

Geological History of Lake Michigan Dunes



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Education:

B.S. with high honors, Geology, University of Cincinnati, August 1978.

Ph.D. Geophysical Sciences, University of Chicago, August 1983.

Assistant, associate and Full Professor of Geology, Hope College 1984 - 2005

Research Interests: Coastal dunes, lakes and lake sediments, history of the lower continental crust.

Grants and awards : Geologic History of the Coastal Dune Complex along the Southeastern Shore of Lake Michigan. Petroleum Research Fund 2002

Key Publications and Presentations:

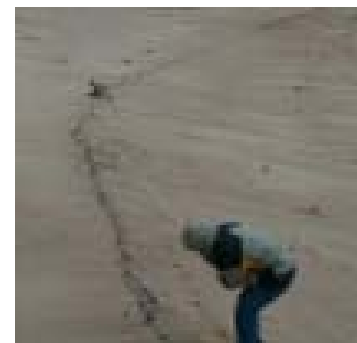
:Hansen, E.C., Arbogast, A.F. and Yurk, B. (2004) The History of Dune Growth and Migration along the Southeastern Shore of Lake Michigan: A perspective from Green Mountain Beach. *Mich. Acad. 35*, 455-478
 Arbogast, A. F., Hansen, E. C, and Van Oort, M. D. Reconstructing the geomorphic evolution of the coastal dune landscape along the southeastern shore of Lake Michigan. *Geomorphology 46*, 241- 255

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Geomorphic History of Lake Michigan Dunes

We are using a combination of field mapping, radiocarbon ages from paleosols , and Optically Stimulated Luminescence analyses to reconstruct the history of coastal dunes



Using Sediments from Small Lakes to Reconstruct Coastal Dune Environments

We are examining diatoms, pollen and inorganic sediments in cores from these lakes to get information on how the coastal environment has changed over the last 6000 years

Origin of Concentrations of Dark Sand in Lake Michigan Dunes

This research focus on both the origin of the dark sand and the processes by which it gets concentrated in layers and patches.

