



Wetlands: Ephemeral wetland

Description

Ephemeral wetlands are semi-permanent, seasonally flooded areas. These areas may be small and only a couple of feet in diameter (e.g., vernal pools) 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.

General Condition of Feature

This habitat is considered 100% in good to excellent condition.

Associated Natural Communities

Intermittent Wetland
Interdunal Wetland

Associated Species of Greatest Conservation Need

CRAYFISH

digger crayfish (*Fallicambarus fodiens*)

AMPHIBIANS

blue-spotted salamander (*Ambystoma laterale*)

spotted salamander (*Ambystoma maculatum*)

eastern tiger salamander (*Ambystoma tigrinum tigrinum*)

AMPHIBIANS cont.

four-toed salamander (*Hemidactylium scutatum*)

boreal chorus frog (*Pseudacris triseriata maculata*)

REPTILES

eastern box turtle (*Terrapene carolina carolina*)

MAMMALS

water shrew (*Sorex palustris*)

Associated Threats

MODIFICATION OF NATURAL PROCESSES

- Altered hydrologic regimes: Hydrologic alterations; Draining (low threat)
- Climate change: Water levels dropping due to climate change (low threat)

HABITAT CONVERSION

- Riparian modifications: Road construction; Vegetation changes; Development

BIOLOGICAL INTERACTIONS

- Invasive plants and animals: (low threat)

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)
- Support landowner incentive programs to foster conservation on private land (variety of threats)

LAND, WATER & SPECIES MANAGEMENT

- Allow seasonal flooding (altered hydrologic regimes)
- Close roads during breeding seasons or install tunnels along migration pathways to allow amphibians and reptiles access to breeding areas (riparian modifications, species issue)
- Control and prevent invasive aquatic species introductions and establishments (invasive plants and animals)
- Maintain or establish riparian buffers of at least 50 ft., but 500 ft. or wider maximizes conservation benefits (riparian modifications)
- Maintain or rehabilitate natural corridors between ephemeral wetlands and other significant habitats to amphibians and reptiles (riparian modifications, species issue)
- Maintain or rehabilitate natural hydrology (altered hydrologic regimes)
- Protect existing natural wetlands and rehabilitate degraded wetlands (wetland modification)
- Restore native flora (wetland modification)

LAW & POLICY

- Encourage clustered development and green space planning (variety of threats)
- Include wetland protections in zoning and planning ordinances (wetland modification)
- Limit water withdrawals in flow limited or groundwater fed systems (altered hydrologic regimes)
- Protect and rehabilitate groundwater recharges by requiring that all development-related runoff be captured by infiltration basins (altered hydrologic regimes)
- Restrict dredging and draining of ephemeral wetlands (wetland modification)
- Strengthen wetland regulations, mitigation requirements, and enforcement (wetland modification)

- Work with and educate Drain Commissioners on limiting dredging and channelization activities (altered hydrologic regimes)
- Work with local governments to develop and refine planning and zoning regulations and ordinances that consider natural processes (variety of threats)
- Work with local ordinances on setback and buffer ordinances (riparian modifications)

EDUCATION & AWARENESS

- Educate legislators, other policy makers, landowners, and the public on ephemeral wetlands, the ecological services they provide, the species that use them, and their fragile nature (variety of threats)

Research and Survey Needs

- Conduct statewide wetlands inventory
- Determine critical pathways between habitats for amphibians and reptiles to prevent vehicular fatalities and fragmentation of habitats
- Determine life history requirements for SGCN associated with ephemeral wetlands
- Develop alternatives to current drainage practices
- Develop techniques to inventory ephemeral wetlands and determine condition, use, and seasonality. Poorly timed inventories may result in some ephemeral wetlands not being identified.
- Establish effective methods of communicating with the public and their stewardship role
- Model hydrologic flows

Monitoring

- Draining and channelization
- Forestry practices
- Fragmentation
- Indicator species
- Land use changes
- Riparian modifications
- Water withdrawals
- Wetland modification