



Natural Heritage & Endangered Species Program

Massachusetts Division of Fisheries & Wildlife

July 2009

Guidance on the Field Identification of Vernal Pools When Dry

Vernal Pool Certification in Massachusetts was created to protect vernal pools that meet the characteristics of ‘Vernal Pool Habitat’ in the MA Wetlands Protection Act regulations (310 CMR 10.00); namely those that provide essential breeding habitat for certain amphibians making extensive use of vernal pools [see 310 CMR 10.04, 10.57(1)(a)(3), 10.57(1)(b)(4), and 10.58(1)]. The biological evidence required to certify a vernal pool can only be observed and documented in the spring and summer when amphibian breeding evidence is present (with the exception of the Marbled Salamander). Although wetlands without standing water are often observed in the late summer, fall, and winter, it can be difficult to determine which of these dry areas provide important vernal pool habitat. Therefore, any area suspected to be a vernal pool should be re-visited in the spring when the appropriate biological evidence can be observed and documented for vernal pool certification.

Some of the characteristics that can be indicators of seasonal flooding at a **dry vernal pool** include:

Physical Characteristics:

Depressions in the landscape or “pit and mound” topography with evidence of temporary flooding, such as:

- Stained leaves in a depression
- Water stains or siltation marks on surrounding tree trunks or vegetation
- Trees with buttressed trunks or stilt trunks
- Wetland plants or sphagnum moss growing in a dry depression
- Wetland or hydric soils

Biological Characteristics:

The presence of certain invertebrate species in dry wetlands in late summer, fall, and even winter can be indicative of seasonal flooding, such as:

- Cases of caddisfly larvae (*Trichoptera*)
- Adults, juveniles, or shells of either freshwater clams (*Pisidiidae*) or amphibious, air-breathing snails (*Basommatophora*)
- Shed skins or exuvia of dragonfly or damselfly larvae on vegetation along the edge of a dry depression

If any of the above *Physical and Biological Characteristics* are observed outside of the spring amphibian breeding season, you can notify your Conservation Commission of the location of a possible dry vernal pool and re-visit the area in the spring to collect the documentation needed for vernal pool certification (see the NHESP *Guidelines for the Certification of Vernal Pool Habitat*, March 2009).

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