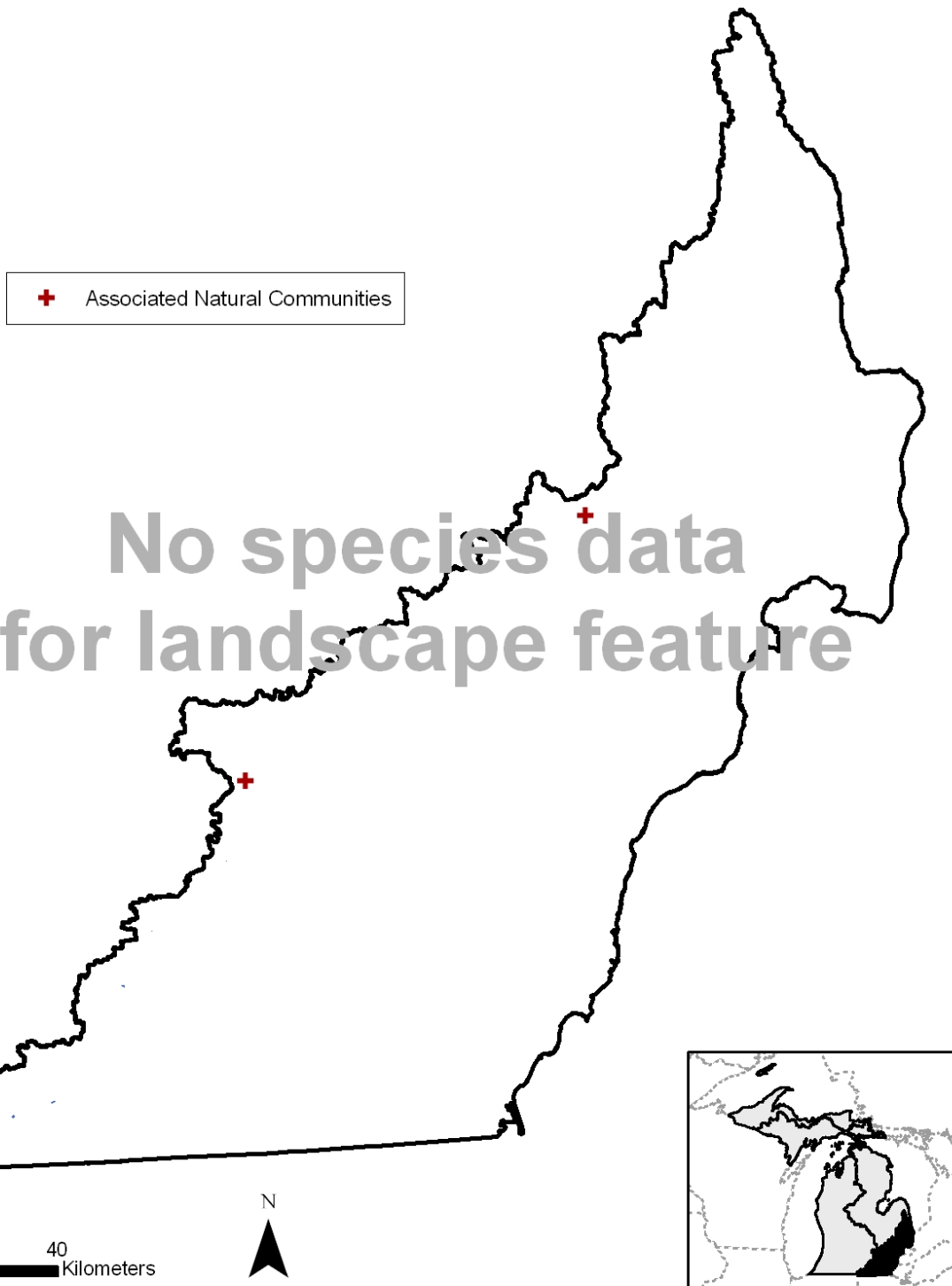


# Wetlands: Ephemeral wetland



0 10 20 40 Kilometers

0 5 10 20 Miles



## Wetlands: Ephemeral wetland

### Description

Ephemeral wetlands are semi-permanent, seasonally flooded areas. These areas may be small and only a couple of feet in diameter (e.g., vernal pools) or very large. Ephemeral wetlands can have standing water for a few weeks in the spring or short periods after heavy rains during the rest of the year. When not flooded, soils in ephemeral wetlands may feel dry but typically show evidence of hydric conditions. In addition to seasonal fluctuations, water level can vary dramatically from year to year in ephemeral wetlands such as coastal plain marsh, interdunal wetland, and intermittent wetland.

