Vernal Pool Monitoring Evaluation 2020

Background

In response to shelter in place orders in the spring of 2020, a planned, in-person training to be co-hosted by Huron Pines and the Michigan Natural Features Inventory was shifted to an online training event in May 2020. The purpose of this training was to increase volunteer monitors in the Northern Lower Peninsula region. In a 3 hour session, participants received training on vernal pools (basics, importance) and how to follow the state protocol for monitoring of these habitats.

This training was provided via Zoom (meeting capability) live on May 16th from 9:30 am -12:30 pm. In large group and breakout sessions, participants learned from experts in the areas of botany, macroinvertebrates and reptiles/amphibians. They were guided through the protocol and taught to use the reporting app to submit data to the statewide database. Participants were then able to purchase or receive free of cost the supplies kit to conduct monitoring on their own. Additionally, they received follow up materials with guidance on monitoring via a Google Drive folder.

Methods

Qualtrics was used to collect evaluation data. These data were collected anonymously and not required of participants. The evaluation links were provided via email to participants. For the pre-assessment, the link was sent out ahead of the training session with the post-assessment and feedback sent following the training.
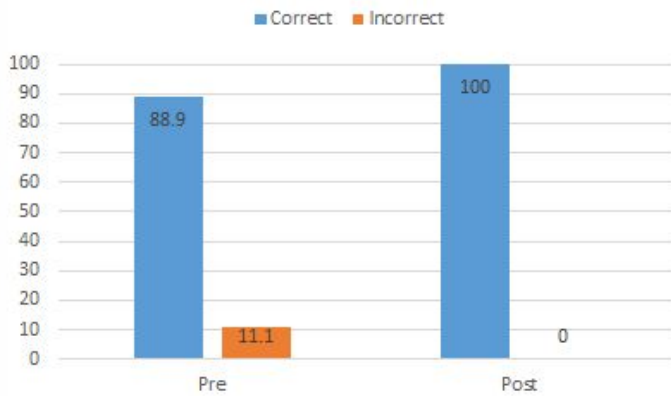
Participation Summary

In total, we had 30 registrants and 22 attend the training session. It is worth noting, as well, that the count only includes individual accounts that tuned in, where some accounts may have had multiple viewers.
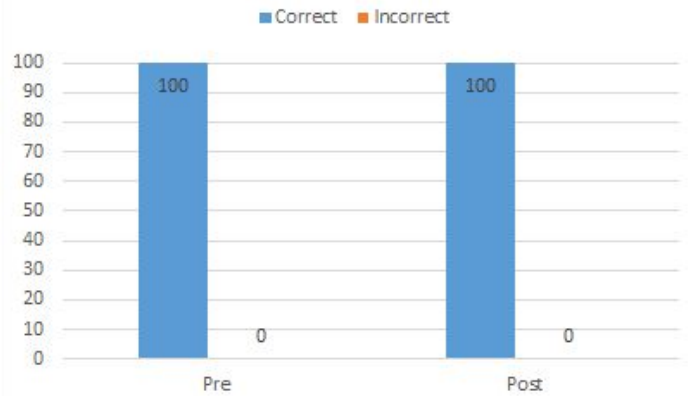
Evaluation Summary

