

**PLIO-PLEISTOCENE BIRD REMAINS
FROM THE CARPATHIAN BASIN
II. GALLIFORMES 2. PHASIANIDAE**

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In the first part of this series (JÁNOSSY, 1975) I dealt with the research history of Plio-Pleistocene birds of the territory studied, as well as with the systematico-stratigraphical sketch of the most important group of birds, the *Tetraonids*, of this time interval. In the present paper I propose to give an account of all other *Galliformes* of the corresponding territory and age. Concerning the fact that all *Galliform* remains, other than *Tetraonids*, from the Carpathian Basin belong to the family of *Phasianidae* — the richest in species of all families of this group (about 170 recent species) — I deal in the present paper with the fossil members. The classification of the genus *Palaeortyx* as a member of the *Cracidae* (viz. *Cracoidea*) by BRODKORB (1964) was refuted by BALLMANN (1969), and I am convinced that according to the detailed osteological analysis of this group, the latter conception is the correct one.

Systematical description of the palaeospecies

Order: *Galliformes*

Suborder: *Galli*

Superfamily: *Phasianioidea*

Family: *Phasianidae*

Genus: *Palaeortyx* Milne-Edwards, 1871

Palaeortyx aff. intermedia Ballmann, 1969

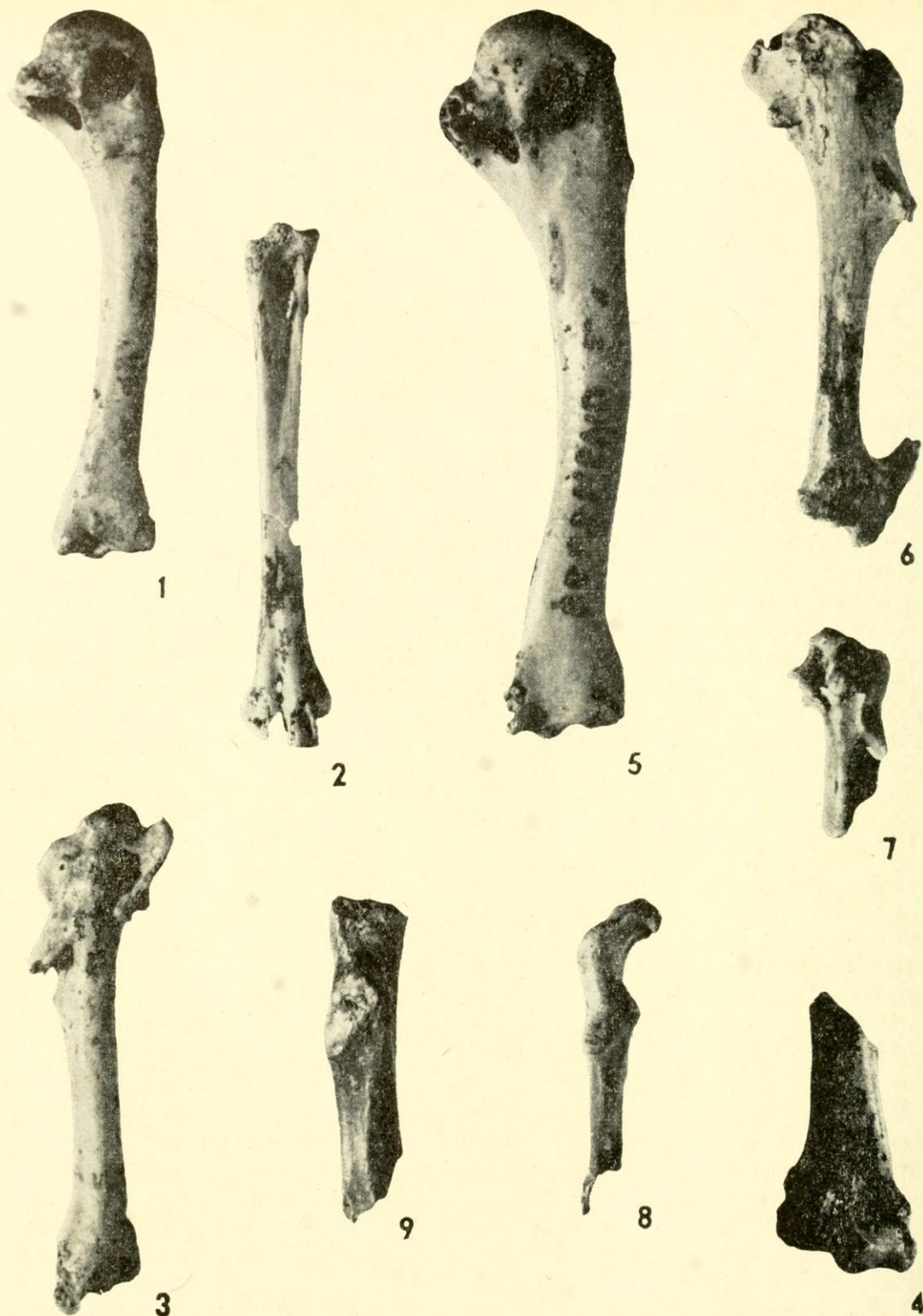
(Plate I. fig. 9)

Material: Loc. Rudabánya, Leg. KRETZOI, 1973 (Lower Pliocene, Lower Pannonian): cranial fragment of the left coracoid (without the acrocoracoid).

A detailed analysis of this piece, together with the other ones discussed in this paper below (another coracoid — fragment from Rudabánya and a carpometacarpus fragm. from Sümeg), proved unambiguously the presence of the morphological features of the *Palaeortyx* group. According to BALLMANN's (1969) recent revision this group stands alone in the family of *Phasianids* and has only very far relations to recent forms. This unique position is of course expressed in the morphological features of the bones.

