

Ann. Naturhist. Mus. Wien	90	A	63–66	Wien, Jänner 1989
---------------------------	----	---	-------	-------------------

A new guineafowl (Aves: Phasianidae) from the late Eocene of France

By Jiří MLÍKOVSKÝ¹⁾

(With 1 plate)

Manuscript submitted on November, 10th 1986

Summary

A new guineafowl, *Telecrex peregrinus* sp. n., is described from the late Eocene (Phosphorites du Quercy) of France. It represents the first record of the genus *Telecrex* outside of China and the second Tertiary record of the subfamily Numidinae.

Zusammenfassung

Aus dem Ober-Eozän Frankreichs (Phosphorites du Quercy) wird eine neue Perlhuhnart, *Telecrex peregrinus* sp. n., beschrieben. Es ist der erste Fund der Gattung *Telecrex* außerhalb von China und zugleich der zweite Fund der Unterfamilie Numidinae im Tertiär.

The pheasants and their allies (Phasianidae sensu lato) are at present a widespread, highly diversified, and presumably rather ancestral group of birds. The group includes approximately 200–205 extant species, belonging to approximately 70 genera (WOLTERS 1976). Rather much effort has been devoted to the study of the ecology and behavior of phasianids, because they belong to commercially important birds, but their comparative morphology, systematics and evolution are still remarkably less understood. The comparative osteology has been studied in greater detail only in two phasianid groups so far, particularly in the tribe Odontophorini of the subfamily Phasianinae (HOLMAN 1961) and in the subfamily Meleagrinae (STEADMAN 1980), both of which seem to belong among the relatively young groups of the Phasianidae.

The guineafowl (Numidinae) belong probably among the most ancestral groups of the Phasianidae. At present, they are confined, with one exception, to the subsaharan Africa, i. e. to the Afrotropical region (von BOETTICHER 1954, CROWE 1978). The exception is the Helmeted Guineafowl, *Numida meleagris* (LINNÉ, 1758), which up to historical times inhabited most of the northern Africa

¹⁾ Author's address: Jiří MLÍKOVSKÝ, Department of Evolutionary Biology, Czechoslovak Academy of Sciences, Sekaninova 28, CS-128 00 Praha 2. – Czechoslovakia.

(north to Sahara) and still locally survives there in Morocco (ETCHÉCOPAR & HÜE 1964, CRAMP & SIMMONS 1980). In addition, the Helmeted Guineafowl is currently a widespread domestic bird, kept more or less extensively over all the World, which during last few centuries developed at least two feral populations outside of Africa, viz. in southern France (CRAMP & SIMMONS 1980) and in Cuba (GARRIDO & GARCIA MONTAÑA 1975).

Despite the supposed ancestralness of the guineafowl, there is little evidence bearing on their origin and evolution. In fact, only one fossil guineafowl species, *Telecrex grangeri* WETMORE, 1934 from the late Eocene of China, has been described so far. The species was originally described as a rail (family Rallidae) by WETMORE (1934), but OLSON (1974) identified it as an ancient guineafowl. *Telecrex grangeri* is the only pre-Holocene record of the subfamily Numidinae known so far.

In the present paper, a second species of the genus *Telecrex* shall be described, this time from the late Eocene of France. Anatomical nomenclature follows BAUMEL et al. (1979) throughout the present paper.

Systematic description

Order Galliformes LINNÉ, 1758

Family Phasianidae VIGORS, 1825

Subfamily Numidinae REICHENBACH, 1852

Genus *Telecrex* WETMORE, 1934

Telecrex peregrinus, sp. n.

Plate 1

Holotype: Nearly complete left femur, with slightly abraded trochanter femoris and facies articularis acetabularis; Naturhistorisches Museum Wien, Geologisch-Paläontologische Abteilung, 1988/28/1. Collector and date of collection unknown, but probably bought by the Museum at some time during the 2nd half of the 19th century (O. SCHULTZ, pers. communication), possibly during the 1870s, when the Quercy deposits, from which the holotype originates, were excavated most extensively (cf. MOURER-CHAUVIRÉ 1980).

