

Vernal Pool Patrol Program Evaluation

The background image shows a forest floor covered in brown, fallen leaves. In the lower-left foreground, there is a white plastic bucket with a handle, a blue tarp, and a shovel. A small orange flag is visible near the bucket. The scene is set in a wooded area with several tree trunks visible in the background.

November 2022
Summary of Results

Goals of Evaluation

The goals of the program evaluation were to gauge 1) whether the community science monitoring program, the Pool Patrol, was meeting its primary program objectives and 2) receive feedback and suggestions from participants on their experience in order to provide targeted improvements to the program moving forward.

Vernal Pool Patrol - Program Goals

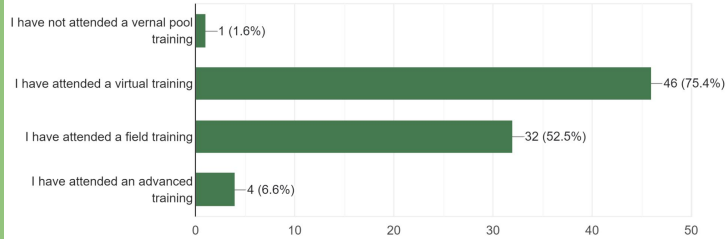
- 1) Enhance our information and knowledge about vernal pool status, distribution, and ecology in Michigan
- 2) Increase awareness and understanding of vernal pools and their importance to wetland and forest ecosystems
- 3) Increase public/youth engagement in natural resource science and stewardship

Participant Information

Volunteers (n = 61)

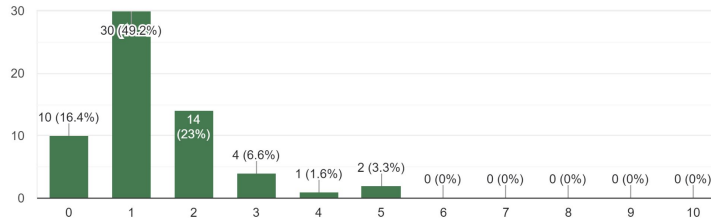
Please describe your training experience.

61 responses



How many years have you participated in Vernal Pool Patrol monitoring?

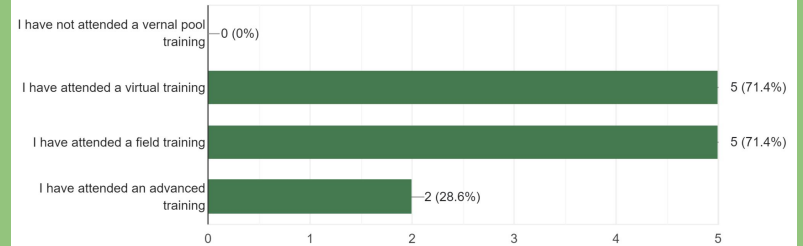
61 responses



Coordinators (n = 7)

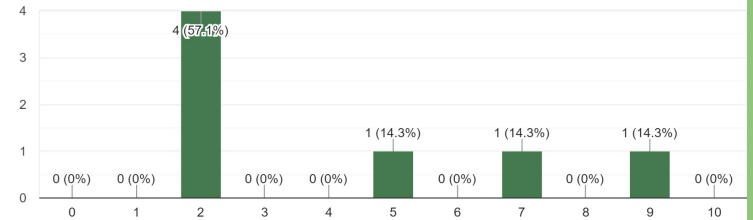
Please describe your training experience.

7 responses



How many years have you participated in Vernal Pool Patrol monitoring?

7 responses



Vernal Pool Patrol Training

We asked volunteers and coordinators to reflect on their ability to complete monitoring protocols after going through the Vernal Pool Patrol training and what other resources would be helpful.

“Interesting,
informative,
hands-on!”

“I need a refresher on
how to ID the different
egg masses.”

“Identifying salamander
larvae by species and
plant ID's”

“Entering data on
Survey123 primarily”

Does the Pool Patrol training set participants up for success?

