

## **Geology students hunt prehistoric beaver**

**by Shane Arman - Tuesday, March 31, 2009**

<http://www.uwosh.edu/today/1813/geology-students-hunt-prehistoric-beaver/>

Some might describe Wisconsin winters as a miniature ice ages, but University of Wisconsin Oshkosh students' research sought evidence of a real ice age 13,000 years ago.

The Weis Earth Science Museum at UW-Fox Valley has showcased the fruits of their labor in the exhibit "Dam: Ice Age Beavers in Wisconsin." The results of this collaborative research project, pieced together by UW Oshkosh geology professor and the students who have since graduated, have been on display since February.

In 2005, Cole Edwards, Joe Fenrick Holly Gertz, Jodie Janssen and Mike Sailer, along with professor Bill Mode, excavated and prepared samples from a buried 13,000-year-old beaver dam near Chilton.

The student researchers and Mode discovered a beaver pond once existed on a patch of farmland that was always wet. Excavation of the sediment followed.

The project's overall goal was to find beaver fossils and evidence of climatic conditions to match the ice age documented in geologic records.

"We were over at the site many weekends and spent a lot of time collecting in the field," Mode said.

Edwards '08, who currently is working toward a master's degree in geology at Acadia University, spent five or six full days collecting sediment at the site and then analyzed it at a lab.

"A large portion of my time was spent sifting through sediment samples to pick out microfossils," Edwards said.

Among the specimens found were microfossils of many trees that preserve beaver tooth marks, spruce needles, cones of spruce and tamarack, and seeds from aquatic plants.

"We really wanted to find beaver fossils, but the closest we came were the beaver tooth marks," Mode said.

Edwards never thought he would be interested in such a project, but after he went to the site, he was constantly learning and discovering the unexpected.

"I really enjoyed the thrill of being surprised," Edwards said. "The history of the site changed every day as we found new specimens in the field."

The ancient beaver dam drew media attention and the interest of Weis Earth Museum Director Joanne Kluessendorf, who requested Mode submit samples for an exhibit.

“The exhibit shows us doing the work, and it shows the results in terms of what the setting might have looked like back then,” Mode said.

Nearly 12,000 years ago, the setting was a tundra-like environment with Woolley mammoths and spruce and tamarack trees.

Holly Gertz '07, who helped construct an ecologic story from the site, was excited to hear that her and her teammates' work was being showcased in the museum.

“So often, research can leave people lost,” said Gertz, who now works for the Appleton Area School District. “But by making an exhibit out of it, we were able to convey our research to people of all ages.”

The former students and Mode presented their research, which spanned more than two years, at the Celebration of Scholarship in 2007.

“The students learned to conduct a research project from field work through the lab work and then to finally presenting it,” Mode said. “I think this type of project shows that almost everybody, if only as a child, has had an inclination to dig in the ground and see what's there.”

For more information about the Weis Earth Museum, visit [www.uwfox.uwc.edu/wesm](http://www.uwfox.uwc.edu/wesm).