



*Big Iron River*

*Photo credit: James Marvin Phelps*

<https://www.flickr.com/photos/mandj98/4011515807/>

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

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Greetings Michigan chapter members! Most of the leaves in Michigan have already fallen, and the skies and temperatures feel like winter, but here is your 2023 Fall chapter newsletter. I also didn't want to pass up an opportunity to profile a picture of Michigan in autumn, which in my opinion is our state looking its best. Please read on for a reminder about the chapter's upcoming annual meeting, learn about the latest in soil and water conservation research, and meet a fellow chapter member. 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](mailto:oneilg@msu.edu) with your contributions.

*Glenn O'Neil ([oneilg@msu.edu](mailto:oneilg@msu.edu))*

## **Chapter News and Upcoming Events**

### **Chapter Annual Meeting**

The chapter's Annual Meeting to review the past year and look ahead to the next will be held virtually on Friday December 15, 2023, from 10:00AM – 11:30AM. The meeting will be followed by updates from some of our members and include time for open discussion to facilitate getting to know one another better. The meeting will be held virtually using Zoom. You do not need to be an SWCS member to attend. A confirmation email will be sent with connection instructions. Here is the registration link:

[https://docs.google.com/forms/d/e/1FAIpQLSc3CeFwzMEEGuqFl1wSD\\_2z5NsJDQn1l4NDADyfOnQCsDvWNQ/viewform?usp=sf\\_link](https://docs.google.com/forms/d/e/1FAIpQLSc3CeFwzMEEGuqFl1wSD_2z5NsJDQn1l4NDADyfOnQCsDvWNQ/viewform?usp=sf_link)

### **Annual ANR Seminar**

Add it to your 2024 calendar: the chapter's annual ANR seminar will take place on Friday March 8 at the AgroLiquid Conference Center in St. Johns, MI. Members can look for an agenda and registration link in their inboxes soon!

### **Michigan Envirothon**

Michigan Envirothon is a program for high school youth. We are starting the program again after a brief hiatus triggered by the pandemic in early 2020. Students study the topics of Soils and Geology, Sustainable Agriculture, Renewable Energy, Forestry, Wildlife, and Aquatic Ecology and then test in an outdoor setting in teams of five. The competition starts with regionals held in March and the top twenty teams advance to state finals which will be held this year on the campus of Michigan State University from May 8-10. Teams will be forming over the winter from high schools around the state, 4H and FFA organizations.





*Team testing at the state competition.*

Resource professionals are needed as volunteer instructors, team advisors and test writers and graders. Many SWCS members have volunteered with Envirothon over the years, and we need your help again! The call for volunteers to help at regionals and state finals will go out in January. Watch for news or check [www.macd.org](http://www.macd.org) as details become available. You can also learn more about Envirothon and get information about NCF Envirothon competition where our winning Michigan team will compete against teams from other states, provinces and teams from China and Singapore in Geneva, New York in July.

Visit <https://envirothon.org/2024-ny/> or contact Steve Schaub at [steve.schaub@macd.org](mailto:steve.schaub@macd.org).



### **Scholarship Winner Alexa Hempel**

Congratulations to Alexa Hempel, the winner of the chapter's 2023-2024 scholarship. The Western Michigan University senior received \$750 from the chapter's scholarship fund to support her studies in the university's School of Environment, Geography, and Sustainability. You can read more about Alexa's story on the chapter website:

<https://www.miglswcs.org/awards-jobs-and-scholarships/scholarships/>



*Alexa Hempel, 2023-2024 scholarship winner and National Park Service intern.*

## National SWCS

On the calendar for the national SWCS office, the next virtual workshop for the Student Professional Development Series (Combatting Imposter Syndrome) will take place on Wednesday January 24 at 5PM EST. Registration is required:

<https://www.swcs.org/events/calendar/student-professional-development-session-7-combatting-imposter-syndrome/>



Get your sandals and/or golf clubs ready. The **SWCS International Annual Conference** will take place in July 2024. The deadline for abstract submissions is January 31, 2024. Here is the link for the call for proposals:

[https://www.swcs.org/static/media/cms/Call for Presentations D74E56E314016.pdf](https://www.swcs.org/static/media/cms/Call_for_Presentations_D74E56E314016.pdf)



## Member profile: *Dan Busby*

Our member profile for this newsletter is Dan Busby, the chapter's Region 1 Director.