34 responses (18 pre-assessment, 11 post-assessment and 5 feedback forms) were collected through December 12, 2020. Based on the total live participation (n=22), the response rate for the pre-assessment was 82%, 50% for the post, and 23% for the feedback form. One of the limitations is that we failed to collect any identifying information and not all participants responded to both pre and post, so while we cannot match up the pre- and post-survey information we can assess the net increase in knowledge. Four knowledge questions saw no change from pre to post with all participants answering correctly; two saw a 5% increase in correct answers with all participants answering correctly in the post; one saw a 10% increase in correct answers with all participants answering correctly in the post; one saw a 40% increase in correct answers with 90% answering correctly in the post; and one saw a 47% increase in correct answers with 63% answering correctly in the post.
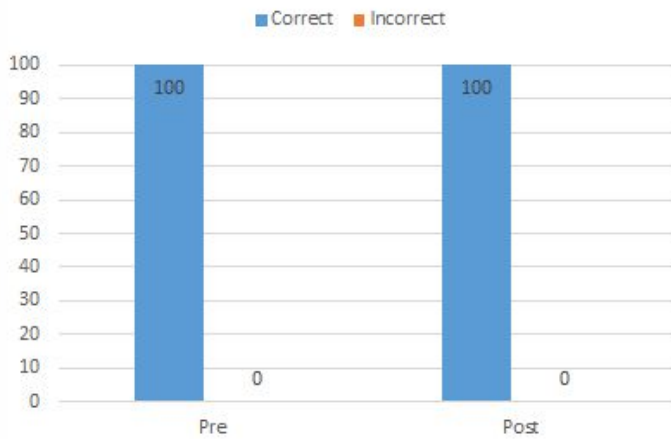
Assessment Responses

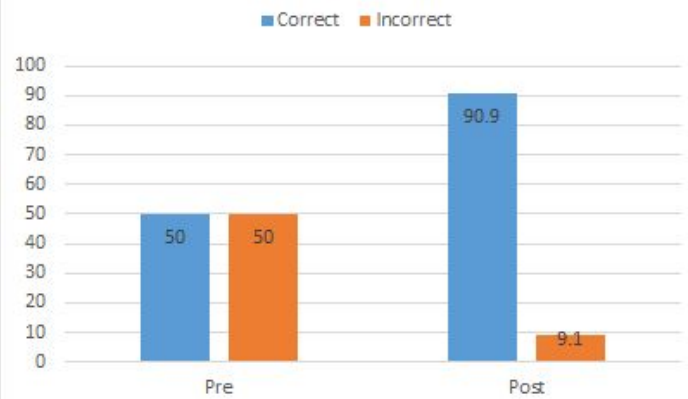### 1. Which of the following characteristics must a wetland have?

