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A NEW MIOCENE ARTIODACTYL

Erwin Hinckley Barbour
University of Nebraska-Lincoln

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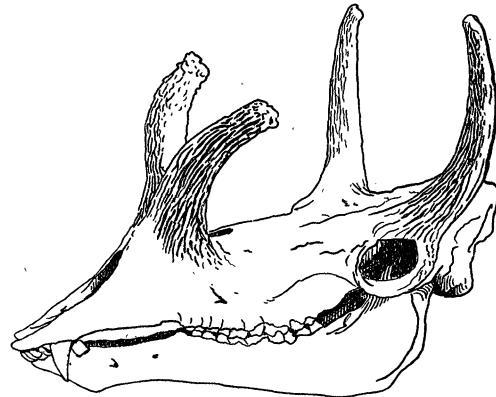
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SPECIAL ARTICLES.

A NEW MIOCENE ARTIODACTYL.

AMONG several discoveries made in the Daimonelix beds (Loup Fork) of Sioux County, Nebraska, the most striking one of the season seems to be that of a new four-horned ancestral antelope, *Syndyoceras cooki*, the skull of which is herein figured and briefly described. The discovery was made by Mr.



Syndyoceras cooki, Barbour, 1905.

Harold G. Cook, a former Lincoln student and a member of the Morrill geological expedition of 1905.

The specimen, which gives promise of being complete, was found on the west bank of the Niobrara River in the bluffs bordering the extensive ranch of Mr. James Cook, Agate,

Nebr. The skeletal parts known at present are the skull and mandible; the vertebral series, complete as far as exposed, and articulated; the pelvis and sacrum and the hind limbs complete and likewise articulated; several ribs attached to the vertebræ above and to the sternum below, and a portion of one scapula. The fore limbs are not yet in evidence, but will doubtless be found either in the material collected or else in the quarry, which still showed numerous bones when work was suspended.

The most striking characteristic of the skull is the four prominent horns, of which the frontal pair rises upward and curves inward, while the maxillary pair curves in the opposite direction. The maxillary horns, uniting as they do at the base to form a common trunk, divide the anterior nares into two portions, the posterior of which may or may not have been functional. However this may have been, the margin of the opening seems to have been roughened as though for ligamentous attachment. The dentition is complete, though, consequent to age, the teeth are worn. The premaxillæ are edentulous. The upper canines, which are strong and defensive, curve noticeably outward. The lower canines have migrated and assumed an incisiform function, while the first premolars have in a like manner become caniniform. Dentition:

I. $\frac{3}{3}$, C. $\frac{1}{1}$, P. $\frac{3}{4}$, M. $\frac{3}{3}$.

Measurements of the skull: Length of skull, $12\frac{3}{4}$ inches (325 mm.); distance between the orbits across the frontals, 5 inches (128 mm.); height of anterior horn cores above plane of molars $6\frac{1}{2}$ inches (166 mm.); spread of same at summits $8\frac{1}{4}$ inches (210 mm.); height of posterior horn cores above plane of molars $7\frac{3}{4}$ inches (197 mm.); spread of same at widest point 10 inches (254 mm.); width of palate between molars $1\frac{1}{4}$ inches (32 mm.).

No attempt should be made at this juncture to fully define the genus. As to its affinities, *Syndyoceras* seems to be remotely related on the one hand to *Protoceras* of the Oligocene, and on the other hand to the modern antelopes. *Syndyoceras* may be placed for the present

with the *Protoceratidæ*, but it is doubtless entitled to a place in a new family.

ERWIN HINCKLEY BARBOUR.

THE UNIVERSITY OF NEBRASKA, LINCOLN,

October 1, 1905.