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# AMEBELODON SINCLAIRI sp nov.

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## THE NEBRASKA STATE MUSEUM

ERWIN H. BARBOUR, *Director*

## AMEBELODON SINCLAIRI sp nov.

BY ERWIN H. BARBOUR

Amebelodonts are so new and so rare that even fragmentary facts relative to the group seem worth publishing. The specimen under consideration is a mandibular tusk found on the farm of Mr. A. S. Keith, Freedom, Frontier County, Nebraska, on the Morrill Geological Expedition of 1928, and is numbered 1-17-7-28, S. and L., the collectors being Bertrand Schultz and John LeMar, both of the class of 1931, the University of Nebraska. The formation was Late Pliocene or Pleistocene.

This tusk, well concealed in its matrix, was pointed out by Mr. A. S. Keith to the field party, and interestingly enough, he found it within two hundred to three hundred yards of the spot where he found *Amebelodon fricki* in the spring of 1927. The new proboscidean is named *Amebelodon sinclairi* in recognition of Dr. Wm. J. Sinclair, who has made extensive explorations in the Tertiary of Nebraska. It is noteworthy that two genera and three species of amebelodonts have been found on this one farm. The great contiguous territory must eventually yield many more. Two hundred miles to the north, a fourth amebelodont has recently been added with complete lower and upper dentition and a nearly complete skeleton, to be figured and described when work in the quarry can be resumed in the field season of 1930, at which time the balance of the skeleton will be secured.

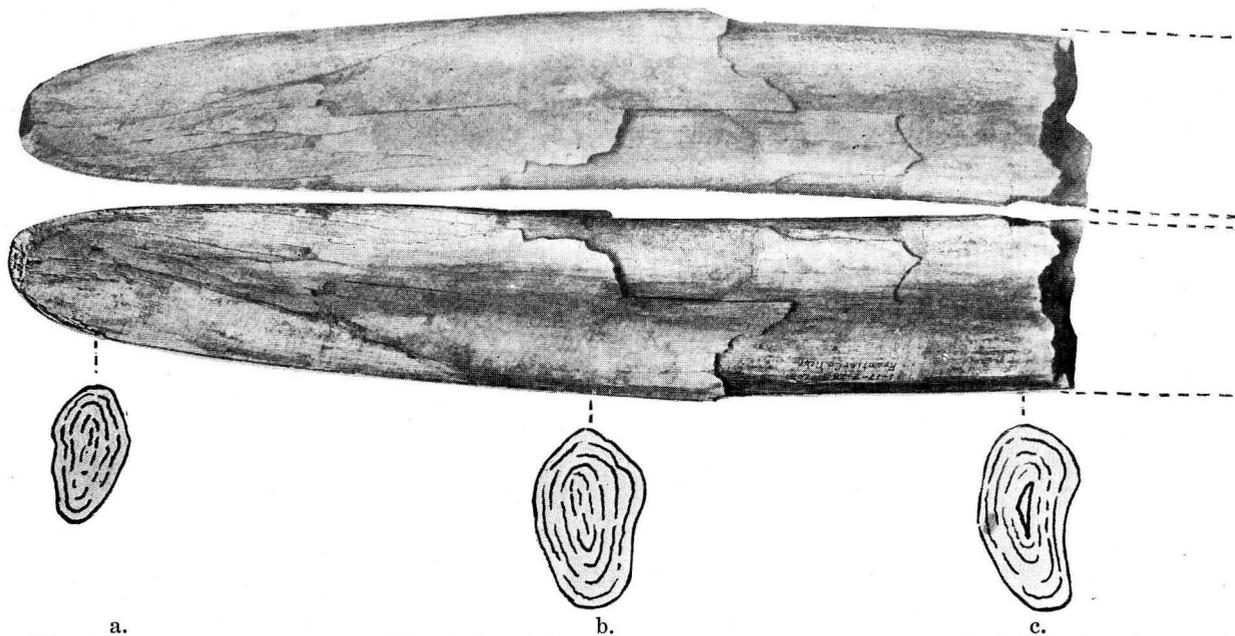
The tusk under consideration is relatively broad and flat and was about twenty-eight inches in length. Though plainly a related form, it is not flattened at the tip, or distal end, like the tusk of *Amebelodon fricki*.

The inner and outer borders are about parallel, with a valley between on the upper side. The tip of the tusk is worn, possibly by digging and shovelling in the same man-

ner as the tusk of *Amebelodon fricki*, providing they used these tusks for that purpose.

