

University of Nebraska - Lincoln

DigitalCommons@University of Nebraska - Lincoln

Bulletin of the University of Nebraska State
Museum


Museum, University of Nebraska State

1934

A MOUNTED SKELETON OF MEGABELODON LULLI

Erwin Hinckley Barbour

Follow this and additional works at: <http://digitalcommons.unl.edu/museumbulletin>

 Part of the [Entomology Commons](#), [Geology Commons](#), [Geomorphology Commons](#), [Other Ecology and Evolutionary Biology Commons](#), [Paleobiology Commons](#), [Paleontology Commons](#), and the [Sedimentology Commons](#)

This Article is brought to you for free and open access by the Museum, University of Nebraska State at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Bulletin of the University of Nebraska State Museum by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.

THE NEBRASKA STATE MUSEUM

ERWIN H. BARBOUR, *Director*

NOV 20 1934

A MOUNTED SKELETON OF MEGABELODON LULLI

BY ERWIN HINCKLEY BARBOUR

A skeleton of *Megabelodon lulli*, partly composite, was mounted in the laboratory May 31, 1933, and was formally installed and placed on exhibition in Elephant Hall, June 7, 1933.

In the season of 1931, while exploring the fossil beds on the east edge of the Forest Reservation, Cherry County, field parties had the good fortune to unearth the above mentioned skeleton, which is fairly complete. Fortunately, it throws light on the type specimen, No. 10-8-14, also from Cherry County.¹

The following parts were secured: the two upper tusks, the mandible, axis, ribs, certain limb bones, a perfect pelvis including the sacrum, and the elements of the left fore limb in articulation from the scapula to the tips of the toes with even the sesamoids in place. The elements of this limb, as seen in the full-page half-tone, are held together mainly by the matrix out of which they were chiseled, and the position of the limb inspires the fancy that the creature, in life, startled by some carnivore, had jerked up his foot. This presumptive circumstance furnished the idea for the first pose, which may be used as the final one, after suitable adjustments have been made. In carrying out the conception, this mastodon is mounted in a partly rearing position, and beside it, near a rock, is the skeleton of a crouching sabre-toothed tiger. The design was conceived in response to a strong desire on the part of the field men that these venerable bones found in such perfect alignment should not be irreverently disarticulated. It was a unanimous wish that this limb be mounted as found in the rocks.

Unfortunately, the skull had weathered away, but the two tusks were left, while the mandible is practically perfect throughout, and is of peculiar interest. The rami of the jaw are massive, and strong, while the rostrum is long,

¹ Barbour, Erwin Hinckley. A new Longirostral Mastodon from Cherry County, Nebraska. The Nebraska Geological Survey, Volume 4, Part 14, no. 36, pp. 211 to 222. 6 plates, 13 text figures.

Barbour, Erwin Hinckley. A new Longirostral Mastodon, *Tetabelodon lulli*. The American Journal of Science, Vol. 39, Jan. pp. 87 to 92. 2 text figures.

sideration may have had a powerful opposable lower lip-like appendage. Or, what is more probable, the roughness may have served for the attachment of a coarse opposable gristly pad. Either one might have aided the creature in stripping leaves and twigs from underbrush and boughs. If the scar is merely alveolar, resulting from the abortion of the tusks, the flaring of the rostrum is not without significance.

Had a solitary specimen been found instead of several, the tuskless state of this jaw might possibly have passed as a case of aberration. However, with four jaws at hand, all alike even to minor details, the evidence is strongly against any assumption of abnormality.

The mandible does not seem to be that of a tuskless female, nor a tuskless male, for that matter. It is difficult however to judge, for variability is a law with which to reckon and it operates within wide limits.

It is doubtful at the present juncture if the characteristics due to age, sex, and the ordinary variations of individuals, especially amongst the more recently discovered proboscideans, can in all cases be passed upon with reasonable finality by any naturalist. Other examples of the spoonbill mastodon are as follows: The type specimen of *Megabelodon lulli* was found in the field season of 1914, by Professor E. F. Schramm and Mr. J. B. Burnett, class of 1916, in the vicinity of Burge, Cherry County, Nebraska, some twelve to fifteen miles southwest of Valentine. The exact location is Section 33, Range 30 west, and Township 32 north. This quarry was visited by the writer at a later date, but no amount of exploring revealed other parts, save fragments. This great mandible, second in size to *Amebelodon fricki*, was that of an old individual; it was densely mineralized, hence in a state of perfect preservation, barring the very tip of the rostrum which was shattered. The fragments were set together as carefully as possible.

While mounting the mandible of *Megabelodon lulli*, it was observed that the rostrum was too narrow to admit mandibular tusks properly unless they were unreasonably slim. Mandibular tusks, however, are the rule, so the jaw was given a slim pair in the restoration. There is one fine example of this type of mastodon, a complete skeleton, *Trilophodon phippi*, in the Colorado Museum of Natural History, Denver.

One skeleton, more or less complete, is preserved in the museum of the South Dakota School of Mines, at Rapid City, and two examples are to be found in the Nebraska State Museum.

