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ELEPHAS SCOTTI
A New Primitive Mammoth from Nebraska

By Erwin Hinckley Barbour

On February 18, 1922, the mandible of an unusually primitive mammoth was secured for the palaeontological collections of Mr. Hector Maiben by Mr. E. T. Engle. The specimen was found in Aftonian gravel on the farm of Mr. E. J. Hartman, five miles south of Staplehurst, Seward County, Nebraska. It is numbered 18-2-22 in the accession book of the Nebraska State Museum.

Fig. 7. Side view of the mandible of Elephas scotti, showing heavy coronoid and short-crowned molar, set far forward. About one-ninth natural size.

The peculiarities of this mammoth seem to entitle it to a position as a distinct species, for which we are proposing the name, Elephas scotti, named for Professor William D. Scott. It cannot be compared with the later and more advanced mammoths, such as imperator, jeffersoni (columbi), or prim-
ingenius. It is comparable instead, with the earlier and more conservative mammoth, Elephas hayi. Elephas hayi was found June 23, 1914, in the Aftonian gravel of Crete, Saline County, Nebraska. This is about 20 miles south of the same deposit in which E. scotti occured.

The new mammoth is as primitive as Elephas hayi, if not more so. Like hayi, it is undoubtedly a mature individual. Its teeth are taken to be last molars. The enamel plates, which are highly crenulated, incline noticeably backward, and are worn with extreme obliquity. At the same time the valleys, or dental spaces, are so deeply indented, as to still further heighten and exaggerate the effect. There are but five pronounced ridges, and in all, but eight and a cone. Two of the anterior ridges are so confluent that the count is rendered somewhat uncertain, as shown in figure 10.
The transverse ridges in *E. hayi* are eleven. The molars of *scotti* measure 219 mm. (8% in.) in length, by 117 mm. (4% in.) in extreme width. They are short and abruptly expanded in the middle. In the mammoths the number of enamel ridges to the decimeter serves, in a general way, in the recognition of species. In *E. scotti* there are three and a fraction, transverse, grinding ridges to the decimeter; in *E. hayi* four and a fraction; in *E. imperator* five to six; in *E. jeffersoni* (columbi) six to eight; and in *E. primigenius* nine to ten.
It is a noteworthy feature that the robust jaws of Elephas scotti come within three-fourths of an inch of meeting on the middle line, as is plainly shown in the figures. This is not due to crushing, as far as can be learned, for the specimen in hand is essentially perfect. The coronoids of the earlier and the later mammoths differ widely and are worthy of notice.

Fig. 10. Crown view of the last, lower, right molar of Elephas scotti, showing the dental spaces deeply indented, the enamel ridges inclined backward, and obliquely worn. About one-half natural size.

Fig. 11. Last, lower, right molar of Elephas hayi, crown view, for comparison with Elephas scotti. About one-third natural size.

Those of scotti and hayi are much more robust, thick, and heavy, and flare outwardly, and are posterior to the molars. The inner wall is broader and more heavily roughened and pitted for ligamentous attachment.

Each ramus, measured back of the molar, has a width of 185 mm., (7 5/16 in.) and a depth of 180 mm., (7 1/8 in.). On the middle line the jaws are but 19 mm., (3/4 in.) apart.