



Whitefish River (Alger County)

Photo credit: James Marvin Phelps

<https://www.flickr.com/photos/mandj98/291660704/>

***Fostering the science and art of soil and water conservation
in Michigan and the Great Lakes Region.***

Greetings Michigan chapter members! A new season means a new opportunity to share the latest in soil and water conservation news, events, research, and tools. Winter may be a relatively quiet time of year for conservation activities in the Great Lakes State, but it yields some of its most striking imagery of its water resources (as noted in the picture above). If you are willing to share your own pictures that capture the beauty of water and soil in Michigan (yes, dirt is beautiful), please email me so that we can feature them in a future newsletter. As always, we welcome any feedback you are willing to provide, ideas for articles, or relevant events you think our membership might be interested in. Please contact me at oneilg@msu.edu with your contributions.

Glenn O'Neil (oneilg@msu.edu)

Chapter News and Upcoming Events

The chapter's Professional Development Committee is planning its **Annual Ag and Natural Resources (ANR) Seminar** for Friday, March 10, 2023, from 9AM – 4PM, at the AgroLiquid Conference Center in St. Johns, Michigan. The seminar's title is "Sustainable Intensification of the Rural Landscape: Protecting Soil Health, Water Quality, and Farm Profitability." The workshop will include speakers from diverse sectors of the conservation community, including the director of the Michigan Geological Survey, scientists from Michigan State University, educators from Michigan State University Extension, community builders from the SWCS national office, and Michigan farmers.

The seminar registration link, and more details about the presentations and speakers is available on the chapter website:

<https://www.miglswcs.org/events-and-archives/>



Lauren Cooper, Ph.D.
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Jason Rowntree, Ph.D.
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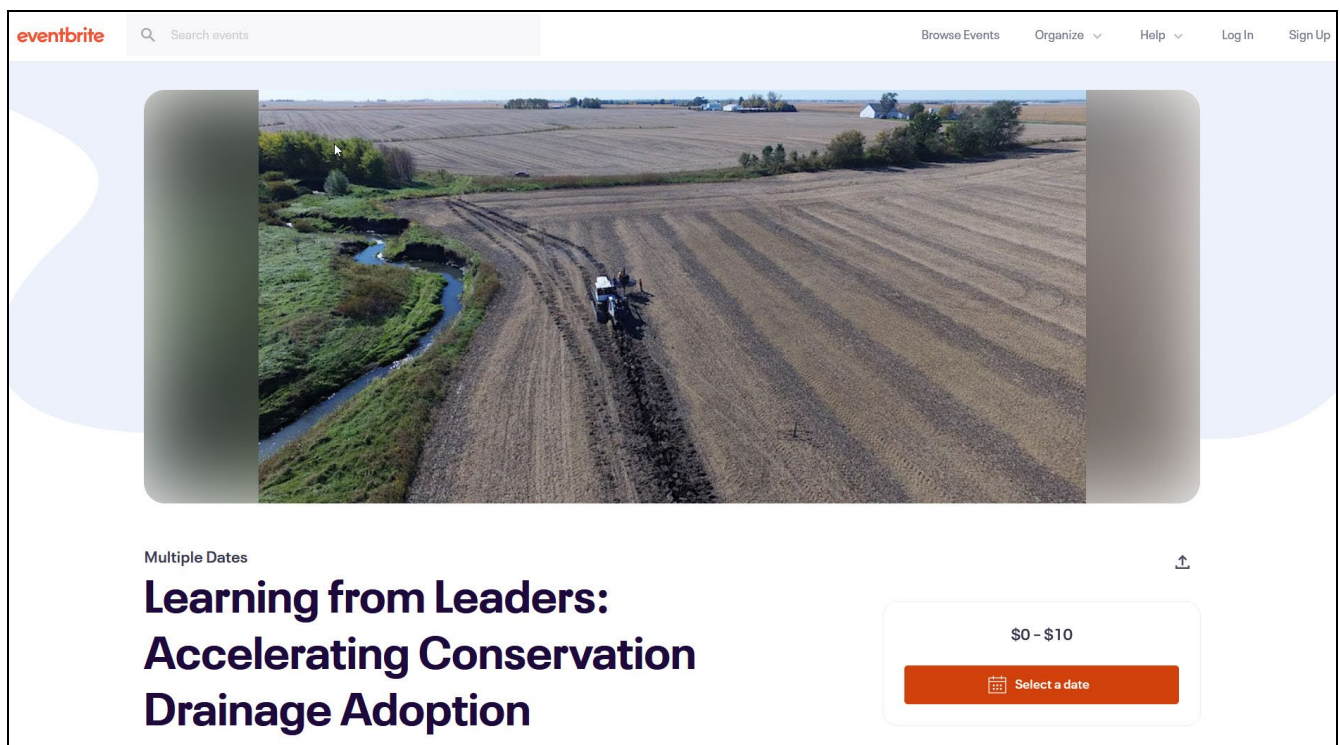


John A. Yellich
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Michigan
Geological Survey*



Sarah Fronczak
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On the calendar for the national SWCS office, February includes a webinar on promoting conservation drainage (<https://www.swcs.org/events/calendar/lessons-from-leaders-accelerating-the-adoption-of-conservation-drainage-webinar-series---february/>), the next virtual workshop (“Branding U”) for the Student Professional Development Series (<https://www.swcs.org/events/calendar/student-professional-development-session-4-branding-u/>), and a book club meeting to discuss Aldo Leopold (<https://www.swcs.org/events/calendar/swcs-book-club-a-year-with-aldo-leopold-feb/>). These opportunities are free to members but require registration. Use the links above to sign-up.