Thus a comparison with the coracoid of all recent *Phasianids* of Europe and of the Middle East further with that of *Colinus* (North America) and of the fossil material of *Francolinus* (*Lambrechtia*) (Coll. Budapest) and of *Palaeortyx* (Coll. Berlin, Lyon and Munich), supports this taxonomical relegation.

The shape of the fossa scapularis, of the facies clavicularis, and the whole



8. ábra. *Francolinus (Lambrechtia) capeki capeki* Lambr.

1. Right humerus, caudal view, Püspökfürdő (= Betfia II) 2. Right tarsometatarsus, anterior view, same Loc. *Francolinus subfrancolinus* n. sp. 3. Left carpometacarpus, ventral view, Villány 3, typespecimen 4. Distal fragment of right humerus, oral view, same Loc. *Gallus beremendensis* n. sp. 5. Right humerus, caudal view, Beremend, Loc. 5. *Gallus aesculapi* Gaudry 6. Right carpometacarpus, dorsal view, Polgárdi *Palaeortyx* sp. (aff. *grivensis* Lydekker) 7. Proximal fragment of right carpometacarpus, ventral view, Sümeg 8. Distal fragm. of right coracoideum, lateral view, Rudabánya *Palaeortyx* aff. *intermedia* Ballmann 9. Diaphysis fragm. of right coracoideum, Cranio-lateral view, Rudabánya *Alligures* enlarged (measurements see in the text)

picture of the diaphysis, show the characteristics of *Palaeortyx* and differs clearly from *Perdix*, *Alectoris*, *Francolinus* (recent and fossil), *Ammoperdix*, *Gallus* or *Colinus*, as well as from the smaller *Tetraonids* (e. g. *Tetrastes* of the same size category).

The width of the diaphysis of the bone measures about 3 mm.

As easy as the generic determination appears to be, so difficult is the specific identification.

As it is known, the genus, morphologically homogeneous in itself, was divided into 10 to 15 different species (with a complete confusion of the nomenclature, too!) — most of them originating from the Upper Miocene deposits of Western Europe.

According to the BALLMANN's revision (1969), only five species should more or less certainly be relegated to this genus: i. e. *gallica*, *brevipes*, *phasianoides*, *edwardsi* and *intermedia*. However, the taxonomical status of the other hitherto described forms remains open even after this revision.

Our specimen agrees morphologically, and metrically, according to the detailed immediate comparison, with the same bone of *P. intermedia* Ballmann, 1969, but we can compare it also with *P. gallica*, *edwardsi* or *miocaena* of the same size category, too.

Under these conditions, it is clear that the specific identification of the fragmentary piece remains uncertain.

We must rest content with its identification as to genus.

Palaeortyx sp. (aff. *grivensis* Lydekker, 1893).

(Plate 8. fig. 7–8.)

Material: Loc. Rudabánya, Leg. KRETZOI, 1972 (Lower Pliocene, Lower Pannonian): cranial fragment of the left coracoid.

Loc. Sümeg, Leg. KRETZOI 1971 (geological age somewhat younger than the former one): proximal fragment of the right carpometacarpus.

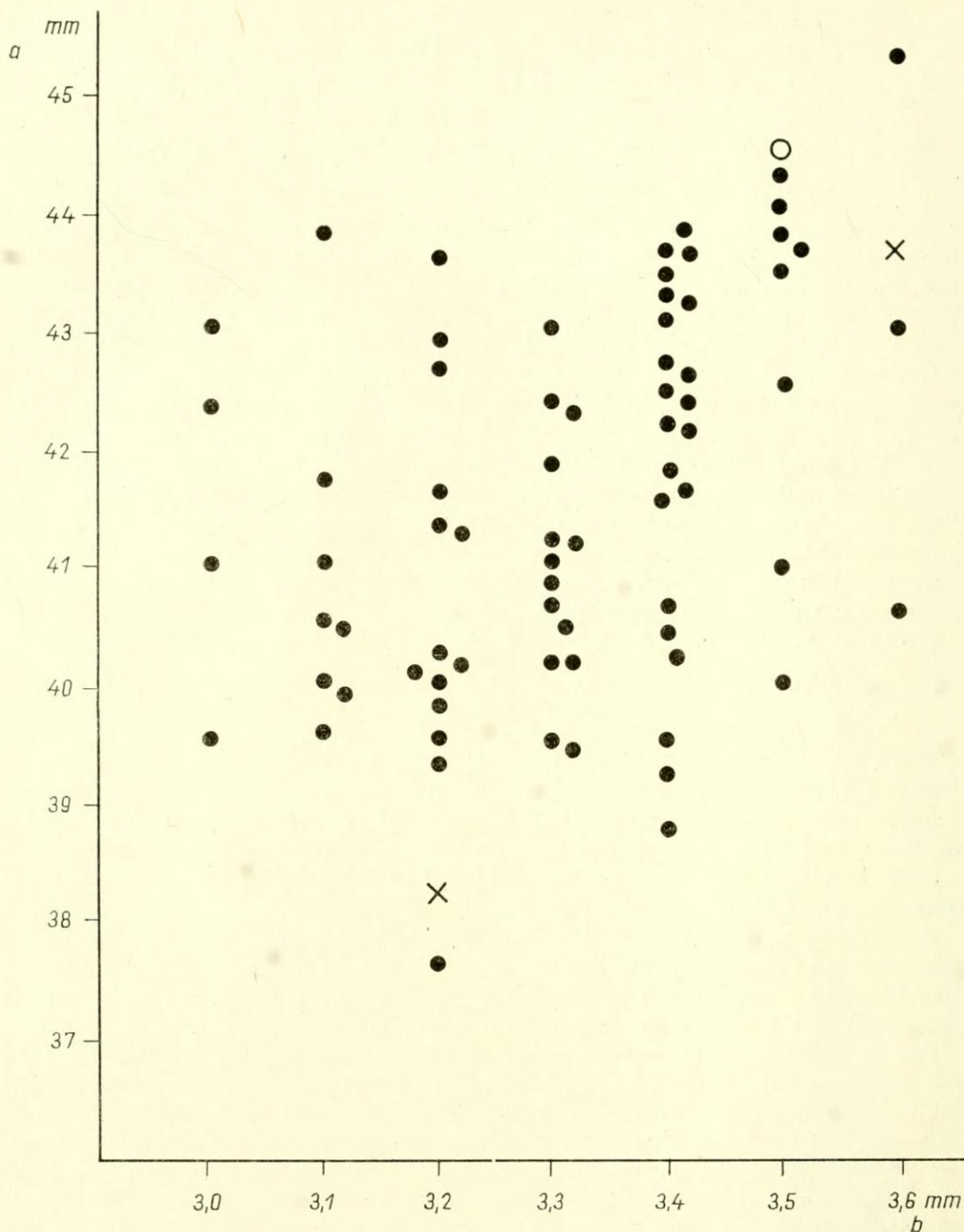
Loc. Tardosbánya, Leg. JÁNOSSY, 1976 (geological age nearly the same): prox. fragm. of the right carpometacarpus.

