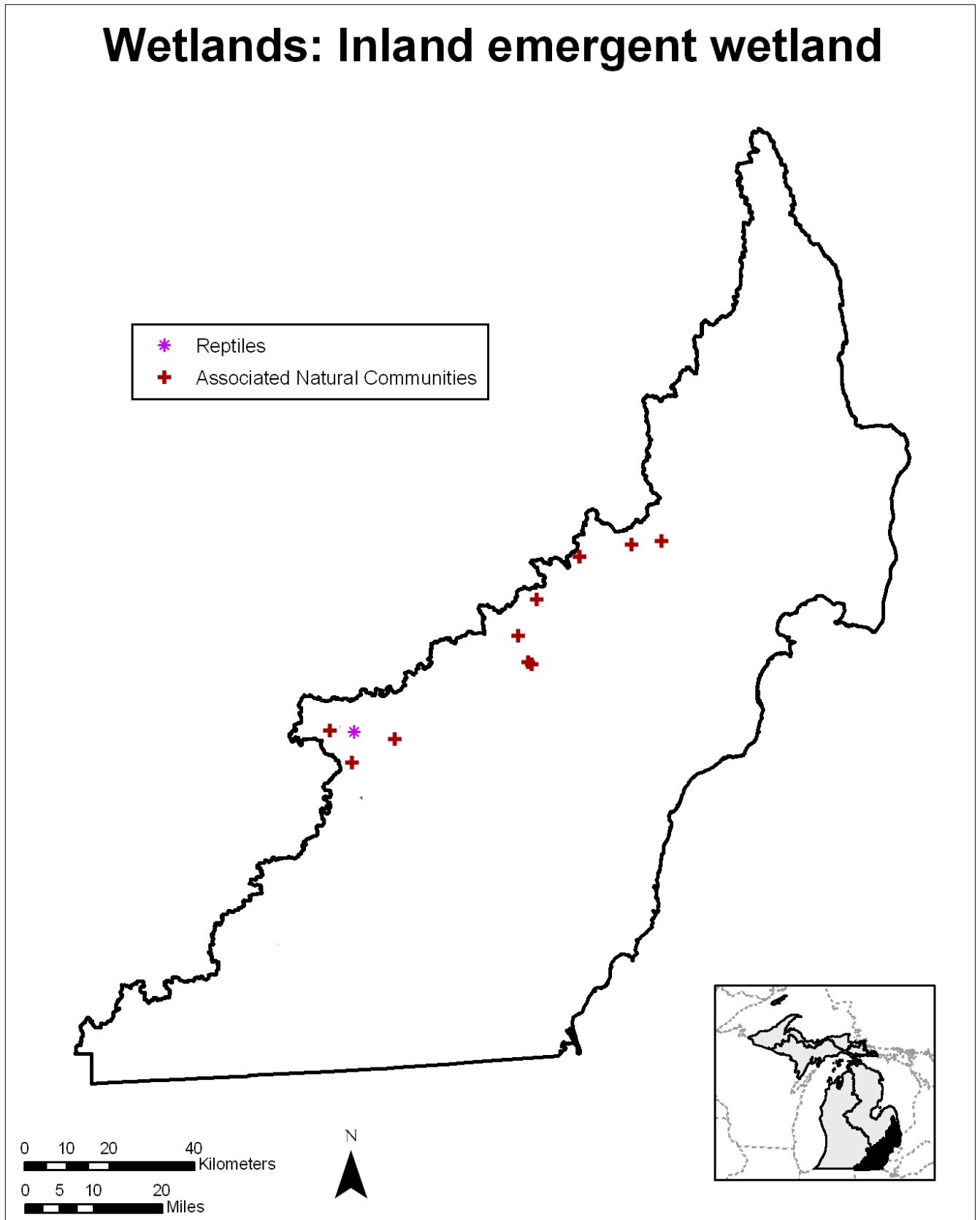


Wetlands: Inland emergent wetland



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Description

Inland emergent wetlands, also called marshes, are frequently or continually inundated with water and are characterized by emergent herbaceous vegetation adapted to saturated soil conditions. These wetlands tend to have abundant nutrients and are highly organic. Inland emergent wetlands are quite varied and can be found in poorly drained depressions and along lakes, ponds, and rivers.

General Condition of Feature

This habitat is considered 20% in good to excellent condition, 20% in fair condition, and 60% in degraded to very degraded condition.

