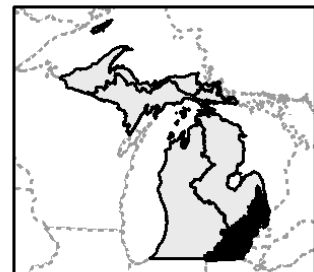


# Aquatic Characteristic: Vegetation

No Data



0 10 20 40 Kilometers

0 5 10 20 Miles



## Aquatic Characteristic: Vegetation

### Description

Vegetation are plants that grow in and around water bodies and provide in-water cover and physical structuring.

### General Condition of Feature

This habitat is considered 25% in good to excellent condition, 25% in fair condition, and 50% in degraded to very degraded condition. Vegetation has been increasing in Lake Erie and St. Clair due to zebra mussel induced water clarity. This feature is not consider as a threatened habitat type.

### Associated Species of Greatest Conservation Need

#### MUSSELS

rayed bean (*Villosa fabalis*)

#### SNAILS

spindle lymnaea (*Acella haldemani*)

brown walker (*Pomatiopsis cincinnatiensis*)

#### CRAYFISH

digger crayfish (*Fallicambarus fodiens*)

#### INSECTS

a sand minnow mayfly (*Siphloplecton basale*)

spatterdock damer (*Aeshna mutata*)

rapids clubtail (*Gomphus quadricolor*)

smoky rubyspot (*Hetaerina titia*)

#### FISH

lake sturgeon (*Acipenser fulvescens*)

mooneye (*Hiodon tergisus*)

brassy minnow (*Hybognathus hankinsoni*)

silver chub (*Macrhybopsis storeriana*)

pugnose shiner (*Notropis anogenus*)

pugnose minnow (*Opsopoeodus emiliae*)

finescale dace (*Phoxinus neogaeus*)

western creek chubsucker (*Erimyzon claviformis*)

lake chubsucker (*Erimyzon sucetta*)

spotted sucker (*Minytrema melanops*)

#### FISH cont.

brown bullhead (*Ameiurus nebulosus*)

tadpole madtom (*Noturus gyrinus*)

brindled madtom (*Noturus miurus*)

grass pickerel (*Esox americanus*)

cisco or lake herring (*Coregonus artedii*)

pirate perch (*Aphredoderus sayanus*)

slimy sculpin (*Cottus cognatus*)

least darter (*Etheostoma microperca*)

#### AMPHIBIANS

blue-spotted salamander (*Ambystoma laterale*)

smallmouth salamander (*Ambystoma texanum*)

eastern tiger salamander (*Ambystoma tigrinum tigrinum*)

four-toed salamander (*Hemidactylium scutatum*)

mudpuppy (*Necturus maculosus maculosus*)

Blanchard's cricket frog (*Acris crepitans blanchardi*)

pickerel frog (*Rana palustris*)

northern leopard frog (*Rana pipiens*)

#### REPTILES

spotted turtle (*Clemmys guttata*)

Blanding's turtle (*Emydoidea blandingii*)

### Associated Threats

#### MODIFICATION OF NATURAL PROCESSES

- Altered hydrologic regimes: Changes in flow due to urbanization
- Climate change
- Fragmentation

#### POLLUTION

- Altered nutrient inflows: Overgrowth resulted from eutrophication
- Altered sediment loads: Increased sedimentation due to runoff
- Urban, municipal, and industrial pollution: Contaminants

#### HABITAT CONVERSION

- Riparian modification: Filling; Shoreline alterations

#### BIOLOGICAL INTERACTIONS

- Invasive plants and animals: Especially exotic plants such as erosion milfoil

#### NON-CONSUMPTIVE BIOLOGICAL RESOURCE USE

- Macrophyte removal: Physical removal; Herbicide and mechanical harvesting; Chemical treatment to reduce macrophytes for recreation

#### EDUCATION

- Social attitudes: Lack of aquatic resource education, society needs to understand the importance of aquatic vegetation (low threat)

### Conservation Actions Needed (Threats addressed)

#### LAND, WATER & SPECIES MANAGEMENT

- Allow seasonal flooding (altered hydrologic regimes)
- When removing aquatic invasive vegetation, at least 60-80% of native vegetation should be preserved (invasive plants and animals, macrophyte removal)

**MICHIGAN'S WILDLIFE ACTION PLAN**  
**AQUATIC SYSTEMS: LAKE ERIE BASIN**

- Control aquatic invasive plant species (invasive plants and animals)
- Maintain and rehabilitate woody structure (altered sediment loads)
- Prevent establishment of new aquatic invasive species (invasive plants and animals)
- Protect wetlands and floodplains (altered hydrologic regimes, riparian modification)
- Rehabilitate and maintain riparian buffers (riparian modification)
- Rehabilitate native flora (invasive plants and animals, macrophyte removal, riparian modification)
- Rehabilitate original hydrologic functions i.e., reconnect meanders and floodplains (altered hydrologic regimes)
- Use natural materials or soft engineering techniques for any shoreline or riparian modification (riparian modification)
- Vegetation management needs to be done in conjunction with a vegetation management plan (invasive plants and animals, macrophyte removal)

*LAW & POLICY*

- Restrict beach grooming (riparian modification)
- Use sediment barriers and Best management practices during construction (altered sediment loads)

*EDUCATION & AWARENESS*

- Educate riparian land owners on the importance of vegetated buffers along water bodies, macrophytes, and woody structure (riparian modification, social attitudes)

Research and Survey Needs

- Determine effective prevention, control, and survey techniques for aquatic invasive species
- Determine life history requirements for SGCN associated with vegetation
- Educate the public on the role and value of vegetation
- Model hydrologic flows
- Work with watershed councils and conservation groups to help stop the spread of aquatic invasive plants

Monitoring

- Aquatic invasive species
- Hydrologic flows
- Native flora
- Riparian modification
- Vegetation manipulation