, 6 fragm.; phalanx I. dig. 2 alae; synsacrum-fragm.; femur: 2 complete, 5 prox., 3 dist. fragm.; tibiotarsus: 1 prox. and 4 dist. fragm.; tarsometatarsus: 2 complete, 6 prox., 4 dist. fragm.; 5 phalanx I. dig. 2; 4 phal. II. dig. 2; 4 phalanx I. dig. 3; phal. II. dig. 3; 7 phal. III. dig. 3; phal. I. dig. 4; 11 ungual phalanges; 5 phal. fr. anatomically indet [all phalanges pedis (posterior)].

Description and comparisons: The more than hundred owl bones in the Polgárdi material show without exception the morphological features of the Barn owl i.e. of the genus *Tyto*. All anatomical characteristics, enumerated by *Ballmann* (1973) for this group, in the first place the absence of the bony bridge over the extensor groove, so characteristic of the owls in stricter sense (Family Strigidae) and the elongated phalanx I. digiti 2 posterior are typical. As the measurements of the measurable bones prove, we can count on a considerable variation in size, without presuming the presence of an other, larger species. The proportional situation, very revealing for the new species, given in the diagnosis, may be especially characteristic for it.

Noteworthy is the fact that there are some juvenile and also some pathologic bones (with exostoses) in the Polgárdi matter.

Most of the hitherto described fossil species of the genus *Tyto* s. str. are large or even gigantic insular forms, partially zoogeographically distinct from our locality. *Tyto pollens* Wetmore, 1937, *T. ostologa* Wetmore, 1937, *T. noeli* Arredondo, 1972; *T. riveroi* Arredondo 1972 (all from the West Indies); *T. gigantea* Ballmann, 1976 (former island in place of the Gargano peninsula of present day in Italy); *T. balearica* Mourer-Chauviré etc., 1980. (Great forms are summarized in this work and in Arredondo, 1976). Among the metrically near forms the geologically considerably older *T. edwardsi* Ennouchi 1930 is much smaller, only *T. sanctialbani* Lydekker, 1893 (Lower Miocene) and *T. melitensis* Lydekker 1891 (Lower Pleistocene) are of the same size category (all these species under the very disturbing synonymeous genus-name: *Strix*!). The measurements given in the literature for this two latter species prove also quite different proportions: the length/proximal width in the tarsometatarsus of *T. sanctialbani* measures 77/12 mm, in the Polgárdi-material 66/11 and 64/11. The length/prox. width of the femur in *T. melitensis* is 54/4 mm, in the Polgárdi-matter 50/4, 56/5 and 57/5 mm. In these cases the age differences also reveal a distinction of these forms.

The newly described primitive forms of „Barn Owls”, (*Mourer-Chauviré*, 1987) speak for a very old, at least Eocene speciation of *Tytonidae* at all.

Order: *Apodiformes* Peters 1940

Family: *Apodidae* Hartert 1897

Genus: *Chaetura* Stephenson 1826

Chaetura aff. *baconica* Jánossy 1977

Material: Polgárdi Loc. 4.: complete ulna from two not quite corresponding pieces. (Broken and later corrodent fragments. The two pieces rest not flat against each-other).

Against considerable differences in size I range provisionally this bone with the geologically somewhat older swif(i) remain, described from Sümeg (Jánossy, 1977). The remain from Polgárdi is too fragmentary for a detailed comparison, but we can suppose that the length of bone would be about 14–15 mm, the width of diaphysis in the middle is maximally 1.9 mm. The same measurements are in the ulna of *Chaetura baconica* 18,3/2.2, in a recent *Chaetura pelagica* 13.2/1.6 mm. Morphologically the bone agrees with the same one of *Chaetura*: especially in the shape of olecranon, in the surfaces of the facies glenoidalis externa and interna, as well as the facies ligamenti externi.

*Bird bones from Polgárdi,
locality 4 and locality 5:*

- Tyto campiterrae* n.sp.: 1. tarsometatarsus, dorsal view; 2. coracoideum, ventral view; 3. femur, cranial view; 4. carpometacarpus, dorsal view;
Porzana estramosi veterior n.ssp.: 5. humerus, caudal view; 6. femur, cranial view; 7. tarsometatarsus, dorsal view; 8. carpometacarpus, ventral view;
Rallicrox polgardiensis n.sp.: 9. femur, cranial view.
 Figs. 1–4, natural size, figs. 5–9, twice natural size

Polgárdiból származó madárcsontok