Screenshot from the SWCS website about the conservation drainage webinar.

Member profile: *Steve Schaub*

Our member profile for this newsletter is Steve Schaub of the Tuscola Conservation District. Steve is the President-elect for our Michigan Chapter and will take over as President next year once Katie Droscha completes her term.



Steve Schaub (right) with Mike Day (farmer and board treasurer of the Tuscola CD) signifying Mike's farm as MAEAP-verified.

1. Where do you work and what do you do there?

I work for the Tuscola Soil Conservation District in the Thumb. I am the MAEAP technician, working directly with farmers on nutrient management, pest management, farm emergency plans, helping them protect their groundwater and surface water from environmental risks.

2. When and why did you join MI-SWCS?

I joined SWCS about 5 years ago, but I have been attending the March ANR Week seminar for about 15 years. I really value the work that SWCS does, and it was way past time I got involved myself!

3. What do you see as a major challenge to conservation efforts in Michigan?

Farms need to make money to survive, and some conservation practices come with a large up-front cost that is just too limiting for a tight cash flow. That, and old habits die hard as the saying goes. It is hard to change what seems to be working.

4. How have you participated in the MI SWCS chapter?

I volunteered right away to serve on the seminar planning committee and the nominating committee. Sometimes it is hard to find enough volunteers to run for office, so you end up nominating yourself. Now I serve as one of the officers of the Michigan Chapter.

5. How do you feel your membership to the MI SWCS is valuable?

I have learned so much during my time with SWCS. The networking opportunities alone are well worth the time and commitment that comes with membership. It is great to see the big picture with an international organization such as SWCS.

6. What advice do you have for aspiring or early career natural resource professionals?

Get involved in professional organizations as soon as you can afford it. Lifelong learning is important and organizations like SWCS really foster that.

7. Where were you born, and where did you grow up?

I was born in the Thumb, in Marlette, and have lived in North Branch, in northern Lapeer County for most of my life. I grew up working on my grandpa's dairy farm in North Branch, and after attending MSU and living and working around campus for several more years I eventually returned and purchased a farm back here in the Thumb.

8. *What is your favorite place in Michigan to visit?*

My favorite place in Michigan is a tie between hanging out on my own farm and exploring new areas of northern Michigan that I haven't been to yet.

9. *What do you like to do in your free time?*

My free time is spent working/playing on my farm-hauling hay, making maple syrup, cutting wood, building projects from my farm sawmill, taking care of my beef cattle, hunting, gardening, and when I am not outside, I like reading about Michigan history or watching a Spartan basketball game.

10. *Best place to eat in your area, and what to order there?*

I don't eat out much, but I had a great Rueben sandwich at Papio's in Reese a couple weeks ago during a day of MAEAP verifications.

11. **Bonus:** *What is your favorite dessert?*

My favorite dessert is Michigan Cherry Pie-my Dad's family is from Leelanau County-the land of Cherries.

Thank you, Steve! If Leelanau Conservation District ever wanted to try and pry you from the Thumb, it should apparently start with an offer of pie.

JSWCS Highlight

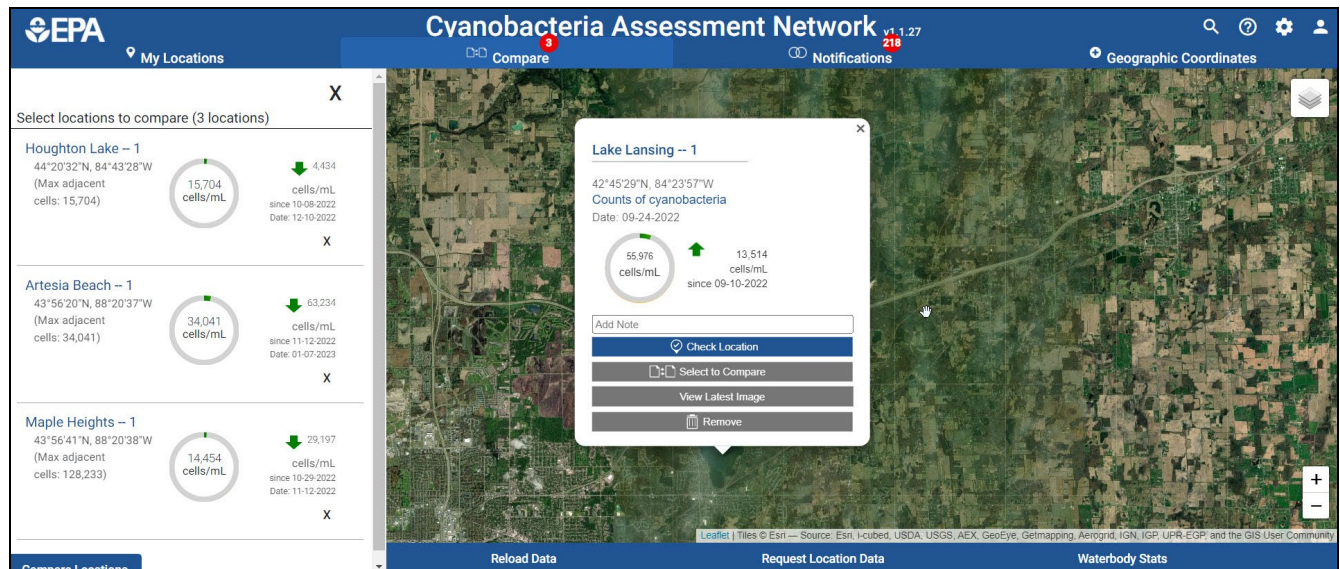
SWCS members have access to the Journal of Soil and Water Conservation, where they can learn about the latest research around the globe in conservation science. In this section we highlight an article in the most recent journal issue.

