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ON A NEARLY COMPLETE SKULL OF *SYMBOS*
CAVIFRONS LEIDY FROM MICHIGAN

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About the first of August of this year an account of the discovery of a fossil skull appeared in the Manchester (Michigan) Enterprise. This upon examination turned out to be a nearly complete skull of the extinct musk ox *Symbos cavifrons*.

The skull was found on the farm of Wm. J. Schlicht, about three miles northeast of Manchester, Michigan, in the excavation of a drain. It lay on a bed of clay four feet below the level of the rather swampy surface and was covered by a black muck filled with plant remains and interrupted by a few thin layers of fine gravel. Unfortunately one of the workmen struck the end of the nose with his spade and in the subsequent handling of the specimen the pieces were lost: a few of these were recovered in the examination of the locality and the

search for more of the remains. Nothing further was found.

The skull is evidently that of a large bull of *Symbos cavifrons*. It tallies so perfectly with descriptions already given¹ that no repetition is necessary. The strong rugosities meeting over the forehead and the lack of any burr at the base of the horns, and the outline of the basisphenoid bone and the relative width of the base of the skull, together with the large size render it certain that the specimen can not be placed in the genus *Boötherium*.

Some years ago an imperfect skull of a smaller animal referred to *Boötherium sargenti* was discovered near Grand Rapids and described by Gidley² and Hay,³ but so far as known this is the only specimen referable to *Symbos cavifrons* yet discovered in Michigan.

Differences of opinion have resulted in considerable discussion of the exact nomenclature of this animal, some considering *Symbos* as a mature form of *Boötherium*, but the differences in the two forms as revealed by recovered specimens warrants the retention of the two names, at least provisionally.

Symbos ranged well over the United States in Pleistocene times, one specimen having been found as far south and west as Oklahoma. Allen records eleven known specimens previously collected.

An interesting peculiarity of this specimen is the presence of a large cavity in the left cheek just below and anterior to the orbit. Evidently the animal had suffered a severe injury in some combat from which it had, in part at least, recovered, as the edges of the wound are rounded and partly replaced by new bone.

¹ Allen. Mem. Am. Mus. Nat. Hist., N. S., Vol. I, p. 214.

² Gidley. Proc. U. S. Nat. Mus., Vol. 34, p. 683, Pl. LIX, 1908.

³ Hay. Proc. U. S. Nat. Mus., Vol. 48, p. 525, Pl. 31, 1915.

The specimen is preserved in the palentological collection of the Department of Geology of the University of Michigan, No. 3450.

MEASUREMENTS:	MM.
Top to tip of horns.....	604.8
Condyle to anterior tooth.....	429
Width across orbits.....	249
Width base of horns.....	117-111.5
Width across zygomas.....	224
Width across condyles.....	132
Width back of skull.....	204
Height back of skull.....	204

PLATE I.

Upper surface of skull.

SYMBOS CAVIFRONS

PLATE I



PLATE II.

Figure 1. Left side of skull, showing injury.

Figure 2. Lower surface of skull.

SYMBOS CAVIFRONS

PLATE II



