

# Findings from the Field

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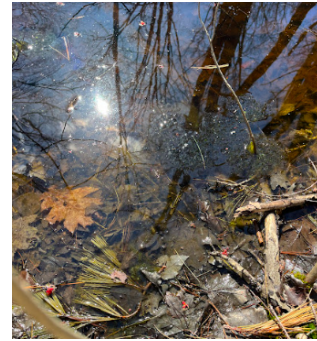
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## Salamander or Frog Eggs?

By: Ellia J.

On April 20th 2023, at 10 a.m. my science teacher took us outside into the trails of the back of our school in North Hampton, New Hampshire. It was a sunny day and about 50°F, but everything was very damp out in the woods. There were some trees and shrubs near the vernal pool. In the vernal pool, there were some leaves and sticks that were completely underwater and some were on the surface. There were multiple egg masses located on sticks and shrubs under the water. There were about 5 to 6 egg masses. They had an outer jelly layer that looked clear enough to see the embryos. The embryos looked very small so we assumed that they were born a couple days ago. As I looked more closely into the pond, I started to notice that some of the egg's mass jelly outer layer was cloudy and foggy looking, while others were clear. This started to make me wonder, are these salamander eggs or frog eggs? I also started to wonder what's the difference between the two?

In my research, I found that in New Hampshire, there are Wood Frogs and Spotted Salamanders. By looking at comparisons of the different types of egg masses, the wood frog and the spotted salamander eggs were both very similar to the pictures and views of the egg masses back in the woods. I found that Wood Frogs start breeding at the end of February or start by early March. Female Wood Frogs lay up to 1,000- 3,000 eggs per clump. The eggs usually end up hatching in 9 to 10 days later. Salamanders usually start laying their eggs between mid-March and mid-April. Salamander egg masses often contain 100 or more eggs in a cluster. I found that salamander eggs are surrounded by an outer layer, while frog eggs lack the outer layer that's protective. Although the two are different types of eggs,



they are commonly given birth in the water with strubs, sticks, and logs that are underneath the water fully. The egg masses have to be farther into the vernal pool because if the eggs are not covered with water, they can dry out and die. This then leads to my second question, do the eggs float or do they just stay on the sticks? Also, which spots of the mass do the eggs hatch out of first?

In an article, I found that the eggs use the sticks and shrubs as support from falling into leaves of grasses such as sedges. The eggs stay onto the sticks and shrubs by hanging either vertically or horizontally. Salamander eggs only hatch one or a few times each. The outer eggs tend to grow faster because they are receiving more sunlight. In wood frog egg masses, the center of the sack are the ones that hatch first. Since frog eggs are darker than salamander eggs, the mass absorbs heat better in the middle and that's why the middle eggs hatch first. Once the salamander or wood frog eggs are born, the mother (or the animal) has to

watch over her babies because predators such as the eastern newt, the crayfish, and other insects will try to snatch and eat the eggs.

Although I learned about the difference between the wood frog eggs and the salamander eggs, the egg masses, the predators, and the hatching, I would still like to look into this topic more and next time try to figure out if the eggs will die if they float instead of stick on to something and be completely underwater?

## Works Cited

- Marchand, Michael. "Identifying and documenting Vernal Pools in New Hampshire." *Wildlife State NH*, New Hampshire Fish and Game department,  
<https://wildlife.state.nh.us/nongame/documents/vernal-pool-manual.pdf>. Accessed 1 May 2023.
- "Wood Frog." *National Wildlife Federation*,  
<https://www.nwf.org/educational-resources/wildlife-guide/amphibians/wood-frog>.  
Accessed 1 May 2023.
- "Wood Frog Eggs." *Wildlife State NH*,  
<https://www.wildlife.state.nh.us/wildlife/profiles/wood-frog.html>. Accessed 1 May 2023.