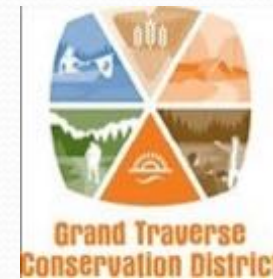


Michigan Vernal Pool Partnership

MWA Conference September 27, 2017



Michigan Vernal Pools Partnership



Montmorency
County
Conservation Club



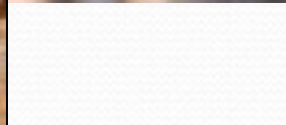
What Are Vernal Pools?



- Small, shallow, isolated wetlands
- Seasonal – draw down or dry up late summer
- Typically found in upland forests
- Critical fishless breeding habitat for amphibians and invertebrates
- Numerous species depend on them, and several species only occur in vernal pools

Small Features, Big Ecosystem Impact

“Coral Reefs of the Temperate Forest”



Unprotected by State and Federal Law

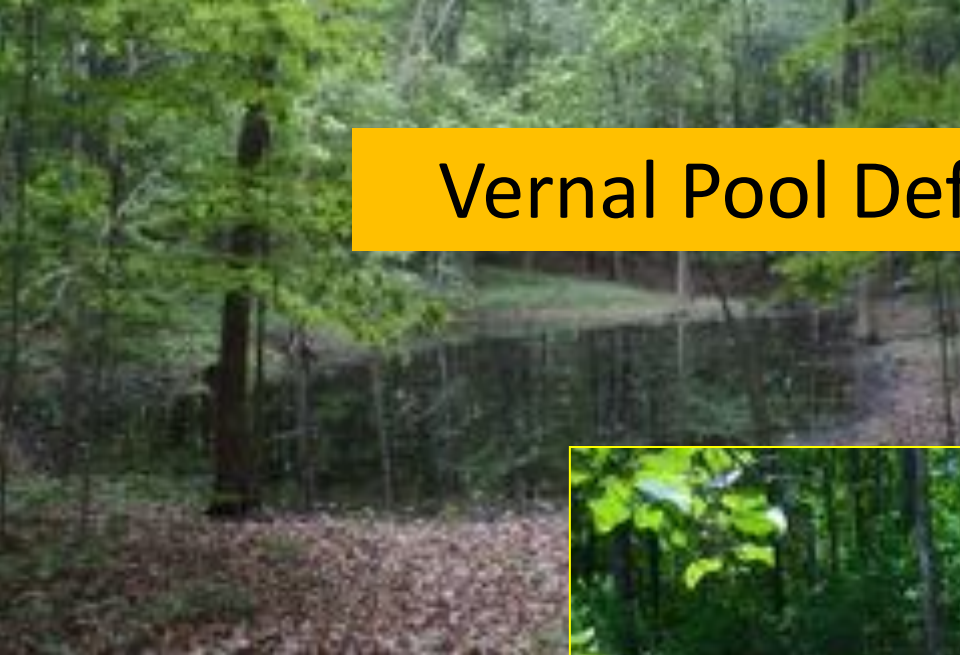
- Michigan Wetland Protection Statute: Five-acre threshold; vernal pools are too small
- Federal Clean Water Act: U.S. Supreme Court SWANCC Decision (2001); vernal pools are isolated

