

# VERNAL POOL PROJECT



photo © Dave Huth

## VOLUNTEER HANDBOOK

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a community science program of the Harris Center for Conservation Education

*updated March 2024*

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**fairy shrimp**  
photo © Vernal Pool Association

# About the Vernal Pool Project

**Every spring**, small depressions in the forest floor fill with rain, melting snow, and eventually, salamander and frog eggs. By summer's end, many of these vernal pools will have dried up, revealing little trace of the life they contained in April.

These woodland pools serve as critical breeding habitat for amphibians, insects, and even crustaceans, who in turn exert a powerful influence on the ecology of the surrounding forest. Because they're small and seasonal, they're also especially vulnerable to development, logging, and road impacts.

Knowing the locations of these small but mighty ecosystems can help town planners, conservation commissions, and others make more informed decisions about land use in our communities. However, we can only protect vernal pools if we know where they are!

As a first step towards the conservation of these vital ecosystems in southwest New Hampshire, the Harris Center for Conservation Education trains volunteers to identify and document vernal pools, with special focus on lands where

information is needed for conservation planning.



**wood frog egg mass**  
photo © Brett Amy Thelen

## What are Vernal Pools?



**A local vernal pool, flooded in April and dry in October.** photos © Brett Amy Thelen

**Vernal pools** are temporary bodies of water that form when melting snow and spring rain fill shallow depressions in the forest floor. They are not permanently connected to other water bodies and they often dry out completely by late summer. This wet-dry cycle prevents fish from establishing permanent populations in these isolated, ephemeral pools.

Because they are free of fish that might otherwise eat amphibian eggs and larvae, vernal pools provide critical breeding habitat for a suite of forest-dwelling amphibians. Such “obligate species” depend on these ephemeral ecosystems for their survival. Vernal pools also serve as important wetland “stepping stones” for other amphibians, turtles, birds, and even small mammals in upland landscapes.

# Obligate Vernal Pool Species

In New Hampshire, the primary vernal pool indicator species are:

**Wood Frog** (*Lithobates sylvatica*)

**Spotted Salamander** (*Ambystoma maculatum*)

**Jefferson Salamander** (*Ambystoma jeffersonianum*)\*

**Blue-spotted Salamander** (*Ambystoma laterale*)\*

**Marbled Salamander** (*Ambystoma opacum*\*\*)

**Fairy Shrimp** (*Eubranchipus vernalis*)

\* frequently hybridize    \*\* extremely rare

**Breeding activity** is most commonly verified by photographs of **egg masses** of obligate amphibian species, but can also be documented with photographs of wood frogs in amplexus, congressing mole salamanders, tadpoles or larvae of obligate frog or salamander species, or adult fairy shrimp.



# Getting Started

## Think Spring

In early spring, wood frogs and mole salamanders clamber out of underground burrows and make their way to vernal pools to breed. The spring amphibian migration is highly weather-dependent, but courtship and egg laying often occur by mid- to late April. When wood frogs are chorusing, you can easily follow their raucous quacking to the nearest vernal pool. Egg masses typically remain visible — making for easy photo documentation of breeding by obligate species — through late May, and larval salamanders and tadpoles may remain in pools through August. Many folks prefer to go vernal pooling in late April or early May, before mosquitoes and black flies have taken wing.

It is also possible to identify vernal pools during the dry months: look for depressions in the forest floor containing water- or sediment-stained leaves, sphagnum moss, or wetland plants, and keep your eyes peeled for caddisfly cases or fingernail clams nestled below the leaf litter. If you find a pool in the off-season, note its location for a follow-up visit in the spring. Remember — vernal pool documentation is not complete without a photograph of obligate species breeding activity, which only occurs in the spring.



spotted salamander photo © Dave Huth

## Landowner Permission is Key

You must have written landowner permission to visit vernal pools on private property. In most cases, the Harris Center will have already obtained landowner permission for properties being surveyed in conjunction with this Vernal Pool Project. However, if you are documenting vernal pools on other private land, it is **essential** that you obtain landowner permission before visiting the property.

To keep things neighborly, we suggest talking with landowners directly and inviting them to accompany you on your vernal pool search. See page 17 for more guidelines for contacting landowners.

Landowner permission is not usually necessary for public land. If you're unsure, check with the Harris Center to see if permission is needed before visiting a site to search for vernal pools.

## Take Good Notes

As you walk to your vernal pool, pay close attention to distances, direction of travel, and landmarks (numbered telephone poles, distinctive trees, boulders, etc.) Writing detailed directions along the way will make it much easier for other folks to locate your pool in the future.

## GPS or Paper Maps?

We **strongly** suggest that you use a GPS unit or smartphone app to record the exact latitude

and longitude of your vernal pool, as this makes data management *much* easier. GPS users: please report coordinates in decimal degrees, using NAD83 or WGS84 datum. Otherwise, you'll need to mark the location of your

pool on an online map or paper topographic map, making sure to label the map with the pool's code and your name. You can photograph labeled paper maps to include with the rest of your digital records.

