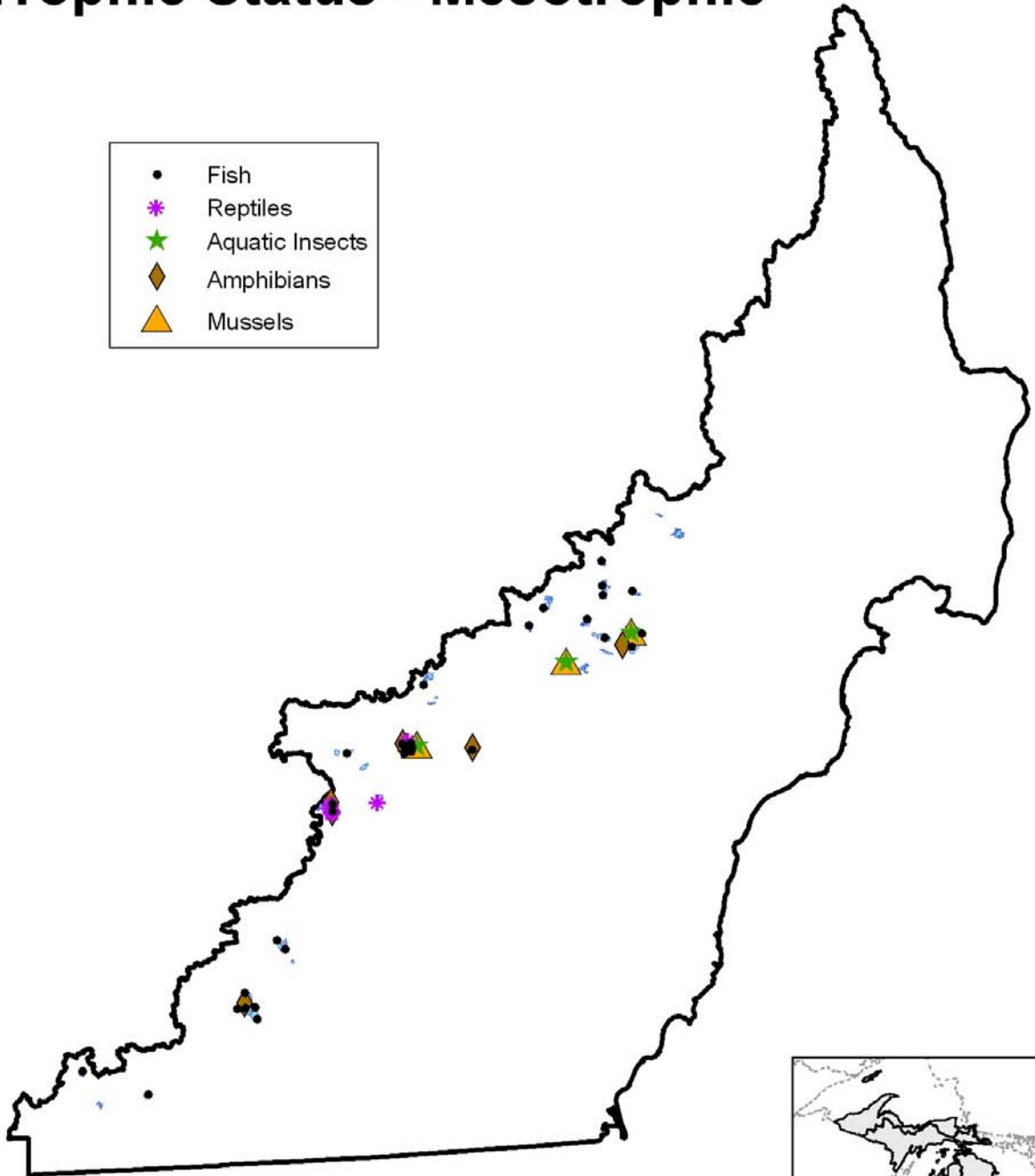


Lake Characteristic: Trophic Status - Mesotrophic

- Fish
- * Reptiles
- ★ Aquatic Insects
- ◆ Amphibians
- ▲ Mussels



Lake Characteristic: Trophic Status – Mesotrophic

Description

Mesotrophic lakes have moderate concentrations of nutrients (total phosphorus = 15-25 µg/L) resulting in generally moderate biomass of algae. They generally have lower water clarity and potentially lower oxygen concentrations in the hypolimnion than oligotrophic lakes. They are not likely to have low winter oxygen concentrations under the ice unless the lakes are particularly shallow.

General Condition of Feature

No data available.

Associated Species of Greatest Conservation Need

MUSSELS

Specific associations with this landscape feature were not found in the literature

INSECTS

Specific associations with this landscape feature were not found in the literature

FISH

lake sturgeon (*Acipenser fulvescens*)
mooneye (*Hiodon tergisus*)

FISH cont.

silver chub (*Macrhybopsis storeriana*)
cisco or lake herring (*Coregonus artedii*)

AMPHIBIANS

Specific associations with this landscape feature were not found in the literature

REPTILES

Specific associations with this landscape feature were not found in the literature

Associated Threats

MODIFICATION OF NATURAL PROCESSES

- Altered hydrologic regimes: Runoff rates increase due to development
- Climate change

POLLUTION

- Altered nutrient inflows: Fertilizer- increased eutrophication rate and influence status; Runoff from impervious surfaces; Surface runoff - extra nutrients
- Urban, municipal, and industrial pollution: Surface runoff - contaminants

HABITAT CONVERSION

- Riparian modification
- Wetland modification

BIOLOGICAL INTERACTIONS

- Invasive plants and animals

EDUCATION

- Social attitudes

Conservation Actions Needed (Threats addressed)

LAND, WATER & SPECIES MANAGEMENT

- Control and prevent the introduction of aquatic invasive species (invasive plants and animals)
- Maintain or establish riparian buffers to at least 50 ft. (altered hydrologic regimes, altered sediment loads, riparian modification)
- Rehabilitate native flora (macrophyte removal, riparian modification)
- Use Best management practices (altered hydrologic regimes, altered sediment loads, riparian modification)

LAW & POLICY

- Restrict beach grooming (macrophyte removal)
- Enact and enforce shoreline protection (riparian modification)
- Strengthen water quality laws and continue enforcing permits controlling effluent discharge (Urban, municipal, and industrial pollution)
- Work with local officials on setback and buffer ordinances (riparian modification)

EDUCATION & AWARENESS

- Educate the public on the use of and reasons for maintaining septic systems (altered nutrient inflows, social attitudes)
- Educate the public on the value of riparian areas (riparian modification, social attitudes)

Research and Survey Needs

- Assess the amount of wetlands under 5 acres that are being converted to other use
- Determine effective prevention, control, and survey techniques for aquatic invasive species
- Assess the affect of aquatic invasive species on native communities
- Determine use of mesotrophic lakes by SGCN

- Determine effective methods of communicating with the public and their stewardship role

Monitoring

- Aquatic invasive species
- Beach grooming
- Effluent discharges: waste water treatment plants, septic systems, industrial
- Nutrients
- Riparian development