*Dan Busby, fishing on the lake.*

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

Michigan Department of Agriculture and Rural Development. I am a Verifier (Resource Analyst) for the Michigan Agriculture Environmental Assurance Program.

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

I joined SWCS around 2008 after presenting at the SWCS ANR week event about emergency planning for farms and the work we do with growers on preparing for emergencies. I joined because I liked the SWCS educational sessions and really appreciate the grower/farmer panels.

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

Proving the long-term value of conservation practices and how these practices can enhance and improve the function of the soil and grow quality crops with reduced inputs. Production is down and inputs are up in many systems, and this is not sustainable. Conservation practices take time and effort yet are practices that build soil.

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

I really enjoy helping the SWCS Executive Committee put together quality educational sessions. I love lining up the field trips and visiting farms to hear their story and see conservation practices. I have been trying to recruit new members into the MI Chapter of SWCS. I believe in the value of networking with other resource professionals.

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

The value in SWCS membership is access to valuable information and networking opportunities and the connections that are made through SWCS membership.

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

Find what you are passionate about and work hard to learn everything you can about it. Work in the field in different positions to get a well-rounded education and experience in variety of facets in the natural resource professional.

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

I was born in East Tawas. My Father was a Conservation Officer at the time. We then moved to the UP for 5 years then spent most of my school years in DeWitt MI as my father worked for the Environmental Enforcement Division and really started cleaning up Michigan's water resources. I graduated from Oscoda High School back up to NE Michigan.

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

Love to visit the UP since I attended NMU in Marquette. So many great places to explore and enjoy Michigan's great outdoors.

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

I am an AVID sportsman and love to hunt, fish and any kind of recreation outdoors. I also enjoy growing a garden and spending time with my wonderful family and great friends, usually outdoors.

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

Round A Bout Restaurant in Mesick. They have the best American Omelet.

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

Can't beat a good butter pecan ice cream in a waffle cone!

Thank you Dan for your service to the chapter! Good hunting ... whether for game or butter pecan ice cream.