MDEQ - MNFI Vernal Pool Project

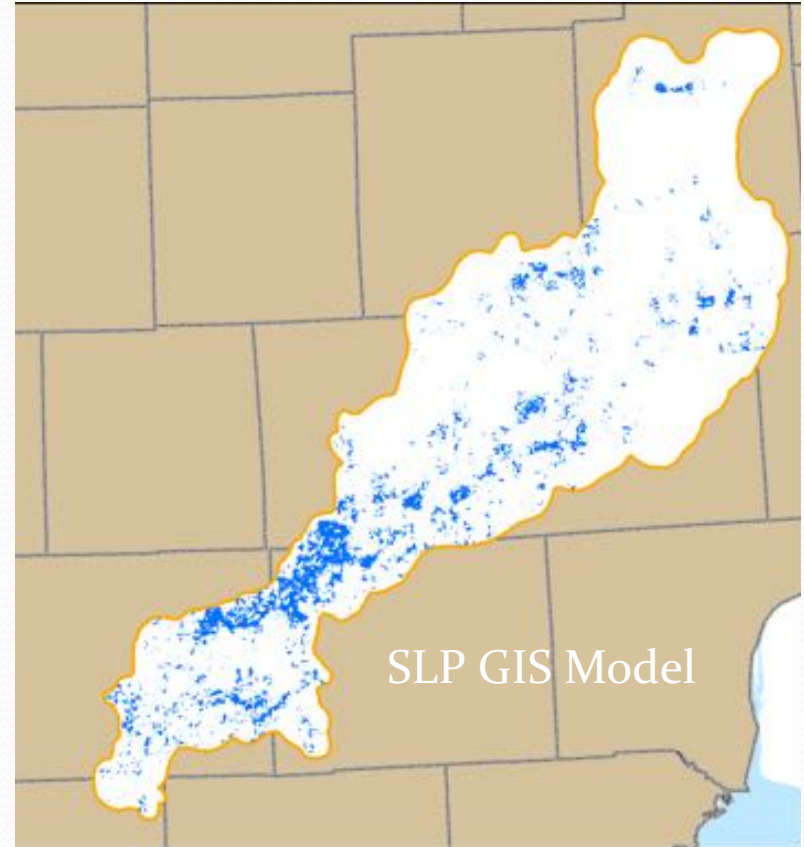
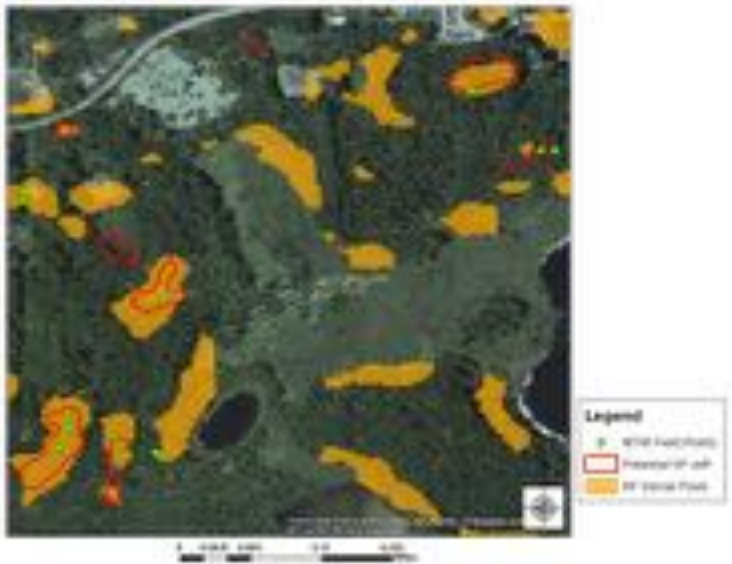
- 2011 - 2014
- Funded by MDEQ through U.S. EPA WPDG
- Develop an effective & efficient approach for identifying, mapping, assessing and monitoring vernal pools
- Baseline data and foundation for statewide vernal pool mapping and monitoring