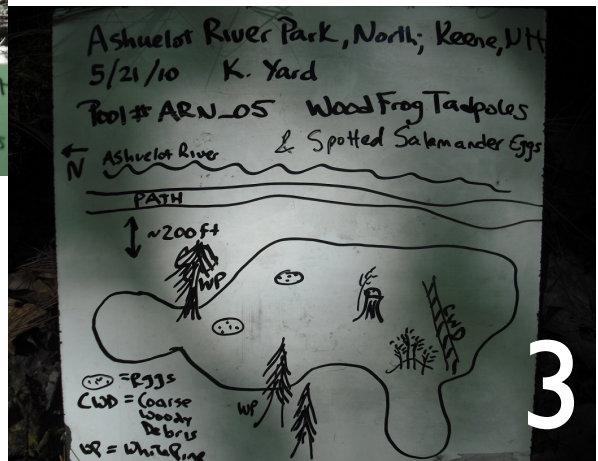
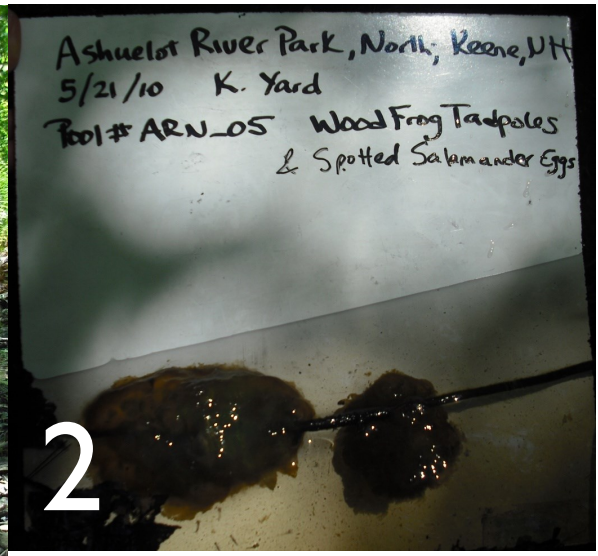
## Null Data are Important Data

Predicting the presence of vernal pools via remote sensing is notoriously difficult, so if the Harris Center has provided you with a map or list of coordinates for PVPs to investigate, it is highly likely that some of them will not be vernal pools. These data are still important to us! **Make sure to report back on all PVPs you visit**, even the ones that don't turn out to be vernal pools.

# Documenting Vernal Pools

To document a vernal pool for use in local conservation planning, please submit the following information online at [harriscenter.org/vernal-pool-project](http://harriscenter.org/vernal-pool-project).

1. A labeled photograph of the **flooded vernal pool**.
2. A labeled photograph of **at least one egg mass** (or, in the case of fairy shrimp, adult shrimp) **for each obligate species** found in the pool.
3. A photograph of your **field sketch of the vernal pool**. (See page 8 for tips.)
4. A **completed data form**, including: **GPS coordinates**, written directions to the pool, estimated egg mass counts by species, and habitat information. (See pages 15 and 16 for a sample data form.)



**Vernal Pool Project Data Form**

1. Date: 5/21/10 2. Town: Keene 4. PVP ID Code: R11-01

3. Property Name: Robin Wood Park Phone: 352-3388 Email: ryan@harriscenter.org

5. Volunteer Name: Leahy, Greg Phone: 352-3153 Email: Leahy@harriscenter.org

6. Start Time: 10 AM End Time: 11:30 AM Total Volunteer Hours: 3

7. Latitude: 42.7773 Longitude: -72.4773

8. Source of Coordinates:  GPS  Google Earth  AVEO  Topo Map  Other  previously unmapped

9. This pool was:  mapped by AVEO or other project partners as a PVP  mapped by AVEO or other project partners as a PVP  mapped by AVEO or other project partners as a PVP

10. Written Directions to Site: In the northern part of the site, near the road, there is a small pond. It is located in the northern part of the site, near the road, there is a small pond. It is located in the northern part of the site, near the road, there is a small pond.

11. Is this site a vernal pool?  Yes  No  Unknown  Unable to Locate

12. Pool Type:  Natural Depression  Upland-Isolated  Natural, but Altered  Wetland Complex  Quarry/Sand Pit  Ditch or Trench  Created Wetland  Constructed Pond

13. Origin of Pool:  Natural  Ditch or Trench  Created Wetland  Constructed Pond

14. Disturbances:  None  Dumping  Ditching/Draining  Ruts from Wheeled Vehicles  Runoff/Siltation  Other

15. Surrounding Land Use:  Open (shrubs, agriculture, grasslands)  Forest  Wetlands  Residential/Urban (mostly pavement & structures)  Industrial/Commercial  Paved Roads/Driveways  Unpaved Roads/Driveways  Other