Pool Patrol Training Evaluation Question	Volunteers (% Agreement)	Coordinators (% Agreement)
Confidence in ability to collect data over time	72%	100%
Confidence in ability to perform protocols in field	78.3%	100%
Ability to use Survey 123	49%	67%
Navigate the hubsite and find training materials	67%	100%
VPP provides comprehensive materials and resources to support my understanding	91%	100%

Awareness and Understanding of Vernal Pools

We asked volunteers and coordinators to reflect on how their awareness and understanding of vernal pools changed after participating in the Pool Patrol. What were the rewards of participating in the program, as well as the challenges?

“The great number of pools around. Appreciating the need to respect the pools and surrounding areas and to be careful not to spread potential pathogens from pool to pool.”

“I enjoy feeling like I am helping with the collection of data that would not be available if not for the volunteers.”

“Maintaining volunteer interest from visit 2 (spring) to visit 3 (Fall). Also having enough supplies for everyone to do monitoring at their convenience.”

“A true and deep love for fairy shrimp and sallies!”

Is the program rewarding for patrollers?



What are the challenges?

The majority of patrollers also found their experience to be challenging. The reasons being primarily needing more **time** to collect all the data, **physical challenges** with monitoring (i.e. navigating the pool, finding species), **technical challenges** (i.e. Survey 123 & technology in general, and a **learning curve** that comes with participating (i.e. “Building up familiarity and researching species took some time”).

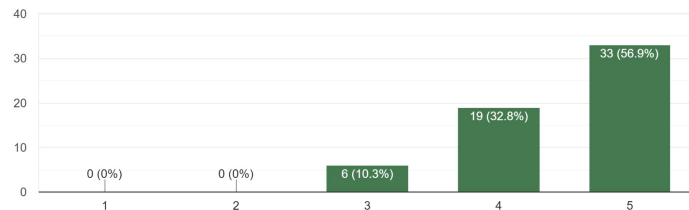


How has ecological knowledge been impacted?

Volunteers

Participating in the Vernal Pool Patrol has motivated me to learn more about forest and wetland ecology

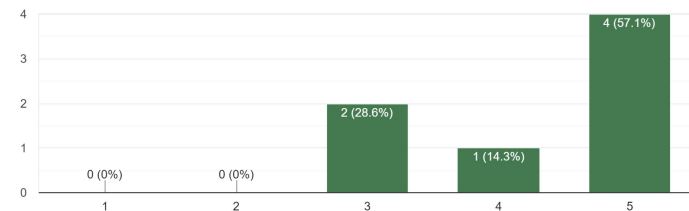
58 responses



Coordinators

Participating in the Vernal Pool Patrol has motivated me to learn more about forest and wetland ecology

7 responses



“What have you gained from having participated in the program?”

**volunteers and coordinators combined*

Understanding of vernal pool ecology and conservation	59 participants
Awareness of the ecological importance of vernal pools	58 participants
Awareness of the need for more information about vernal pools	58 participants
Opportunities to engage in natural resource science and stewardship	48 participants
Opportunities to engage in community	44 participants

Engagement Outside of Pool Patrol Monitoring

In order for us to better understand the impact of the program, we asked participants to share about their experiences outside of the Pool Patrol regarding vernal pools. Does the program serve as a networking opportunity for participants? Do patrollers feel like they are able to take what they learned from the program and share it? Is the vernal pool conversation growing?

"The big news piece validated my stumbling efforts to share what I was doing with quite a few people. A kid friend did a summer pool ecology class at our local math and science center and has been a helpful partner to me."

"My friend saw me post things about vernal ponds and now she is also a part of the patrol."

"Vernal pools have been featured in outreach materials (newsletters, emails, social media) much more in the last ~5 years or so."

"Coworkers and friends see photos I share out in the field and ask questions about VP's."

Is there a social aspect to patrolling?

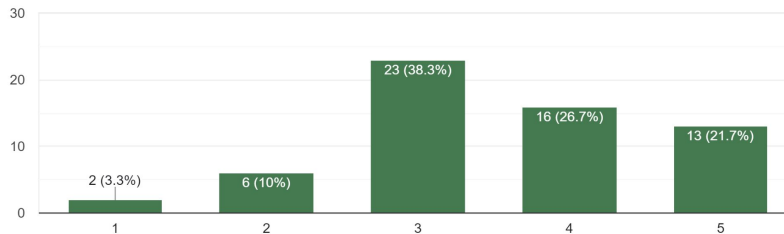
Participating in the Pool Patrol has the potential to be a networking opportunity. Additionally, many patrollers were motivated to explore other conservation efforts in their communities!