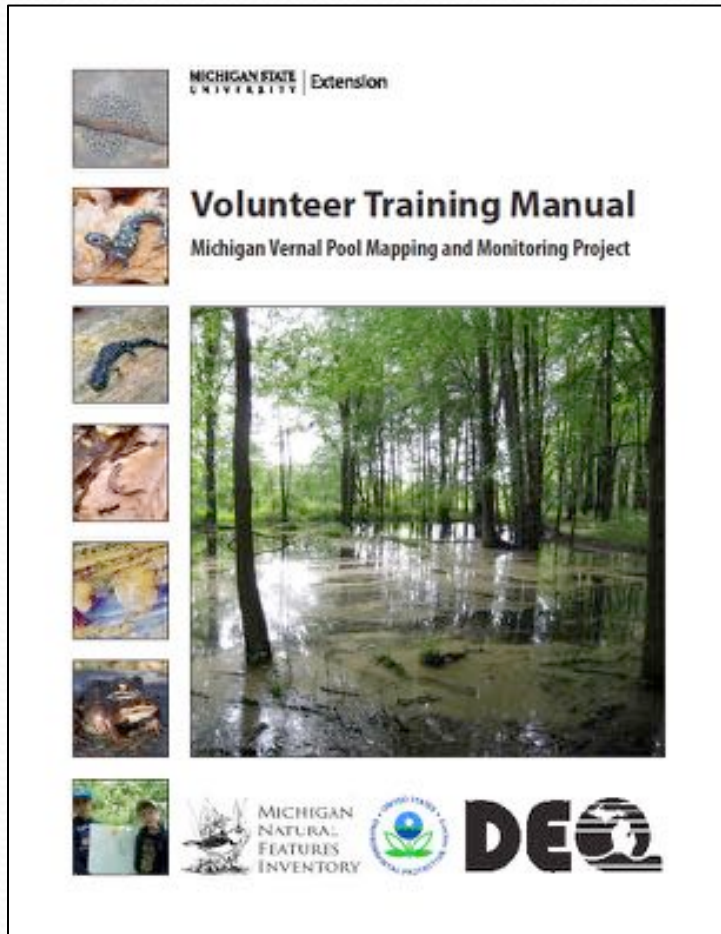
Vernal Pool Definition & Types



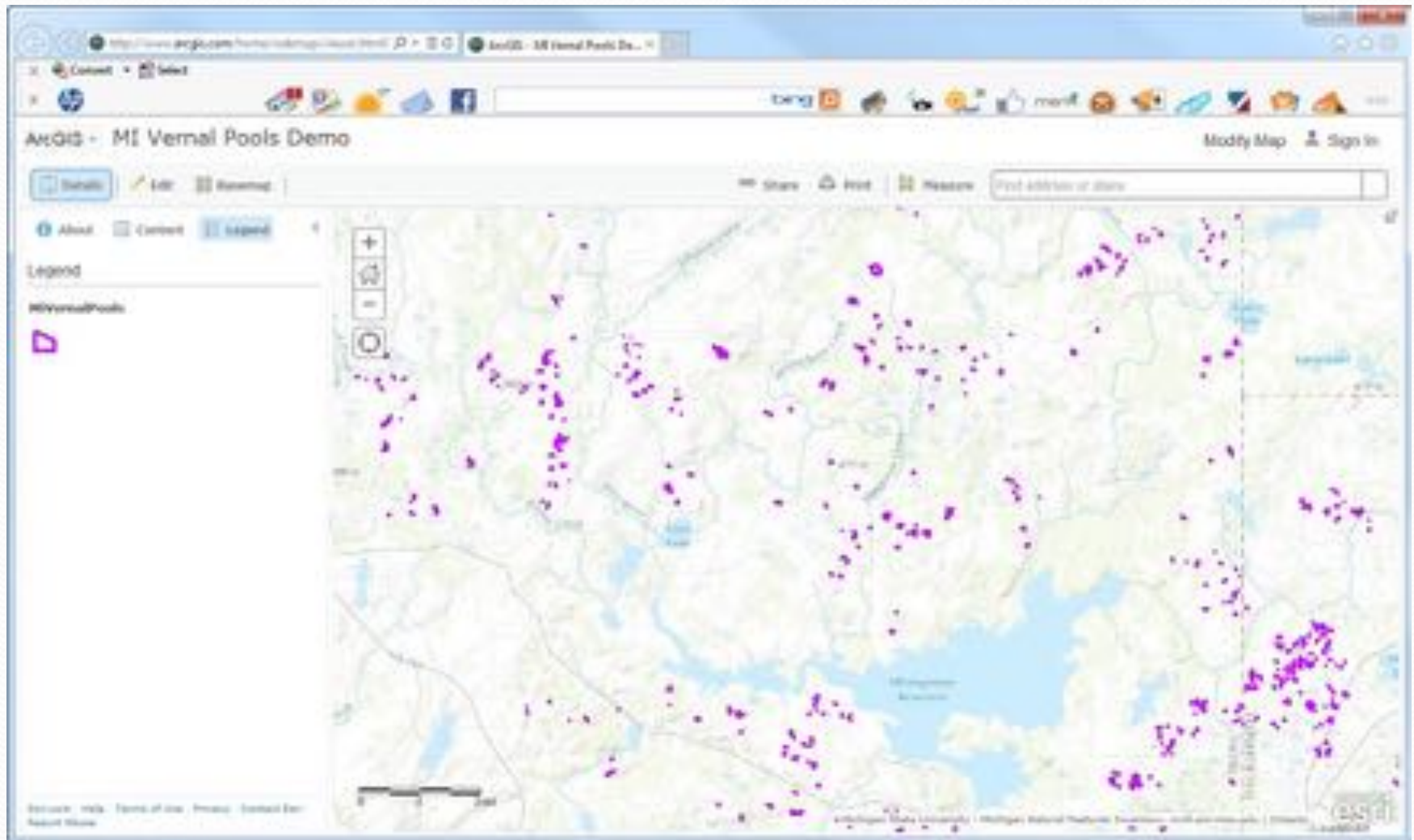
VP Mapping and Monitoring



Citizen Science-based Vernal Pool Mapping & Monitoring



Statewide Vernal Pool Database



Community Awareness



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Vernal Pool Patrol: Salamanders, frog eggs, and fairy shrimp, oh my!

Mapping project aims to educate students about vernal pools

Posted on May 26, 2016 by Brandon Schneider, Michigan State University Extension, Michigan Jay Grant, and Margaret Davis, Nature From AweoCamp

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A spring walk in the woods may lead you to one of Michigan's most common but lesser known wetlands - a [vernal pool](#). These seasonal or temporary wetlands are often small in nature yet significant in ecological value. Just in the spring, vernal pools (which eventually dry up as summer progresses), in fact, these exploring woodlands are in the summer may look through a wetland and without realizing the power through this important wetland ecosystem.

As the time of winter walks going well in spring, these wetlands fill with water and explode with life. To celebrate MSU's Michigan Nature Institute's 20th anniversary, MSU Extension, Michigan Jay Grant, and Margaret Davis, Nature From AweoCamp, will be studying the ecology of these vernal pools during the small window of time each spring. The time can be a challenge as well as large numbers of vernal pools each spring, when the ground is still soft before these seasonal wetlands dry up. Learning is a key (MSU's [Michigan Nature Institute](#)) at several schools and youth.



Students just back on experience wading alongside MSU Extension and Michigan Nature Institute members as part of vernal pool-walking. Brandon Schneider / Michigan Jay Grant

- Presentations
- Training workshops
- Articles
- Websites
- Poster

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Youth study vernal pools in northern Michigan

