



Ohio's Professional Soil Scientists

2021 Spring Newsletter Volume 48, Issue 2

Message from our president – Dan Michael

Greetings to all soil lovers. I'm hoping all of you adapted to the unusual year of the virus.

My first word is "Thanks" to all who have contributed to AOP. There is an old Beatles song entitled "With a Little Help from My Friends". For me, I received precious help throughout my career from thoughtful people including many professors, especially Dr. Smeck and Dr. Himes. They got me my first job working for the Soil Conservation Service clear back in the 70's. Since then, many have guided me to higher levels. Many in AOP have given me invaluable knowledge and hints.

I am a student of the concept of **Continuous Improvement**. It was first introduced to me by a small group of people from Japan involved in improvement projects in industry. It involves a group of techniques that enables teams to pursue improvements in efficiencies and quality. I believe AOP is an organization that can help members improve themselves. AOP can be one of the techniques to help us grow to be better Soil and Soil related professionals. My goal is to help facilitate this process.

We have a great Executive Council that is working to make this happen. At our first meeting we have decided that there will be a Fall field meeting. This meeting will likely occur sometime around late September or early October.

The virtual Winter meeting went well with some great speakers. This meeting seemed like somewhat of a compromise at first. It would seem that a real life in person meeting is better. However, I believe we were forced into developing a new learning tool. Now that we have had the practice, the door to on line learning will be made more available. In our own personal business, the Virus shutdowns forced us to be able to create reports from our homes and from our cars. The end result is that we are now better at providing Soil Consulting at a quicker turnaround time. Adversity really can make us better.

Continuous Improvement is important for most professions including ours. One piece of **Continuous Improvement** is looking back and realizing that you are better at your profession than a year ago. There are numerous technical skills for us to learn that former professionals did not have available. There are skills involving CAD, GIS usage and field measuring equipment that allows a professional to create better more accurate maps and reports. Advancements in GPS really can be a great tool to master. Mastering new skills helps us to help the public more effectively.

So, my hope is that we can all improve with a little help from our friends at AOP. Again, thank you all and I hope to get to know you all a little better. I'll see you at the Fall meeting!

Dan Michael, CPSS

AOP ANNUAL WINTER MEETING Updates –Scott Demyan

2021 AOP Annual Winter Meeting Summary

While we were unfortunately not able to meet in person, the AOP Annual Winter Meeting still went ahead and was held virtually via Zoom on February 25th, 2021 with 56 people attending. The day's program was divided into a morning technical session and an afternoon business meeting. Jeff Glanville, outgoing president, opened the meeting at 9:00 AM with an introduction and then handed over to Dan Michael, the incoming president. Dan then introduced each speaker in-turn. The technical program was divided into sessions on karst biogeochemistry around the Sandusky Basin, soil organic matter characterization and modeling, and finally soils of Iceland.

For the first session, **Dr. