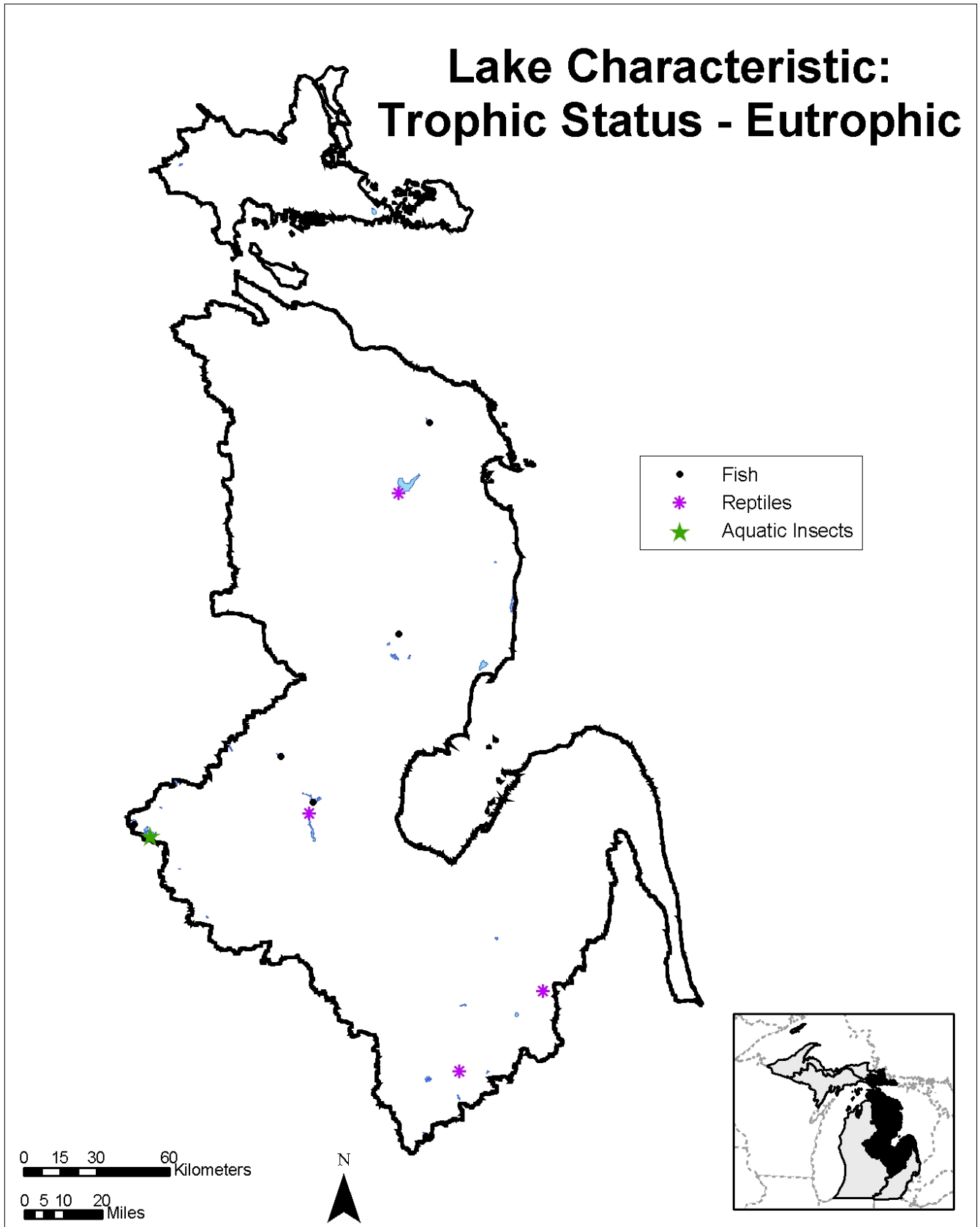


Lake Characteristic: Trophic Status - Eutrophic



Lake Characteristic: Trophic Status – Eutrophic

Description

Eutrophic lakes have high concentrations of nutrients (total phosphorus >25 µg/L) resulting in generally high biomass of algae. They also generally have lower water clarity and potentially low oxygen concentrations in the hypolimnion. They are more likely to have low winter oxygen concentrations under the ice depending on lake depth and basin shape.

General Condition of Feature

This habitat is considered 40% in good to excellent condition, 30% in fair condition, and 30% in degraded to very degraded condition.

Associated Species of Greatest Conservation Need

SNAILS

spindle lymnaea (*Acella haldemani*)

INSECTS

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

FISH

grass pickerel (*Esox americanus*)

REPTILES

Blanding's turtle (*Emydoidea blandingii*)

Associated Threats

POLLUTION

- Altered nutrient inflows: Nutrient pollution; Increased nutrient loading; Especially excessive inputs of fertilizers
- Altered sediment loads: Sedimentation
- Pesticides and herbicides: Runoff from fertilizer (low threat)
- Urban, municipal, and industrial pollution: Mercury bioaccumulation and methylation (low threat)

HABITAT CONVERSION

- Dredging and channelization: Dredging (low threat)
- Riparian modification: (low threat)
- Wetland modification: (low threat)

NON-CONSUMPTIVE BIOLOGICAL RESOURCE USE

- Macrophyte removal: (low threat)

Conservation Actions Needed (Threats addressed)

LAND, WATER & SPECIES MANAGEMENT

- Encourage best management practices (altered nutrient inflows, altered sediment loads, Pesticides and herbicides, riparian modification)
- Encourage implementation of USDA soil conservation practices to reduce erosion (altered sediment loads)
- Encourage maintaining or restoring riparian vegetation buffers (altered nutrient inflows, altered sediment loads, Pesticides and herbicides, riparian modification, Urban, municipal, and industrial pollution)
- Encourage townships to separate combined sewer systems (altered nutrient inflows)
- Rehabilitate or maintain natural hydrology (altered nutrient inflows, altered sediment loads)
- Upgrade septic systems (altered nutrient inflows)

LAW & POLICY

- Continue working with townships to develop and improve planning and zoning regulations and ordinances (altered nutrient inputs, altered sediment loads, riparian modification, wetland modification)
- Enforce the use of sediment barriers and best management practice's during road siting, construction, and maintenance (altered nutrient inputs, altered sediment loads)
- Ensure that existing environmental laws are enforced (sedimentation, endangered species, etc.)

EDUCATION & AWARENESS

- Educate riparian owners about nutrient and sediment inputs and the importance of riparian vegetation buffers (altered nutrient inflows, altered sediment loads, riparian modification)
- Educate the public on the use of and reasons for maintaining septic systems (altered nutrient inputs)

ECONOMIC & OTHER INCENTIVES

- Encourage organic farming practices (altered nutrient inflows, altered sediment loads, Pesticides and herbicides)

Research and Survey Needs

- Track amount of wetlands under 5 acres that are being converted to other use
- Determine effective prevention, control, and survey techniques for aquatic invasive species
- Determine effective methods of communicating with the public and their stewardship role
- Inventory erosion sites and conduct remediation activities

- Determine use by aquatic insect SGCN of eutrophic lakes
- Create quick and effective ways to develop lake management plans
- Survey nutrient loading and develop strategies to reduce identified problems

Monitoring

- Beach grooming
- Land use
- Nutrient inflows
- Sediment loading
- Shoreline modification
- Wetland modification