16. Did you observe water flowing out of the pool on the survey date?  Yes  No

# Things to Bring

## Provided by the Harris Center

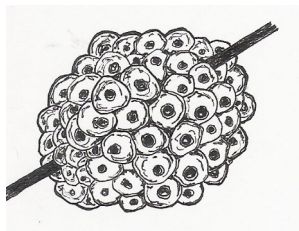
- ✓ Small whiteboard
- ✓ Field maps with labeled PVPs
- ✓ GPS coordinates for PVPs
- ✓ Egg mass identification sheet
- ✓ Field data sheets
- ✓ this Vernal Pool Volunteer Handbook
- ✓ Landowner contact information

## Other

- ✓ Dry erase markers
- ✓ Pencils
- ✓ Rag
- ✓ Digital camera or smartphone
- ✓ GPS or smartphone with mapping app
- ✓ Polarized sunglasses
- ✓ Shallow, light-colored bin or frisbee
- ✓ Clipboard
- ✓ A friend or field partner

## Optional

- ✓ *Field Guide to Animals of Vernal Pools*
- ✓ Hip waders, rain boots, or old sneakers
- ✓ Dipnet
- ✓ Binoculars
- ✓ Bug spray



wood frog egg mass drawing © Dawn Morgan

# Best Practices

## Handle with Care

In all of your fieldwork, strive for only minor, temporary disruption of the vernal pool and its residents. Be gentle with egg masses and amphibians, and *never* handle them if you have lotion, sunscreen, hand sanitizer, or bug spray on your hands, as amphibians are very sensitive to chemicals. When you're done, *gently* release critters and egg masses back into the pool.

## Leave Four-Legged Friends at Home

Please do not let your dogs wade into springtime vernal pools, as romping pups can inadvertently dislodge egg masses, stir up sediment, or disturb breeding amphibians.

## What if it's Mucky?

In many cases, it will be possible to collect data simply by observing from the pool's edge. If you must venture into a pool to get a closer look, move slowly and gently check the substrate first. If it's mucky, limit your time in the water to minimize disturbance (and to keep your boots firmly on your feet!)

## Practice Low-Impact Photography

Whenever possible, leave egg masses attached to vegetation or sticks and take photographs in place.

## Clean Your Gear

Amphibians are especially vulnerable to viruses and other diseases, which can be spread from pool to pool on your boots and field gear. When traveling from one vernal pool complex to another, be sure to remove any mud, algae, or vegetation from your boots and any other field gear that may come into contact with the water. It's also a good idea to disinfect your gear with a 4% bleach solution at the end of each day, and to let it air dry before visiting any other vernal pools.

# Tips for the Field

## You Could Find a “New” Vernal Pool

If you find a vernal pool that was not predicted on your map, determine its location as best you can with a GPS unit, smartphone, or map, and **document it**. Make sure to name and label your pool for documentation. For “found” pools that have not yet been given an identification code, assign a new code by adding a letter to the code for the nearest PVP (i.e., ARN-07A, ARN-07B, etc.) Please remember to include your name, the date (including the year), the town, and the pool’s code in your in-photo labels.

## Take a Good Look Around

Walk slowly around each pool looking for amphibian egg masses. Make sure to cover the entire perimeter, and to pay special attention to shrubby areas and submerged sticks or vegetation, which often serve as attachment sites for amphibian eggs. Polarized sunglasses will help you see more clearly below the surface of the water. You may also wish to use binoculars to look for rafts of wood frog egg masses in the center of the pool.

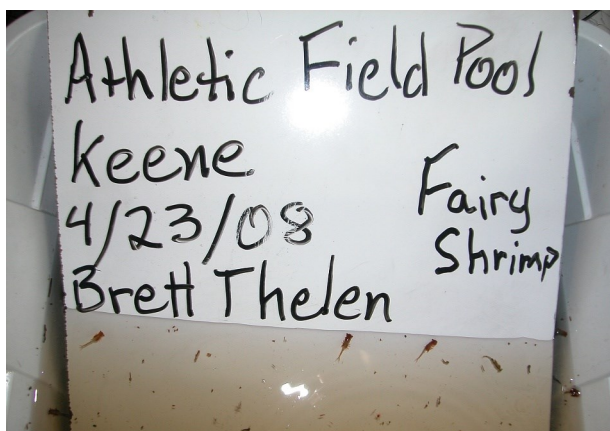


spotted salamander photo © Dave Huth

## Getting Good Photographs

To photograph obligate species breeding activity, place a labeled whiteboard or light-colored frisbee in the water behind egg masses before snapping your picture. When taking pictures of the pool itself, prop your whiteboard on a tree or hand it to your field partner to hold in the foreground for better visibility.

You’ll get better pictures if you turn off your flash, and egg mass photos will show greater detail if the masses are gently raised to the surface of the water.



Whenever possible, leave egg masses attached to vegetation or sticks and take photographs in place. However, you may also wish to gently scoop some pond water — containing egg masses, salamander larvae, or fairy shrimp — into a shallow, light-colored bin or frisbee for close-up shots. Don’t forget to double-check your photos before leaving your site to make sure that the writing on the “labels” is legible and that the subject of your photo is clearly visible.

