

QUARTERLY JOURNAL
of the
FLORIDA ACADEMY OF SCIENCES

Vol. 31

June, 1968

No. 2

An Extinct Pleistocene Owl from Cuba

PIERCE BRODKORB

Reprinted from
Quarterly Journal of the Florida Academy of Sciences
Vol. 31, No. 2, June, 1968

CLAYTON E. RAY

Published 22 MAY 1969

An Extinct Pleistocene Owl from Cuba

PIERCE BRODKORB

THE only fossil owl heretofore known from Cuba is *Ornimegalonyx oteroi* Arredondo (1958), a giant, flightless bird whose type locality is Pío Domingo cave in the province of Pinar del Río (Brodkorb, 1961). The describer of that bird, Oscar Arredondo, has asked me to study the remains of another fossil owl, from a cave deposit in the province of Habana. This species is referable to *Pulsatrix*, a genus of wide distribution on the neotropical mainland today, but hitherto unknown from the West Indies north of Trinidad. It represents an undescribed extinct species, whose diagnosis is given below.

Pulsatrix arredondo, new species

Holotype. Left tarsometatarsus (Fig. 1), PB 8420. From depth of approximately 2 feet in Pleistocene cave deposit, in Caverna Paredones, San Antonio de los Baños, Prov. Habana, Cuba. Col-

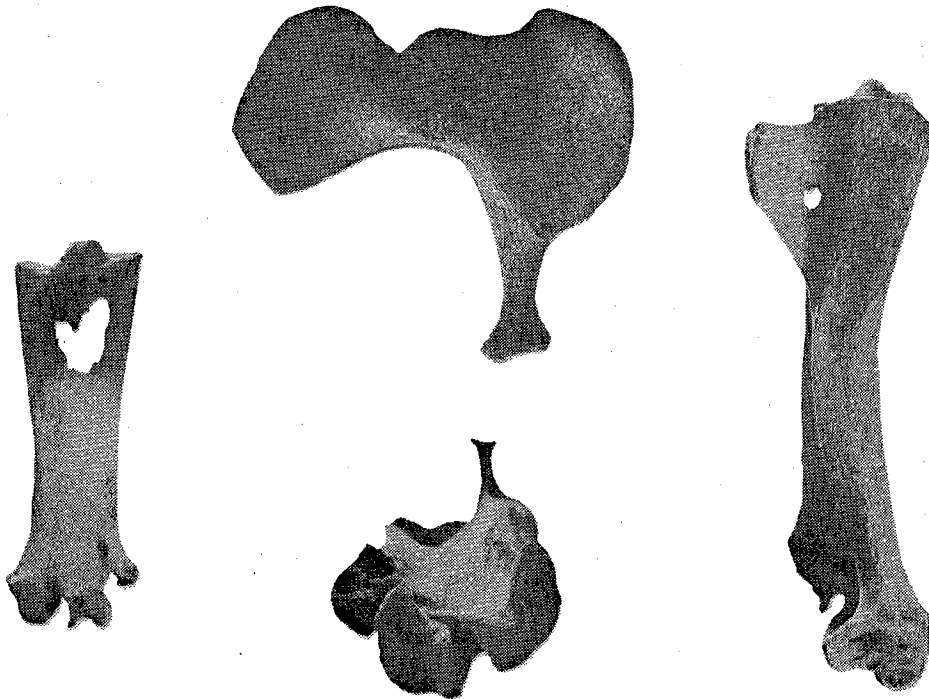


Fig. 1. Holotype of *Pulsatrix arredondo*, new species. Actual length, 43; proximal width, 14.1; distal width, 15.6 mm.

lected by Oscar Arredondo, 1960. The associated fauna includes extinct Pleistocene edentates and other mammals.

Diagnosis. Tarsometatarsus short and wide (as in *Otus*, *Bubo*, *Pulsatrix*, *Nyctea*, *Surnia*, *Glaucidium*, *Micrathene*, and *Aegolius*; bone long and slender in other genera of American owls).

Agrees with genus *Pulsatrix* Kaup in having inner trochlea somewhat shorter than middle trochlea (inner trochlea longest in *Bubo*, *Nyctea*, *Surnia*, and *Micrathene*; inner and middle trochleae about equal in *Glaucidium*); distal foramen for tibialis anticus artery large and low on shaft (small in *Bubo*, *Nyctea*, and *Surnia*; elevated in *Otus*, *Glaucidium*, and *Micrathene*); inner edge of shaft nearly straight (strongly concave in *Surnia* and *Glaucidium*; both inner and outer edges concave in *Aegolius*).

Differs from living *Pulsatrix perspicillata* (Latham), of the mainland from southern Mexico to Argentina, in having the tarsometatarsus much shorter and wider; hypotarsus shorter, with its proximal notch much reduced; intercotylar knob and edges of cotylae less elevated.

The groove for M. extensor brevis digiti IV is unbridged in the fossil, bridged in *Pulsatrix perspicillata*. The lack of a bridge may be a sign of immaturity in the fossil, although this is not necessarily so, as the groove remains unbridged in the genera *Surnia*, *Micrathene*, and *Aegolius*.

Measurements. Tarsal measurements of the type are given below (with those of *Pulsatrix perspicillata* in parentheses). Length of tarsometatarsus, 43 (51.6); proximal width, 14.1 (13.0); least width of shaft, 9.5 (7.7); distal width, 15.6 (15.3); width of middle trochlea, 5.7 (5.0); length of hypotarsus, 5.9 (12.3); length of hypotarsus along shaft, 13.6 (19.2); depth through hypotarsus, 13.2; depth of external face of shaft, 4.1 (4.2 mm).

The genus contains two other living species, *Pulsatrix melanota* (Tschudi) of eastern Ecuador, Peru, and Bolivia, and *Pulsatrix koeniswaldiana* (M. and W. Bertoni) of southern Brazil and adjacent parts of Paraguay and Argentina. Apparently no skeletal material has been preserved for these two species, but the length of the tarsometatarsus as taken in skins is longer than in the Cuban fossil. Bertoni (1901, p. 175) gives the tarsal length of *P. koeniswaldiana* as 48 mm, and Todd (1947, p. 95) gives a measurement of 51 mm for *P. melanota*.

ACKNOWLEDGEMENTS

It gives me great pleasure to dedicate this new species to Oscar Arredondo, a diligent student of the Pleistocene fauna of Cuba, who collected the type and kindly presented it to me. Thanks are also due to Dr. Robert D. Weigel, who photographed the type, and to Dr. A. G. Edmund for various courtesies.

LITERATURE CITED

- ARREDONDO, OSCAR. 1958. Aves gigantes de nuestro pasado prehistórico. *El Cartero Cubano*, vol. 17, no. 7, pp. 10-12, figs.
- BERTONI, A. DE WINKELRIED. 1901. Aves nuevas del Paraguay. *Talleres Nacionales de H. Kraus, Asunción*, 216 pp.
- BRODKORB, PIERCE. 1961. Recently described birds and mammals from Cuban caves. *Jour. Paleont.*, vol. 35, no. 3, pp. 633-635.
- TODD, W. E. CLYDE. 1947. Two new owls from Bolivia. *Proc. Biol. Soc. Washington*, vol. 60, pp. 95-96.

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

Quart. Jour. Florida Acad. Sci. 31(2) 1968 (1969)