



# DUNES EDUCATION & OUTREACH IN MICHIGAN

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## INTRODUCTION

The world's largest system of freshwater dunes exists in the Great Lakes basin. Approximately 275,000 acres of sand dune formations are located in Michigan. These ecologically significant coastal areas support a diversity of plants and wildlife and contribute to the uniqueness and vitality of Michigan's shoreline communities. Throughout the state, coastal communities face an array of land use challenges, many of which impact sensitive coastal habitats – from sand dunes to forest ecosystems to coastal and emergent wetlands. The health of these Great Lakes resources is closely tied to the long-term stability and social well being of coastal communities and economies throughout the state.

## ABSTRACT

The freshwater sand dunes of the Great Lakes Basin are part of an ecologically rich and diverse coastal ecosystem. The health and beauty of these fragile natural features contributes to the long-term economic and social well being of Michigan's coastal communities and businesses. Michigan Sea Grant works to protect and restore coastal habitat through research, education and outreach. Sea Grant educators collaborate with local, state, and national partners to develop public outreach programs and policies that help minimize human impact on coastal ecosystems. Educational publications, posters and displays highlight the value and diversity of the Great Lakes coastline and encourage citizen involvement.

Notable Sea Grant publications include Guide to Great Lakes Coastal Plants (2006), the first in a series of guides highlighting the Great Lakes coastal zone; educational displays promoting beneficial beach management and coastal stewardship activities (2005); and the award-winning booklet Discovering Great Lakes Dunes (1998), published in collaboration with Gillette Natural History Association, highlighting sand dune formation, dune types, zones, wildlife, and the need to protect fragile sand dune ecosystems.

## RESEARCH

Michigan Sea Grant supports efforts to employ an integrated assessment model encompassing Great Lakes sand dunes around the Basin to identify the state of the science and options for future management and protection. Integrated assessment is a formal approach to synthesizing and delivering relevant, independent scientific input to decision-making through a comprehensive analysis of existing natural and social science information.

## OUTREACH

Michigan Sea Grant supports six extension educators based in Grand Haven, Traverse City, Marquette, Tawas City, Clinton Township and Detroit. Sea Grant extension educators work with local, state, tribal, and federal partners to develop policies and programs that protect, restore and enhance valuable coastal habitat including sand dune ecosystems. Recent extension activities include participating in strategic planning efforts for the Michigan Dune Alliance.

## EDUCATION

Michigan Sea Grant produces and disseminates public education materials to increase awareness of the basin's biological diversity and human impacts on the Great Lakes ecosystem.

## ABOUT MICHIGAN SEA GRANT COLLEGE PROGRAM

Michigan Sea Grant promotes knowledge of the Great Lakes through research, outreach and education. Established in 1969, Michigan Sea Grant is a cooperative program of the University of Michigan and Michigan State University. Michigan Sea Grant College Program is part of NOAA-National Sea Grant, a network of 30 university-based programs.

## PUBLICATIONS

Great Lakes Coastal Plants  
2006, Weatherbee, E. E.  
Produced in collaboration with the  
University of Michigan Press.  
Available through the Michigan  
Sea Grant Bookstore  
(publication number MICHU-05-410):  
[www.miseagrant.com](http://www.miseagrant.com)

Discovering Great Lakes Dunes  
1998, Brockwell-Tillman, E., and Wolf,  
E. Ed. C. Swinehart, et al.  
Produced in collaboration with Gillette Natural History  
Association, and Michigan State University Extension.  
Available through the MSUE Bulletin  
Office (publication number E2653): [www.msue.msu.edu](http://www.msue.msu.edu)