36% of volunteers
4 out of 7 coordinators
found the Pool Patrol to be a networking opportunity

Volunteers

Participating in the vernal pool patrol has motivated me to participate in other local conservation work (i.e. invasive species removal, water quality monitoring, etc.)

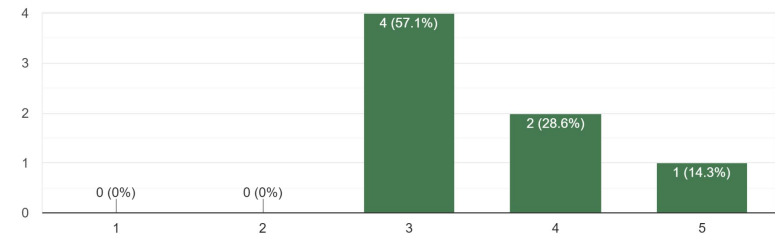
60 responses



Coordinators

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7 responses



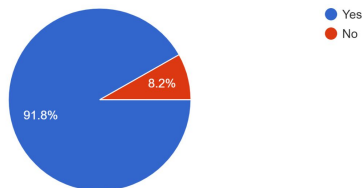
How has ecological knowledge been impacted?

Patrollers are motivated to share and engage in further conservation. 92% of volunteers indicated that they intentionally shared information about vernal pools to increase conservation efforts, mostly at home (n = 41), at work (n= 37), with students (n =24), or at community meetings (n=20). There has been some noticeable discussion around vernal pools in participants' networks, largely through self-initiation of discussion or organizational discussion!

Volunteers

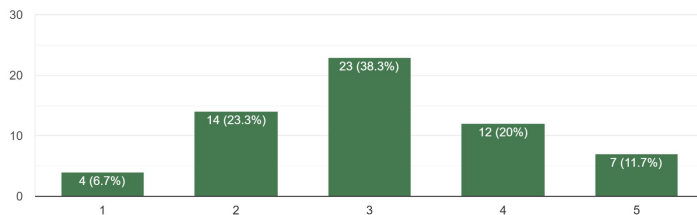
I have intentionally shared about vernal pools with others in hopes of increasing conservation efforts.

61 responses



I have noticed increased vernal pool discussion in my community or network.

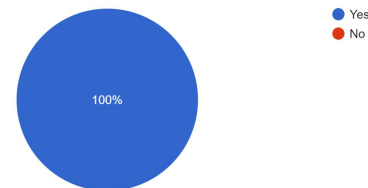
60 responses



Coordinators

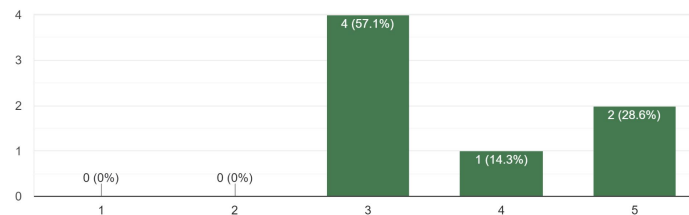
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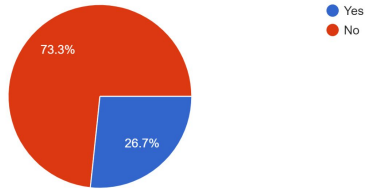
7 responses



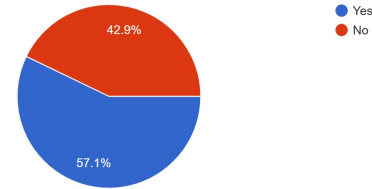
Are some patrollers taking action?

Knowledge or data gained from participating in the Pool Patrol has had some extended reach, with 26.7% of volunteers sharing that they have contributed their experience to aid in decision making or conservation efforts in their community. Five participants shared they have done this in their organizational involvements to some extent.

