

More information about the Pembina Gorge Dig

The Site:

The Pembina Gorge site is located just west of Walhalla. The staff and participants depart from and return to Walhalla, ND each day. The site is located on Parks and Recreation land, and all fossils recovered are returned to the State Fossil Collection / repository in Bismarck, ND. To reduce wear and tear on the road and excess vehicle traffic, we will be driving participants out in a van. There is not a good place to park personal vehicles off site.



Lineup of people working on "Xiphactinus Hill."



Quarry is above the road level.

The dig is focused on collecting fossils that were around near the end of the Cretaceous, ~75 million years ago. While this time also contains dinosaurs, this particular site deals with the marine creatures of the time, such as mosasaurs, turtles, fish, plesiosaurs, squid, sharks, etc.



Loose medium fish vertebrae.



We find many fish scales.



Mosasaur paddle bones.

In years past the group has worked together at a single site or has been split into two to cover more productive areas. Most likely the whole group will be divided up between two staff leaders, to focus on whatever is coming out of the ground that year. There will be shade tents / picnic tables available to rest at, or to eat lunch at, however no meals will be provided – so make sure to pack whatever lunch or snacks you may need.

This is a quarry site, but different from some of our other locations. The Medora fossil producing layer is about 2-4cm thick. The Bismarck fossil producing layer is about 1m thick, while the Pembina producing layer (the bottom of the Western Interior Seaway) is about 18-25m thick. Fossils tend to be found in pockets, rather than layers, so participants may need to move around to whatever pocket has been discovered that day.



The bones, like this fish fin, are lighter color.



Clint Boyd and Katy Brooke add plaster to a very large fish.

Chain of large fish vertebrae, with a Sharpie for scale.



Jaw with teeth.

