An Ancestral Mourning Dove from Rexroad, Kansas

PIERCE BRODKORB

The Rexroad formation of southwestern Kansas has several important vertebrate faunas covering the time interval near the end of the Pliocene epoch. For many years exploration of the formation has been directed by C. W. Hibbard, who has published voluminously on the mammals and other groups.

The birds of the Rexroad formation were first studied by Wetmore (1944). In addition to material which was indeterminable, he described three birds as new and referred four others to species still living in the area. The new species included a teal (Nettion bunkeri), quail (Colinus hibbardi), and rail (Rallus prenticei). Referred to species still living were specimens attributed to the bufflehead (Bucephala albeola), wild turkey (Meleagris gallopavo), American coot (Fulica americana), and mourning dove (Zenaidura macroura).

Later authors have added more extinct birds to the list. Tordoff (1959) described a new genus and species of condor, Pliogyps fisheri. Collins (1964) added an ibis, Plegadis gracilis Miller and Bowman (1956), previously known from Blancan deposits in Texas. Ford (1966) described an extinct burrowing owl under the name Speotyto megalopeza. Murray (1967) reported three new grebes, Pliolymbus baryosteus, Podiceps discors, and Podilymbus majuscuslus. Feduccia (1967) described a swallow, Hirundo aprica. Later (Feduccia, 1968) he added two rails, the new species Porzana insignis and a species originally known from the Hagerman lake beds in Idaho, Rallus lacustris (Brodkorb, 1958).

The only recent report of additional living species in the avifauna is that of Collins (1964), who referred rather unsatisfactory material to two South American ibises, Mesembrinibis cayennensis (Gmelin) and Phimosus infuscatus (Lichtenstein). On the other hand, the records of the living turkey and coot are now known to be erroneous and in reality represent extinct species described, respectively, as Agriocharis progenes and Gallinula kansarum (Brodkorb, 1964, 1967).

Evidence continues to accumulate that all living species of birds arose during the Pleistocene (Brodkorb, 1966; Murray, 1967). The
bird described below demonstrates that the supposed record of the mourning dove in reality represents a species allied and apparently ancestral to the modern one. Thus of the Rexroad birds originally thought to represent living species only the bufflehead and the two South American ibises still linger in that category. The current tally of the identified Rexroad avifauna now stands at 15 extinct species and dubious records of three living ones, whose further study would seem imperative.

Zenaidura prior, new species

Holotype. Left humerus, lacking distal end (Fig. 1), Univ. Kansas Mus., no. 3995. From Rexroad formation, Upper Pliocene, at Rexroad locality 3, type locality of Rexroad local fauna, in W 1/2 of SW 1/4, section 22, Township 33 South, Range 29 West, Meade County, Kansas.

Diagnosis. Humerus similar to that of Zenaidura macroura (Linnaeus), but 1) area of insertion of proscapulohumeralis brevis [teres minor of Shufeldt], on anconal surface between head and

Fig. 1. Zenaidura prior, n. sp. Holotype humerus, University of Kansas no. 3995, from Rexroad locality 3, Meade County, Kansas. Length as preserved, 27.5 mm.
proscapulohumeralis, a large rounded knob (obsolete in *Z. macroura*); 2) scar of prosca
pulohumeralis (supraspinatus of Shufeldt and Howard), in distal portion of capital
groove, depressed, inclined toward external edge of bone, and sharply set off from more
proximal portion of capital groove; 3) proximal portion of capital
groove plunging sharply toward palmar surface, and with 2 small
but well-marked foramina in upper end of groove (in *Z. macroura*
capital groove only weakly divided into 2 areas by scar of proscapu
lohuneralis; foramina obsolete); 4) base of internal tuberosity, in
area of dorsalis scapulae (infra-spinatus of Shufeldt and Howard)
much compressed (thick in *Z. macroura*); 5) tricipital fossa shallow
in distal portion, where only moderately undercutting bases of in-
ternal tuberosity and median crest (in *Z. macroura* deeply excavat-
ing bases of tuberosity and crest); 6) a row of pneumatic foramina
extending across upper end of tricipital fossa (foramina confined to
palmar half of fossa in *Z. macroura*); 7) proximal end of humerus
wide and shaft relatively thick.

**Measurements.** Length through ectepicondylar tubercle, 25.4
mm (24.4-26.6 in 22 *Z. macroura*); proximal width, through bicipi
tal crest and external tuberosity, 10.4 (8.8-10.0 in *Z. macroura*);
least width of shaft, 3.8 (3.3-3.8 in *Z. macroura*).

**Acknowledgments.** I am indebted to Dr. Claude W. Hibbard
and Dr. William A. Clemens for the opportunity to study the Rex
road material, and to Robert W. McFarlane for the photographs.

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


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