**Don’t Forget the Data!** Sharing your data is one of the most important parts of this process. When your fieldwork is complete, **be sure to submit all your data** (including *photographs*) at [harriscenter.org/vernal-pool-project](http://harriscenter.org/vernal-pool-project). Use the checklist on page 14 to confirm that you haven’t forgotten anything.

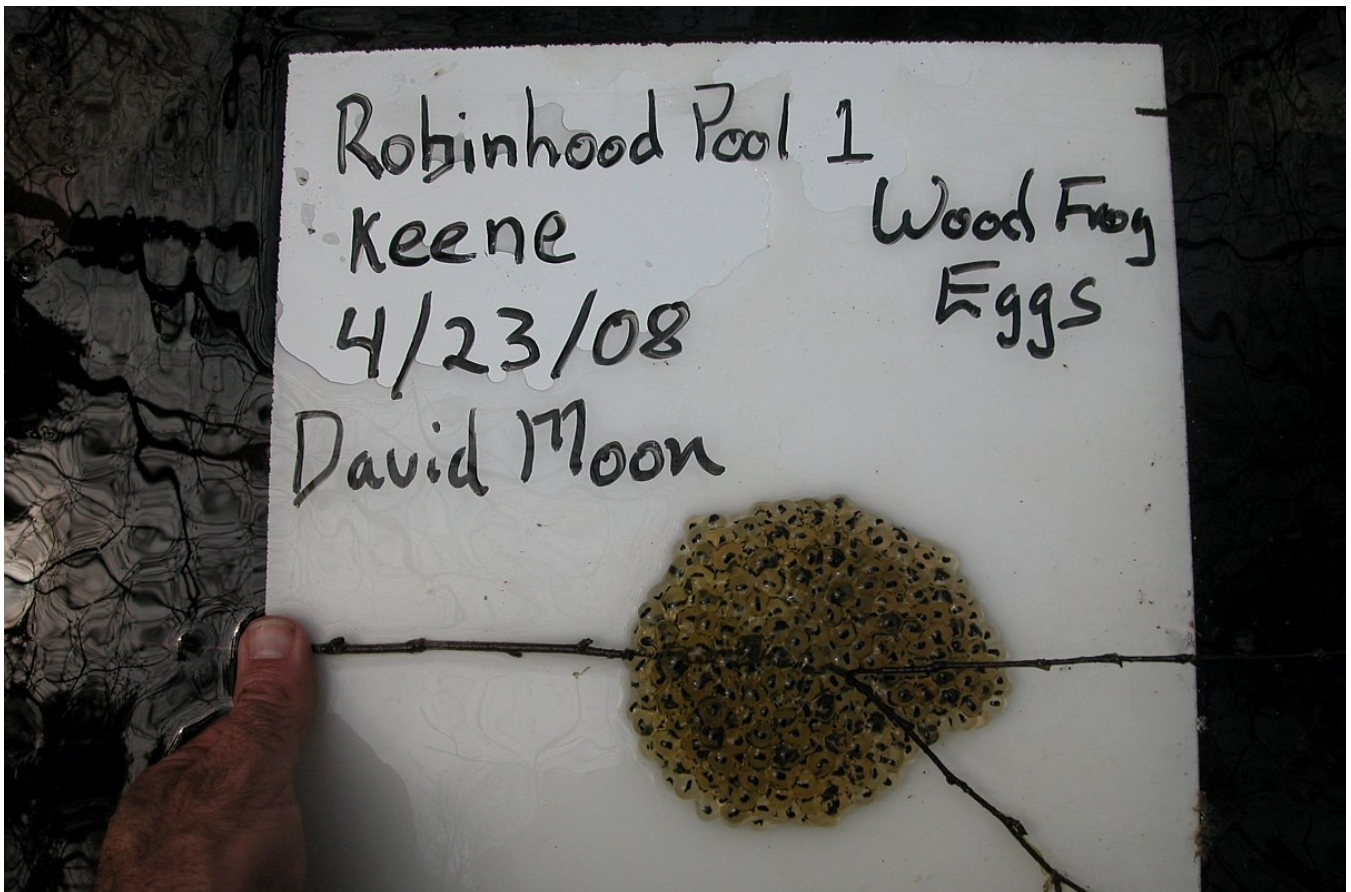


# Labeling Photographs

Help keep track of all your vernal pool pictures by “labeling” your photograph within the photo itself! Simply write:

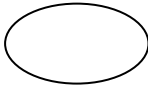
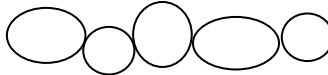
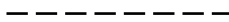
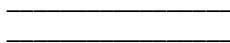

1. the pool’s code
2. the town
3. the date, including the year
4. your name
5. what the picture documents (e.g., wood frog eggs)

