

Pleistocene Giant Beaver (*Castoroides ohioensis*) from the Hiscock Site, Western New York State

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Remains of the North American giant beaver (*Castoroides ohioensis*) occur in Blancan to Rancholabrean deposits from Alaska south to Florida, and from Nebraska to the East Coast. The greatest concentration of material is in Illinois and Indiana (Kurten and Anderson 1980).

In New York, Hartnagel and Bishop (1922) report *Castoroides* at Clyde in Wayne Co., midway between Rochester and Syracuse; and at Lenox in Madison Co., between Syracuse and Utica. A third occurrence is at the Dutchess Quarry Caves in Orange County, in the southeast corner of the state, from which a molar was dated to $11,670 \pm 70$ yr B.P. (Funk and Steadman 1994).

A new western New York occurrence of *Castoroides* has recently come to light with the recognition of an upper right incisor in the collection of the Buffalo Museum of Science (catalogue no. E27100). In 1996, one of the authors (RSL) noticed the specimen in an unlabeled box with the tip of a premaxillary proboscidean tusk. Both specimens appear similar to Pleistocene fossils from the Hiscock Site in northeastern Genesee Co., New York (Laub et al., 1988). This site was first probed in 1959 by the Buffalo Museum of Science, and a large assemblage of Pleistocene and Holocene bones was brought to that institution for conservation and study. Because no agreement was reached to transfer title of the material to the museum, it was returned to the landowner. The specimens remained in his possession until 1982, when he agreed to donate them to the museum and granted permission for the site to be excavated.

At the time of the 1959 reconnaissance, the late Carol A. Heubusch was curator of geology at the Buffalo Museum of Science. Several years after the museum began excavation of the Hiscock Site, she mentioned to RSL that a tooth of the giant beaver had been found during that initial survey. A search of the material returned to the museum failed, however, to produce this specimen.

When the *Castoroides* tooth was found in the museum collection, it was suspected of being the item described by Heubusch. This suspicion was strengthened when the tusk tip found with it was recognized in a photograph taken at the 1959 reconnaissance. Another photograph showed what may have been the tooth, but the resolution was too poor to be certain.

To test the hypothesis that the tooth came from the Hiscock Site, sediment was removed from the pulp cavity and analyzed for pollen by one of the authors (JHM). The prominent components were *Picea*, *Pinus*, *Cyperaceae*, *Gramineae*, long-spine *Compositae*, and *Rosaceae*. The pollen profile matches that for the Pleistocene horizon of the Hiscock Site as developed by Miller (1988), and is unlike that of any other known Pleistocene assemblage known to JHM. It is therefore concluded that this specimen is from the Hiscock Site.

The specimen's mesio-distal and bucco-lingual diameters are both 2.5 cm. The pulp cavity is 4 cm deep, with an internal diameter of 1.6 cm at its aperture. Although the crown end of the incisor is broken off and the root end worn, the tooth's axial length (14 cm) and the fact that it curves through nearly 90 degrees of arc suggest that very little is missing. A striated enamel band is well preserved.

This *Castoroides* specimen is from an extensively (but by no means exhaustively) explored site. During the late Pleistocene, Hiscock was a depression containing a number of spring-fed pools whose water level fluctuated. Post-glacial lake Tcakowageh and/or its wetlands lay within two miles of the site (Muller and Calkin 1988). The Pleistocene component of the Hiscock basin includes bones predominantly of American mastodon, with much smaller contributions from caribou, stag-moose and California condor. Many of the bones appear to have been heavily gnawed, but despite a report of Missouri mastodon teeth possibly chewed by *Castoroides* (Saunders 1977), no evidence of such activity by this species has been recognized yet at Hiscock. There is ample documentation that humans frequented the site at this time, and that they manipulated some of the bones deposited here (Laub 1994; Laub, Tomenchuk and Storck 1996; Tomenchuk and Laub 1995). The possibility that the *Castoroides* tooth owes its presence at Hiscock to human agencies rather than the animal's habitat preferences must be considered.

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