

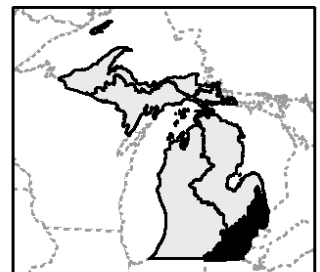
Wetlands: Fen

+ Associated Natural Communities

No species data
for landscape feature

0 10 20 40
Kilometers

0 5 10 20
Miles



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

Wetlands: Fen

Description

Fens are peat-accumulating wetlands that receive much of their water and nutrients from groundwater rich in calcium and magnesium carbonates. Fens tend to have relatively high pH and nutrient levels, hence supporting a great diversity of grasses, sedges (*Carex sp.*), rushes (*Juncus sp.*), and wildflowers. Open conditions are maintained by seasonal water fluctuations, fire, and beaver-flooding.

General Condition of Feature

Condition is unknown for this feature; however fens are very threatened systems in the Lake Erie basin.

Associated Natural Communities

Prairie Fen

Associated Species of Greatest Conservation Need

INSECTS

- spatterdock damner (*Aeshna mutata*)
- Cantrall's bog beetle (*Liodessus cantralli*)

AMPHIBIANS

- pickerel frog (*Rana palustris*)

REPTILES

- copperbelly water snake (*Nerodia erythrogaster neglecta*)
- spotted turtle (*Clemmys guttata*)

Associated Threats

MODIFICATION OF NATURAL PROCESSES

- Altered hydrologic regimes: Changes to flow regime (phreatic flows); Groundwater level changes

POLLUTION

- Altered nutrient inflows

HABITAT CONVERSION

- Dredging and channelization
- Riparian modification
- Wetland modification

BIOLOGICAL INTERACTIONS

- Invasive plants and animals:

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

- Maintain or establish riparian buffers of at least 50 ft., but 500 ft. or wider maximizes conservation benefits (altered hydrologic regimes, riparian modifications)
- Maintain and rehabilitate natural corridors between significant habitats such as fens, wetlands, and floodplains (fragmentation, species issues)
- Protect and rehabilitate groundwater recharge by capturing development related runoff in infiltration basins (altered hydrologic regimes)
- Protect and rehabilitate wetlands (altered hydrologic regimes, wetland modification)

LAW & POLICY

- Continue working and educating Drain Commissioners (altered hydrologic regimes, dredging and channelization, riparian modification, wetland modification)
- Discourage water withdrawals and water diversions (altered hydrologic regimes)

Research and Survey Needs

- Conduct statewide wetlands inventory
- Determine effective restoration techniques
- Determine life histories of those SGCN that use fen
- Determine the locations and conditions of fens in the basin and update information in the National Wetlands Database to reflect this
- Determine the amount of abandoned tiled farmland and ways to return it to the original condition
- Determine the amount of impervious in the watershed
- Determine the number and condition of fens in all watersheds
- Investigate alternatives to water withdrawals and diversions

- Model hydrologic flow of the entire watershed

Monitoring

- Amount of impervious surface in watershed
- Draining and channelization activities
- Storm water
- Water withdrawals
- Wetland modification