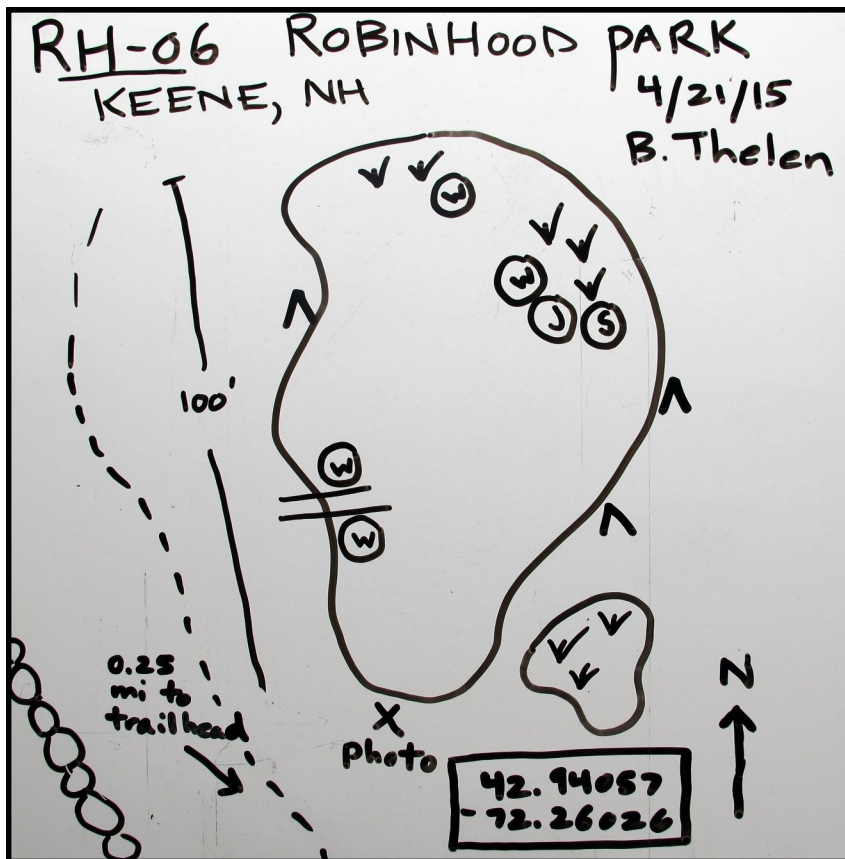
on a dry erase whiteboard and include the board in your photographs. You’ll get better pictures if you turn off your flash, and don’t forget to double-check your photos before leaving your site to make sure that the writing on the “labels” is legible and the subject of each photo is clearly visible.



# Drawing Field Sketches

Your field sketch should show: (1) the shape and approximate size of the pool; (2) a compass orientation; (3) the approximate distance to a nearby reference point, such as a road or trail; (4) the locations of amphibian egg masses; (5) the place where you took your overview photo of the pool; and (6) other distinguishing features, such as stone walls, large boulders, shrubby areas, footpaths, or distinctive trees. Use the standardized symbols below to make your sketch easy to interpret, and be sure to label your sketch with the pool's code or name, the date, the town, and your name. You may also wish to include GPS coordinates for the pool (in decimal degrees).

<b>W</b>	wood frog egg mass		boulder
<b>S</b>	spotted salamander egg mass		stone wall
<b>J</b>	Jefferson salamander egg mass		trail
$\Delta$	live tree		downed tree
			shrubs



## Sample Field Sketch

Feel free to get creative, so long as the basic elements — date, town, pool code, observer name, compass orientation, approximate distance to a logical reference point such as a road or trail, distinguishing characteristics, and egg mass locations — are included. *Maps do not need to be drawn to scale.*



Jefferson salamander photo © Dave Huth

# VERNAL POOL AMPHIBIAN EGG MASS IDENTIFICATION

## Wood Frog (*Lithobates sylvatica*)



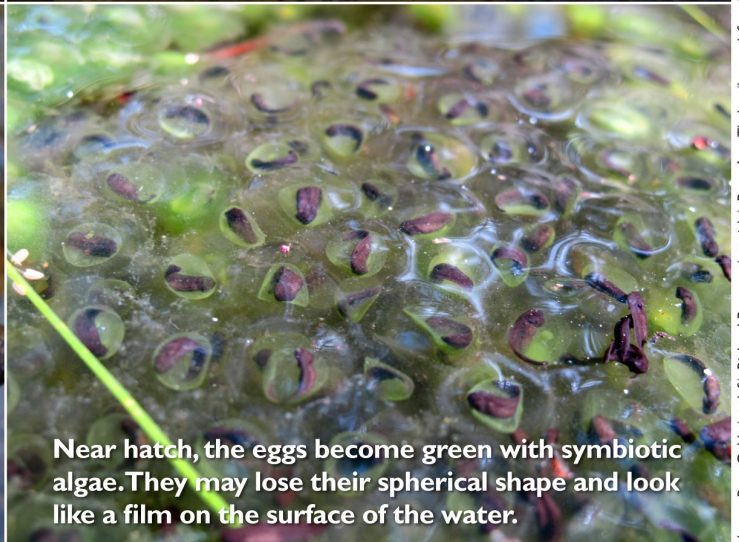
Freshly deposited wood frog eggs are a dense mass the size of a golf ball.



They may appear bubble-like at the surface of the water.



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



Near hatch, the eggs become green with symbiotic algae. They lose their spherical shape and look like a film on the surface of the water.