With reference to the comparison — discussed in the former species — we can establish the presence of the same genus, but of a little smaller size category than the former one in the mentioned three localities. Of course, it is questionable whether all remains belong to the same species.

The generic identification of these remains could be made by an immediate comparison of the specimens of the original material of *Palaeortyx gallica* Milne-Edwards, conserved in the Humboldt Museum of Berlin. The dimensions of the Hungarian material are slightly smaller than in *P. gallica*, and therefore I relegated them provisionally to *Palaeortyx grivensis* Lydekker, 1893 (nec *Phasianoides grivensis* Ballmann, 1969 and nec *Palaeocryptonyx grivensis* Ennouchi, 1930), with smaller dimensions. The width of the diaphysis of the coracoid is about 2.5 mm.

However, if we consider only the forms described hitherto Upper Miocene — we can compare our remains with those of nearly the same category, namely with *P. depereti* Ennouchi, 1930, or with *ocyptera* Milne Edwards, 1891, not to mention the geologically older forms (*cayluxensis*, *brevipes*, *hofmanni* etc.)

All in all, we have the first proof of the presence and the contemporaneously wide distribution of *Palaeortyx* in the Pliocene.



9. ábra. A diaphysis hosszának és szélességének aránya a recens és subfossilis *Perdix perdix* tarsometatarsusán

Figure 9. The ratio of length (a) and width of diaphysis (b) of the tarsometatarsi of *Perdix perdix* recent and subfossil (full circles); Middle Pleistocene (x) and of *P. p. jurcsáki*, Betfia (open circle)

Table 1.

Comparative measurements of the humeri of recent and fossil species of *Gallus*

Species of <i>Gallus</i>	length	proximal width	distal width	width of diaphysis
<i>Gallus beremendensis</i> n. sp. Beremend	53,0	14,0	±10,0	5,7
" <i>Gallus</i> n. sp." Gwardilash-Klde	59,1	15,2	12,1	5,3
<i>G. gallus bankiva</i> , 454-1*	67,2	17,5	13,6	6,5
<i>G. gallus bankiva</i> 454-2*	56,0	16,0	8,3	5,8
<i>G. gallus bankiva</i> , 2.73*	59,0	15,0	12,4	5,5
<i>G. gallus</i> , 456. 1, Middle Kambodia*	55,0	14,0	11,3	5,5
<i>G. gallus</i> , 1965, Middle Kambodia*	69,0	18,0	14,0	7,0
<i>G. sonnerati</i> , 459.3*	70,5	18,0	15,0	7,6
<i>G. sonnerati</i> , 459-1*	60,0	16,0	12,3	6,0
<i>G. sonnerati</i> BM/NH/1155**	74,0	19,5	15,6	8,0
<i>G. gallus domesticus</i> , dwarf form "72"**	57,5	15,0	10,7	5,5

Specimens without locality originate from Zool. Garden;

* Collection of the University Lyon

** Collection of the British Museum (Natural History)

Gallus Linné, 1758*Gallus aesculapi* Gaudry, 1861

(Plate 8. fig. 6)

Material: Polgárdi Leg. KORMOS, 1910 (Upper part of Lower Pliocene, Upper Pannonian, Baltavarian): left nearly complete Carpometacarpus, phalanx 2 digiti 3. pedis.

A detailed analysis of the bones unambiguously manifests the morphological features of the genus *Gallus*. There were hitherto described only two valid fossil species in this genus i. e. *Gallus aesculapi* Gaudry, 1861, from the Lower Pliocene and *G. bravardi* Gervais, 1859, from the Upper Pliocene of Europe (regarding the taxonomical status of *G. kormosi* Gaillard and *G. crassipes* Gaillard see later in this paper). Since the corresponding bone of *Gallus aesculapi* agrees not only morphologically but also metrically as well as in geological age with the Polgárdi specimen the specific identification appears valid.

I found — looking for comparative pieces — a carpometacarpus of this species originating from the Lower Pliocene of Pikermi, measuring in length about 40 mm, in the Collection of the University of Vienna (Palaeontological Institute, examination by courtesy of Prof. DR. E. THENIUS) agreeing with our specimen in all morphological details.

