



## Maine Vernal Pool Indicator Species



Wood Frog



Wood Frog Egg Mass

Each female lays a single  
egg mass which contains  
800 to 1000 eggs

Surface of mass is lumpy in appearance  
and lacks outer coating of jelly



Wood Frog Egg Mass

Recently deposited eggs are  
about the size of a golf ball

As the eggs absorb  
water the mass swells  
to the size of a softball



Wood Frog Egg Masses

Egg masses may look like  
bubbles at the water surface

Often attached to vegetation,  
wood frog egg masses may be  
deposited in large rafts



Wood Frog Egg Masses

There may be multiple  
layers of egg masses  
below those visible at  
the water surface

Some masses may be deposited on  
or have fallen to the pool bottom



Often seen in pool shallows, wood frog tadpoles are small, dark, and numerous.



Wood Frog Tadpoles

Large, chunky bull frog and green frog tadpoles usually overwinter in permanent bodies of water. No additional tadpoles are in pools in the early spring when wood frogs hatch.

Bull Frog and Green Frog Tadpoles

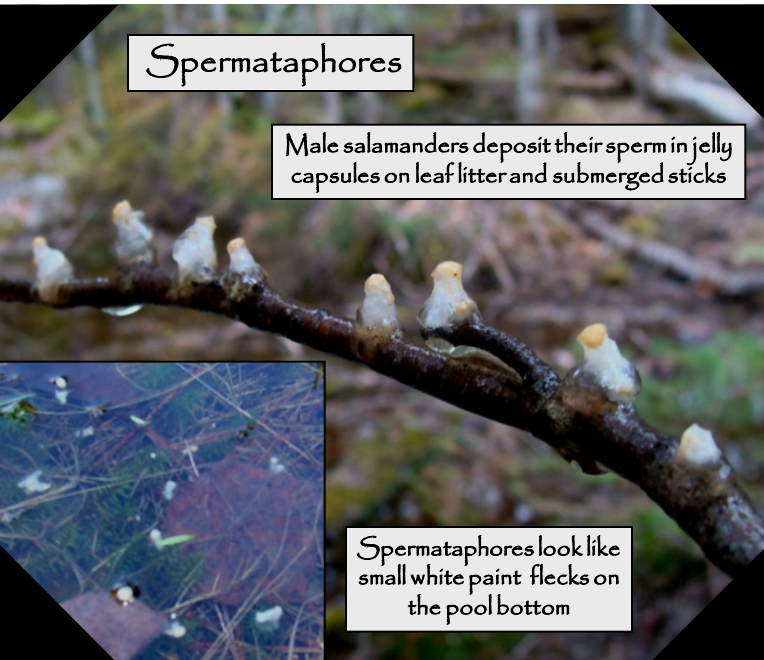


Spotted Salamander



Spermataphores

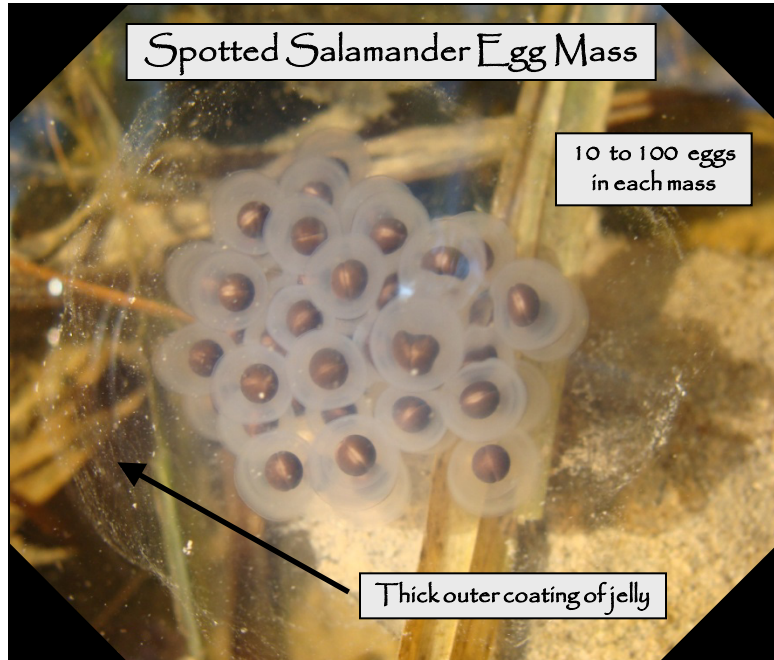
Male salamanders deposit their sperm in jelly capsules on leaf litter and submerged sticks