In the featured article (doi:10.2489/jswc.2023.1204A) of the Jan./Feb. 2023 issue, a team of researchers from the US Department of Agriculture and Purdue University reviewed 20 years of insights gained through monitoring and modeling the impacts of agricultural conservation

in the St. Joseph River Watershed (a portion of which extends into southern Michigan). Since 2002 researchers have deployed stream gages, edge-of-field monitoring tools, soil probes, soil gas towers, and aquatic habitat sampling to better understand the dynamics between land management and water quality in the watershed. They have also utilized these observed datasets to build hydrologic models, allowing them to simulate water quality impacts in areas without monitoring equipment, and impacts out into the future. As a key tributary of the western Lake Erie basin, which has been plagued by algal blooms fed by agricultural nutrients, the research efforts in the St. Joseph River watershed have helped identify conservation strategies that can best mitigate the blooms. Here are some of the key findings described in the review. Pesticide detection in surface water was most likely during the spring months, and no-till, despite having positive impacts on soil erosion, tended to increase pesticide loadings because plant residues intercepting spraying left less opportunity for soil adsorption. Where tile drainage was present, the majority of total phosphorus losses tended to occur through that pathway; but strategically placed phosphorus removal structures, comprised of reactive media, could remove up to 40% of the load. Conserving riparian areas is key for maintaining in-stream aquatic habitats. Simulations of the watershed under climate change showed significant increases surface runoff and tile drain flow, which create the potential for large increases in nutrient loading to the river and Lake Erie; but effective nutrient management on the field and combinations of multiple conservation practices can lessen the likelihood of the worst outcomes for water quality. As conservationists concerned with the long-term sustainability of Michigan's invaluable water resource, the long-term research conducted on the St. Joseph River watershed can provide us a road map for the types of projects we should support and the policies we should advocate for.

Conservation Tools Highlight

EPA's CyanApp (<https://www.epa.gov/water-research/cyanobacteria-assessment-network-application-cyan-app>) allows users to view maps of cyanobacteria concentrations in US waters at different points in time. The higher the concentration the greater the likelihood of a water body containing a harmful algal bloom (HAB). The tool allows users to visualize seasonal HABs experienced in the western Lake Erie basin and Saginaw Bay, in addition to the high algae content of some of Michigan's inland lakes. As conservationists strive to reduce HAB-feeding nutrient loads to our surface waters, tools like CyanApp can help to better target those efforts and evaluate progress over time.



Pictures for the Newsletter

Have some interesting pictures to share with a Michigan Soil & Water theme? If you would like to share them with the Chapter, please send them to members of the Executive Council, or to me at oneilg@msu.edu.

Membership

If you are not currently a member of the Soil & Water Conservation Society, membership has many benefits. By joining the national Society, members are automatically affiliated with their state chapters. This is an opportunity to network with professionals in the conservation field and support the Society's critical mission. Information about how to join is available through the link: <https://www.swcs.org/get-involved/join/>

Links of Interest

[Michigan Soil and Water Conservation Society - YouTube](#)

[North Central Region | Soil and Water Conservation Society \(swcs.org\)](#)

[Great Lakes Echo - Environmental news across the basin](#)

[Michigan Farmers Union | United to Grow Family Agriculture](#)

[American Farm Bureau Federation - The Voice of Agriculture | Homepage \(fb.org\)](#)

[W.K. Kellogg Biological Station • Michigan State University \(msu.edu\)](#)

[Great Lakes Restoration Initiative | Great Lakes Restoration Initiative \(glri.us\)](#)

[Home | Hoosier Chapter of the Soil and Water Conservation Society \(hoosierchapterswcs.org\)](#)

[GLIN: Great Lakes Information Network - Great Lakes Commission \(glc.org\)](#)

[MSU Water Withdrawal Statistics](#)