Age: Uncertain, but probably late Eocene. See MLÍKOVSKÝ (1989) for justification of this opinion.

Locality: Bach near Lalbenque, Dept. Lot, France.

Material: A nearly complete left femur with slightly damaged extremities may be referred to *Telecrex peregrinus* sp. n. It is of the same origin as the holotype, deposited in the same institution as it (1988/28/2) and differs from the holotype femur only in being larger (see Table 1).

Diagnosis: Guineafowl of the genus *Telecrex*, differing from *Telecrex grangeri*, the only other member of that genus, in having the femur: (1) with shaft less curved, (2) with the bulge on the caudal edge of the facies articularis antitrochanterica more prominent, (3) with the latter bulge extending closer to the caput femoris, (4) with the collum femoris more apparent, (5) with the collum femoris oriented in proximal view at slightly more of an angle to the craniocaudal plane, and (6) generally larger.

Etymology: From Latin peregrinus = foreign, to indicate the zoogeographical position of the species under discussion.

Measurements: See Table 1.

Table 1: Measurements of the femora (in mm) of *Telecrex peregrinus* sp. n. and *Telecrex grangeri*.

distance	<i>T. peregrinus</i> holotype	<i>T. peregrinus</i> referred specimen	<i>T. grangeri</i> *) holotype
total length**)	(57.6)	(66.9)	–
proximal width	–	15.6	11.9
depth of head	–	5.7	–
width of midshaft	5.7	6.5	–
depth of midshaft	5.2	5.7	–
distal width	12.4	–	–
depth of internal condyle	9.0	–	–
depth of fibular condyle	8.2	–	–
minimum diameter of the collum femoris	4.5	5.6	–

*) From WETMORE (1934).

**) Estimated.

Discussion: Both the holotype and the referred femora differ from these elements of other Phasianidae and agree with those of the Numidinae in all characters listed by OLSON (1974), i. e. in having (1) the collum femoris in proximal view more lateromedially elongated, (2) the space between trochanter femoris and caput femoris wider, (3) a distinct ridge along the cranial edge of the facies articularis antitrochanterica connecting trochanter and caput femoris present. Within the Numidinae the femora of *Telecrex peregrinus* differ from the same elements of the genera *Numida* LINNÉ, 1766 and *Acryllium* GRAY, 1840 especially in having the bulge on the cranial edge of the facies articularis antitrochanterica more developed. In this respect they come near to *Telecrex grangeri* and the extant genus *Agelastes* BONAPARTE, 1850 (incl. *Phasidus* CASSIN, 1857). From *Agelastes* they differ in having the trochanter restricted basically to the lateral part of the facies articularis antitrochanterica, similarly as in *Telecrex grangeri*. It is for these reasons and for the age of the new species that I place it in the genus *Telecrex*. However, a possibility should be considered in the future that *Telecrex* WETMORE, 1934 is a junior synonym of *Agelastes* BONAPARTE, 1850. If so, the species should bear the name *Agelastes peregrinus*.

Telecrex peregrinus is similarly old as *Telecrex grangeri*; both being known only from the late Eocene so far. It means that at that time, *Telecrex* was distributed in both Europe (*T. peregrinus*) and Asia (*T. grangeri*), which were then separated by a wide Turgai Street (FLEROV et al. 1974). Land animals could cross this street in the course of Paleogene in early Eocene only, when the street was bridged by the Turgai bridge. It may be inferred from these data that the Numidinae originated in early Eocene, or earlier. CROWE (1978) conjectured that the Numidinae originated in the Afrotropical region. The paleontological data neither support, nor disprove his opinion.

From the zoogeographical point of view, *Telecrex peregrinus* is still another Afrotropical element reported from the Eo-Oligocene deposits of the Phosphorites du Quercy in France (see MOURER-CHAUVIRÉ 1982, MOURER-CHAUVIRÉ & CHENEVAL 1983).

Acknowledgements: I am grateful to Dr. Ortwin SCHULTZ (Wien) for allowing me to study the specimens under his care and for his hospitality in the Wien Museum during my visit in December 1982. Photographic credit is due to Alice SCHUMACHER (Wien).

