

AMERICAN MUSEUM NOVITATES

Number 734

Published by
THE AMERICAN MUSEUM OF NATURAL HISTORY
New York City

August 3, 1934

56.9,735P (118:78.2)

A NEW ANTILOCAPRID AND A NEW CERVID FROM THE LATE TERTIARY OF NEBRASKA

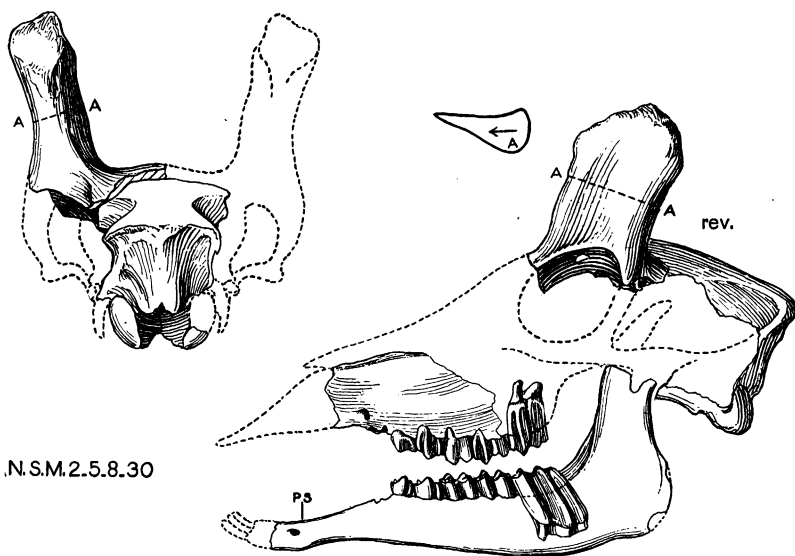
BY ERWIN HINCKLEY BARBOUR¹
AND C. BERTRAND SCHULTZ²

The present notice briefly describes two horned Artiodactyls from the Late Tertiary of northern Nebraska. The first form, *Proantilocapra platycornea*, n.g. and sp., is believed to lie near the direct ancestral line of the recent pronghorn. The second form, *Dromomeryx trigonocorneus*, n. sp., represents a heretofore unknown variant of the extinct *Dromomeryx* group. The Antilocaprid was collected in Cherry County by Paul O. McGrew and Charles Osborne for the Nebraska State Museum, and the Dromomerycid in Dawes County by Ted Galusha, of Hay Springs. The two specimens are particularly interesting as representing heretofore unknown stages of development in the Antilocapridae and Cervidae. The figure was executed by Miss H. de Berard.

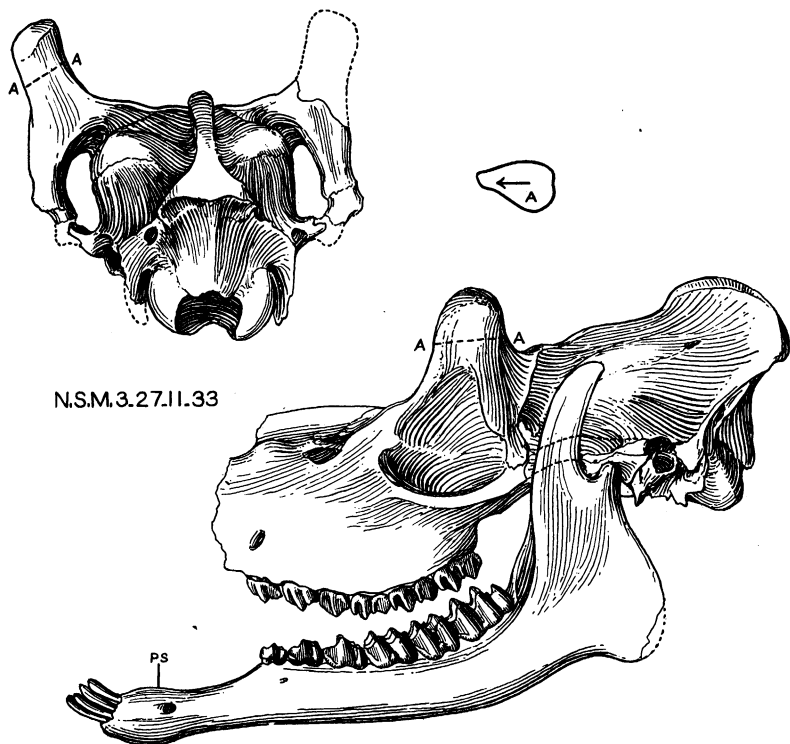
MEASUREMENTS OF:

| | <i>Proantilocapra platycornea</i> , n. g. and sp. N.S.M. | <i>Dromomeryx trigonocorneus</i> , n. sp. N.S.M. |
|---|--|---|
| | 2-5-8-30 | 3-27-11-33 |
| Ant. p ² -m ³ incl..... | 46 mm. | 61 mm. |
| p ² | alv. | 9 |
| p ³ | 6.6 | 10 |
| p ⁴ | 6.1 | 8 |
| m ³ | 9.8 | 13.5 |
| Ant p ₂ -m ₃ incl..... | 44.5 | 65 |
| p ₂ | alv. | 7.5 |
| p ₃ | 6 | 9.5 |
| p ₄ | 7 | 10 |
| m ₃ | 11.5 | 17 |
| Humerus..... | 107 | 142 |
| Radius..... | 119 | 157 |
| Metacarpus..... | 116 | 143 |
| Femur..... | | 186 |
| Tibia..... | 168 | 206 |
| Metatarsus..... | 132 | 164 |

¹Head Professor of Geology, University of Nebraska, and Director, Nebraska State Museum.
²Assistant Curator in Palaeontology and Senior Field Man, Nebraska State Museum.



