



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

Most of the inland emergent wetland area in the Eastern Upper Peninsula is considered to be in fair to good condition (~70%). Most of the remaining areas are considered degraded (25%). Inland emergent wetland natural communities include those that are considered rare, uncommon, or imperiled in the State.

Associated Natural Communities

Emergent Marsh
Intermittent Wetland [Boggy Seepage Wetland]
Northern Wet Meadow

Associated Species of Greatest Conservation Need

SNAILS

delicate vertigo (*Vertigo bollesiana*)
six-whorl vertigo (*Vertigo morsei*)

CRAYFISH

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

INSECTS

zigzag damer (*Aeshna sitchensis*)
Hine's emerald dragonfly (*Somatochlora hineana*)
incurvate emerald dragonfly (*Somatochlora incurvata*)

AMPHIBIANS

blue-spotted salamander (*Ambystoma laterale*)
eastern tiger salamander (*Ambystoma tigrinum tigrinum*)
boreal chorus frog (*Pseudacris triseriata maculata*)
western chorus frog (*Pseudacris triseriata triseriata*)
pickerel frog (*Rana palustris*)
northern leopard frog (*Rana pipiens*)

REPTILES

smooth green snake (*Liochlorophis vernalis*)
eastern massasauga (*Sistrurus catenatus catenatus*)
Blanding's turtle (*Emydoidea blandingii*)
wood turtle (*Glyptemys insculpta*)

BIRDS

Trumpeter Swan (*Cygnus buccinator*)

BIRDS cont.

American Black Duck (*Anas rubripes*)
Blue-winged Teal (*Anas discors*)
Sharp-tailed Grouse (*Tympanuchus phasianellus*)
Pied-billed Grebe (*Podilymbus podiceps*)
American Bittern (*Botaurus lentiginosus*)
Black-crowned Night-heron (*Nycticorax nycticorax*)
Northern Harrier (*Circus cyaneus*)
Red-shouldered Hawk (*Buteo lineatus*)
Yellow Rail (*Coturnicops noveboracensis*)
King Rail (*Rallus elegans*)
Virginia Rail (*Rallus limicola*)
Sora (*Porzana carolina*)
American Coot (*Fulica americana*)
Spotted Sandpiper (*Actitis macularia*)
Wilson's Snipe (*Gallinago delicata*)
Forster's Tern (*Sterna forsteri*)
Black Tern (*Chlidonias niger*)
Short-eared Owl (*Asio flammeus*)
Olive-sided Flycatcher (*Contopus cooperi*)
Purple Martin (*Progne subis*)
Sedge Wren (*Cistothorus platensis*)
Marsh Wren (*Cistothorus palustris*)
Le Conte's Sparrow (*Ammodramus leconteii*)
Bobolink (*Dolichonyx oryzivorus*)
Eastern Meadowlark (*Sturnella magna*)
Yellow-headed Blackbird (*Xanthocephalus xanthocephalus*)

MAMMALS

water shrew (*Sorex palustris*)
moose (*Alces alces*)

Associated Threats

MODIFICATION OF NATURAL PROCESSES

- Altered hydrologic regimes

HABITAT CONVERSION

- Industrial, residential, and recreational development: Development to the water's edge may exacerbate other problems (e.g., increased pollution, increased vulnerability to invasive species, etc.) and eliminate emergent wetlands.
- Conversion to agriculture

POLLUTION

- Urban, municipal, and industrial
- Pesticides and herbicides

CONSUMPTIVE BIOLOGICAL RESOURCE USE

- Forestry practices: Poor forestry practices on adjacent areas may impact emergent wetlands.
- Removal of non-timber flora: Beach grooming and shoreline maintenance may affect community composition.

NON-CONSUMPTIVE BIOLOGICAL RESOURCE USE

- Non-consumptive recreation: The use of personal watercraft may impact emergent wetlands.

BIOLOGICAL INTERACTIONS

- Invasive plants and animals: Species like purple loosestrife (*Lythrum salicaria*) may affect community composition.

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

- Institute invasive species monitoring, prevention and control programs. [Invasive plants and animals]
- 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]

LAW & POLICY

- Work with municipalities to promote planning and zoning insuring adequate protection for emergent wetlands and adjacent shorelines and uplands. [Industrial, residential, and recreational development]
- Develop new and enforce existing regulations restricting contaminant discharge into emergent wetlands. [Urban, municipal, and industrial pollution]
- Develop and enforce regulations to curtail recreational activities that cause significant damage. [Non-consumptive recreation]
- Develop and implement forestry best management practices which address the value of emergent wetlands and adjacent uplands to wildlife. [Forestry practices]

EDUCATION & AWARENESS

- Create awareness in the general public of the value of emergent wetlands and naturally vegetated shorelines to wildlife. [Removal of non-timber flora]
- Promote lawn maintenance practices which minimize the use of chemical fertilizers and herbicides. [Pesticides and herbicides]

RECREATION

- Promote responsible watercraft use. [Non-consumptive recreation]

LAND AND WATER PROTECTION

- Promote protection of significant emergent wetland patches through purchase, easement or other economic incentives. [Industrial, residential and recreational development]

Research and Survey Needs

- Conduct a statewide wetlands inventory.
- Evaluate the impacts of modifications of natural hydrologic regimes and local water chemistry.
- A common 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 between 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.
- Track invasive species