The length of the Carpometacarpus from Polgárdi measures 42 mm, the width of diaphysis in the middle about 4,0 mm. According to literary data, the carpometacarpus of the otherwise geologically much younger *G. bravardi* is unknown. However, according to the huge size of the tarsometatarsus and the coracoid of this form, the carpometacarpus must also be considerably larger (the dimensions of the tmt of the latter is nearly twice of that of the former one).

The phalanx 2 digiti 2 with the length of 15,4 mm and with the width of

the diaphysis of 3,1 mm as well as the morphological features of *Gallus* originate in all probability from the same species.

Gallus beremendensis n. sp.

Holotype: Nearly complete right humerus, Leg. NOSZKY J., 1952
(Plate 8. fig. 5)

Locus typicus and stratum typicum: Lowest Pleistocene ("Lower Villafranchian", Beremendian) karst fissure of the locality Beremend 5., Mts. Villány, Southern Hungary.

Derivatio nominis: „*beremendensis*” from the name of the locality.

Diagnosis: A small *Gallus* species, smaller than the hitherto known recent or fossil forms of the genus.

Description: This piece was first mentioned in the literature by KRETZOI (1956 in 1962) as "*Phasianidae* indet”.

I compared it in detail with the same bone of all European *Galliformes* as well as with that of forms outside of our Continent, available in the Collection of the British Museum. Although there are some resemblances with certain other genera (e. g. with *Rhizothera longirostris*, *Galloperdix bicalcaratus*, *Guttera edwardsi* or *Genneus leucomelanus*), the morphological relations seem closest with *Gallus*.

The form of the whole proximal epiphysis, of the tricipital fossa, of the eminentia musculi latissimi dorsi posterioris, as well as of the incisura collaris are especially characteristic for the genus *Gallus*.

Moreover, I had the possibility to compare the Beremend specimen morphologically and metrically with the same bone of ten recent specimens of *Gallus gallus* (viz. *bankiva*) and of *G. sonnerati* in the British Museum (Nat. Hist.) (by courtesy of G. S. COWLES) and in the Collection of the University of Lyon (by courtesy of MME MOUBER CHAUVIRÉ). In view of the fact that on the one hand the measurements of these humeri (55 to 74 mm, a variation of 25%) seem to include practically the whole variation of recent Southern Asiatic species, and on the other that for all forms the same size category is given in literature (wing length 200 to 230 mm), our species is smaller than the hitherto known recent material (according to Peters, *Gallus gallus* Linné incl. subsp. *bankiva*, *G. lafayetti* Lesson, *G. sonnerati* Temminck and *G. varius* (Shaw), all living in Southern Asia and Indonesia, show humeri measurements as given in table I.).

As mentioned above, the hitherto described fossil species within the genus *Gallus* are considerably larger and therefore there is no reason to compare the present fragment with them.

We have to emphasize in this place that the identification of a small form of *Gallus* from Europe, very near the recent wild forms, is of great significance concerning the origine of the domestic fowl. The Hungarian remain from the Lowest Pleistocene throw new light upon the hitherto doubtful similar remains from the Older Upper Pleistocene of the Crimea and from the Late Upper Pleistocene of Georgia (Kiik-Koba and Gwardilash Klde Caves, BURCHAK — ABRAMOVICH, 1965), as well as from some Neolithic finds from the Middle East (unpublished identification by the author). This series makes probable, according to our present knowledge, an Eastern European (?) origin of the ancestor of the domestic fowl.

Gallus sp.

Material: Loc. Osztramos 1, Coll. JÁNOSSY, 1971 ("Middle Pliocene", Estramontian): phalanx 2. digiti 3. posterior.

After detailed comparisons, this phalanx shows a very close resemblance with the corresponding bone of *Gallus* of Polgárdi (but not with that of the domestic fowl!). The specimen differs from the remain of Polgárdi more in proportions than in size. Length of the bone 17,5 mm, width of the middle of the diaphysis 3,2 mm.

It remains an open question whether we have to do with a phalangeal bone of *Gallus bravardi* (Phalanges unknown but probably larger) or with that of some other form, and thus, we can only registrate the presence of also a larger form of *Gallus* in the Middle Pliocene in the territory under discussion.

Genus: *Francolinus* Stephens, 1819

Subgenus: *Lambrechtia* Jánosy, 1974

Lambrechtia capeki wezensis Jánosy, 1974

Material: Locality Csarnóta 2. Leg. KRETZOI, 1951 (Uppermost Pliocene): Layer "O": Phalanx 1. dig. 4. posterior; Layer "B/1": Prox. fr. of left tarso-metatarsus; Layer 2: Diaph. of left coracoideum; dist. fr. of right tibiotarsus; prox. fragm. of phal. 1. dig. 3. posterior; phal. 1. dig. 4. post.; Layer B/2: cranial fr. of right coracoideum; Layer 3: dist. fr. of left humerus; Layer 5: diaphysis of right humerus; Layer 10: diaph. of right coracoideum, phal. 1. dig. 2 anterior (fragm.); Layer 15: cranial fr. of left scapula; prox. fr. of left ulna; prox. fr. of right carpometacarpus; Layer 20: coracoideum: right complete and left dorsal fragm; lateral half of dist. fr. of right tarsometatarsus.

Lambrechtia capeki villanyiensis Jánosy, 1974

Material: All localities Lower Pleistocene: Locality: Villány-Kalkberg (Villány 3.) Leg. KORMOS: two dist. fragm. of left humeri.

Loc. Beremend: Leg. KORMOS: Right complete humerus.