**WOOD FROG** egg masses are **spherical, lumpy blobs the size of baseballs or softballs**. Each mass may contain **up to 1,500 individual eggs**, which become green with symbiotic algae as the season progresses. Unlike salamander eggs, wood frog egg masses do not contain an outer, gelatinous casing. Many wood frogs lay their eggs communally, and you may find large stretches of wood frog eggs containing thousands of embryos. These egg rafts may appear bubble-like at the surface of the water.



# VERNAL POOL AMPHIBIAN EGG MASS IDENTIFICATION

## Spotted Salamander (*Ambystoma maculatum*)



Spotted salamander eggs are often attached to twigs.



They are often laid communally, and they hold their shape out of water.



The outer casing is clear or milky-white in color.



After several weeks, they may become green with symbiotic algae.



**SPOTTED SALAMANDER** egg masses consist of **30 to 150 individual eggs surrounded by stiff gelatin**, which holds its shape out of water. The masses range in diameter from one to six inches, are **circular to oval or kidney-shaped**, are often attached to twigs, and may be widely distributed throughout the pool. They are **clear or white in color**, and may turn green later in the season as algae grows inside the gelatin.

# VERNAL POOL AMPHIBIAN EGG MASS IDENTIFICATION

## Jefferson/Blue-spotted Salamander Complex (*Ambystoma spp.*)



Jefferson salamander eggs appear loose or “drippy” out of water.



They are often deposited in cylindrical “tubes” along the length of twigs.



Hybrid egg masses often contain pearl-like, white, infertile embryos.



Jefferson salamander egg masses are usually smaller in size and number than spotted salamander masses.

photos: Russ Cobb (top left and bottom right); Richard Bonnett (top right); Nathan Schaefer (bottom left); Dave Huft (Jefferson salamander)



**JEFFERSON/BLEU-SPOTTED SALAMANDER** egg masses are cylindrical in shape when attached to twigs and irregular when attached to soft vegetation. The masses are clear and not as stiff as spotted salamander eggs. They may appear loose or “drippy” out of water. They are typically found in **small clusters of 12 to 75 eggs**. Egg masses laid by Jefferson/blue-spotted hybrids often contain many white, infertile eggs.

# VERNAL POOL AMPHIBIAN EGG MASS IDENTIFICATION

## Spermatophores



**SPERMATOPHORES** are deposited by both spotted and Jefferson salamanders. They **look like bread crumbs** scattered on the vernal pool floor, and are **often attached to twigs, stems, or leaf points**. Each spermatophore is composed of a white or yellow capsule on top of a clear, gelatinous platform.

## EGG MASS OVERVIEW



### WOOD FROG

**Texture:** Tapioca Pudding  
**Shape:** Spherical  
**Number of Eggs:** Up to 1,500



### SPOTTED SALAMANDER

**Texture:** Jello  
**Shape:** Circular to Oval or Kidney-shaped  
**Number of Eggs:** 30 to 150



### JEFFERSON SALAMANDER

**Texture:** Jelly  
**Shape:** Cylindrical or Irregular  
**Number of Eggs:** 12 to 75

photos: Brett Amy Thelen (top left, bottom left, and bottom middle); Nathan Schaefer (top right); Russ Cobb (bottom right); Dave Huth (salamanders)



# Tadpole or Salamander Larvae?

It's easy to tell **tadpoles** from **salamander larvae**: just look for feathery gills at the base of the neck. Because a body of water may be home to several different species of frogs — including non-obligate species — and because tadpoles are very difficult to identify to species, we rarely rely on tadpoles for determining whether a pool is indeed a *vernal* pool. Mole salamander larvae can also be difficult to identify to species, but because all mole salamanders are considered vernal pool indicator species in New Hampshire, the mere presence of mole salamander larvae is enough to classify a pool as vernal.



photo © Tim Beaulieu



photo © Vernal Pool Association

## Fairy Shrimp

are delicate-bodied crustaceans about 0.5 to 1.5 inches long (slightly larger than a grain of rice). They may swim slowly, dart quickly, or remain stationary in the water column as they rhythmically beat their abdominal appendages, which double as respiratory organs. Occasionally, people mistake mosquito larvae for fairy



shrimp. However, unlike fairy shrimp — which are orange to green in color, and move gracefully through the water column — larval mosquitoes are black, and they exhibit distinctly spastic or wriggly movement. Fairy shrimp are the only obligate vernal pool invertebrate species that are recognizable exclusively as adults.

# Vernal Pool Documentation Checklist

For each pool, please submit the following data and photos online at [harriscenter.org/vernal-pool-project](http://harriscenter.org/vernal-pool-project):

- labeled photos** of:
  - the vernal pool
  - amphibian egg masses or fairy shrimp
  - a field sketch of the vernal pool
- data form or spreadsheet**, including:
  - GPS coordinates for the pool's location
  - written directions to the pool
  - estimated egg mass counts
  - habitat information



wood frog photos © Dave Huth

## **Want to Learn More?** *Check out these vernal pool resources.*

### ***A Field Guide to the Animals of Vernal Pools*** by Leo Kenney & Matthew Burne

A concise, user-friendly field guide to the amphibians, reptiles, and invertebrates of Northeast vernal pools. This is *the* field guide for vernal pool enthusiasts.

