



## Sally Salamander Quest

### Hartford, Vermont

Physical Difficulty: Moderate

Special Features: Natural

Walking Conditions: Trail

Duration: 1:00

Bring: Boots and a Field Guide

**To get there:** *To get there: Take Exit 11 from I-91 and head towards White River Junction, turn from Route 5 onto Route 4 west. Follow Route 4 west for 2.1 miles, and then turn left onto Center of Town Rd. After traveling uphill 0.7 miles, turn left onto Kings Highway. Follow for 0.6 miles, and then turn right onto Reservoir Rd. Proceed 0.7 miles until the road ends at the Hurricane Town Forest parking area. Your Quest begins on Old Reservoir Rd, on the right side of the parking area.*

**Overview:** Vernal pools are seasonal wetlands which fill annually from rain, runoff, and rising groundwater. Vernal pools do not have constant inlets or outlets of water; most pools are dry for at least a portion of the year. This dry-wet cycle prohibits fish from becoming permanent residents in the pool, creating a habitat for the successful reproduction of frogs and salamanders whose larvae would normally be preyed upon by fish. The Hartford Town Forest is under the caring umbrella of the Hartford Conservation Commission, who encourage us all to get out and enjoy the great parks and forests in Hartford. For more information: <http://www.hartford-vt.org/rec0.htm>. This Quest and the Natural Communities Quest Series as a whole were made possible by generous support from the Wellborn Ecology Fund of the New Hampshire Charitable Foundation / Upper Valley region.

### Clues:

Let's take a trip straight down the Old Reservoir Rd.

In search of a vernal pool

Full of salamanders and frogs—both peeper and wood.

You won't be long on your meander  
Until on the right you will find  
A pool of sorts, upon which to take a gander.

So: Is this the pool for which we drool?  
Nope. Held up by this man-made dam,  
To call this a vernal pool would be a scam!

Back on the trail and forward we go  
Carry-on with this climb  
Putting the old reservoir behind. (Technically no longer a reservoir)

As you go, don't turn to the left...nor to the right.  
Don't be tempted by the next left either.  
Another right to avoid is West Side Loop.  
Your vernal pool mission carries you straight  
To a junction, at which a sign will perform its function.  
You've found the green sign, a marker for snowmobiles.

Now don't be blue at #22  
To the right then! And up over the rise.  
Just beyond the young hemlocks  
Look left, and you'll find a surprise.

Here is the pool which we seek,  
Named vernal for the spring treasures  
Hidden at its peak.

Start at the mossy stump (found in the open just off the path)  
Look out at the pools glow  
How is it different from the reservoir seen below?  
This pool is a natural depression  
Probably caused by a glacier's recession.  
You can look for eternity but soon you will see  
That no water flows IN from a mountain or OUT to the sea.  
Frozen in the winter, thawed in the spring,  
Gone in the summer  
And returning for fall  
The differences in the seasons  
Provide this pool's definition and reason

Turn left from the stump and follow the edge of the pool  
Count 42 steps as a general rule.  
You'll arrive at a Hemlock attached to the shore  
With a mossy "T" extending out from its base.

Look to the left and perhaps you will see  
1 pole sticking out of the water  
It was right here years ago data collection did start.  
Hartford Middle School students placed these with care  
To discover the patterns of temperature, water and air,  
pH, water depth and even live trapping  
Help the students create some information tracking.  
In 2019 citizen scientists from the Hartford Conservation Commission  
started monitoring again with the help of the Vermont Center for  
Ecostudies.

Continue around this edge,  
But be careful! You might need a leap and a bound  
Keep going until you've passed the tree that crashed to the ground.

Back to the water's edge  
A question does rise:  
How does this shallow basin fill to its brim  
If there's no water flowing in?  
(Which for a vernal pool is the general rule).