Loc. Osztramos 7. Leg. JÁNOSSY, 1973-74: 3 cranial fragments of left coracoidei, middle trochlea of tarsometatarsus; phalanx 2. digiti 2 post. and phal. 1. dig. 3. post (fragm.)

Loc. Nagyharsányhegy. Leg. KORMOS: dist. fr. of left Tibiotarsus.

Lambrechtia capeki capeki (Lambrecht)

(Plate 8. fig. 1-2.)

Loc. Betfia 2. (=Püspökfürdő), Leg. KORMOS: coracoidei: left complete (figured by LAMBRECHT, 1933. fig. 136), left cranial-ventral- and diaphysis fr., two right cranial and one ventral fr.; humeri: complete right adult and juvenile (fig. by LAMBRECHT, ib.), left prox. and dist. fr., diaph. fr.; ulna: left specimen in two fragments (? LAMBRECHT, ib.), carpometacarpi: left complete (LAMBRECHT, ib.), two right dist. fr.; tibiotarsi: right and left dist. fr., tarsometatarsi: two right complete, two distal and one proximal fr., two left dist. fr.

Loc. Osztramos 2; Leg. JÁNOSSY, 1969: dist. fragm. of tarsometatarsus.

Loc. Osztramos 8; Leg. JÁNOSSY, 1971: dist. fragm. of left humerus.

In a previous paper, describing the rich corresponding fossil material of Poland (chiefly that of the locality Rebielice), I dealt in detail with the system-

atico-morphological position of fossil francolins, comparing the Polish material with that of different Hungarian localities (JÁNOSY, 1974).

To avoid repetitions, I propose to analyse on this place only the remains originating from Csarnóta, not included in the above mentioned comparisons, as well as some hitherto unpublished measurements of remains from different other localities. In the material of Csarnóta, the special features of the Tarsometatarsus, of the Coracoid and chiefly those of the Phalanx I. digiti 4 posterior (pedis) speak unambiguously for the presence of *Francolinus* (*Lambrechtia*) *capeki*.

The following measurements relegate them to the smaller and stratigraphically older form *wezensis* (there are very few fragments convenient for taking measurements): distal width of the Humerus measures 7,7 mm, the same of the Tibiotarsus 5,8 mm. The length \times width of diaphysis in the Phalanx 1. digiti 4 posterior measures $9,5 \times 1,5$ mm and $9,6 \times 1,5$ mm.

In addition, I submit some unpublished data from other localities: the distal width of the Humeri from Villány 3 measures 6,9 and 8,0 mm, the same measurement of the Tibiotarsus in the Nagyharsányhegy material is 5,5 mm.

The length \times width of diaphysis of phalanx 2. digiti 2. posterior measures $10,9 \times 1,2$ mm, in the Osztramos 7 material. The proximal width of a fragment of a Phalanx 1. digiti 3 from the same locality measures 3,6 mm.

Surveying the remains from the Carpathian Basin from the stratigraphical point of view (see Fig. 2.) we can establish that *Francolinus capeki* was widespread from the Upper Pliocene up to the upper part of Lower Pleistocene in the corresponding territory, but so far we have so no traces of this form from the typical Middle Pleistocene from which period there exist finds from the territory of the Bohemian Basin (Stránská Skála, Konieprusy).

Francolinus (*Lambrechtia*) *minor* Jánossy, 1974

Material: Loc. Osztramos 7, Leg. JÁNOSY 1973 – 74. distal fragm. of right Carpometacarpus; dist. fr. of right Femur; lateral side of dist. fr. of right Tarsometatarsus.

This material is so poor that I was able to identify it only by an immediate comparison with the type-material from Rebielice in Poland. The fragment of femur, not represented in the Polish material, could be determined on the basis of the *Lambrechtia*-like morphological features and of the measurements. The distal width measures 5,9 mm, in contrast to the 6,6 to 7,5 mm dimensions of the *L. capeki* material from Poland.

Thus we can only establish the presence of also this small form at the limit of Plio-Pleistocene in the Carpathian Basin.

Subgenus: *incertae sedis*

Francolinus subfrancolinus n. sp.

(Plate 8. fig. 3.)

Holotype: Nearly complete left Carpometacarpus (mc₃ lacking).

Locus typicus and *stratum typicum*: Lower Pleistocene ("Lower-Middle Villafranchian", Villányian) karst fissure of the locality Villány 3., Mts. Villány, Southern Hungary.

Derivatio nominis: "subfrancolinus" from the Latin sub-below, indicating the stratigraphically lower position of the remains.

Diagnosis: A species osteologically nearest to *Fr. francolinus*, but with

shorter and stouter Carpometacarpus and stronger Humerus than in the recent form.

Further specimens: right, distally broken Carpometacarpus and dist. fragm. of the right humerus from the same locality (Coll. T. KORMOS).

Description: I compared the type-specimen with the World material of *Galliformes* available in the British Museum listed in my previous paper (JÁNOSSY, 1974), but found close morphological resemblances only with the same bone of the members of the genus *Francolinus*. In size, the carpometacarpus falls clearly in the category of "middle-sized" species of francolins, measuring 27,7 mm in length. Thus a relation with the hitherto described fossil species with the length of carpometacarpi ranging between 20 and 24 mm may be excluded.