### ***Vernal Pools: Natural History and Conservation*** by Elizabeth Colburn

With chapters on hydrology, vegetation, wildlife, and management, this comprehensive book contains everything you've ever wanted to know about vernal pools.

### ***Identifying and Documenting Vernal Pools in New Hampshire*** by Michael Marchand

The official vernal pool documentation manual published by the New Hampshire Fish and Game Department (NHFG), available as a free download on the NHFG website.

**vernalpool.org** Chock full of photographs and teaching tools, this website is also home to the fantastic Vernal Pool Association listserv.

**vernalpools.me** The most comprehensive website about vernal pool ecology in the Northeast.

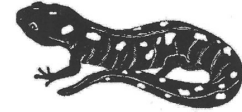
Excellent videos, annotated presentations, downloadable field identification cards, and scientific and layperson-friendly publications related to vernal pools. Well worth exploring!



# Sample Field Data Form

side 1

## Vernal Pool Project Data Form



1. Date: 4/25/23 2. Town: Keene

3. Property Name: Robin Hood Park 4. PVP ID Code: RH-01

PVP stands for "potential vernal pool."  
PVP ID codes can be found on the field maps provided by the Harris Center.

5. Volunteer Name: Sally Mander Email: sally@harriscenter.org

Volunteer Name: Woody Frog Email: woody@harriscenter.org

6. Start Time: 10 AM End Time: 11:30 AM Total Volunteer Hours: 3

7. Latitude: 42.7772

Longitude: -72.6745

### LOCATION

Use NAD83/WGS84 for all coordinates, and enter coordinates in decimal degrees, with at least four decimal places, if possible.  
Example: Latitude 42.9505 Longitude -72.2955

8. Source of Coordinates (Lat/Long):

GPS  Google Maps  Harris Center  Topo Map  Other \_\_\_\_\_

9. This pool was:  mapped by the Harris Center or project partners as a PVP  previously unmapped

Please mark the location of previously unmapped pools on your field map and label each "new" pool by adding A, B, C etc. to the number of the nearest PVP on the property (e.g., RH-7A for an unmapped pool discovered near Robin Hood Park Pool RH-7).

10. Written Directions to Site: Park at the pulloff for the unmarked Robin Hood Park trailhead on Jordan Road. Follow the trail west for approx. 0.25 mi. This is the first pool on your left, just beyond a low stone wall.

Please include: (1) a description of a logical starting point, including parking information; (2) the distance from the starting point to the pool; (3) your direction of travel; and (4) any other distinctive landmarks that could help us re-locate this site in the future.

### HABITAT

11. Is this site a vernal pool?  Yes  No  Unknown  Unable to Locate

12. Pool Type: Check one.  Upland-Isolated  Floodplain  Wetland Complex

13. Origin of Pool:  Natural Depression  Natural, but Altered  Constructed Pond

Check one.  Quarry/Sand Pit  Ditch or Tire Rut  Created Wetland (for mitigation purposes)  
 Unknown  Other \_\_\_\_\_

14. Disturbances:  None  Dumping  Ditching/Draining  Ruts from Wheeled Vehicles

Check all that apply.  Runoff/Siltation  Other \_\_\_\_\_

15. Surrounding Habitat:  Open (shrubs, agriculture, grasslands)  Forest  Wetlands

Check all that apply, within 250 feet of the pool.  
 Open Water (lakes, ponds, rivers, streams)

Residential (lawn, some pavement and structures)

Industrial/Urban (mostly pavement and structures)

Paved Roads/Driveways  Unpaved Roads/Driveways  Other hiking trail

16. Did you observe water flowing out of the pool on the survey date?  Yes  No

# Sample Field Data Form

## HYDROLOGY

17. Pool Width (ft): 50 Pool Length (ft): 80  Measured  Estimated

18. Maximum Water Depth on Survey Date:  Ankle-deep (< 6")  Shin-deep (6-12")  Knee-deep (1-2 ft)  
 Hip-deep (2-3 ft)  Chest-deep (3-4 ft)  Deeper than 4 ft

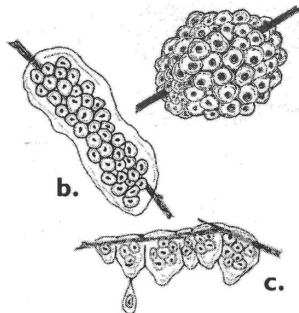
19. Were fish observed in the pool?  YES  NO

Presence of fish may indicate a permanent body of water that is not a vernal pool. Please note if the PVP is connected to another water body, or is within a river floodplain.

