



May 6<sup>th</sup> is Education Day for the 2020 Fossil Dig. From 9a.m. until 3 p.m.

A team of Paleontologists will be back to our Snake River Farm again in May to dig for ancient bison and related fossils. The team is lead by Dr. Jim Mead. Dr. Mead is the Scientific Director for the well-known Mammoth Site in Hot Springs, South Dakota.

This is the third year for the dig at what the scientists call the Snake River Fossil Site.

In May of 2019, Dr. Mead and his crew had great success in discovering fossils including another complete bison.

The Education Day is no charge, but please text Gail at 763 350 7462.

Last year 350 students and adults attended.

More complete details on the Education Day are near the end of this article.

Dr. Mead's report on the 2019 Dig is also later in this article.



Our farm has been a known source for Bison Antiquus bones for 25 years. Bison Antiquus are the direct ancestors of modern bison. They flourished in this area 7,000 to 11,000 years ago.

Bison Antiquus were similar to modern bison in many ways. A primary difference is that the Antiquus ranged up to twice the size of modern bison.

The Snake River's bed, as it winds through our farm is proving to hold a remarkably large number of well preserved Antiquus skeletons. The animals appear to have been fatally trapped in quicksand and muck at numerous prehistoric times.

Over the years we have reassembled two complete skeletons.

One is on permanently displayed in the Sherburne County History Center in Becker. The second is permanently displayed at The National Bison Museum in Jamestown, North Dakota.

In addition, The Mammoth Site in Hot Springs, South Dakota, has an extensive display of prehistoric bison, including many skulls, bones and artifacts from our Snake River Fossil Site.

If you have questions, please email me. [tom@snakeriverfarmmn.com](mailto:tom@snakeriverfarmmn.com)

I DO NOT try to answer questions through this Facebook page.

Text Gail at 763 350 7462 if you wish to attend or if you wish to bring a group on May 6<sup>th</sup>.

Dr. Mead's 2019 Report Follows:

Update from: Dr. Jim I Mead, Mammoth Site Director of Research

**The Mammoth Site Excavation at Snake River Fossil Site**

The Mammoth Site explores Snake River Fossil Site near Becker, Minnesota. Along the stretch of the sinuous Snake River is the Snake River Farm where Tom and Gail raise Bison for market. Over the years, Tom and his family would find bison bones on the river bottom, but these were larger bones than what their Bison produce today. Clearly the Snake River was slicing through bog and sand sediments representing an older time of bison in the region. How old they did not know. The Mammoth Site of Hot Springs, South Dakota learned about these fossil remains in 2018, and contacted the farm to see if the locality of Bison could be studied. The Mammoth Site is interested in understanding Ice Age environments and climate, especially from around the Black Hills of southwestern South Dakota but even as far away as Minnesota and Wisconsin.

The Mammoth Site's focus will remain mammoths but in order to have a broader understanding of the region during the Late Ice Age, we have taken a new approach to exploring different fossil animals such as Bison. We have been expanding our research, over the past two years, to include Bison and other keystone species. Although not found in The Mammoth Site Bonebed, Bison were and are significant to the region. We have added new Bison exhibits in our Ice Age Exhibit Hall that features Ice Age Bison and the Snake River Fossil Site.

The excavation occurred May 4 through May 11, 2019, where The Mammoth Site explored the bog for ancient bison. Drs. Jim I. Mead and Sharon Holte from The Mammoth Site pulled together a crew including: Preston Gabel, Sandy Swift, Biz Storms, and Bethany Cook from The Mammoth Site along with colleagues from University of Arizona (Tucson) and Texas A&M (College Station) and two experienced excavators who are part of The Mammoth Site's Ice Age Explorers program. Tom and Gail said, "To be ready for sun, heat, rain, cold, snow, mud, fun, and possibly mosquitos!" There were no mosquitos! The mission was to locate the layer of ancient Bison bones in the bog sediments – none of which could be seen from the surface – and then make that information to the public. "Whatever we find on this preliminary exploration, this information needs to get to the public – understanding our natural heritage is critical" said Dr. Holte. Tom, Gail, Shannon, and family from the Farm made all the logistics happen without a glitch. The incredible mud did not hinder the excavation. On Wednesday that week about 350 kids and adults from the local communities came to the site to see and learn about what was being un-earthed. What was discovered in every pit sunk into the bog was bison. Dr. Mead said that "based on our preliminary work, a dense layer of bison bones cover an area at least 100 by 100 yards." All the bog-blackened bones were of a bison as large as and slightly larger than today's bison.



Fossil Bison from other sites from around the Great Plains indicate that the age of the Snake River Fossil Site bison should be about 9,000 to 11,000 years old.... right at the end of the Ice Age. "Although Bison remains are fairly common in Minnesota and Wisconsin, detailed reports and chronologies are rare" according to Mead.

“We want to know the full story and get this information to the public” Mead said. Intertwined with sticks obviously gnawed on by beavers imply that this area was surely a beaver pond. Maybe the bison got mired in the beaver pond – we just do not know yet. Mead and crew will radiocarbon date both bone and wood during the summer to get a better idea of when these bison came to rest along this area of the Snake River. A Summer Intern at The Mammoth Site is now cleaning and restoring the accumulation of recovered bones. All bones will be examined to look for clues as to why the bone bed came to happen. Samples of peat will be analyzed for pollen with the hope to reconstruct the local vegetation. Sediments are being screen washed with the hope to recover snails that will also help reconstruct the local habitat. All these preliminary data will be pulled together to ready The Mammoth Site for a more in-depth excavation at the site next May, 2020. Tom and Gail said that we must come back again to find more bones but they added “You better be ready for more mud and fun again!”