As already suggested, the great mandibular tusks of the amebelodonts may not have been adaptations for shovelling. The life habits of the amebelodonts may have been like those of any of the longirostral mastodons, the mandible and tusks simply being over-developed. Such a mandible and such a pair of tusks might have been used advantageously, by the aid of the heavy proboscis, in stripping off leaves and twigs from underbrush and trees, and blades and seed heads of the grasses and wild grains. In corroboration the outer border of the tusk of the new and undescribed Cherry County Amebelodont is heavily worn as though having been subjected to some such rough use.

Respecting the similarities and differences between the tusks of *Amebelodon fricki* and *A. sinclairi*, the following may be noted. The mandibular tusk of *Amebelodon sinclairi* is much shorter and relatively more robust, the inner border is the thicker as in *A. fricki*. The tusk of *A. fricki* is essentially straight, or with a long radius of curvature, while in *A. sinclairi* the curvature is noticeable, the radius being about 5 feet (1525 mm.). In *Torynobelodon loomisi* the tusk is so curved as to have a radius of 2 feet. The mandibular tusk of the average longirostral mastodon varies in diameter from 1 inch (25 mm.) to  $1\frac{3}{4}$  inches (45 mm.), and in length from 1 foot (305 mm.) to  $1\frac{1}{2}$  feet (459 mm.). The tips of the tusks in *A. fricki*, for about a foot in length, are plainly worn as may be seen in Fig. 89, Bulletin 13. The tusks of *A. sinclairi* show considerable wear in the same place. The tusks of *A. fricki*, where they meet on the middle line, are ground and rubbed flat. Not so those of *A. sinclairi*, which apparently did not touch. In the new and undescribed Cherry County amebelodont, the tusk, which is straight, is  $3\frac{1}{2}$  inches (89 mm.) wide,  $1\frac{3}{4}$  inches (45 mm.) thick, and is ground square at the tip and is heavily worn along the outer border. For 6 inches on the under side it is worn to a plane with distinct grooves and scratches arranged in parallel lines,



a.  
 Fig. 101. The major portion,  $\frac{5}{7}$ , of the right mandibular tusk of *Ambelodon sinclairi*, with the same reversed to complete the pair. The left tusk is sectioned, and is in parallel position with, and for comparison with the tusk of *Ambelodon fricki*. Specimen No. 1-17-7-28, S. & L., Freedom, Frontier County, Nebraska. Section a. Width of tusk at tip  $2\frac{5}{8}$  inches (67 mm.); greatest thickness at inner border  $1\frac{1}{2}$  inches (38 mm.). Section b. Width of tusk  $3\frac{1}{2}$  inches (89 mm.); greatest thickness 2 inches (51 mm.). Section c. Width of tusk  $3\frac{1}{2}$  inches (89 mm.); greatest thickness  $2\frac{1}{2}$  inches (51 mm.). Palaeontological Collection of Hon. Charles H. Morrill, the Nebraska State Museum.

transverse to the axis of the tusk. No attempt is made to account for this peculiar feature.

It is worthy of passing mention that this important specimen is complete enough to justify a skeletal restoration, which will be made, and the specimen named and described, if possible, in an early bulletin.

#### MEASUREMENTS

##### AMEBELODON FRICKI:

Length of tusk, 45 inches (1144 mm.); width, 5½ inches (140 mm.); greatest thickness, 2¾ inches (69 mm.).

##### AMEBELODON SINCLAIRI:

Length of tusk calculated, 28 inches (712 mm.); width, 3½ inches (89 mm.); greatest thickness, 2 inches (51 mm.).

The pulp cavity was 10 inches (254 mm.) long, and ends 18 inches from the tip, while in *Amebelodon fricki*, it is short and ends 31 inches from the tip. Its radius of curvature is about 60 inches. *Amebelodon sinclairi*, like *Amebelodon fricki*, belongs to the shovel-tuskers, while *Torynobelodon loomisi*, with its broad, sharply curved tusks, belongs to the dredge-tuskers. It is not unlikely that in the collections of the country some amebelodont tusks may have been overlooked, mistaken perhaps, for typical tusks flattened under some overlying load. Since knowledge of this group seems especially desirable, it is suggested that collections might be over-hauled to advantage. At this writing no reports on any of the *Amebelodontinae* have reached this office and no citations can be made.

#### AMEBELODONT PUBLICATIONS

Barbour, Erwin H.

Preliminary notice of a new Proboscidean, *Amebelodon fricki* gen. et. sp. nov. Bulletin 13, Volume 1, June, 1927, the Nebraska State Museum.

The mandibular tusks of *Amebelodon fricki*. Bulletin 14, Volume 1, December, 1929, the Nebraska State Museum.

The mandible of *Amebelodon fricki*. Bulletin 15, Volume 1, December, 1929, the Nebraska State Museum.

*Amebelodon sinclairi* sp. nov. Bulletin 17, Volume 1, January, 1930, the Nebraska State Museum. The present bulletin.

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