

SMITHSONIAN MISCELLANEOUS COLLECTIONS

VOLUME 60, NUMBER 27

AN EXTINCT AMERICAN ELAND

(WITH ONE PLATE)

BY

JAMES WILLIAMS GIDLEY

Assistant Curator of Fossil Mammals, U. S. National Museum



(PUBLICATION 2174)

CITY OF WASHINGTON

PUBLISHED BY THE SMITHSONIAN INSTITUTION

MARCH 22, 1913

The Lord Baltimore Press
BALTIMORE, MD., U. S. A.

AN EXTINCT AMERICAN ELAND

BY JAMES WILLIAMS GIDLEY

ASSISTANT CURATOR OF FOSSIL MAMMALS, U. S. NATIONAL MUSEUM

(WITH ONE PLATE)

While making a preliminary investigation in October, 1912, of some recently discovered Pleistocene cave deposits near Cumberland, Maryland, the writer secured, among other new and interesting mammal remains,¹ a series of five upper cheek teeth representing an extinct species of antelope, apparently very closely allied to the eland now living in Africa. This important specimen furnishes the basis of the present communication and constitutes the type of a new species which is described below.

TAUROTRAGUS AMERICANUS, new species

Plate 1

Type.—The upper cheek-teeth of the right side except p_2 . (No. 7622 U. S. National Museum).

Description.—Teeth progressively hypsodont, rapidly narrowing from base to summit transversely, and sharply constricted anteroposteriorly at base, as in the living species of this genus; meta- and parastyles less developed than in *Taurotragus oryx*; metastyle of last molar slightly recurving outward, not extending backward beyond the posterior border of the tooth crown;² mesostyles of the molars somewhat more strongly produced than in the living species; premolars simple, but with a tendency to angulation of the inner posterior wall of the inner crescent, as in the bongo.

These teeth are of a young adult specimen in which the last molar had just come into use, hence they are at the stage in growth when their characters can be studied to the best advantage. They bear a most striking resemblance to the corresponding teeth of the living

¹A report of the discovery with brief description of the other material secured is now under preparation for publication at an early date.

²This character is common to the species of this group and distinguishes them sharply from the Ovilovines in which the last upper molar has a conspicuous posterior pillar formed by the backward extension of the metastyle.

eland, *T. oryx*, differing from them only in minor details which, except for their somewhat larger size, mark them as slightly less progressive than those of the African species. These differences, however, do not seem sufficient to be regarded as of generic importance. Since, therefore, judged from the material in hand, there is no obvious reason for separating the American fossil species from the living genus *Taurotragus*, except perhaps the insufficient one of the seeming absurdity and improbability of the case, I have here referred it to that genus, although more complete material may later show this reference to be unwarranted. Whether properly belonging to the African genus or not, it is undoubtedly not only strepcisserine in its affinities, but seems especially closely allied to the living species of this group. Its occurrence, therefore, in the Pleistocene of the eastern United States is most unexpected, and seems to have a special significance in reference to the probable migrations and world distribution of these large antelopes during the Pleistocene period. It suggests that the strepcisserine group of the antelopes were comparatively recent migrants to that portion of Africa south of the Great Sahara Desert, where alone they now survive, the common center of dispersion in Pleistocene times being somewhere in central or southern Asia, as it certainly seems to have been at the beginning of the Pliocene, when several now extinct species of the group inhabited India and others invaded northern Africa and Europe. Much later, apparently, still other members of the group crossed directly into lower Africa, probably by way of some then existing land connection south of the Red Sea, while one species at least migrating northeastward from this same Asiatic center, evidently found their way across the Pleistocene Alaskan land bridge into America and thence southeastward to the eastern United States. The fact that no remains of this animal have been found in any of the Pleistocene deposits of the west, which deposits are better exposed and have been so much more thoroughly explored than those of the east, suggests that the time of this migration to America was possible during one of the interglacial epochs, when there was a route open to the north of the Great Lakes by which they may have reached the eastern coast region without traversing the plains country. It is possible that the moose, carabou, cervalces, and perhaps some of the other Pleistocene and present-day mammals common to the eastern coast region, may also have found their way from the Old World by some such direct route. However, far more data than are now available would be necessary to establish the truth of such an hypothesis.

