North Dakota Stratigraphy



CANNONBALL: NORTH DAKOTA'S LAST SEA

The last sea to cover North Dakota was the Cannonball Sea. About 60 million years ago, during the Paleocene, that sea receded from North Dakota. Sediments deposited in the Cannonball Sea are called the Cannonball Formation and consist mostly of sandstones and mudstones. Fossils found in these rocks provide information about the kinds of animals that inhabited the sea. Remains of large marine reptiles, mosasaurs and plesiosaurs, that lived in Cretaceous seas are not found in the Cannonball Formation because they had become extinct at the end of the Cretaceous at the same time that dinosaurs became extinct. The main predators in the Cannonball Sea were sharks. Remains of several species of sharks, including the sand tiger shark, Carcharias, have been found. Many other kinds of fish including stingrays, eagle rays, and ratfish also lived in the sea. Invertebrate animals inhabited the shallow water areas and shorelines including cephalopods, clams, snails, crabs, shrimp, and lobsters. Teredobored petrified wood, North Dakota's state fossil, occurs in the Cannonball Formation. This is driftwood that had been bored into by shipworms (which are clams) before becoming petrified.



Sandstone (light brown) and mudstone (gray) outcrop of the <u>Cannonball</u> Formation (Paleocene) near Flasher, Morton County. Rock exposure 12 m thick. View is to the northwest.

Prehistoric Life of ND Map