Associated Natural Communities

Coastal Plain Marsh
Emergent Marsh

Intermittent Wetland
Southern Wet Meadow

Associated Species of Greatest Conservation Need

CRAYFISH

- devil crawfish (*Cambarus diogenes*)
- digger crayfish (*Fallicambarus fodiens*)

INSECTS

- Cantrall's bog beetle (*Liodessus cantralli*)

FISH

- grass pickerel (*Esox americanus*)
- pirate perch (*Aphredoderus sayanus*)

AMPHIBIANS

- Fowler's toad (*Bufo fowleri*)
- western chorus frog (*Pseudacris triseriata triseriata*)
- pickerel frog (*Rana palustris*)
- northern leopard frog (*Rana pipiens*)

REPTILES

- spotted turtle (*Clemmys guttata*)
- Blanding's turtle (*Emydoidea blandingii*)
- eastern box turtle (*Terrapene carolina carolina*)

Associated Threats

MODIFICATION OF NATURAL PROCESSES

- Altered hydrologic regimes: Altered drainage patterns due to development; Lake level control
- Climate change
- Fragmentation

POLLUTION

- Altered sediment loads: Sediment impacting vegetation
- Urban, municipal, and industrial pollution: Surface runoff, contamination; Chemicals impacting vegetation

HABITAT CONVERSION

- Dredging and channelization: Dredging
- Riparian modification: Shoreline alteration
- Wetland modification: Filling; Dredging; Development pressure to fill wetlands for economical purposes

BIOLOGICAL INTERACTIONS

- Invasive plants and animals: Purple loosestrife; Phragmites replacing mature plants

NON-CONSUMPTIVE BIOLOGICAL RESOURCE USE

- Macrophyte removal

EDUCATION

- Social attitudes: Lack of public education on the importance of these habitats, especially by riparian owners

Conservation Action Needs (Threats addressed)

LAND & WATER PROTECTION

- Create and expand conservation easements (variety of threats)
- Support land conservancy purchase of undeveloped land (variety of threats)

LAND, WATER & SPECIES MANAGEMENT

- Allow seasonal flooding (altered hydrologic regimes)
- Control aquatic invasive species (invasive plants and animals)
- Maintain or establish buffer zones of at least 50 ft., but 500 ft. or wider maximizes conservation benefits (riparian modification, wetland modification)
- Maintain natural water levels and fluctuations (altered hydrologic regimes)
- Maintain or rehabilitate both woody structure and native macrophytes (invasive plants and animals, macrophyte removal)
- Maintain or rehabilitate natural corridors between other significant wetlands and significant upland areas (fragmentation, species issue)

- Prevent establishment of new aquatic invasive species (invasive plants and animals)
- Protect and rehabilitate wetlands (altered hydrologic regimes, wetland modification)
- When removing exotic vegetation, at least 60-80% of native species should be preserved (invasive plants and animals, macrophyte removal)
- Rehabilitate and maintain wetland functions (wetland modification)
- Rehabilitate original hydrologic functions (altered hydrologic regimes)
- Use integrated pest management practices (invasive plants and animals)
- Use natural materials or soft engineering techniques for any shoreline modification (riparian modification, wetland modification)

LAW & POLICY

- Avoid use of herbicides in inland emergent wetlands (macrophyte removal)
- Enact shoreline protection regulations (riparian modification, wetland modification)
- Manage lake-level control structures as fixed-crest weirs (altered hydrologic regimes)
- Protect existing hydrologic conditions by prohibiting construction of new lake-level control structures (altered hydrologic regimes)
- Remove lake-level control structures where possible (altered hydrologic regimes)
- Restrict beach grooming (macrophyte removal, riparian modification)
- Strengthen wetland regulations and enforcement (wetland modification)
- Work with and educate Drain Commissioners (variety of threats)
- Work with local officials on setback and buffer ordinances (variety of threats)
- Work with regulatory agencies to restrict dredging and channelization (dredging and channelization)
- Work with road commissions to site and maintain road crossings (altered hydrologic regimes, altered sediment loads)

EDUCATION & AWARENESS

- Educate legislators, local planning boards, and other policy makers on the importance of natural processes (social attitudes)
- Educate private landowners on the value of riparian areas (riparian modification, social attitudes)
- Educate riparian and shoreline owners of the importance of woody structure and macrophytes for a healthy ecosystem (riparian modification, social attitudes)
- Expand education programs for the public on natural processes, invasive species, hydrologic cycles, and stewardship (social attitudes)

Research and Survey Needs

- Conduct statewide wetlands inventory
- Determine effective prevention, control, and survey techniques for aquatic invasive species
- Determine all species and life stages that require inland emergent wetlands
- Determine number and condition of inland emergent wetlands in the Erie basin
- Develop new socially-acceptable ways of managing lake levels
- Document effects on beach grooming
- Explore natural alternatives to pesticides and herbicides
- Explore safe and cost effective methods to remove exotic vegetation without harming native species

Monitoring

- Aquatic invasive species
- Beach grooming
- Dredging and channelization
- Hydrologic regimes
- Indicator species
- Operation of lake-level control structures
- Riparian modification
- Wetland modification