Legend: ■ Correct ■ Incorrect

	Pre	Post
Correct	88.9	100
Incorrect	11.1	0

2. Which of the following statements about wetlands is TRUE?

Legend: ■ Correct ■ Incorrect

	Pre	Post
Correct	100	100
Incorrect	0	0

2. What is a vernal pool?

Legend: ■ Correct ■ Incorrect

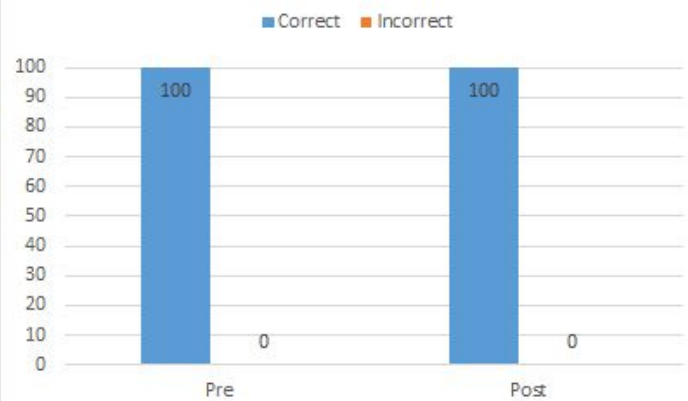|	Pre	Post
Correct	100	100
Incorrect	0	0

4. Which of the following are "indicator species" for vernal pools?

Legend: ■ Correct ■ Incorrect

	Pre	Post
Correct	50	90.9
Incorrect	50	9.1

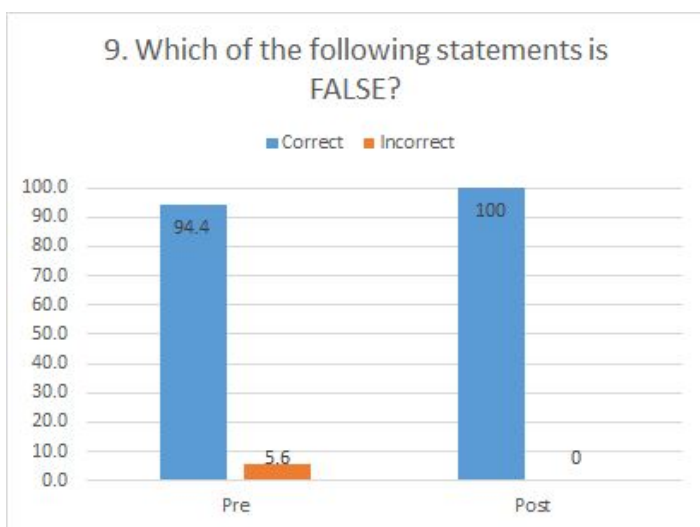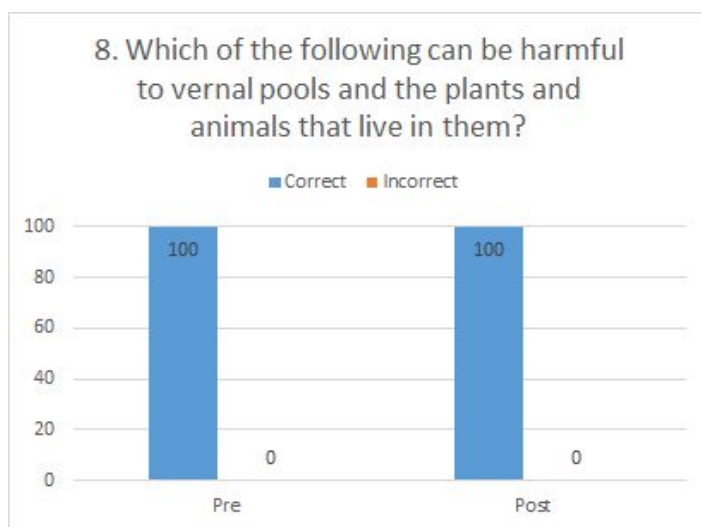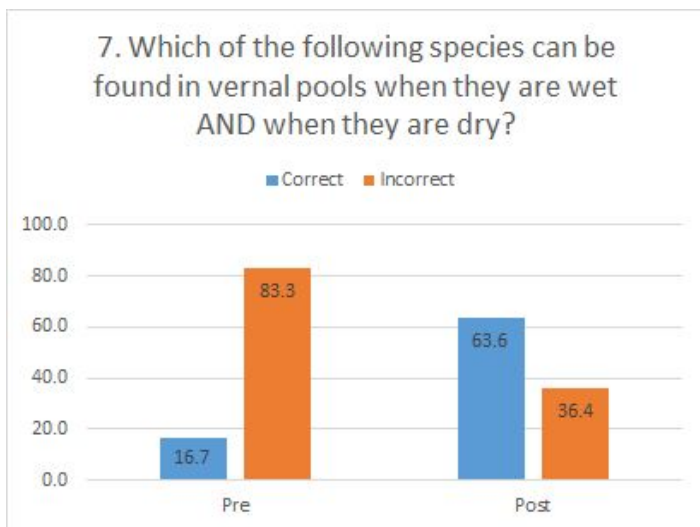### 5. Vernal pools are important to forests, animals and plants living in forests, and/or people except for one of the following?