I have contributed my vernal pool knowledge or data to participate in decision making or conservation activities in my community.
60 responses



I have contributed my vernal pool knowledge or data to participate in decision making or conservation activities in my community.
7 responses



"Planning new parking lot development I shared locations of a vernal pool with design firm so that they would leave a good undisturbed buffer around the pool"

"I have utilized the vernal pool hub mapping system to gather data on what vernal pools may be left out of our current wetland ordinance, and what community leaders should consider adding to the ordinance for greater vernal pool protection."

"Helped my neighbor learn that he had a vernal pool"

"Data collected will potentially be used for future stewardship considerations at properties owned by my organization. Data will also be shared with external researchers seeking wetland/water quality data about our area."

Program Coordinator Experience

The Pool Patrol would not be possible without the support of its dedicated group of program coordinators, who help with recruiting and training citizen/community scientists across the state and ensuring data are being submitted to the database.

To provide better support to our program coordinators and the communities they work with, we asked for specific feedback on their experiences, challenges, and successes.

"The vernal pool hub has everything I need as a coordinator - the training manual is a wonderful resource and concise. I love the mapping system, I think this may be the most helpful to most volunteers, although some do struggle to use it with total success. The great thing is I am happy to input anything manually for volunteers, and the resources are very easy for me to access and send their way if they have any trouble with it."

"Kits with all the supplies need for monitoring available for purchase from VPP"

"A mid-season event to maintain interest, meet other volunteers and coordinators, maybe with some hands on learning."

Involvement as a program coordinator varies, some host field trainings, some are a point of contact for those in the area, and others work with a set group of volunteers.

Program coordinators work with a varying number of volunteers. Those that participated in this survey indicated working with between **8-38 volunteers**.

Coordinator Successes

Increased volunteer recruitment	4 out of 5
Increased volunteer retention	3 out of 5
Increased vernal pool knowledge/data in survey area	5 out of 5
Expanded volunteer engagement across programs	1 out of 5
Enthusiasm for vernal pools in community	4 out of 5
Organizational support for program	3 out of 5
More informed stewardship and/or management practices	5 out of 5

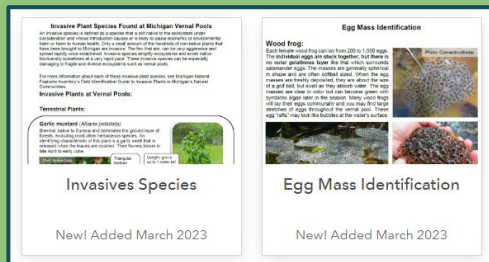
Coordinator Struggles

Recruitment	1 out of 5
Retention	3 out of 5
Data management	3 out of 5
Adequate supplies	2 out of 5
Capacity and time	1 out of 5
Organizational support for vernal pool monitoring	1 out of 5
Community support for vernal pool monitoring	0 out of 5

Based off your feedback...

New for 2023!

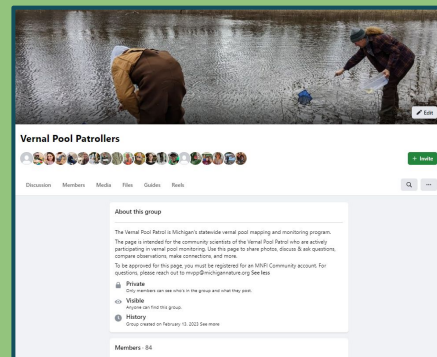
New Identification Guides



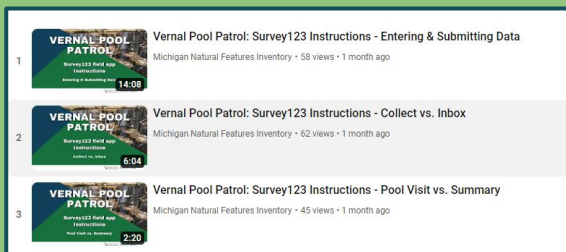
Raised funds to provide monitoring kits to program coordinators



Facebook Group for Patroller Communication



Survey 123 Support



Visit Reminders

VPP 2nd Pool Visit & Survey123 Help - Hello Vernal Pool Patrollers, As Spring starts to wrap up, it's time for the second visit to your vernal pool site(s)!

THANK YOU!

Data collected by dedicated volunteers and coordinators enhances understanding of pools across the state and directly contributes to the conservation of these unique and critical ecosystems!