While not constituting the only discovery in America of remains representing Old World antelopes, such occurrences are very rare, and this seems to be the only one in which the relationship is apparently especially close. Heretofore only two forms of seemingly undoubted Old World affinities have been reported, and these from a single locality as follows: *Llingoceros alexandrae* Merriam and *Sphenophalos nevadanus* Merriam, lower Pliocene of Virgin Valley, Nevada, founded on a few fragments including portions of horn-cores.¹ These antelopes exhibit seemingly undoubted strepsicerine affinities, but as yet no associated material including teeth is known. A possible Hippotragine antelope, *Neotragoceros improvisus* Matthew,² lower Pliocene of western Nebraska, founded on a horn-core, probably records a second occurrence, although this form may prove, when better known, to belong rather to the goats than to the antelopes. A third form referred to the antelopes, but which apparently is more antilocaprine in affinities, is the small artiodactyl from the famous Pleistocene deposits of the La Brea ranch recently described by Taylor as doubtfully belonging to the genus *Capromeryx*.³ This species is certainly not closely related to any of the living antelopes.

The exceeding rarity in American deposits of any fossil remains of Old World antelopes makes the more startling and unlooked-for this appearance in Pleistocene deposits of the eastern United States of the remains of an antelope apparently not generically distinguishable from the eland, now living only in Africa south of the Great Sahara Desert.

¹ Geol. Bull. Univ. Calif., Vol. 5, No. 22, 1909, pp. 319-330.

² Bull. Amer. Mus. Nat. Hist., Vol. 26, 1909, p. 413.

³ Geol. Bull. Univ. Calif., Vol. 6, No. 10, 1911, pp. 191-197.

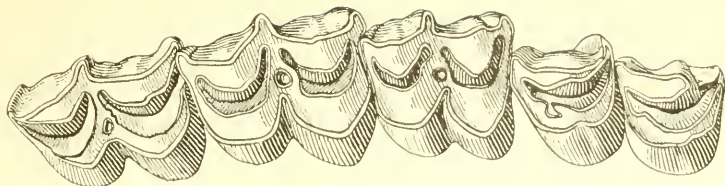


FIG. 1

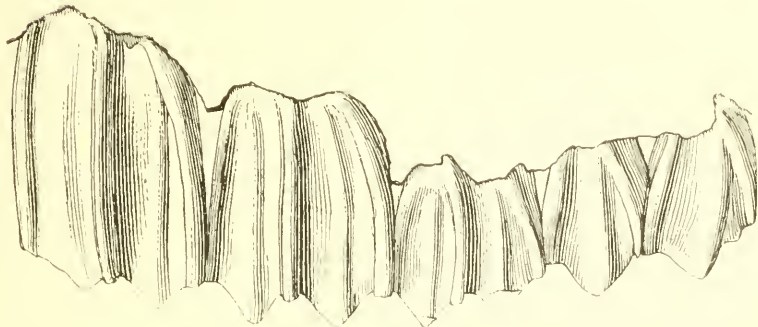


FIG. 1a

UPPER CHEEK-TEETH OF TAUROTRAGUS ORYX

Fig. 1. Crown view. Fig. 1a. Outer view. No. 162015
 $\frac{3}{4}$ nat. size

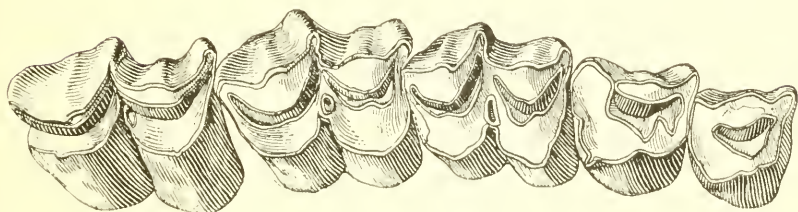


FIG. 2

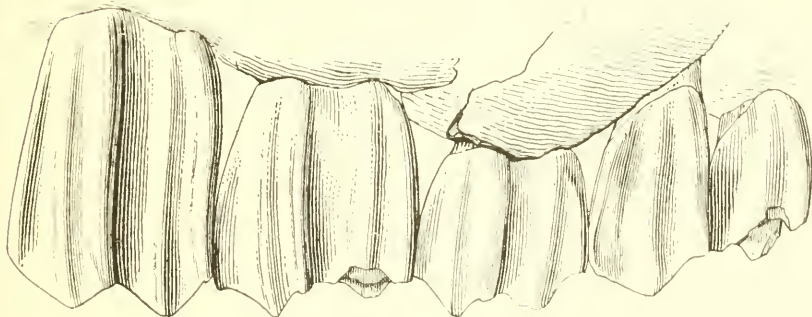


FIG. 2a

UPPER CHEEK-TEETH OF TAUROTRAGUS AMERICANUS TYPE

Fig. 2. Crown view. Fig. 2a. Outer view. No. 7622 U. S. N. M.
 $\frac{3}{4}$ nat. size