## OBLIGATE SPECIES

20. Please circle the estimated total number of egg masses for each obligate species.

If you have an exact egg mass count, enter it in this column:



a. Wood Frog Egg Masses	0	1-25	26-100	<u>&gt; 100</u>	
b. Spotted Salamander Egg Masses	0	<u>1-25</u>	26-100	> 100	
c. Jefferson Salamander Egg Masses	0	1-25	26-100	> 100	5

21. Was the entire pool surveyed for egg masses?  YES  NO

If not, why and what percentage of the pool was surveyed? Percent Surveyed 75%  
We could not see into the shrubby area in the center of the pool.

22. How many branches and twigs were in the pool? Check one.  NONE  1-10  > 10

Downed woody material is often used by amphibians for egg attachment.

23. Were spermatophores observed in the pool?  YES  NO

24. Were fairy shrimp present?  YES  NO  NOT SURE



25. General Comments and Wildlife Observations:

Wood frog egg masses were about to hatch. Removed a few beer cans from the pool. Saw a garter snake basking at the pool's edge!

Include comments about the pool, surrounding habitat, or additional wildlife observations. Note adult amphibians seen in and around the pool. Please share any questions that you have or advice for volunteers that may be conducting follow-up visits.

26. Which photos have you taken for this pool?

- Pool Overview
- Field Sketch
- Wood Frog Egg Mass
- Spotted Salamander Egg Mass
- Jefferson Salamander Egg Mass
- Fairy Shrimp

The name of each image file should ideally include: (1) the PVP ID code, (2) the subject of the photo, (3) the town name, (4) your last name, and (5) the date of survey. For example: RH-07\_field\_sketch\_Hancock\_Thelen\_042124. Submit all photos and data online at [harriscenter.org](http://harriscenter.org).

This form was adapted from the Maine and Vermont Vernal Pool Mapping Projects, as well as the official New Hampshire state vernal pool documentation form. All line drawings were created by Dawn Morgan.



**HARRIS CENTER**  
FOR CONSERVATION EDUCATION

[harriscenter.org](http://harriscenter.org)

# Guidelines for Contacting Landowners

## **When do I need landowner permission?**

Landowner permission is not usually necessary for public land like state parks or town conservation land. However, it's essential for privately-owned parcels, even if they're under conservation easement.

**Do not look for vernal pools on private land without first obtaining consent from the landowner.** Check with the Harris Center if you're unsure whether you need landowner permission to visit a particular property.

## **How do I get permission, exactly?**

It's best to have written landowner permission to visit vernal pools on private property. The Harris Center will have already obtained permission for properties being surveyed on our conserved lands. However, if you're documenting vernal pools on other private land, you'll need to contact the landowner before visiting the property.

## **What should I say?**

Start by introducing yourself and the project:

*Hi, my name is Sally Mander and I'm volunteering with a project to map vernal pools on conserved land in the Monadnock Region. Based on an analysis of aerial photographs, we think you may have a vernal pool on your property. May I have your permission to visit the site and take pictures of any vernal pools I find there?*

Better still: invite the landowner to accompany you on your visit! This sets the stage for positive working relationships. Additionally, since many of these landowners have chosen to establish conservation easements on their land, they might relish the opportunity to explore it with a skilled observer. They may also already know the locations of vernal pools for you to document.

## **What if the landowner has never heard of vernal pools before?**

This is the perfect opportunity for informal education. The landowner may not know the *term* vernal pool, but they might be familiar with the “wicked big puddle” that forms in their woods every year. Explain that these puddles are important breeding sites for salamanders and frogs who migrate there each spring.

## **What if a landowner seems resistant to the idea of me visiting her land?**

Don't force the issue. Stress that we will **not** go on anyone's land if they don't want us to be there, then make sure to let the Harris Center know that the landowner has declined to give permission.

## **What if a landowner has questions that I can't answer?**

Encourage them to visit [harriscenter.org/vernal-pool-project](http://harriscenter.org/vernal-pool-project) for more detailed information, or to contact Vernal Pool Project coordinator Brett Amy Thelen at [thelen@harriscenter.org](mailto:thelen@harriscenter.org).

## **What if a landowner is concerned about the legal ramifications of having volunteers or vernal pools on their land?**

Assure them that the New Hampshire Recreational Use Statute (212:34) specifically exempts landowners from liability for anyone “hiking” or “sightseeing” on their property, and volunteer fieldwork for this project falls under that statute. Additionally, although state wetlands regulations were recently amended to include vernal pools as wetlands that must be considered in development plans, there is limited legal protection for vernal pools in New Hampshire. In theory, if it is not part of a larger development project that requires a wetland permit, a New Hampshire landowner could clearcut the area around a vernal pool or develop the pool itself without legal repercussion. However, the conservation easements on these properties may already include protections for vernal pools and/or restrictions on certain forestry practices.

## **A few last thoughts...**

Your visit has the potential to inform and inspire — and landowners are more likely to take an interest in the vernal pools on their land if their experience with you has been a positive one. Remember to notify them of your visit in advance and to respectfully abide by their wishes regarding scheduling, parking, and other details. In addition, be sure to keep all landowner contact information confidential. It's also a great idea to thank the landowner after your visit, and to share your findings with them when you're done!