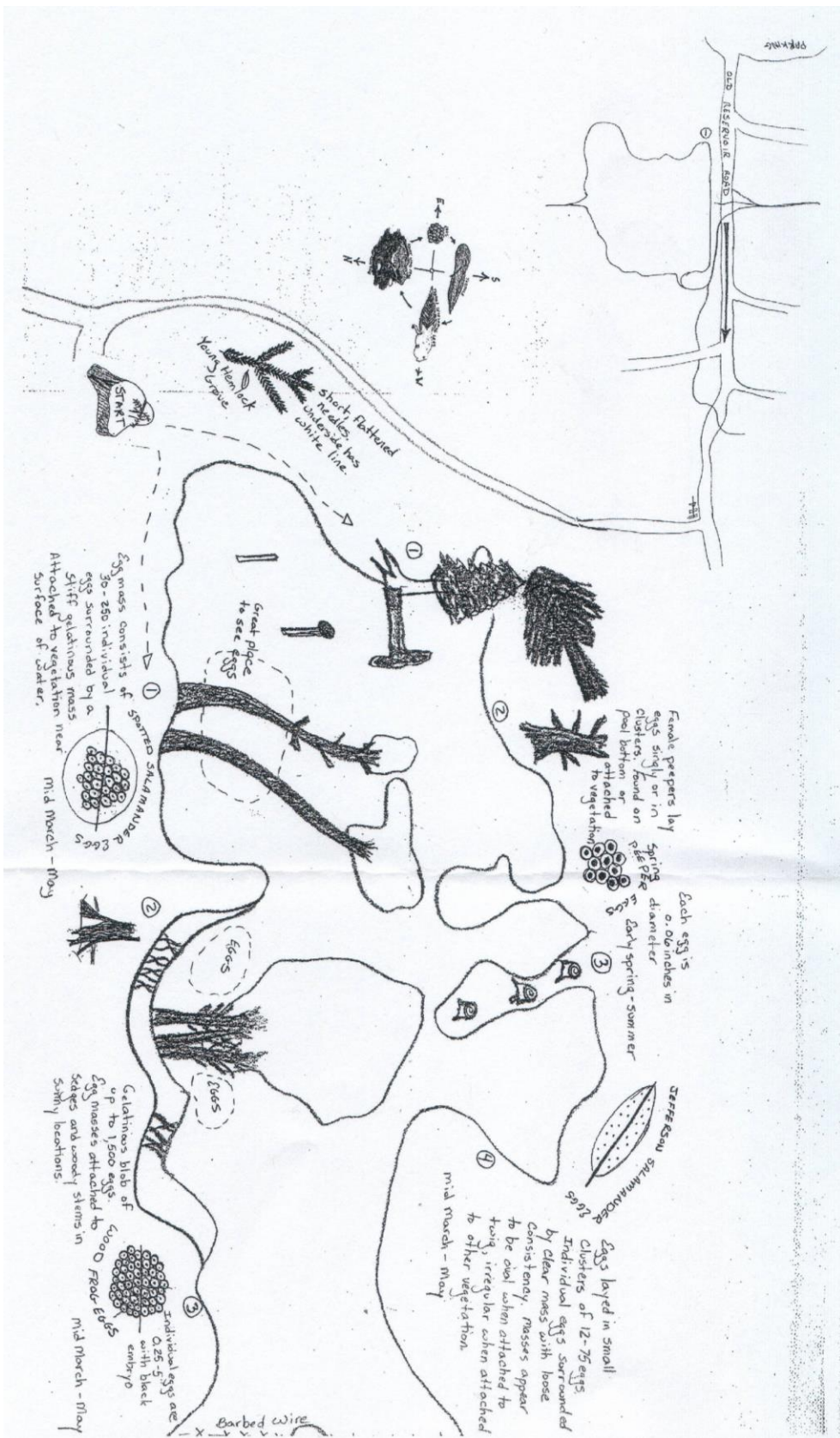
Spring and fall rains  
And the addition of snow melting  
Fill the basin to its brim  
Without a stream flowing in.

Pull your thoughts out of the water  
Continue to follow the shore.  
Two peninsulas of land will soon appear,  
One starts narrow and one starts thick  
Choose the fat walkway and walk out on it.

Follow the stumps, you'll find three in a row.  
Circle the second with a look at your feet  
And soon you'll find a small treat.

When done with the box place it back in its hole.

Please make sure that it is water tight  
And hidden from sight.



Now it is time for the final leg of this wander  
Continue along shore with your thoughts to ponder.  
Look in the water as you amble and move,  
Just be careful not to fall in an unexpected groove.

Stop where you like, what on the bottom do you see?  
Everywhere I look leaves have greeted me!  
These leaves provide the energy to make this pool function  
The base of the food chain, these leaves fuel quite a production.  
Combined with bacteria and macro invertebrates  
All the nutrients on which an amphibian feeds  
Are provided right here for their young, growing needs.

