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Paula Goodwin

Salamanders

Salamanders rely on springtime vernal pools. From MassAudubon: "At winter's end, woodland hollows and low areas flood, creating temporary isolated pools. The resulting vernal pools fill with melting snow, spring rain, runoff, and rising groundwater. The pools provide seasonal habitat for amphibian and invertebrate species with life cycles that have adapted to these rich temporary habitats. At winter's end, woodland hollows and low areas flood, creating temporary isolated pools. The resulting vernal pools fill with melting snow, spring rain, runoff, and rising groundwater. The pools provide seasonal habitat for amphibian and invertebrate species with life cycles that have adapted to these rich temporary habitats".

Of the approximately 550 species of salamanders found worldwide, there are 11 different species found in Massachusetts. They're found in woodlands, meadows, floodplains, and even sand plains all across Massachusetts. They occur in a wide variety of settings including swales, kettle holes, old stream channels, and depressions in larger wetlands".

Of the approximately 550 species of salamanders found worldwide, there are 11 different species found in Massachusetts. They are:

(1)Mudpuppy) (2)Northern Dusky Salamander(3) Northern Two-lined Salamander (4) Four-toed Salamander (5) Eastern Newt (6) Eastern Red-backed Salamander. The following salamander species are fully protected and may not be killed, collected or held in possession without a permit: (7) Jefferson Salamander* (8)Spring Salamander*, (9)Spotted Salamander* (yellow spots) (10) Blue-spotted Salamander*(11) Marbled Salamander*.

Paraphrased from the article entitled, "A Sportsman's Guide to Bay State Salamanders" found in the Massachusetts Fish and Wildlife 2015 Guide to Hunting, Fishing and Trapping, salamanders vary in size from a few inches long to well over a foot in length; range from highly aquatic, to terrestrial, to fossorial (burrowing and living underground) in their habits; and many display beautiful colors and patterns. It is not difficult to learn how to recognize all of them by sight; knowledge that will add to the enjoyment of any form of outdoor recreation. Excellent photographs of each may be found at both the Mass Audubon and Mass Fish and Wildlife Guide links which appear at the end of the article. All salamanders are strict carnivores, preying mostly on insects, worms, and other invertebrates and some species are notably cannibalistic, particularly when they are growing rapidly during the larval stage. The larvae of all 11 salamanders have external gills and must develop in water. Most species therefore lay their eggs in water (or immediately adjacent to it). The eggs may be deposited singly on aquatic vegetation, or in gelatinous clusters containing dozens of eggs that are attached to submerged sticks or the undersides of logs and stones. The eggs hatch into larvae less than an inch long.

Depending on the species, the larvae may metamorphose into miniature adults in as little as a few weeks to as long as several months. Some of our salamanders are explosive breeders, meaning the entire local population comes together (usually in the spring) to mate and lay their eggs all at once in a short period. These salamanders typically use vernal pools or other shallow wetlands for breeding; others utilize ponds, streams, and rivers. Because salamanders must remain moist, most terrestrial species stay under cover and only come out at night or under wet weather conditions to forage. Some species are quite toxic to predators.

If you encounter a listed (rare) species, please take a clear photograph of the animal, note the exact location, then go towww mass gov/dfw/nhesp/yprs< http://www.mass.gov/dfw/nhesp/yprs> to officially

towww.mass.gov/dfw/nhesp/vprs<http://www.mass.gov/dfw/nhesp/vprs> to officially report the sighting."

For learn more about salamanders:

http://www.massaudubon.org/learn/nature-wildlife/reptiles-amphibians/salamanders/salamander-species-in-massachusetts

Massachusetts Fish and Wildlife 2015 Guide to Hunting, Fishing and Trapping; Page 24-25, "A Sportsmen's Guide to Bay State Salamanders." http://www.townofbarnstable.us/naturalresources/Hunting-Fishing-Trapping-Abstracts.pd

To learn more about Vernal Pools:

 $\underline{\text{http://www.massaudubon.org/learn/nature-wildlife/reptiles-amphibians/vernal-pools/resources}}$

http://maps.massgis.state.ma.us/map_ol/oliver.php-To search for Vernal Pool sites in Acton-Boxborough

Paula Goodwin is a member of the Acton Conservation Commission who introduced WildAware with Acton Natural Resource Assistant Bettina Abe. WildAware is a program sponsored by the Town of Acton Natural Resources Department that began in September and will continue through the summer of 2016. The purpose of WildAware is to educate the community about the existence and habits of wild creatures, and the goal is increased community awareness of shared habitats. For information, call 978-929-6634 or send email to nr@acton-ma.gov