



Source: Ephemeral Wetland - National Wetlands Inventory dataset. Associated Natural Communities data - Michigan Natural Features Inventory Biotics database.

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 coastal plain marsh, interdunal wetland, and intermittent wetland. Vernal pools, or upland ephemeral depression wetlands isolated from permanent water bodies, are common within mesic northern forests.

General Condition of Feature

Much of the ephemeral wetland in the Northern Lower Peninsula is considered to be in fair or good condition (~55%). Most of the remaining areas are considered degraded or very degraded (~45%). Ephemeral wetland natural communities are considered rare, uncommon, or imperiled in the State.

Associated Natural Communities

Coastal Plain Marsh
Interdunal Wetland
Intermittent Wetland [Boggy Seepage Wetland]

Associated Species of Greatest Conservation Need

SNAILS

widespread column (*Pupilla muscorum*)
Foster mantleslug (*Pallifera fosteri*)
Carolina mantleslug (*Philomycus carolinianus*)

CRAYFISH

digger crayfish (*Fallicambarus fodiens*)

INSECTS

Hine's emerald dragonfly (*Somatochlora hineana*)
ringed boghaunter (*Williamsonia lintneri*)
secretive locust (*Appalachia arcana*)
great plains spittlebug (*Lepyronia gibbosa*)
tawny crescent (*Phyciodes batesii*)

AMPHIBIANS

blue-spotted salamander (*Ambystoma laterale*)
spotted salamander (*Ambystoma maculatum*)
eastern tiger salamander (*Ambystoma tigrinum tigrinum*)
four-toed salamander (*Hemidactylium scutatum*)
Fowler's toad (*Bufo fowleri*)
western chorus frog (*Pseudacris triseriata triseriata*)

REPTILES

blue racer (*Coluber constrictor foxii*)
black rat snake (*Elaphe obsoleta obsoleta*)
smooth green snake (*Liochlorophis vernalis*)
queen snake (*Regina septemvittata*)
eastern massasauga (*Sistrurus catenatus catenatus*)
spotted turtle (*Clemmys guttata*)

REPTILES cont.

Blanding's turtle (*Emydoidea blandingii*)
eastern box turtle (*Terrapene carolina carolina*)

BIRDS

Blue-winged Teal (*Anas discors*)
American Bittern (*Botaurus lentiginosus*)
Least Bittern (*Ixobrychus exilis*)
Great Blue Heron (*Ardea herodias*)
Northern Harrier (*Circus cyaneus*)
Red-shouldered Hawk (*Buteo lineatus*)
Yellow Rail (*Coturnicops noveboracensis*)
Sora (*Porzana carolina*)
Killdeer (*Charadrius vociferus*)
Spotted Sandpiper (*Actitis macularia*)
Upland Sandpiper (*Bartramia longicauda*)
Wilson's Snipe (*Gallinago delicata*)
Wilson's Phalarope (*Phalaropus tricolor*)
Black Tern (*Chlidonias niger*)
Short-eared Owl (*Asio flammeus*)
Sedge Wren (*Cistothorus platensis*)
Savannah Sparrow (*Passerculus sandwichensis*)
Bobolink (*Dolichonyx oryzivorus*)
Western Meadowlark (*Sturnella neglecta*)

MAMMALS

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: Development along edges reduces ephemeral wetlands and contributes to increased runoff.
- Wetland modifications
- Dredging and channelization
- Incompatible natural resource management: There is a lack of protection for ephemeral wetlands.

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

POLLUTION

- Urban, municipal, and industrial
- Pesticides and herbicides

CONSUMPTIVE BIOLOGICAL RESOURCE USE

- Forestry practices: Inappropriate forestry practices adjacent to ephemeral wetlands may have an impact. Rutting and compaction resulting from timber harvests may impact ephemeral wetlands.

NON-CONSUMPTIVE BIOLOGICAL RESOURCE USE

- Non-consumptive recreation

BIOLOGICAL INTERACTIONS

- Invasive plants and animals
- Other biological interactions: Beavers (*Castor canadensis*) feed on lilies and may destroy vegetated cover.

EDUCATION

- Social attitudes

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 natural water flow patterns. [Altered hydrologic regimes]
- Institute invasive species monitoring, prevention and control programs. [Invasive plants and animals]
- Manage local beaver densities to maintain ephemeral wetland quality. [Other biological interactions]
- Work with land managers to develop priorities for ephemeral wetland management. [Incompatible natural resource management; Social attitudes]
- Develop and implement forestry best management practices that address the value of ephemeral wetlands to 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 [wetland modifications]

LAW & POLICY

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

EDUCATION & AWARENESS

- Create awareness in the general public of 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 wildlife value of restored wetlands and natural wetlands. What is the wildlife value 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.