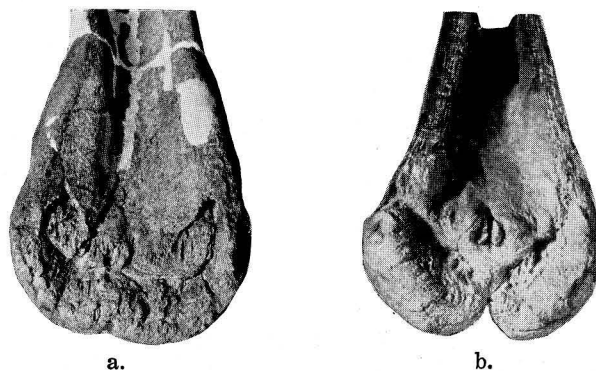


FIG. 180.—*Megabelodon lulli*, expanded tips of two rostra, each showing a deep symmetrical scar presumably for the attachment of a coarse heavy gristly pad usable perhaps in tearing leaves and twigs from the branches. Viewed from above.

a, Expanded rostrum of the specimen in the museum of the South Dakota School of Mines, for comparison. By permission of Dr. O'Hara.

b, Expanded rostrum of the Spoonbill Mastodon, number 2-29-7-31, Cherry County, Nebraska. About 1/6 natural size.

MEASUREMENTS

of the spoonbill mastodon, No. 2-29-7-31

Skeleton	
Length of scapula.....	673 mm.—26½ inches
Length of humerus.....	800 mm.—31½ inches
Length of radius.....	630 mm.—23¾ inches
Length of manus.....	350 mm.—13 inches
Width of pelvis.....	1449 mm.—57 inches
Mandible	
Total length of mandible.....	1303 mm.—51¼ inches
Distance across the condyles.....	458 mm.—18 inches
Depth back of molar.....	190 mm.—7½ inches
Width back of molar.....	135 mm.—5⅜ inches
Height of last molar inner border.....	55 mm.—2⅛ inches
Length of last molar.....	204 mm.—8 inches
Width of last molar.....	85 mm.—3⅜ inches
Width of mandible at narrowest point, upper border	76 mm.—3 inches
Width of mandible on the lower border at narrowest point	85 mm.—3⅜ inches
Length of the symphysial line.....	570 mm.—22½ inches

Depth of mandible in front of molars.....	150 mm.— 6 inches
Thickness of mandible in front of molars.....	76 mm.— 3 inches
Length of mental foramen.....	177 mm.— 7 inches
Upper tusk, diameter.....	125 mm. 4½ inches

The mandible in the museum of the South Dakota School of Mines.

Measurements by Professor Bump.

Total length of jaw.....	1277 mm.—50 inches
Width of jaw across angles.....	488 mm.—19¼ inches
Length of shovel.....	637 mm.—25 inches
Width of jaw posterior end shovel.....	206 mm.— 8⅛ inches
Width of shovel at narrowest point.....	119 mm.— 5 inches
Width of shovel at widest point.....	189 mm.— 7½ inches
Width jaw back of last molar.....	142 mm.— 5⅝ inches
Width between narrowest part of shovel.....	129 mm.— 5⅛ inches
Width of jaw in front of last molar.....	99 mm.— 3⅞ inches
Total length of alveoli.....	300 mm.—11¾ inches

The bones comprising this mount were found and dug out by Paul O. McGrew, class of 1932, Frank W. Johnson, class of 1934, Grayson M. Eichelberger, class of 1935, and Charles S. Osborne, class of 1935. They were prepared by Miss Carrie A. Barbour, and the skeleton was posed and mounted by Henry Reider and Frank Bell.

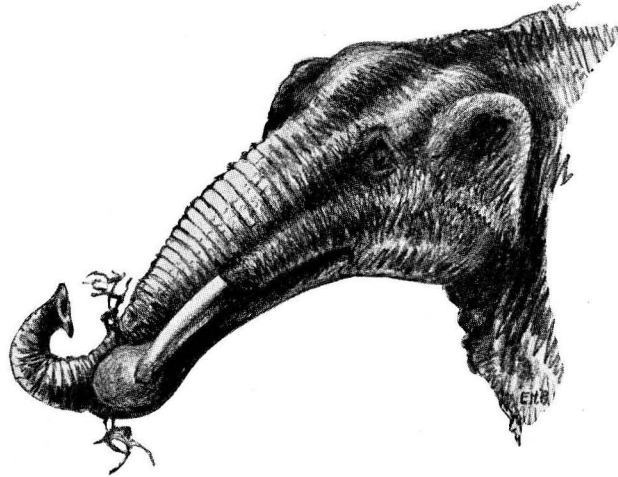


FIG. 181.—The Spoonbill Mastodon, conjectural restoration of the head, showing a large, coarse, bilobed, gristly pad at the tip of the rostrum which may have been used in stripping leaves and twigs from the branches of underbrush, and trees. From a pencil sketch by the writer.