A detailed morphological comparison with the corresponding bones of the species in the same size category namely of *Fr. clappertoni*, *Fr. pictus*, *Fr. francolinus*, *Fr. levaillantii*, *Fr. gularis* and *Fr. bicalcaratus*, resulted in the following. There are morphologico — proportional differences against all Carpometacarpi of the enumerated species. The resemblances are the nearest to *Fr. clappertoni*, *Fr. francolinus* and to *Fr. levaillantii*. In 1974, I found in the Lyon University Collection the distal fragment of a humerus originating from the same locality as the carpometacarpus, purchased from KORMOS by that institution but not published by GAILLARD in 1939 (with some other material from Villány) (Coll. Univ. Lyon, Inventory Number: HP 49). The detailed investigation and comparison convinced me that we have to do with a member of the *Francolinus francolinus* group, with the strongest humerus of the "middle-sized" francolins and agreeing therefore with the larger dimensions of the carpometacarpus. Thus our fossil, a very fragmentary material stands morphologically the nearest to the black francolin, *Fr. francolinus*, a form also nearest zoogeographically to our territory.

The measurements of the fossil bones are as follows:

Length of Carpometacarpus 27,7 mm, thickness at the middle point 3,5 mm, the same in the broken specimen 3,2 mm. The same measurements in two recent specimens of *Fr. francolinus* are $29,0 \times 3,1$ and $31,0 \times 3,1$ mm.

Distal width of the humerus 10,6 mm (in two recent specimens 10,4 and 10,5 mm), distal thickness 5,6 mm (in the recent material 5,5 ($2 \times$) mm).

The fossil material unfortunately lacks the proximal part of the humerus and the tarsometatarsus, decisive in the subgeneric assignment of the members of this group, and of prime importance in the question of whether we have to do with the immediate ancestor of the black francolin or with a parallel evolutionary line.

Genus: *Perdix* Brisson, 1760

Perdix perdix jurcsaki Kretzoi, 1962.

Material: Locality Püspökfürdő (= Betfia 2.); Leg. KORMOS, Uppermost Lower Pleistocene, Lowest Biharian, Betfia Phase: Dist. fragm. of the left humerus, fragments of one right and three left carpometacarpi.

Loc. Osztramos 5; Leg. JÁNOSSY, 1969, the same age ("Allophaiomys"-fauna): prox. fragm. of the right carpometacarpus.

Subsp. Loc. Vértesszőlős, Layer 200 — 240 cm; Leg. JÁNOSSY 1965, Lower Middle Pleistocene, Upper Biharian, Tarkó-Phase: phalanx 2 digiti 3 pedis (posterior).

subsp.? Tar-kő, Leg. JÁNOSSY 1969–70; the same age: layer 2: phalanx 1 and phalanx 3 digiti 4 pedis and four phalanges unguis, layer 3: phalanx 1. digiti 1 post., three phalanges 2. digiti 4 pedis and phal. 3. dig. 3 pedis; layer 4: prox. fragm. of the right tarsometatarsus, phalanx unguis.

subsp.? Várbarlang, loc. Fortuna Street 25, lower layer, Leg. JÁNOSSY, 1967; the same age: distal fragm. of the right tarsometatarsus.

It is clear that the remains listed above are only convenient for a generic relegation but insufficient for a specific or subspecific one. However I designate them as *Perdix perdix* subspecies *jurcsaki*. The arguments for doing so are as follows: KRETZOI (1962) based the new species *P. jurcsaki* on the material of Betfia and characterised it by its longer and slimmer tarsometatarsi than in the recent form. I measured 75 pieces of recent and subfossil specimens of *Perdix perdix* and found that the fossil Betfia specimens fall in the range of the plusvariants of the recent species. Therefore I consider the fossil form as a subspecies and designate, under the same name, all forms stratigraphically near the type-material of Betfia.

Phasianidae incertae sedis

There are some very fragmentary pieces of Phasianids in the Hungarian collections; however, the fragmentary condition allows no exact identification.

In the material of Csarnóta, there is a premaxilla which fails to show the two proximal large apertures characteristic of recent *Francolins* and of the known fossil members of the group, *Lambrechtia* (see JÁNOSSY, 1974). There are only two very small holes (0,5 mm in diameter in contrast to 1,5–2,0 mm in *Francolinus* or in *Lambrechtia*).

These apertures seem very characteristic specifically and they do not vary very much. I examined this feature in 70 specimens of recent *Perdix* and the variation in size and form seems minimal. On the other hand, I found in the unidentified material of Węze a very fragmentary piece of one side of a premaxilla showing apertures of the same form and size as in Csarnóta. Concerning the extremity bones, I could not separate two, different forms either in the material of Węze or in that of Csarnóta. Regardless of this fact but referring to the observation made on the premaxillae, I contend that there is, besides the *Lambrechtia*, in both localities another Phasianid species indicated by the aberrant “bill bones”. We have to wait for more complete fossil remains to decide this question.

It should be mentioned in this place that there are some not unambiguously identifiable fragments originating from small Phasianids in the material of the Middle Pliocene localities Osztramos 1. and 9. The are as follows: an ulnare, a coracoid-fragment from Loc. 1 another one from Loc. 9 and a phalanx pedis also from the latter. Formerly I believed the first coracoid fragment (Loc. 1) to be a *Palaeortyx* (JÁNOSSY, 1971). However, a detailed analysis of both coracoid fossils and of a series of drawings made of them presented some mosaic-like transitional features between *Lambrechtia-Palaeortyx*, while phalanx pedis is, with its short and stout form, clearly *Palaeortyx*-like. These few very fragmentary pieces are unfortunately insufficient to allow further inferences.

Erraneous description of Phasianids from the Carpathian Basin.

“*Pliogallus kormosi* Gaillard, 1939”

“*Pliogallus crassipes* Gaillard, 1939”

With the intent to revise the whole bird material of the Upper Pliocene–Lower Pleistocene from the territory under discussion, I endeavoured to examine all originals personally. In 1974, I had the possibility to work in the Collection of the University of Lyon. To my greatest surprise, I found in both cartoons containing the *Gallus* bones and designated in GAILLARD's hand as the "types" of the *Pliogallus* species, two recent tarsometatarsi of domestic fowls. Both bones are conspicuously fatty, as usually badly prepared recent skeletons are. It can be seen that they were cooked with a chemical substance to appear as fossils (some traces of red clay also adhere to the bones), and after some years the fat seaped through.

