

A FOSSIL QUAIL FROM NEBRASKA

WITH ONE SET ILLUSTRATIONS

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The fossil deposits of the latter part of the Tertiary in northwestern Nebraska have been prolific in bird material of exceptional interest. The area in question has been under regular observation by Mr. Harold J. Cook who has obtained avian material on which several new forms have been based. Recently Mr. Cook has sent to me for examination a portion of the humerus of a gallinaceous bird that proves to be related to the peculiar Mearns Quail, found at present from central Texas and central Arizona south into Mexico. The extinct form may be known as

Cyrtonyx cooki sp. nov.

Characters.—Distal end of humerus similar (fig. 5) to that of *Cyrtonyx montezumae mearnsi* Nelson but about one-fourth larger; ectepicondyle relatively reduced.

Description.—Type, distal half of left humerus, collection of Harold J. Cook, no. H.C. 647, collected in the Upper Sheep Creek beds of the Upper Miocene, 17 miles south of Agate, Sioux County, Nebraska, by Harold J. Cook, in March, 1933. Shaft relatively strong, elliptical in outline near center, broadened and flattened below to support condyles; radial condyle elongate elliptical, with free end somewhat narrowed and slightly flexed toward center, roundly truncated at upper end; ectepicondylar process slightly projecting, marked off from adjacent condyle by a slight groove; ulnar condyle rounded, somewhat elongated, with distal surface projecting distinctly below adjacent surfaces; entepicondylar process projecting as an angular process; olecranal fossa rather poorly marked; brachial depression elongate elliptical, slightly impressed. Specimen strongly fossilized; shaft black, distal end grayish white.

Measurements.—Greatest transverse breadth across condyles 9.5 mm.; least transverse breadth of shaft 4.6 mm.

Remarks.—The projecting outline of the ulnar condyle indicates that this new form belongs in the alecotoropodous section of the Galliformes, while in restricted

Fig. 5. Three views of type specimen of *Cyrtonyx cooki*; $\times 1$.

form of the entepicondylar region it agrees with the quail and not with the grouse. In both ectepicondylar and entepicondylar areas it is closely similar to modern *Cyrtonyx* in having the latter part especially weaker and less developed than in *Colinus*, *Lophortyx*, and *Oreortyx*. The fossil has no close connection with other extinct forms in its group so far as known.

Description of *Cyrtonyx cooki* adds another genus in our fossil avifauna of a type that is highly peculiar as indicated by its living representatives. The fossil is distinctly larger than living forms, but otherwise, so far as is shown in the contours of the humerus, it is closely similar to them. The Mearns Quail (*Cyrtonyx montezumae mearnsi*), the only living representative of the group in the United States, is an inhabitant of mountain slopes and the higher valleys, where it lives in the safe cover of grass and bushes. It is found from central Arizona and central Texas south to Coahuila and Sonora. Related forms range southward into Guatemala, so that the fossil record is a distinct northward extension for the group.

I have pleasure in naming this extinct species in honor of Mr. Harold J. Cook, of Agate, Nebraska, in recognition of his interest in the collection of avian material from Tertiary beds. Drawings illustrating the type have been made for me by Sydney Prentice.

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