### General Condition of Feature

This habitat is considered 15% in good to excellent condition, 30% in fair condition, and 55% in degraded to very degraded condition.

### Associated Natural Communities

Coastal Plain Marsh  
Intermittent Wetland

### Associated Species of Greatest Conservation Need

#### CRAYFISH

digger crayfish (*Fallicambarus fodiens*)

#### FISH

tadpole madtom (*Noturus gyrinus*)

#### AMPHIBIANS

blue-spotted salamander (*Ambystoma laterale*)

spotted salamander (*Ambystoma maculatum*)

smallmouth salamander (*Ambystoma texanum*)

eastern tiger salamander (*Ambystoma tigrinum tigrinum*)

#### AMPHIBIANS cont.

four-toed salamander (*Hemidactylium scutatum*)

western chorus frog (*Pseudacris triseriata triseriata*)

#### REPTILES

eastern fox snake (*Elaphe gloydi*)

copperbelly water snake (*Nerodia erythrogaster neglecta*)

queen snake (*Regina septemvittata*)

spotted turtle (*Clemmys guttata*)

### Associated Threats

#### MODIFICATION OF NATURAL PROCESSES

- Altered hydrologic regimes: Drainage pattern changes due to development
- Climate change
- Fragmentation: Habitat fragmentation; Isolation of breeding areas from living areas

#### POLLUTION

- Altered sediment loads
- Pesticides and Herbicides
- Urban, municipal, and industrial pollution

#### HABITAT CONVERSION

- Dredging and channelization: (low threat)
- Riparian modification: Development; Development and filling of small low areas; Ephemeral wetlands are highly endangered because of their ease of conversion to urban type space; Habitat manipulation for farming: Tiling
- Wetland modification: Filling; Development and filling of small low areas; Loss of wetlands; Ditching; Draining

#### BIOLOGICAL INTERACTIONS

- Invasive plants and animals

#### EDUCATION

- Social attitudes: Need public education so that society will see the value of these habitats; Lack of understanding of the importance of this habitat by riparian owners

### Conservation Actions Needed (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)
- Close roads or install tunnels to allow amphibians and reptiles safe passage to breeding grounds (fragmentation, species issue)
- Control aquatic invasive species (invasive animals and plants)
- Maintain and rehabilitate buffers around wetlands (riparian modification, wetland modification)

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

- Maintain or rehabilitate natural corridors between ephemeral wetlands and other significant habitats, both upland and wetlands (fragmentation, species issue)
- Maintain or establish riparian buffers to at least 50 ft. (altered hydrologic regimes, altered sediment loads, riparian modification)
- Prevent establishment of new aquatic invasive species (invasive animals and plants)
- Protect and rehabilitate groundwater recharge (altered hydrologic regimes)
- Protect and rehabilitate the natural hydrologic regime (altered hydrologic regimes)
- When removing exotic vegetation at least 60-80% of native species should be preserved (invasive animals and plants)
- Rehabilitate and maintain wetland functions (wetland modification)
- Use integrated pest management practices (invasive –animals and plants)

**LAW & POLICY**

- Discourage water withdrawals (altered hydrologic regimes)
- Discourage draining practices (altered hydrologic regimes)
- Remove unnecessary or abandoned field tiles (altered hydrologic regimes, wetland modification)
- Continue working with and educating Drain Commissioners (altered hydrologic regimes, altered sediment loads, dredging and channelization, riparian modification, wetland modification)
- Encourage green-space planning and clustered development (riparian modification)
- Work with local officials on setback and buffer ordinances (riparian modification)
- Work with road commissions to site and maintain road crossings (altered hydrologic regimes, altered sediment loads)

**EDUCATION & AWARENESS**

- Expand education programs regarding natural processes, invasive species, hydrologic cycles, and stewardship (social attitudes)
- Increase awareness of affects of disturbance on the spread of aquatic invasive species (invasive plants and animals, social attitudes)
- Educate landowners on the value of wetlands (social attitudes)
- Continue to educate the public regarding the benefit of wetlands (social attitudes)

**Research and Survey Needs**

- Conduct statewide wetlands inventory
- Determine effective prevention, control, and survey techniques for aquatic invasive species
- Determine critical pathways between habitats for amphibians and reptiles to prevent vehicular fatalities and fragmentation of habitats
- Determine life history requirements for SGCN associated with ephemeral wetlands
- Establish effective methods of communicating with the public and their stewardship role
- Investigate ephemeral wetlands and their role in a watershed
- Model hydrologic flows
- Explore safe and cost effective methods to remove exotic vegetation without harming native species

**Monitoring**

- Aquatic invasive species
- Draining and channelization
- Fragmentation
- Indicator species
- Riparian modification
- Water withdrawals