The larger bone, described as "*Pliogallus crassipes*" originates from an enormous fowl with a rudiment of spur, usually characteristic of capons.

In my opinion both taxonomical units should be deleted from literature.

Fossil and subfossil occurrences of neospecies

Localities of neospecies of Phasianids in the Carpathian Basin (remains not included in the lists by LAMBRECHT, 1933, and BRODKORB, 1964):

Perdix perdix Linné

"Prewürmian" – Lower Würmian: Süttő (Loc. 9); Lambrecht Cave (Layer V.)

Middle Würmian: Szelim Cave (Layer B₂); Jankovich-, Baits and Hóman Caves

Holocene: Petényi Cave (layer H₅), "Holocene" of the Lambrecht-Tarkő- and Csév Caves; 13.–15. century: Visegrád-Palota; 14.–17. century: Visegrád Alsóvár and Kálvária.

Coturnix coturnix Linné

Middle Pleistocene: Rockshelter Uppony I (layer 1); Várbarlang-Hilton

Upper Pleistocene ("Würmian"); Szelim Cave (layer B); Lambrecht Cave (layer V.), Jankovich Cave, Petényi Cave (layer P₁) Rockshelter Rejtek, Layer 4. and 5.

Holocene: Cave of Csapástető

Phasianus colchicus Linné

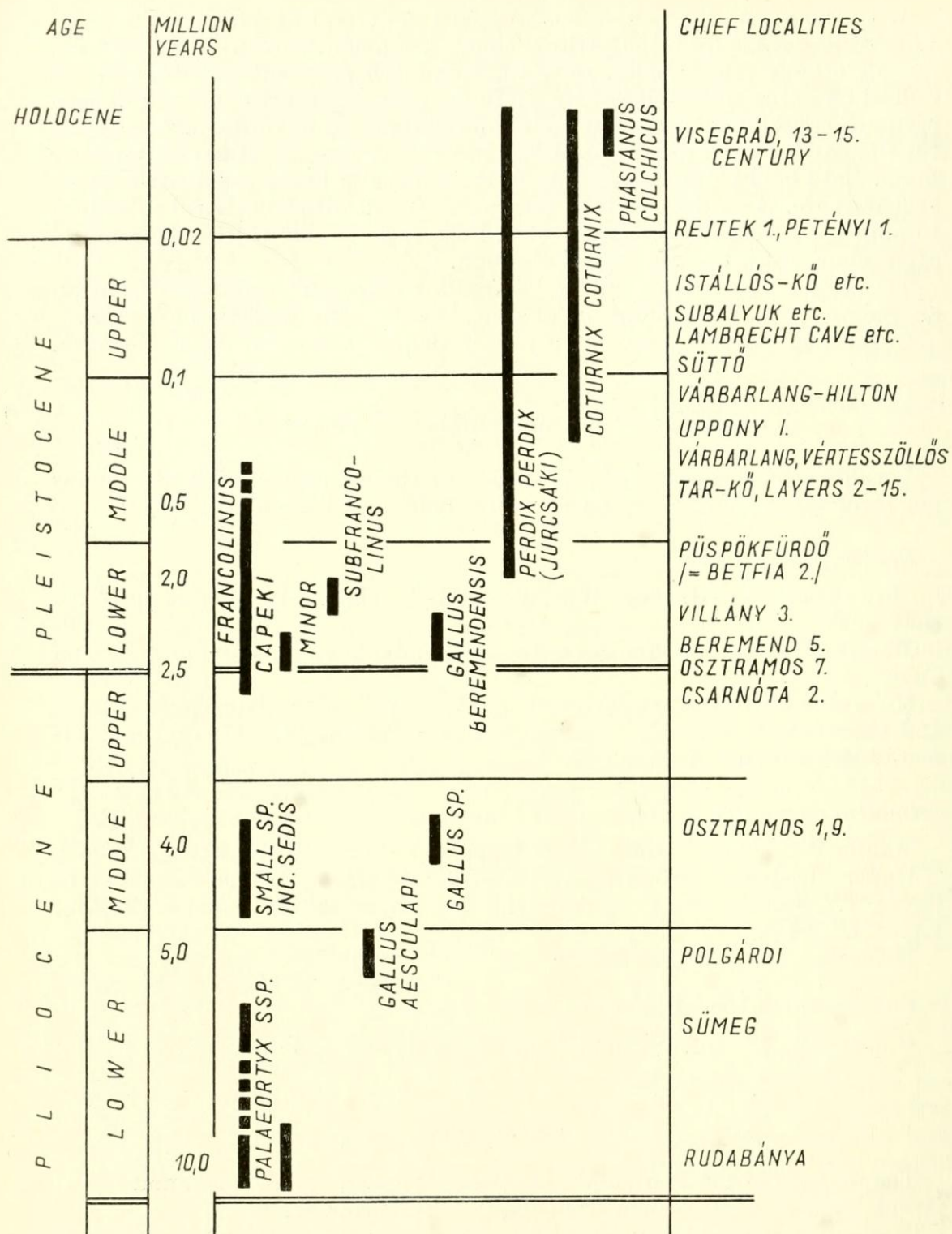
Holocene: 14.–15. century: Visegrád Kálvária and Palota

Conclusions

The revision of the Phasianid material of the Carpathian Basin and of adjacent territories shed some fresh light on the problem.

