### Two Fossil Owls from the Aquitanian of France

### PIERCE BRODKORB

DURING preparation of the fourth installment of the Catalogue of Fossil Birds I have had occasion to investigate the systematic position of two fossil owls described by Alphonse Milne-Edwards from the Aquitanian stage of France. The species in question, *Strix antiqua* and *Bubo arvernensis*, were so briefly characterized at the time of their first proposal that they are practically nomina nuda at that point (Milne-Edwards, 1863), but detailed descriptions and excellent illustrations were provided subsequently (Milne-Edwards, 1871). From these it is apparent that neither species can be assigned to any known genus of the order, a lack that is remedied below.

### 1. Prosybris, new genus

Type of Genus. Strix antiqua Milne-Edwards, which becomes Prosybris antiqua (Milne-Edwards). Family Tytonidae Ridgway.

*Etymology.* From Greek *pros* (in front of, towards) and Greek *Hybris* (feminine, wanton violence), a name applied to the barn owl by Nitzsch; cf. also Greek *prosubrizo* (I insult).

*Diagnosis.* The type species agrees with the family Tytonidae and differs from the family Strigidae in having the tarsometatarsus without an ossified supratendinal bridge; anterior metatarsal groove deep; attachment for tibialis antiquus located relatively high on the shaft.

Differs from the genus Tyto Billberg in having the tarsometatarsus relatively somewhat stouter (very long and slender in Tyto); trochleae short; internal intertrochlear notch short; external intertrochlear notch large, with the posterior border of the external trochlea much lengthened.

*Discussion. Prosybris antiqua* is a pygmy species of barn owl, of size comparable to the pygmy owls of the genus *Glaucidium* in the family Strigidae. It provides the geologically oldest occurrence of the family Tytonidae. The Aquitanian is here considered of early Miocene age, although many authors refer it to the Oligocene.

# 2. Paratyto, new genus

Type of Genus. Bubo arvernensis Milne-Edwards, which becomes Paratyto arvernensis (Milne-Edwards). Family Phodilidae (Beddard).

#### 160 QUARTERLY JOURNAL OF THE FLORIDA ACADEMY OF SCIENCES

*Etymology.* From Greek *para* (by the side of) and *Tyto* (feminine, generic name of the barn owl).

*Diagnosis.* Agrees with family Phodilidae in having tarsometatarsus short, very stout, and without a bony supratendinal bridge. The Tytonidae also lack an ossified supratendinal bridge, but differ in having a much longer and more slender tarsometatarsus. In the Strigidae the tarsometatarsus may vary in length and stoutness from genus to genus, but the supratendinal bridge is always ossified in the adult.

Differs from *Phodilus* Geoffroy Saint Hilaire in having the outer edge of the tarsometatarsus nearly straight, instead of laterally convex along the middle of the shaft; trochleae close together; intertrochlear notches narrow.

*Discussion.* The living bay owl, *Phodilus badius* (Horsfield), is structurally intermediate between the barn owls and the true owls. Beddard (1898) placed it in a monotypic subfamily, which Marshall (1966) raised to family rank. As *Paratyto* and *Phodilus* share this intermediate position, they are here placed in the same family group.

The bay owl inhabits southeastern Asia, but the presence of a related genus in the Aquitanian of France is not so strange as it might seem. Many groups of birds, now confined to the tropics, occurred in Europe during the Tertiary period.

## LITERATURE CITED

- BEDDARD, FRANK E. 1898. The structure and classification of birds. Longmans, Green, and Co., London, xx + 548 pp., 252 figs.
- MARSHALL, J. T., JR., 1966. Relationships of certain owls around the Pacific. Nat. Hist. Bull. Siam Soc., vol. 21, nos. 3-4, pp. 235-242, pls. 20-23.
- MILNE-EDWARDS, ALPHONSE. 1863. Sur la distribution géologique des oiseaux fossiles et description de quelques espèces nouvelles. Compt. Rend. Acad. Sci. Paris, vol. 56, pp. 1219-1222.
  - -. 1869-1871. Recherches anatomiques et paléontologiques pour servir à l'histoire des oiseaux fossiles de la France. Librairie G. Masson, Paris, vol. 2, 632 pp., pls. 97-200.

Department of Zoology, University of Florida, Gainesville, Florida 32601.

Quart. Jour. Florida Acad. Sci. 32(2) 1969 (1970)



Brodkorb, Pierce. 1969. "2 FOSSIL OWLS FROM THE AQUITANIAN OF FRANCE." *Quarterly journal of the Florida Academy of Sciences* 32, 159–160.

View This Item Online: <u>https://www.biodiversitylibrary.org/item/129633</u> Permalink: <u>https://www.biodiversitylibrary.org/partpdf/91586</u>

**Holding Institution** Smithsonian Libraries and Archives

**Sponsored by** Biodiversity Heritage Library

**Copyright & Reuse** Copyright Status: In Copyright. Digitized with the permission of the rights holder. License: <u>http://creativecommons.org/licenses/by-nc-sa/3.0/</u> Rights: <u>https://www.biodiversitylibrary.org/permissions/</u>

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at https://www.biodiversitylibrary.org.