

To Know the Lakes is to Love Them

EDUCATION



We live in the heart of the spectacular Great Lakes region. The Great Lakes define our region's culture, heritage, and quality of life, and provide a unique educational opportunity.

Because an educated public makes better decisions, Michigan Sea Grant helps students, educators, and Michigan citizens of all ages incorporate the Great Lakes into lifelong learning. That happens in a variety of ways. From hands-on cruises and camps, to free online curriculum aligned to content expectations, we offer programs and materials that enhance science education and encourage stewardship.

This fact sheet provides an overview of the Michigan Sea Grant Education Program. For more information, visit the education page: www.miseagrant.umich.edu/education

WEB-BASED LESSONS, DATA AND TOOLS

Teaching with Great Lakes Data

Connects educators and students to data collected throughout the Great Lakes and breaks the information into a classroom friendly format. The resources are easily incorporated into existing curriculum and are multidisciplinary. All the materials on the website are free.

Features:

- Ready-to-go lessons and activities.
- Great Lakes Data Sets
- Inquiry Tools for Teachers

See: www.greatlakeslessons.com

Fisheries Learning on the Web (FLOW)

Focuses on the Great Lakes fisheries, food web, invasive species and water quality. FLOW lessons and activities are "plug-n-play." Each section features five lessons that introduce an overall concept, teach via activities and then follow up with guided lessons and discussion. The three units, Food Web, Water and Fish, feature:

- Fun and engaging materials, such as an invasive species board game, a dichotomous key and fish cards.
- Specific educational objectives, based on standards and benchmarks.
- Assessment tools, based on learning objectives.

See: www.projectflow.us

CRUISES

Great Lakes Education Program - GLEP

Introduces fourth-grade students to the unique features of the Great Lakes through a combination of classroom learning and hands-on experience. The program integrates elements of geography, history, biology and physical sciences in each of its three components:

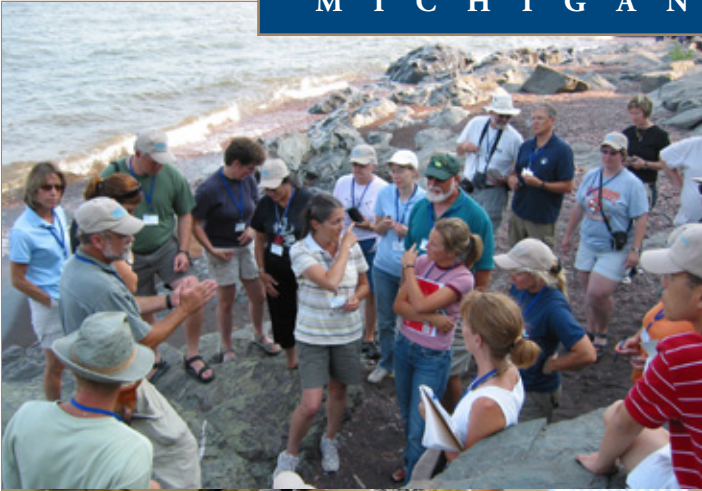
- Classroom introduction to Great Lakes.
- Field trip on the Clinton River, Detroit River or Lake St. Clair.
- Follow-up classroom experiments and discussion.

See: www.glep.us

Summer Discovery Cruises

Open to everyone, the discovery cruises offer a variety of themes to choose from and focus on the ecology, culture and history of the Detroit River or Lake St. Clair. The objective of the discovery cruises is to increase awareness and understanding of the Great Lakes, leading to enhanced Great Lakes stewardship. The 20-plus themed cruises sail from Metro Beach and Lake Erie Metroparks.

See: www.discoverycruises.org



PROFESSIONAL DEVELOPMENT AND NETWORKING

Northeast Michigan Great Lakes Stewardship Initiative

With funding through the Great Lakes Fishery Trust, the initiative is an education hub focused on supporting environmental education in the community. The focus is on place-based education – an educational process that enhances student academic achievement, environmental stewardship, community engagement and vitality.

The initiative has formed a networking hub based out of northeast Michigan, with three main goals:

- Support Place-Based Education in local schools through mini-grant funding.
- Provide professional development.
- Help create and maintain strong community-school partnerships.

COSEE Great Lakes and the Great Lakes Observing System

COSEE, or the Centers for Ocean Sciences Education Excellence–Great Lakes, promotes partnerships among research scientists, educators, and students to effectively bring an understanding of aquatic sciences to the public. Educators from the Great Lakes Sea Grant Network have provided professional development opportunities over the past five years. For example, teachers travel around the Great Lakes for one week on a U.S. Environmental Protection Agency vessel, working alongside researchers; others spent a week learning about Lake Huron. COSEE-Great Lakes and the Great Lakes Observing System helped support the development of the Teaching with Great Lakes Data website and other curriculum development efforts.

CAMPS

Great Lakes Camp

The 4-H Great Lakes and Natural Resources Camp at Chickagami is a weeklong outdoors experience for 13–15 year old students. Camp is in session for one week every August in Presque Isle, Michigan and attracts about 60 students from all corners of the state. Campers get to experience natural resources through fishing, sailing, swimming and beach activities, bird watching and hiking. During those activities, they are guided to become more aware and understanding of natural resources, related careers, 4-H and other pursuits like community service. Sponsors include 4-H, MSU, Michigan Sea Grant, and others.

Life of Lake Superior Youth Program

The Life of Lake Superior is an experiential outdoor education program designed to teach youth and their parents about natural resource opportunities within the local area. This program includes a series of “workshops on the move” that run throughout each July. Workshops focus on the impact of science, economics, history, arts and culture as they relate to Lake Superior. Michigan Sea Grant is one of several partners who help run the camp.

LEARNING ANYTIME

Michigan Sea Grant also provides access to science-based information through a strong web presence, publications and a database of high-resolution Great Lakes photographs. For example, waterfront landowners can visit the Sea Grant website to gain an understanding of their responsibilities as coastal stewards, order publications on how to follow best practices to prevent the spread of invasive species and learn more about bird and fish habitat through the Great Lakes Coastal Habitats section of the website.



Michigan Sea Grant enhances the sustainability of Michigan's coastal communities, residents, and businesses through research, outreach and education.

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