Spermataphores look like small white paint flecks on the pool bottom

Spotted Salamander Egg Mass

10 to 100 eggs in each mass

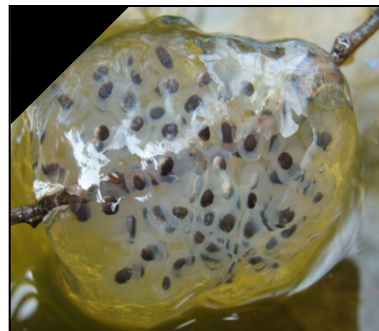
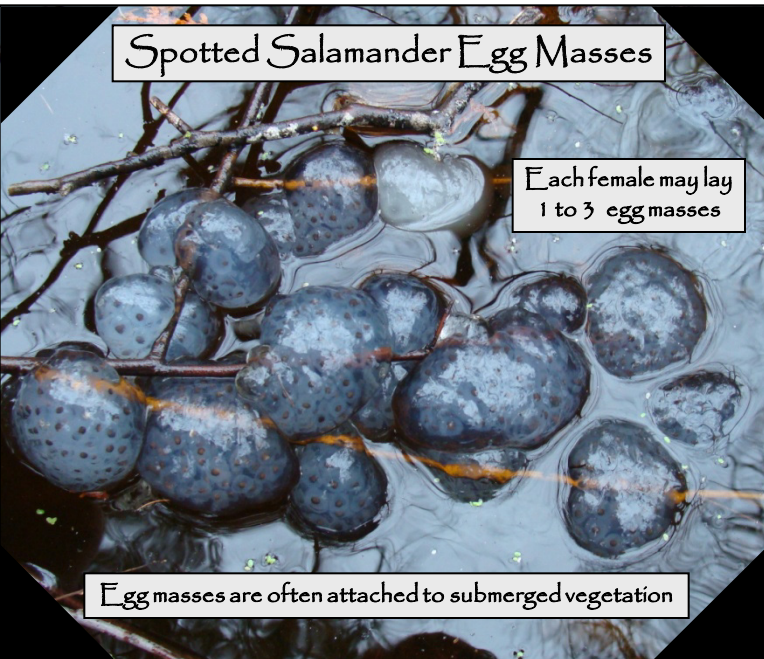


Thick outer coating of jelly

Spotted Salamander Egg Masses

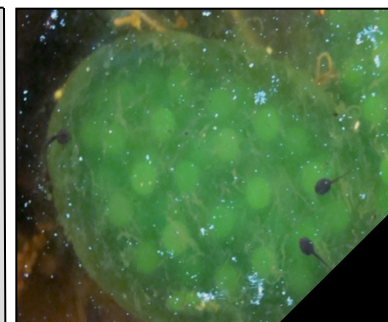
Each female may lay 1 to 3 egg masses

Egg masses are often attached to submerged vegetation



Genetic variation determines whether the outer jelly of a spotted salamander egg mass is clear or cloudy

Green egg masses contain algae that provide oxygen to the egg mass and in turn gain nutrients from the developing embryos





Blue-Spotted Salamander



Dark slender body with bright blue spots

Blue-Spotted Salamander Egg Mass

Egg masses are difficult to see below the water surface and may not be visible without gently lifting submerged vegetation

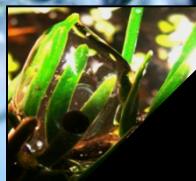


Drippy, transparent jelly surrounds each mass

Blue-Spotted Salamander Egg Masses



Blue-spotted eggs may be deposited individually on the pool bottom or in small clusters along submerged sticks



Often brownish-grey and larger bodied than blue-spotted salamanders, hybrids have varying amounts of light blue flecking



Hybrid Blue-Spotted Salamander

Hybrid Blue-Spotted Salamander Egg Masses



Often containing white infertile embryos, hybrid egg masses may be deposited in long strings of "pearls" along submerged vegetation

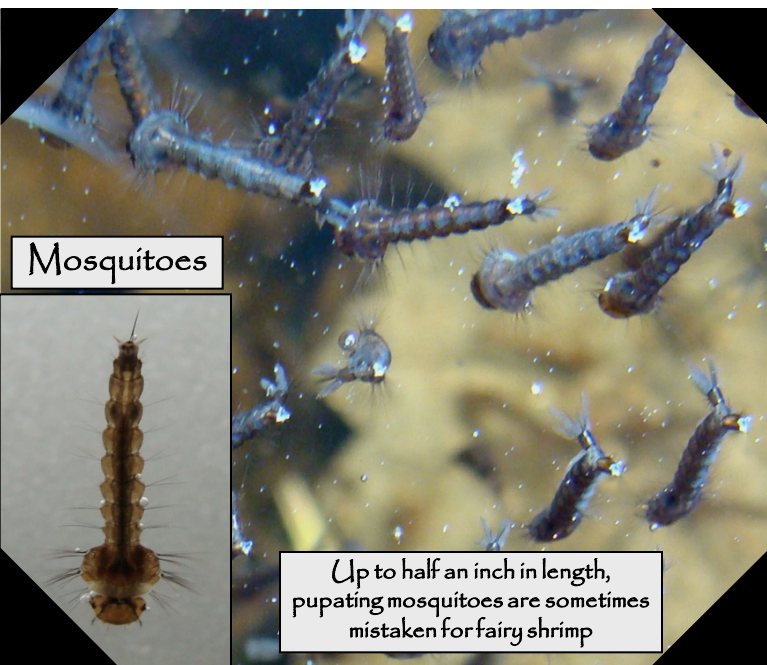
These crustaceans are often seen swimming around on their backs in the sunny shallows of a pool



Fairy Shrimp

Up to an inch in length, and often orange to tan in color, these animals may blend in with leaf litter on the bottom of pools





Mosquitoes

Up to half an inch in length,  
pupating mosquitoes are sometimes  
mistaken for fairy shrimp



Additional information is available at:  
[www.umaine.edu/vernalpools](http://www.umaine.edu/vernalpools)

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