## JSWCS Highlight

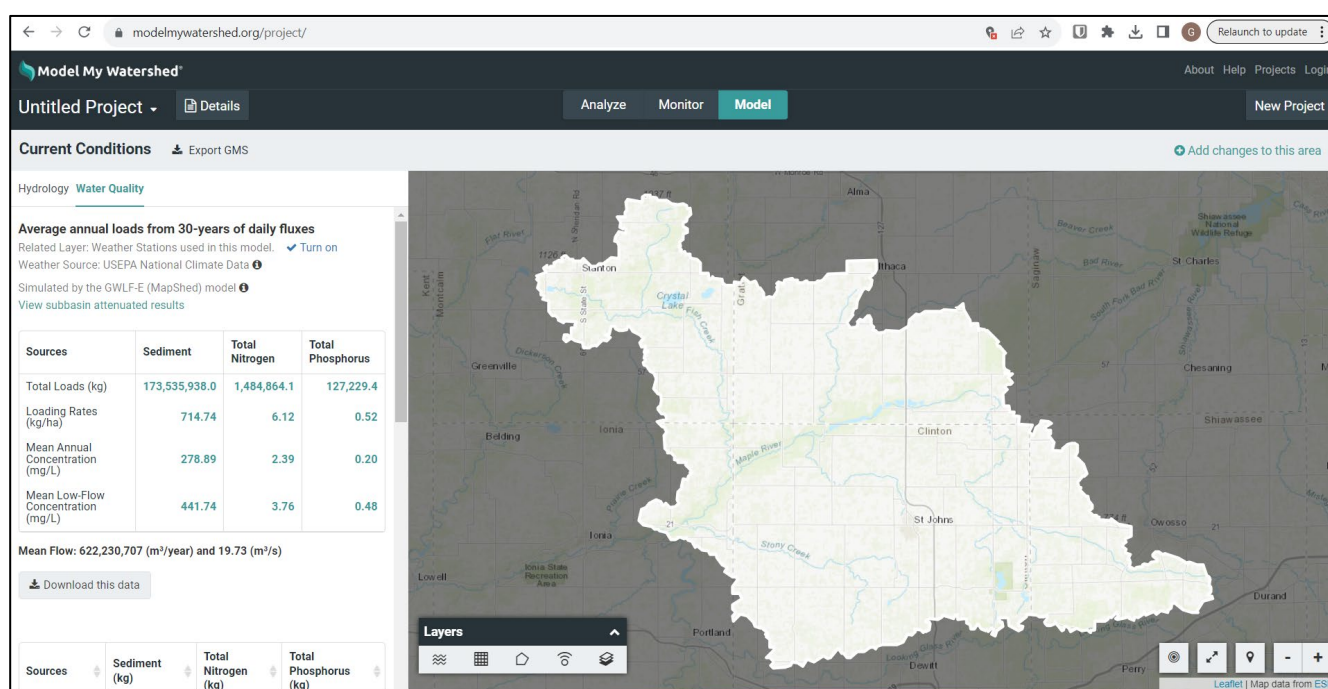
SWCS members have access to the Journal of Soil and Water Conservation, where they can learn about the latest research around the globe in conservation science. In this section we highlight an article in the most recent journal issue.

In the Nov./Dec. 2023 issue Frankl, Sherbine, Strock, Fernandez, Cates, and Pease evaluate the impact of the age of subsurface drainage systems on soil physical and biological properties ([doi:10.2489/jswc.2023.00147](https://doi.org/10.2489/jswc.2023.00147)). The authors studied six tile-drained farm fields in Minnesota, three with drainage systems that were older (greater than 15 years old) and three that were relatively younger (less than 5 years old). Multiple soil samples were gathered at each field and analyzed for hydraulic conductivity, bulk density, and soil organic matter, among other metrics. The samples were gathered during July 2021, which meant that the study was carried out under drought conditions. The authors acknowledge that the absence of any drainage during sampling and the dry conditions of the soils meant that the analysis spoke more to the long-term impacts of sub-surface drainage rather than immediate effects of precipitation. The authors observed greater hydraulic conductivity under the older sub-surface drainage systems, likely due to the formation of preferential flow-paths within the soil over time. Soil organic metrics were also higher in the older systems, which the authors theorize is due to the higher crop productivity of the drained soils. While most studies of sub-surface drainage impacts approach the topic from a binary lens (e.g., drained fields versus undrained fields), this study starts to shed light on the impacts of the age of those systems, and provides some useful insights for states where agriculture is a major economic sector and artificial drainage is popular (such as our Great Lakes State). Check out the latest issue of the Journal of Soil and Water Conservation to learn more about this study.

## Conservation Tools Highlight

**Model My Watershed**, developed by the Stroud Water Research Center

(<http://www.stroudcenter.org/>), is an online tool that allows users to visualize watersheds at various scales; view land cover, soil, climate, and water quality data within a selected watershed; and simulate surface runoff and infiltration from storm events, and average annual loadings of sediment, nitrogen, and phosphorus. The tool covers all the lower 48 states and has a very intuitive and user-friendly interface. Here is a screenshot I completed for Michigan's Maple River watershed:



Though the tool is not designed for simulating field-scale impacts of conservation, it is a great way to visualize watershed boundaries, especially at the local catchment scale, and paint a picture of the key hydrological, land cover, soil, and agricultural components of a given area.

Check it out:

<https://modelmywatershed.org/>

## **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.

## **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](#)