References

- BAUMEL, J. J., A. M. LUCAS, J. E. BREAZILE & H. E. EVANS (Eds., 1979): *Nomina anatomica avium*. – London (Academic Press).
- BOETTICHER, H. VON (1954): *Die Perlhühner (Numididae)*. – Wittenberg Lutherstadt (A. Ziemsen Verlag).
- CRAMP, S. & K. E. L. SIMMONS (Eds., 1980): *The birds of the western Palearctic. Volume II: Birds of prey to bustards*. – Oxford (Oxford University Press).
- CROWE, T. M. (1978): The evolution of guineafowl (Galliformes, Phasianidae, Numidinae): taxonomy, phylogeny, speciation and biogeography. – *Ann. S. Afr. Mus.*, **76**: 43–136. – Cape Town.
- ETCHÉCOPAR, R. D. & F. HÜE (1964): *Les oiseaux du Nord de l'Afrique*. – Paris.
- FLEROV, K. K., E. I. BELJAEVA, N. M. JANOVSKAJA, A. A. GUREEV, I. M. NOVODVORSKAJA, V. S. KORNILOVA, N. S. ŠEVYREVA, E. N. KUROČKIN, V. V. ŽERICHTIN, V. M. ČCHIKVADZE, G. G. MARTINSON, N. V. TOLSTIKOVA, A. L. ČEPALYGA & L. I. FOT'JANOVA (1974): *Zoogeografija paleogena Azii*. – Moskva (Nauka).
- GARRIDO, O. H. & F. GARCIA MONTAÑA (1975): *Catálogo de las aves de Cuba*. – La Habana (Academia de Ciencias de Cuba).
- HOLMAN, J. A. (1961): Osteology of living and fossil New World quails (Aves, Galliformes). – *Bull. Florida State Mus.*, **6**: 181–233. – Gainesville.
- MLÍKOVSKÝ, J. (1989): A new swift (Aves: Apodidae) from the late Eocene of France. – *Ann. naturhist. Mus. Wien*, **90/A**: 59–62. – Wien.
- MOURER-CHAUVIRÉ, C. (1980): The Archaeotrogonidae of the Eocene and Oligocene phosphorites du Quercy (France). – *Contrib. Sci., Nat. Hist. Mus. Los Angeles, Co.*, **330**: 17–31. – Los Angeles.
- (1982): Les oiseaux fossiles des Phosphorites du Quercy (Éocène supérieur à Oligocène supérieur): implications paléobiogéographiques. – *Géobios, Suppl.* **6**: 413–426. – Lyon.
- MOURER-CHAUVIRÉ, C. & J. CHENEVAL (1983): Les Sagittariidae fossiles (Aves, Accipitriformes) de l'Oligocène des Phosphorites du Quercy et du Miocène inférieur de Saint-Gérand-le-Puy. – *Géobios*, **16**: 443–459. Lyon.
- OLSON, S. L. (1974): *Telecrex* restudied: a small Eocene guineafowl. – *Wilson Bull.*, **86**: 246–250. – Sioux City.
- STEADMAN, D. W. (1980): A review of the osteology and paleontology of turkeys (Aves: Meleagridinae). – *Contrib. Sci., Nat. Hist. Mus. Los Angeles Co.*, **330**: 131–207. – Los Angeles.
- WETMORE, A. (1934): Fossil birds from Mongolia and China. – *Amer. Mus. Novit.*, **711**: 1–16. – New York.
- WOLTERS, H. E. (1975–82): *Die Vogelarten der Erde*. – Hamburg (Paul Parey) [Phasianidae published in 1976].

Explanation of the Plate

Plate 1

Holotype femur of the *Telecrex peregrinus* sp. n. from the late Eocene of France.

A – lateral view, B – medial view, C – cranial view, D – caudal view, E – proximal view, F – distal view. Greatest length of the specimen is approximately 57.6 mm.

Photographs: Alice SCHUMACHER (Wien).

