



Inland wetlands/water: Ephemeral wetland

Description

Ephemeral wetlands are semi-permanent, seasonally flooded areas. These areas may be small and only a couple of feet in diameter 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 intermittent wetlands. Vernal pools, or upland ephemeral depressional wetlands isolated from permanent water bodies, are common within northern mesic forest.

General Condition of Feature

Most of the ephemeral wetland areas in the Western Upper Peninsula are considered to be in fair or good condition (~80%). Much of the remaining area is considered degraded (~15%). Ephemeral wetlands include natural communities that are considered rare, uncommon, or imperiled in the State.

Associated Natural Communities

Intermittent Wetland [Boggy Seepage Wetland]

Associated Species of Greatest Conservation Need

CRAYFISH

digger crayfish (*Fallicambarus fodiens*)

INSECTS

ringed boghaunter (*Williamsonia lintneri*)

tawny crescent (*Phyciodes batesii*)

red-disked alpine (*Erebia discoidalis*)

AMPHIBIANS

blue-spotted salamander (*Ambystoma laterale*)

spotted salamander (*Ambystoma maculatum*)

four-toed salamander (*Hemidactylium scutatum*)

boreal chorus frog (*Pseudacris triseriata maculata*)

western chorus frog (*Pseudacris triseriata triseriata*)

REPTILES

blue racer (*Coluber constrictor foxii*)

smooth green snake (*Liochlorophis vernalis*)

Blanding's turtle (*Emydoidea blandingii*)

BIRDS

Blue-winged Teal (*Anas discors*)

American Bittern (*Botaurus lentiginosus*)

Least Bittern (*Ixobrychus exilis*)

Great Blue Heron (*Ardea herodias*)

BIRDS cont.

Northern Harrier (*Circus cyaneus*)

Red-shouldered Hawk (*Buteo lineatus*)

Sora (*Porzana carolina*)

Killdeer (*Charadrius vociferus*)

Spotted Sandpiper (*Actitis macularia*)

Upland Sandpiper (*Bartramia longicauda*)

Wilson's Snipe (*Gallinago delicata*)

Black Tern (*Chlidonias niger*)

Gray Jay (*Perisoreus canadensis*)

Sedge Wren (*Cistothorus platensis*)

Savannah Sparrow (*Passerculus sandwichensis*)

Le Conte's Sparrow (*Ammodramus leconteii*)

Bobolink (*Dolichonyx oryzivorus*)

Western Meadowlark (*Sturnella neglecta*)

MAMMALS

arctic shrew (*Sorex arcticus*)

northern bat or northern myotis (*Myotis septentrionalis*)

least weasel (*Mustela nivalis*)

southern bog lemming (*Synaptomys cooperi*)

Associated Threats

MODIFICATION OF NATURAL PROCESSES

- Altered hydrologic regimes

HABITAT CONVERSION

- Industrial, residential, and recreational development
- Wetland modifications

CONSUMPTIVE BIOLOGICAL RESOURCE USE

- Forestry practices: Education is needed to ensure that resource managers incorporate ephemeral wetlands into forest management, specifically guiding forestry practices used. Logging that removes shade for ephemeral wetlands poses a threat.

NON-CONSUMPTIVE BIOLOGICAL RESOURCE USE

- Non-consumptive recreation

BIOLOGICAL INTERACTIONS

- Invasive plants and animals: Species like purple loosestrife (*Lythrum salicaria*) and Eurasian water milfoil (*Myriophyllum spicatum*) pose a threat.

EDUCATION

- Social attitudes: Landowners dredge ephemeral wetlands to convert them into farm ponds or yard water features.

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 by restoring water flow patterns. [Altered hydrologic regimes]
- Develop and implement plans for invasive species control and prevention. [Invasive plants and animals]
- Develop and enforce forestry best management practices that address the needs and values of wildlife. [Forestry practices]
- 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 [variety of threats]

LAW & POLICY

- Work with municipalities to promote planning and zoning insuring adequate protection for ephemeral wetlands. [Industrial, residential, and recreational development; Wetland modifications]
- Develop and enforce regulations to curtail recreational activities that cause significant damage. [Non-consumptive recreation]

EDUCATION & AWARENESS

- Provide education to landowners on the value of ephemeral wetlands to wildlife. [Social attitudes]

RECREATION

- Promote responsible ATV and ORV use. [Non-consumptive recreation]

Research and Survey Needs

- Conduct a statewide wetlands inventory. Develop techniques to inventory ephemeral wetlands. Poorly timed inventories may result in some wetlands not being identified.
- Evaluate the impacts of modifications of natural hydrologic regimes and local water chemistry.
- Document the historic and current range of variation between ephemeral wetlands. This includes variables such as species composition, size, and surrounding communities and landforms.
- A better understanding is needed of ephemeral wetland restoration and management techniques. Is it possible to manage ephemeral wetlands to increase their value for wildlife? Are any agencies or non-governmental organizations managing or restoring ephemeral wetlands?
- A better understanding is needed of the value to wildlife of mosaics containing upland and wetland communities.
- Quantify differences in the value to wildlife of restored wetlands and natural wetlands. What is the value to wildlife of "accidental" ephemeral wetlands resulting from human disturbance, such as ditches and pits?
- Examine the impacts of activities (e.g. logging, farming, etc.) in the matrix surrounding ephemeral wetlands.

Monitoring

- Track ephemeral 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 water chemistry and quality trends.
- Track amphibian use of ephemeral wetlands.