

The Indiana Dunes: Relics of the Ice Age

A halt in the retreat of glacial ice between 18,500 and 17,000 years ago culminated in the deposit of a moraine along the southern shore of Lake Michigan. This high topographic feature acted as a dam for water when the ice retreated north, thus forming early Lake Michigan. Continued northward retreat of the glacier and warping of the Earth's surface after the weight of the ice was removed caused the opening and closing of outlets, forcing water levels in Lake Michigan to rise and fall. Sediment eroded from the margins of this early lake was transported southward to Indiana by waves

and currents. Three highstands of the lake produced beach ridges and dune sand that arc across northwestern Indiana, marking the locations of the former shorelines.

The shoreline nearest the lake, Tolleston Beach, is the widest and has the greatest relief, having had about 6,000 years to form. Winds from the west to the north blew sand from the beach face into large horseshoe-shaped dunes. These dunes migrated inland and along the shore. In some cases, the dunes have systematically buried trees and then reexposed them.