Legend: ■ Correct ■ Incorrect

	Pre	Post
Correct	94.4	100
Incorrect	5.6	0

6. Which of the following statements if FALSE?

Legend: ■ Correct ■ Incorrect

	Pre	Post
Correct	100	100
Incorrect	0	0

7. Which of the following species can be found in vernal pools when they are wet AND when they are dry?

Correct ■ Incorrect ■

Pre: Correct 16.7, Incorrect 83.3
Post: Correct 63.6, Incorrect 36.4

8. Which of the following can be harmful to vernal pools and the plants and animals that live in them?

Correct ■ Incorrect ■

Pre: Correct 100, Incorrect 0
Post: Correct 100, Incorrect 0

9. Which of the following statements is FALSE?

Correct ■ Incorrect ■

Pre: Correct 94.4, Incorrect 5.6
Post: Correct 100, Incorrect 0

Feedback Form

1. *Please tell us something new you learned from the training workshop.* 5 responses grouped thematically:
   - **Species (n=3)** - I learned what species are likely to be found in vernal pools and learned about the indicator species.; also all the species that could be present; I learned about some of the indicator species specifically.
   - **General Awareness and Importance (n=3)** - I learned the precise definition of vernal pools and how to really appreciate their value.; much more aware of what a vernal pool is.; The important role of vernal pools in the ecosystem, especially as a nursery for several animals. The lack of predatory fish makes it especially good.
   - **General learning (n=2)** - I learned a lot of new things.; learned about the whole process
   - **Mapping (n=1)** - much more to mapping than I knew
   - **Habitat Type (n=1)** - How to determine whether a vernal pool is forested vs shrub vs open based on percent of cover.
   - **Feedback (n=1)** - My comment about the training is too much information too fast. I felt like as much info was crammed in the presentation as possibly could be and thrown at us. My learning style is not crash course so it was a pretty frustrating experience for me. There was a lot of great information presented. I enjoy citizen science activities and am interested in learning more about

vernal pools but at this point I don't feel at all ready. I would be interested in more education maybe focusing on 1-2 areas at a time.

2. *Do you feel confident that you could correctly identify a vernal pool tomorrow, or at least know what characteristics to look for?* (n=5)
   - **Yes - 60%** (n=3)
   - **Maybe/Not Sure - 40%** (n=2)

3. *Do you feel confident or comfortable that you could monitor a vernal pool tomorrow following the Vernal Pool Patrol monitoring protocol?* (n=5)
   - **Yes - 20%** (n=1)
   - **Maybe/Not Sure - 60%** (n=3)
   - **No - 20%** (n=1)

4. *If response to Question 2 and/or 3 was "No" or "Not Sure/Maybe," what additional assistance or information would you need to feel confident identifying or monitoring a vernal pool?* 4 responses grouped thematically:
   - **Hands-on/guided experience (n=3)** - I would like some guided practice in doing the identification. The online workshop was excellent and provided a great deal of information. However, without some hands-on practice, I am not sure if I would be confident in identification of species.; support and guidance at least the first time through; Just need to get out and practice and see if any issues come up!
   - **Additional training/support (n=2)** - ongoing support to understand the monitoring process; More training, a partner to work with
   - **Use of materials/supplies (n=1)** - appropriate use of materials
   - **Reporting (n=1)** - reporting process
   - **General feedback (n=1)** - a lot was covered in the two hours; certainly was not boring. Very nicely presented especially for someone new to the concept

5. *Do you plan on monitoring a vernal pool near you?* (n=5)
   - **Yes - 20%** (n=1)
   - **Maybe/Not Sure - 80%** (n=4)

6. *Do you think you will be using or applying information from this training in a professional and/or personal capacity?* (n=5)
   - **Extremely likely - 40%** (n=2)
   - **Somewhat likely - 60%** (n=3)

7. *If extremely or somewhat likely, can you please share with us how you will be using or applying information from the training?* (n=5)
   - **Share with organization (professional or personal) (n= 3)** - I will be looking for indicator species on the vernal pool on my property and try to share the value of vernal pools with the Douglas Lake Improvement Association members and the I love Douglas Lake facebook page. I hope that you'll have a nice video about vernal pools and their importance that I can share.; I work for Southeast Michigan Land Conservancy and we have many vernal pools at our nature preserves. We have never mapped or monitored them so it is a relatively unknown natural feature that we would like to collect more information on and also engage the public!; I am a volunteer with the Ann Arbor Public Schools Environmental Education program and I take school groups (when school is open) on various nature experiences. We do study ponds. I will definitely extend our activities with vernal pools.
   - **Unsure (n=1)** - I don't have a clue. Make it up as I go along and see what works and what doesn't.

