North Dakota Stratigraphy



NORTH DAKOTA EVERGLADES

During the Paleocene, between about 65 million and 55 million years ago, sediments eroded from the rising Rocky Mountains were carried to western North Dakota and deposited in rivers, floodplains, lakes, and swamps. These lithified sediments are the Ludlow, Slope, Bullion Creek, Sentinel Butte, and Golden Valley Formations. Mats of vegetation built up in the swamps and the vegetation was eventually transformed into lignite coal. This subtropical, swampy lowland contained extensive forests and provided a habitats for exotic plants and animals. Invertebrates, including clams, snails, insects, and minute crustaceans, lived in the rivers, streams, ponds, and swamps. Many kinds of vertebrates also lived in and near these aquatic habitats including turtles, crocodiles, alligators, champsosaurs (crocodilelike reptiles), and fish. Exotic plants such as ferns, cycads, figs, bald cypress, Ginkgo, Magnolia, sycamore, giant dawn redwoods, and palm grew in the lush forests. Insects and birds lived on and ate these plants. Mammals were beginning to become established during this time after the extinction of the last of the dinosaurs a few million years earlier.



Outcrops of the <u>Bullion Creek</u> and Sentinel Butte Formations (Paleocene), Theodore Roosevelt National Park, South Unit, Billings County. Cottonwood campground is in the grove of trees along the Little Missouri River. View is to the northwest.