

Pliocene and Pleistocene Fossils From Beaver County, Oklahoma¹

STUART L. SCHOFF, District Geologist, U. S. Geological Survey.
Norman, Oklahoma

In the fall of 1953 portions of a large tooth were recovered from the borrow pit beside a rural road along the north side of sec. 8, T. 3 N., R. 26 E. (Cimarron meridian), Beaver County, Oklahoma. The discovery was made by Ralph Ridgeway, a local resident, and the pieces were collected and forwarded to the U. S. Geological Survey, Washington, D. C., by the writer. When put together, they proved to be a nearly complete lower molar tooth, later identified by Jean Hough, of the U. S. Geological Survey, as belonging to a mastodon, *Serridentinus* cf. *S. meadensis* Hibbard.

The genus *Serridentinus* is generally considered to range from latest Miocene to early Pliocene. Hibbard (1951, p. 219) described the species *S. meadensis* on the basis of a left lower molar from the Ogallala formation (middle Pliocene) of Kansas, thus somewhat extending the range of the genus.

It could be argued that this discovery marks the bed containing this fossil as probably of middle Pliocene age and a part of the Ogallala formation, but the writer favors the view that the species lived in early as well as middle Pliocene time. The tooth was found in a bed of light olive-gray clay about 1 foot thick immediately overlying Permian red beds. This position at the base of the Tertiary section suggests oldest Tertiary, which in this area is the Laverne formation (lower Pliocene). The Laverne has been identified at several nearby localities, from two of which the writer collected horse teeth or fragments of teeth. Jean Hough identified these as probably belonging to *Calippus*, of early Pliocene age. Hence the probability is strengthened that a bed directly on top of the Permian should belong to the Laverne (lower Pliocene) rather than to the Ogallala formation (middle Pliocene).

This discovery emphasizes the fact that the seemingly barren deposits designated on previous maps as "late Tertiary" are not completely lacking in fossils. The writer has made other collections from other localities in Beaver County. Mollusks and ostracodes have been identified by J. B. Reeside, Jr., and I. G. Sohn, of the U. S. Geological Survey. The ostracodes show only that the age of the containing beds is older than late Pleistocene and younger than Miocene. The mollusks proved comparable to assemblages from the Pleistocene of Kansas. Taylor (1954) has described the Berends fauna, which includes both vertebrates and mollusks and is named for a locality in northeastern Beaver County. It is late Pleistocene in age. Hibbard (1954) has described under the Buis Ranch fauna his collections of Pliocene vertebrates and invertebrates from still another Beaver County locality. These faunas are cited only as examples. Remains of turtles, fish, snakes, lizards, beaver, gophers, and many others have been recovered. A complete list of all that has been published on fossils from Beaver County is beyond the scope of this paper, which is intended to show that much is being found and that both Pliocene and Pleistocene fossils and sediments are represented.

REFERENCES

- Hibbard, C. W. 1951. A new mastodon, *Serridentinus meadensis*, from the middle Pliocene of Kansas. Univ. of Michigan, Mus. Paleontology Contributions, vol. 9, p. 217-225.
- 1954. A new Pliocene vertebrate fauna from Oklahoma. Mich. Acad. Sci., vol. 39, p. 333-359
- Taylor, D. W. 1954. A new Pleistocene fauna and new species of fossil snails from the High Plains. Univ. of Michigan, Occasional Papers, no. 557, p. 15.

¹ Publication authorized by the Directors of the U. S. Geological Survey and the Oklahoma Geological Survey.