The results of investigations may be summarized, chiefly from an evolutionary point of view, as follows:

1. The presence of the evolutionary line of *Palaeortyx* is proved for the first time in the Eastern parts of Europe, terminating at the end of the Lower Pliocene.



10. ábra. A ma élő fajok felsőpleisztocén és holocén leleteinek felsorolása
 Figure 10. The list of upper Pleistocene and Holocene findings of the living species

2. Large species of *Gallus* vanished — according to our present knowledge — in the Middle Pliocene from the territory of the Carpathian Basin and was replaced in the Lowest Pleistocene by a small form, very near the recent Southern Asiatic *Gallus*, the presumed ancestor of the domestic fowl.

3. Some very fragmentary remains indicate the presence of a small Phasianid, morphologically between *Palaeortyx* and *Francolinus*, in the Middle Pliocene and imply some evolutionary relations between these forms.

4. Three evolutionary lines represent, from the Plio-Pleistocene boundary up to the Middle Pleistocene, the francolin-like forms of the subgenus *Lambrechtia* in the territory. The largest one among them appears to be very near the present Mediterranean — Middle Eastern species *Francolinus francolinus*. *Lambrechtia* must be considered not an African element, but rather a Tertiary relict.

5. The ancestors of the two recent territorial species, of *Perdix perdix* and *Coturnix coturnix*, appear in the Carpathian Basin only in the Early Middle Pleistocene. It is to be mentioned in this place that, according to the investigations of C. MOURER-CHAUVIRÉ, was *Perdix* extremely abundant in the Late Middle Pleistocene of Western Europe, especially France (La Fage).

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Plio-pleisztocén madármaradványok a Kárpát-medencéből

II. Tyúkalkatúak 2. Fácánfélék

Dr. Jánossy Dénes

A kárpát-medencei fajdfélék áttekintése után (JÁNOSY, 1975) a cikksorozat második részében a fácánfélék kerülnek tárgyalásra.

A fácánfélék jelenleg a tyúkalkatúak világszerte elterjedt és fajokban leggazdagabb családja (kb. 170 ma élő faj), mégis az itt tárgyalásra kerülő terület fosszilis és szubfosszilis anyagában a fajdfélékkel szemben alárendelt szerepet játszanak.

Hazánk két alsó-pliocén (5—10 millió éves) lelőhelyéről, Rudabányáról és Sümegről sikerült első ízben Európa keletibb részeiből is kimutatni az eredetileg a francia miocénből leírt, teljesen kihalt *Palaeortyx* nemzetséget és annak két fajtát. A *Palaeortyx* nemzetség rendszertani helyére vonatkozólag mindmáig vita folyik az irodalomban. Eredetileg az észak-amerikai virginiai fogasfürjekkel hozták őket kapcsolatba, majd az amerikai— ausztráliai *Cracoidea* (hokkó-alkatúak) csoporttal, végül a dél-ázsiai dísfürjekkel is.

A jelen vizsgálati eredmények mellett szólnak, hogy itt egy, a középső pliocénben nagyobb részt utódok nélkül kihalt fejlődési ágról van szó.

Néhány középső pliocénből eredő, igen töredékes lelet alapján nincs azonban kizárva, hogy a *Palaeortyx*-ok fejlődésének egyik vonala mégis az „európai típusú” frankolinok (*Lambrechtia*) irányába vezet.

A szorosabb értelemben vett tyúkok (*Gallus* nemzetség) közül a nagy termetű *Gallus aesculapi* fordul elő Polgárdi alsó-pliocénjében. Egy kicsiny, a mai dél-ázsiai vadtyúkokhoz igen közel álló alakot sikerült Beremend alsó-pleisztocénjéből (kb. 2 millió év) kimutatni (*Gallus beremendensis* n. sp.). Ez azt jelenti, hogy a házityúk ősei az alsó-pleisztocénben legalábbis Európa keletibb részein is éltek, és nem kell azokat Dél-Ázsiából eredeztetnünk.

A villányi alsó-pleisztocénből a frankolinok egy nagyobb termetű képviselőjét sikerült kimutatnom [*Francolinus (Lambrechtia) subfrancolinus* n. sp.]. Ez a faj csonttanilag legközelebb áll ahhoz az alakhoz, mely — mint ismeretes — a múlt században pusztult ki Szicíliában és Spanyolországban (utóbbi helyen betelepítve?), és jelenleg már csak Ciprus szigetén, Közel-Keleten és Dél-Ázsiában él (örvös frankolin). A fentebb már említett európai típusú frankolinok közül, melyeket másutt *Lambrechtia* alnem elnevezéssel illetem (Püspökfürdőről — JÁNOSSY, 1974), a LAMBRECHT által leírt *Francolinus Capeki*-t újabb lelőhelyeken sikerült kimutatni (Csarnóta, Villány, Beremend, Osztramos 2 és 7, 8; Nagyharsány-hegy) és egy kis alakot (*Francolinus minor*) ugyancsak Osztramos 7-ről.

A fogoly ősi alakja (*Perdix perdix jursáki*), valamint a fűj őse (*Coturnix coturnix*) az előbbieknél sokkal később (középső pleisztocén, kb. 1 000 000—500 000 év) jelenik meg területünkön (Püspökfürdő, Osztramos 5, Vértesszőlős, Tarkó, Várbarlang, Uppony).

Az örvös fácánt, (*Phasianus colchicus*), mint ismeretes, a történeti időkben telepítették be területünkre, s így teljesen idegen faunaelem a Kárpát-medencében.

A dolgozat egy, a ma élő fajok felsőjégkori (felső-pleisztocén) és holocén leleteit magába foglaló listát is tartalmaz.