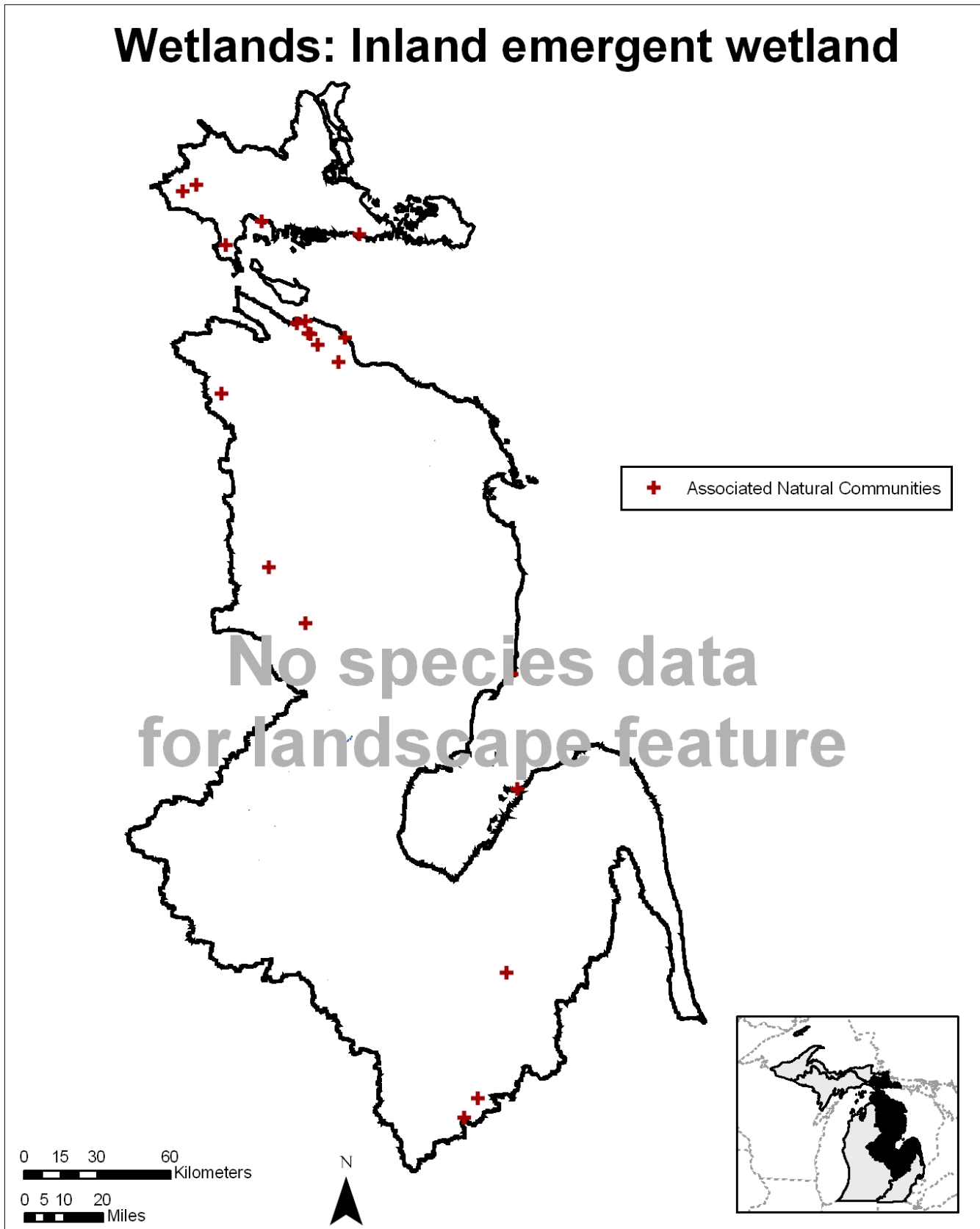


Wetlands: Inland emergent wetland



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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 35% in good to excellent condition, 15% in fair condition, and 50% in degraded to very degraded condition.