- **Location and monitoring (n=1)** - Identifying the existence of a vernal pool and asking for help in monitoring
8. *Was the vernal pool overview session easy to understand and beneficial?* (n=5)
     - **Yes - 80%** (n=4)
     - **To some degree/ could be improved - 20%** (n=1)
9. *Were the plant, invertebrate and/or amphibian/reptile breakout sessions easy to understand and beneficial?* (n=5)
     - **Yes - 80%** (n=4)
     - **To some degree/ could be improved - 20%** (n=1)
10. Was the overview to the Vernal Pool Patrol program, data collection protocol, and field app session easy to understand and beneficial?
     - **Yes - 40%** (n=2)
     - **To some degree/ could be improved - 40%** (n=2)
     - **No - 20%** (n=1)
11. *If you found any of the sessions not easy to understand or beneficial or only to some degree, can you please explain which one(s) and why, and how a particular session(s) could be improved?* No responses provided.
12. *What did you find most helpful about the training workshop?* (n=5)
     - **Identification (n=3)** - Learning what species are found in the vernal pool and how to identify them.; The identification of all the different species in vernal pools and the description of the different types of vernal pools; The information was excellent and extensive. Specific information was quite in depth and helped form a good picture of the interrelated ecology of a vernal pool.
     - **Presenter/Format (n=2)** - Presenters were knowledgeable. Well structured presentation. I like the idea of rotating to different areas of expertise, didn't really like how it was implemented….running through as much info as quickly as possible and moving on. That just doesn't work for me.; Going through examples, especially with photos
13. *On what topic(s) would you have liked more detail or training?* (n=5)
     - **Monitoring (n=3)** - More info about the monitoring application.; Seemed to run out of time at the end-more on the actual method of Pool Patrol; Also looking at how to submit data by trying it rather than just looking at it would be helpful.
     - **Species Identification (n=1)** - More information about the plants and animals found in each type of vernal pool.
     - **All topics (n=1)** - All of it.
     - **Hands on element (n=1)** - Hands-on practice with species identification would be the most important addition. I know this isn't possible at this time, but maybe an additional experience could be added to this at a later time.
14. Was it easy to register or sign up for the training? (n=5)
     - **Yes - 100%** (n=5)
15. Were pre-training emails helpful? (n=5)
     - **Yes - 80%** (n=4)
     - **No - 20%** (n=1)
16. Could you hear the speakers and see the presentations easily? (n=5)
     - **Yes - 80%** (n=4)
     - **Mixed - could hear/see some presentations easily but not all - 20%** (n=1)
17. *How did you hear about this training?* (n=4)

- **Email (n=2)** - email; E-mail
- **Cancelled event (n=1)** - Speaker had to cancel a garden group due to covid but was offered through this program
- **Social media/online (n=2)** - FB I think from Huron Pines; on-line.

18. *Would you recommend this training to others?* (n=5)
- **Definitely yes - 80%** (n=4)
- **Might or might not - 20%** (n=1)

19. *Additional comments or suggestions?* (n=5)
- *I loved that it was online and not in person. I think you should offer it again without dividing the attendees into groups and let each presenter present just once. Let as many people attend as want to. The more that can learn about the benefits of vernal pools the better. Perhaps have a Vernal Pools introduction and then offer a vernal pools advanced webinar and be sure to post them on youtube.*
- *Thanks so much for offering this class!*
- *It was very interesting. Thanks for the effort in this difficult time. Good Job!!!!!*
- *At this point, I don't feel confident enough to monitor a vernal pool on my own. Maybe I could work with someone to learn more.*
- *The workshop was fantastic. I had not heard anything about this program before participating in the workshop, but I am definitely interested in participating further.*