MUSEUM NOTES

PERSONNEL OF FIELD PARTIES

THE NEBRASKA STATE MUSEUM

The University of Nebraska

1928 to 1934 Inclusive

1928

SOUTH PARTY

SCHULTZ, CHARLES BERTRAND, Class of '31, U. of N.
 LEMAR, JOHN DEWEY, Class of '32, U. of N.

NORTH PARTY

COLBERT, EDWIN HARRIS, Class of '28, U. of N.
 LUGN, DR. A. L.

1929

SOUTH PARTY

SCHULTZ, CHARLES BERTRAND, Class of '31, U. of N.
 LEMAR, JOHN DEWEY, Class of '32, U. of N.
 CRABILL, FRANK WALLACE, Class of '35, U. of N.

NORTH PARTY

COLBERT, EDWIN HARRIS, Class of '28, U. of N.
 MCGREW, PAUL ORMAN, Class of '33, U. of N.
 OSBORNE, CHARLES STRANGE, Class of '35, U. of N.
 LUCKERT, LOUIS HENRY, Class of '32, U. of N.

1930

SOUTH PARTY

SCHULTZ, CHARLES BERTRAND, Class of '31, U. of N.
 BLUE, EMERY LEE, Class of '27, U. of Iowa.
 CRABILL, FRANK WALLACE, Class of '35, U. of N.
 VANDERPOOL, EUGENE, Class of '33, U. of N.

NORTH PARTY

MCGREW, PAUL ORMAN, Class of '33, U. of N.
 OSBORNE, CHARLES STRANGE, Class of '35, U. of N.
 HARPER, PHILLIP CLARENCE, Class of '32, U. of N.
 LUCKERT, LOUIS HENRY, Class of '32, U. of N.

1931

SOUTH PARTY

SCHULTZ, CHARLES BERTRAND, Class of '31, U. of N.
 BLUE, EMERY LEE, Class of '27, U. of Iowa.
 CRABILL, FRANK WALLACE, Class of '35, U. of N.
 VANDERPOOL, EUGENE, Class of '33, U. of N.
 DENTON, FRANK ROY, Class of '33, U. of N.
 EISELEY, LOREN COREY, Class of '33, U. of N.

NORTH PARTY

MCGREW, PAUL ORMAN, Class of '33, U. of N.
 OSBORNE, CHARLES STRANGE, Class of '35, U. of N.
 JOHNSON, FRANK WALKER, Class of '34, U. of N.
 EICHELBERGER, GRAYSON MEADE, Class of '35, U. of N.

1932

SOUTH PARTY

SCHULTZ, CHARLES BERTRAND, Class of '31, U. of N.
 BLUE, EMERY LEE, Class of '27, U. of Iowa.
 CRABILL, FRANK WALLACE, Class of '35, U. of N.
 VANDERPOOL, EUGENE, Class of '33, U. of N.
 DENTON, FRANK ROY, Class of '33, U. of N.
 EISELEY, LOREN COREY, Class of '33, U. of N.
 BELL, FRANK, Class of '30, U. of N.
 LONG, ROBERT, Class of '36, U. of N.

NORTH PARTY

MCGREW, PAUL ORMAN, Class of '33, U. of N.
 JOHNSON, FRANK WALKER, Class of '34, U. of N.
 OSBORNE, CHARLES STRANGE, Class of '35, U. of N.
 EICHELBERGER, GRAYSON MEADE, Class of '35, U. of N.

1933

SOUTH PARTY

SCHULTZ, CHARLES BERTRAND, Class of '31, U. of N.
 BLUE, EMERY LEE, Class of '27, U. of Iowa.
 CRABILL, FRANK WALLACE, Class of '35, U. of N.
 VANDERPOOL, EUGENE, Class of '33, U. of N.
 DENTON, FRANK ROY, Class of '33, U. of N.
 EISELEY, LOREN COREY, Class of '33, U. of N.
 LONG, ROBERT, Class of '36, U. of N.
 STOUT, THOMPSON, Class of '36, U. of N.

NORTH PARTY

MCGREW, PAUL ORMAN, Class of '33, U. of N.
 JOHNSON, FRANK WALKER, Class of '34, U. of N.
 OSBORNE, CHARLES STRANGE, Class of '35, U. of N.
 EICHELBERGER, GRAYSON MEADE, Class of '35, U. of N.

1934

SOUTH PARTY

SCHULTZ, CHARLES BERTRAND, Class of '31, U. of N.
 BLUE, EMERY LEE, Class of '27, U. of I.
 CRABILL, FRANK WALLACE, Class of '35, U. of N.
 LONG, ROBERT, Class of '36, U. of N.
 STOUT, THOMPSON, Class of '36, U. of N.
 GRAHAM GORDON, Class of '37, U. of N.

NORTH PARTY

JOHNSON, FRANK WALKER, Class of '34, U. of N.
 EICHELBERGER, GRAYSON MEADE, Class of '35, U. of N.
 RATHBUN, KEITH, Class of '34, U. of N.
 FRANZEN, DAVID ANDREW, Class of '34, U. of N.