Associated Natural Communities

Emergent Marsh	Northern Wet Meadow
Interdunal Wetland	Southern Wet Meadow
Intermittent Wetland	

Associated Species of Greatest Conservation Need

CRAYFISH

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

INSECTS

- sedge darner (*Aeshna juncea*)
- muskeg darner (*Aeshna subarctica*)

FISH

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

AMPHIBIANS

- western chorus frog (*Pseudacris triseriata triseriata*)
- pickerel frog (*Rana palustris*)
- northern leopard frog (*Rana pipiens*)

REPTILES

- eastern fox snake (*Elaphe gloydi*)
- spotted turtle (*Clemmys guttata*)
- Blanding's turtle (*Emydoidea blandingii*)
- wood turtle (*Glyptemys insculpta*)
- eastern box turtle (*Terrapene carolina carolina*)

Associated Threats

MODIFICATION OF NATURAL PROCESSES

- Altered hydrologic regimes: Water withdrawal

HABITAT CONVERSION

- Riparian modification: Conversion; Land use practices; Landscape development
- Wetland modification: Dredging; Filling; Land use practices; Landscape development

Conservation Action Needs (Threats addressed)

LAND, WATER & SPECIES MANAGEMENT

- Allow seasonal flooding (altered hydrologic regimes)
- Control and prevent invasive vegetation from establishing (wetland modification)
- Maintain or rehabilitate vegetated riparian buffers of at least 50 ft, however 500ft maximizes conservation benefits (altered hydrologic regimes, pollution, riparian modification)
- Maintain or rehabilitate natural corridors between emergent wetlands, other wetlands, and upland habitats (wetland modification)
- Manage lake-level controls to allow for seasonal flooding (altered hydrologic regimes)
- Protect existing hydrologic conditions of lakes and remaining natural lakes by prohibiting construction of new lake-level control structures (altered hydrologic regimes)
- Protect the natural seasonal flow patterns of rivers by incorporating best management practices (altered hydrologic regimes)
- Redraft the Michigan Drain code (altered hydrologic regimes, riparian modification, wetland modification)
- Remove dams to rehabilitate natural hydrology (altered hydrologic regimes)

LAW & POLICY

- Continue developing and refining planning and zoning regulations and ordinances (altered hydrologic regimes, pollution, riparian modification, wetland modification)
- Enact and enforce shoreline protection regulations (riparian modification, wetland modification)
- Limit water withdrawals in flow limited or groundwater fed watersheds (altered hydrologic regimes)
- Protect remaining natural wetlands and rehabilitate degraded wetlands (altered hydrologic regimes, wetland modification)
- Provide incentives for the use and production of native flora (wetland modification)
- Strengthen wetland regulations and mitigation requirements, avoiding creation of wetlands (wetland modification)

MICHIGAN'S WILDLIFE ACTION PLAN
AQUATIC SYSTEMS: LAKE HURON BASIN

EDUCATION & AWARENESS

- Continue working with and educating Drain Commissioners (altered hydrologic regimes, riparian modification, wetland modification)
- Educate legislators, policy makers, and the public on the benefits and ecological services of wetlands (wetland modification)

Research and Survey Needs

- Determine effective prevention, control, and survey techniques for aquatic invasive species
- Conduct inventories of wetlands and their condition
- Determine all species and life stages that require this habitat
- Determine the effects of fire on species composition and seed bank
- Develop new socially-acceptable ways of managing lake levels
- Document the effects of beach grooming
- Determine indicators of quality
- Explore natural alternatives to pesticides and herbicides
- Determine effective restoration techniques
- Explore safe and cost effective methods to remove exotic vegetation without harming native species
- Explore use of fire as a management tool and frequency and seasonal timing most effective

Monitoring

- Beach grooming
- Dredging and channelization
- Indicator species
- Riparian modification
- Hydrologic flow regimes
- Land use changes
- Operation of lake-level control structures