



Inland wetlands/water: Inland emergent wetland

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

Many of the inland emergent wetlands in the Southern Lower Peninsula are considered degraded or very degraded (~55%). Most of the remaining areas are considered to be in fair or good condition. Several of these natural communities are classified as rare, uncommon, imperiled, or critically imperiled in the State.

Associated Natural Communities

Coastal Plain Marsh
 Emergent Marsh
 Inland Salt Marsh

Interdunal Wetland
 Intermittent Wetland
 Southern Wet Meadow

Associated Species of Greatest Conservation Need

SNAILS

six-whorl vertigo (*Vertigo morsei*)

CRAYFISH

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

INSECTS

spatterdock damer (*Aeshna mutata*)
 zigzag damer (*Aeshna sitchensis*)
 barrens locust (*Orphulella pelidna*)
 Hoosier locust (*Paroxya hoosieri*)
 bog conehead (*Neoconocephalus lyristes*)
 conehead grasshopper (*Neoconocephalus retusus*)
 red-faced meadow katydid (*Orchelimum concinnum*)
 delicate meadow katydid (*Orchelimum delicatum*)
 melodious ground cricket (*Eunemobius melodius*)
 Dukes' skipper (*Euphyes dukesi*)
 regal fritillary (*Speyeria idalia*)
 Newman's brocade (*Meropleon ambifusca*)
 blazing star borer (*Papaipema beeriana*)
 golden borer (*Papaipema cerina*)
 maritime sunflower borer (*Papaipema maritima*)
 spartina borer moth (*Spartiniphaga inops*)

AMPHIBIANS

blue-spotted salamander (*Ambystoma laterale*)
 eastern tiger salamander (*Ambystoma tigrinum tigrinum*)
 Fowler's toad (*Bufo fowleri*)
 Blanchard's cricket frog (*Acris crepitans blanchardi*)
 western chorus frog (*Pseudacris triseriata triseriata*)
 pickerel frog (*Rana palustris*)
 northern leopard frog (*Rana pipiens*)

REPTILES

Kirtland's snake (*Clonophis kirtlandii*)
 blue racer (*Coluber constrictor foxii*)
 eastern fox snake (*Elaphe gloydi*)
 black rat snake (*Elaphe obsoleta obsoleta*)
 eastern hognose snake (*Heterodon platirhinos*)
 smooth green snake (*Liochlorophis vernalis*)

REPTILES cont.

eastern massasauga (*Sistrurus catenatus catenatus*)
 spotted turtle (*Clemmys guttata*)
 Blanding's turtle (*Emydoidea blandingii*)
 wood turtle (*Glyptemys insculpta*)
 eastern box turtle (*Terrapene carolina carolina*)

BIRDS

Trumpeter Swan (*Cygnus buccinator*)
 American Black Duck (*Anas rubripes*)
 Blue-winged Teal (*Anas discors*)
 Pied-billed Grebe (*Podilymbus podiceps*)
 American Bittern (*Botaurus lentiginosus*)
 Black-crowned Night-heron (*Nycticorax nycticorax*)
 Northern Harrier (*Circus cyaneus*)
 Red-shouldered Hawk (*Buteo lineatus*)
 King Rail (*Rallus elegans*)
 Virginia Rail (*Rallus limicola*)
 Sora (*Porzana carolina*)
 Common Moorhen (*Gallinula chloropus*)
 American Coot (*Fulica americana*)
 Spotted Sandpiper (*Actitis macularia*)
 Wilson's Snipe (*Gallinago delicata*)
 Wilson's Phalarope (*Phalaropus tricolor*)
 Forster's Tern (*Sterna forsteri*)
 Black Tern (*Chlidonias niger*)
 Barn Owl (*Tyto alba*)
 Short-eared Owl (*Asio flammeus*)
 Northern Flicker (*Colaptes auratus*)
 Olive-sided Flycatcher (*Contopus cooperi*)
 Northern Shrike (*Lanius excubitor*)
 Purple Martin (*Progne subis*)
 Sedge Wren (*Cistothorus platensis*)
 Marsh Wren (*Cistothorus palustris*)
 Louisiana Waterthrush (*Seiurus motacilla*)
 Bobolink (*Dolichonyx oryzivorus*)
 Eastern Meadowlark (*Sturnella magna*)

MAMMALS

least shrew (*Cryptotis parva*)
 Indiana bat or Indiana myotis (*Myotis sodalis*)

MICHIGAN'S WILDLIFE ACTION PLAN
TERRESTRIAL SYSTEMS: SOUTHERN LOWER PENINSULA

Associated Threats

MODIFICATIONS OF NATURAL PROCESSES

- Grazing and mowing patterns: Depending on characteristics of the grazing regime, this activity may degrade wetlands or help to keep them open. Hay harvesting may impact emergent wetlands.
- Altered fire regime: Fire may be necessary to maintain some emergent wetlands.
- Altered hydrologic regimes: Alterations to drainage patterns may impact emergent wetlands.
- Fragmentation

HABITAT CONVERSION

- Industrial, residential, and recreational development
- Wetland modifications

BIOLOGICAL INTERACTIONS

- Invasive plants and animals

Conservation Actions Needed [Threats addressed]

LAND & WATER PROTECTION

- Expand conservation easement programs [variety of threats]
- Support and expand conservation purchase of high quality occurrences [variety of threats]

LAND, WATER & SPECIES MANAGEMENT

- Manage to approximate natural disturbance regimes using prescribed fire, restoration of natural water flow patterns, and managed grazing and mowing. [Grazing and mowing patterns; Altered fire regime, Altered hydrologic regimes]
- Institute invasive species monitoring, prevention and control programs. [Invasive plants and animals]
- Provide contiguous dry and mesic grassland areas of at least 250 acres. [Habitat Conversion—multiple]
- Support Landowner Incentive Programs to foster conservation on private land [variety of threats]
- Maintain or establish riparian buffers of at least 50 ft., but 500 ft. or wider maximizes conservation benefits [wetland modifications]
- Maintain and rehabilitate natural corridors between wetlands and to representative upland habitats [fragmentation]

LAW & POLICY

- Develop new legislation and ordinances, where necessary, to regulate or limit draining or development of emergent wetlands. Enforce existing regulations concerning draining and development of wetlands. [Fragmentation; Industrial, residential, and recreational development; Wetland modifications]

Research and Survey Needs

- Determine the role that grazing plays in wildlife habitat quality in emergent wetlands. [Grazing and mowing patterns]
- Conduct a statewide wetlands inventory.
- Evaluate the impacts of modifications of natural hydrologic regimes and local water chemistry.
- A common and consistent classification system to define wetlands is needed.
- Determine the effects of microtopography on wetland function and its impact on wetland restoration.
- Evaluate the role of managed wetlands in contributing to landscape diversity. How do flooded cornfields impact diversity? Is there a difference in the value to wildlife between intensive wetland management and passive wetland management?
- Assess the influence of wetland creation by beavers. Do these impacts vary regionally?
- Quantify differences in the value to wildlife of restored wetlands and natural wetlands.
- Document the historic and current range of variation between emergent wetlands. This includes variables such as species composition and size.
- Identify invasive species that may degrade the value of emergent wetlands for wildlife. Develop techniques to control invasive species. Common invasive species include phragmites (*Phragmites australis*), purple loosestrife (*Lythrum salicaria*) and reed canary grass (*Phalaris arundinacea*).

Monitoring

- Track emergent wetland acreage and distribution across the landscape.
- Identify and track floristic composition and diversity.
- Track water level and flow fluctuations and its impacts on vegetation and wildlife.