The 4-H Student Stewards are wading into a unique opportunity in northern Michigan to help study vernal pools

Posted on June 1, 2016 by Tracy D'Aquino and Brandon Schneider

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As part of the Student Stewards for Youth in Antrim County youth is elementary through high school are working with scientists from the Michigan Nature Institute's 20th anniversary (MSNI) to study and record the ecology of [vernal pools](#) where they do up. The Stewards explored four potential vernal pools in Antrim County (Antrim) looking for specific species unique to vernal pools as part of the study (Antrim) is based on research (MSU's [Michigan Nature Institute](#)). These youth are contributing to a statewide effort to identify, monitor and map vernal pools.

Arrived with waders and hip waders, these 4-H Student Stewards hopped through the forest in late April to the first of a series of four potential vernal pools to be explored. The youth used a data collection protocol and recording sheets created by MSU Extension to ensure the value of their data. The youth recorded information about the pool's temperature, depth, submerged and partially submerged trees and vegetation before moving on to a nearby survey for aquatic insects.



Recently youth through vernal pools.

There was an atmosphere of happy excitement with the discovery of a number of [aquatic insects](#) (MSU's [Michigan Nature Institute](#)) in a special that these youth were able to contribute to the research on these important wetlands. The youth were able to learn about the importance of these wetlands and the role they play in the ecosystem.



Partnership Focus Areas

- Research & Mapping
- Protection
- Education & Outreach
- Partnership & Collaboration

Benefits and Impacts



- Increased awareness
- Increased data and understanding
- Increased coordination
- Increased protection

How You Can Help

- Join the Michigan Vernal Pool Partnership
 - Steering Committee
 - General Partner (individuals welcome)
- Help us Make Connections
- Spread the Word



Yu Man Lee, MNFI

Questions?