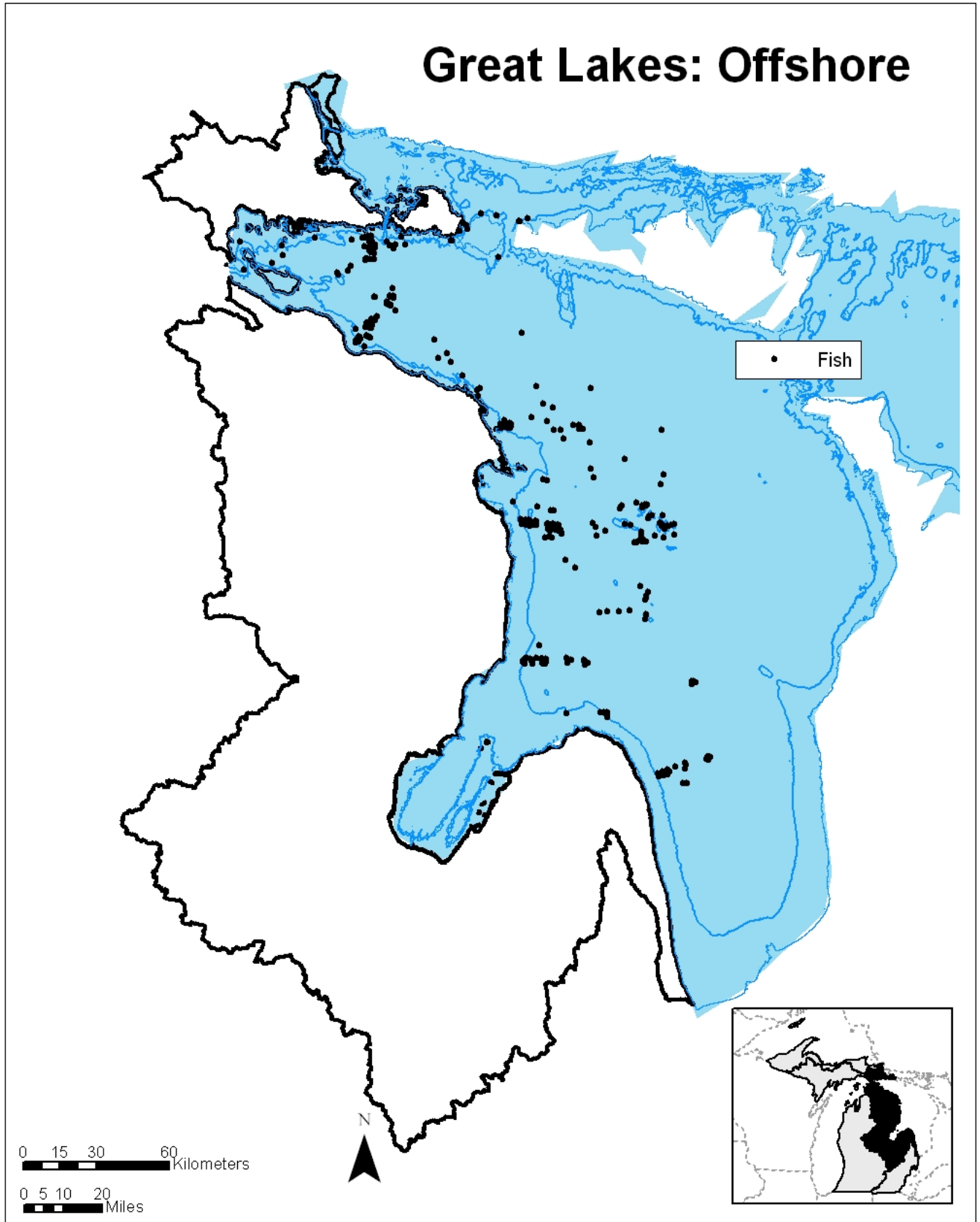


# Great Lakes: Offshore



## **Great Lakes: Offshore**

### Description

Offshore areas of the Great Lakes are 30 meters and greater in depth. For the Lake Huron basin this is considered to be the Michigan waters of Lake Huron and the connecting waterways of the St. Mary's River.

### General Condition of Feature

This habitat is considered 80% in good to excellent condition, 15% in fair condition, and 5% in degraded to very degraded condition.

### Associated Species of Greatest Conservation Need

#### *INSECTS*

a caddisfly (*Limnephilus sp.*)

#### *FISH*

stonecat (*Noturus flavus*)

cisco or lake herring (*Coregonus artedii*)

kiyi (*Coregonus kiyi*)

#### *FISH cont.*

shortjaw cisco (*Coregonus zenithicus*)

slimy sculpin (*Cottus cognatus*)

deepwater sculpin (*Myoxocephalus thompsonii*)

sauger (*Sander canadensis*)

### Associated Threats

#### *POLLUTION*

- Altered sediment loads: Reeds are being covered with sediments and prevent successful spawning; Sedimentation
- Pesticides and herbicides: Contaminants; Pesticides; Herbicides (low threat)
- Urban, municipal, and industrial pollution: Contaminants; Heavy metals; Especially persistent bioaccumulative topics

#### *HABITAT CONVERSION*

- Dredging and channelization: Dredging (low threat)

#### *BIOLOGICAL INTERACTIONS*

- Invasive plants and animals: Round goby; Sea lamprey

#### *CONSUMPTIVE BIOLOGICAL RESOURCE USE*

- Removal of wildlife

### Conservation Actions Needed (Threats addressed)

#### *LAND, WATER & SPECIES MANAGEMENT*

- Continually improve and implement storm water and non-point source best management practices (Urban, municipal, and industrial pollution)
- Continued vigilance and cooperation on preventing more aquatic invasive species establishments (invasive plants and animals)
- Control and prevent introductions of aquatic invasive species (invasive plants and animals)
- Develop integrated pest management plans (invasive plants and animals)
- Encourage maintaining or restoring riparian vegetation buffers (altered sediment loads)

#### *LAW & POLICY*

- Encourage enforcement of permits controlling effluent discharges (Urban, municipal, and industrial pollution)
- Strengthen and enforce water quality laws (Urban, municipal, and industrial pollution)
- Implement ballast control regulations (invasive plants and animals)
- Continue working with planning and zoning regulations and ordinances (altered sediment loads)
- Support development of zoning standards for townships that are not now zoned (altered sediment loads, Urban, municipal, and industrial pollution)

#### *EDUCATION & AWARENESS*

- Increase education to boaters, scuba divers, and others on the spread of invasive species and preventative steps (invasive plants and animals)

### Research and Survey Needs

- Determine effective prevention, control, and survey techniques for aquatic invasive species
- Continue to work with GLFC Lake Huron Technical Advisory Group implementing Lake Huron aquatic community objectives
- Determine ways to expand education efforts to the public on their stewardship role
- Survey social attitudes and determine effective communication methods

### Monitoring

- Aquatic invasive species
- Effluent discharges
- Great Lake tributary water flows