This vernal pool is the key to the amphibian cycle of life:  
Egg → larvae → juvenile → adult  
At least one, sometimes all stages,  
Depend on waters such as these  
For their reproduction and protection, if you please.

If it's spring amphibian eggs might be beginning to show.  
Described as globular, circular, and like jelly,  
These eggs are clear or opaque through their bellies.

They are laid in the water, for most but not all,  
Piled high and together on the bottom, you will see  
Or clustered on the stems of grass they will be.

From here in the spring on the first rainy night  
When temperatures creep above 40 degrees—  
We could sit in the rain and watch a great sight  
The migration of Jefferson's, Spotted and Newts.  
Wood frogs and peepers, oh what a hoot!  
All seeking this pool to mate and lay eggs.

These adults are returning to complete a circle  
Born in the same pool to which they are now migrating  
Be careful and watch, but don't keep them waiting.

There are salamanders who like it here in fall.  
The Marbled and Dusky prefer their nests dry  
Or maybe just damp, but never with water filled high.  
A last clue that would confirm this pool be called vernal

Are the obligate species that will stay here eternal.  
A look for the mole salamanders  
Those which we call Jefferson, marbled, and spotted.  
Or listen for songs of wood frogs and peepers at night  
The beauty of which takes away any fright.

The presence of these species—considered obligate—  
Combined with the seasonal fluctuations of water  
Makes us not to forget  
That this pool is indeed vernal  
And deserves protection for its life eternal.

It's time to return to that mossy stump start.  
Along the way take a moment to peak  
Under logs you find at your feet.  
You're looking for the red back salamander so sweet  
The most abundant salamander you'll find in these parts  
Its sight is still a great treat.

Just remember to turn logs with great care  
And put the logs and salamanders carefully back  
Not in a state of disrepair.

From the mossy stump take one last look at the water  
Turn your head all the way around.  
And find the right trail  
To take you homeward bound.

### **Vernal Pool Species Check List**

What did YOU see?

Hartford MS students have seen:

- |  |  |
|--|--|
| <input type="checkbox"/> Green frog                  | <input type="checkbox"/> Aquatic adult       |
| <input type="checkbox"/> American toad               | <input type="checkbox"/> Mosquito larvae     |
| <input type="checkbox"/> Spotted salamander          | <input type="checkbox"/> Diving beetle       |
| <input type="checkbox"/> Blue spotted salamander     | <input type="checkbox"/> Daphnia (cladocera) |
| <input type="checkbox"/> Red backed salamander       | <input type="checkbox"/> Ribbon snake        |
| <input type="checkbox"/> Wood frog                   | <input type="checkbox"/> Backswimmer         |
| <input type="checkbox"/> Spring peeper               | <input type="checkbox"/> Isopod              |
| <input type="checkbox"/> Red-spotted newt            | <input type="checkbox"/> Dragonfly nymph     |
| <input type="checkbox"/> Red Eft (terrestrial stage) | <input type="checkbox"/> Damselfly nymph     |

- Water scorpion
- Caddisfly larvae
- \_\_\_\_\_
- \_\_\_\_\_

**Did you know?**

Spotted salamanders return to the same spot each year to mate, and may often use the same path. Source: [chesapeakebay.net](http://chesapeakebay.net)

If under attack, the Eastern Red-backed salamander can drop its tail, and grow a new one over time. Source: [nationalzoo.si.edu](http://nationalzoo.si.edu)

**This Quest benefited from the participation of:** Michael Quinn and his students at Hartford Middle School, Sally Clement, and Steven Glazer, Valley Quest Coordinator in 2004. Revised by Vital Communities staff 2021.

**Please be a good steward of the land: leave it better than you found it and pack out any trash you find.**



Valley Quest is a collection of 160+ treasure hunts that share and teach the natural gems and cultural heritage of the Upper Valley with children, families, adults, and visitors. It is a program of Vital Communities, a regional nonprofit working to engage citizens, organizations, and communities in creating solutions to our region’s challenges. Learn more at [vitalcommunities.org](http://vitalcommunities.org).

Have a suggestion, question, comment, or idea for us? We’d love to hear from you. Reach us at [valleyquest@vitalcommunities.org](mailto:valleyquest@vitalcommunities.org) or 802-291-9100.