N.S.M.2.5.8.30



N.S.M.3.27.11.33

Fig. 1. N.S.M.2-5-8-30, *Proantilocapra platycornea*, n. g. and sp., genotype, rev., from the Tertiary of Cherry County, Nebraska.

N.S.M.3-27-11-33, *Dromomeryx trigonocorneus*, n. sp., type, from the Tertiary of Dawes County, Nebraska.

Lateral and occipital views of skulls and mandibles $\times \frac{1}{2}$. PS, posterior border symphysis; AA, cross-section of horn-cores.

Proantilocapra platycornea, new genus and species

Figure 1 (in part)

| | | |
|---|-----------------|---|
| GENOTYPE.—Partial skull with left maxilla, p^2 alveolus, p^3 - m^3 in place; left horn-core attached to a piece of the frontal portion of occipital area; two rami with partial diastemata, p_2 alveolus, p_3 - m_3 in place; associated skeletal elements including a left humerus, radius, metacarpus, distal one-half femur, tibia, metatarsus and miscellaneous ribs and vertebrae. | N.S.M. 2-5-8-30 | From the Lower Pliocene, 40 feet below top of the exposed Tertiary, $1\frac{1}{2}$ mi. N. of mouth of Steer Creek, on E. side of Snake River, Cherry County, Nebraska. Collected August 5, 1930. |
|---|-----------------|---|

There is some evidence of the presence of a second individual.

DIAGNOSIS.—*Proantilocapra*, standing about the height of *Merycodus*, is much smaller than, although in form it makes a close approach to, recent *Antilocapra*. The teeth show a very close relationship to the Merycodinae as well as to the Antilocaprinae. The most important and typical single structure of this ancestral antelope is the horn-core, which is characteristically flattened as in *Antilocapra*, but differs from the latter in having a large tuberosus tip. The teeth are hypsodont and are almost indistinguishable from *Merycodus*, but the angle of the mandible is more prominent and the cheek-tooth series somewhat more slender and higher-crowned and p_3 smaller than the nearest Merycodine form, *M. necatus sabulonis* Matthew and Cook. The limb elements of *Proantilocapra*, while similar to those of *Merycodus*, are somewhat shorter, particularly the humerus and metapodials, when compared with corresponding elements of *Merycodus osborni* Matthew. Inasmuch as the present specimen seems to furnish a new and important stage in the phylogeny of the Antilocapridae, it is deemed advisable to provide it with a significant name.

Dromomeryx trigonocorneus, new species

Figure 1 (in part)

TYPE.—Partial skull, complete N.S.M. 3-27-11-33 From the ?Upper Miocene, about 3 mi. W. of Hay Springs, on S. side of Antelope Creek, Dawes County, Nebraska.

except for right horn-core and muzzle anterior to cheek-tooth series, with p^2 - m^3 present; right and left rami with I_1 - I_3 , $/C$ and p_2 - m_3 ; skeletal elements including left and partial right humeri, both radii, right and part of left ulnae, left metacarpus, left femur, tibia, metatarsus, tarsus, calcaneum and astragalus, two 1st, two 2d, and two 3d phalanges, ribs and etc. fragments.

Collected November 27, 1933. Prepared by F. Walker Johnson, Univ. Nebraska, '34.

During the preparation⁹ of the skull, a long xiphoid tusk was found in the matrix near the palate. The association is intimate enough to warrant the assumption that this is, in fact, a canine of this specimen and not that of some stray *Blastomeryx* buried there intrusively. If true, the dental formula would be: $\frac{0. 1. 3. 3.}{3. 1. 3. 3.}$

DIAGNOSIS.—This specimen, though differing widely from *Dromomeryx* proper, seems to have the same general character of horn, low-crowned dentition, and prominent occiput, so we are referring it to that genus. Its brachyodont teeth are suggestive of both *Dromomeryx* and the smaller *Blastomeryx*. The horn-core resembles that of a rudimentary, much shortened *Dromomeryx* core both in its triangular cross-section and in the indication of a slight postorbital flange. The form is characterized by the large unreduced premolars, moderate diastema, peculiar blunt horn-cores with tuberos tips, produced occiput, and swollen post-sagittal ridge. Lachrymal vacuities are present. The condition of the muzzle, unfortunately, is not shown. The presence of horns, the position of the orbit, which is slightly less anterior, and the larger size exclude it from *Blastomeryx*, as so far known. The dentition differs definitely from that of *Protoceras*, which the depressed frontal area of the cranium and the upward swinging bases of the horn-cores at first glance recall. The limb elements are of unusually heavy proportions.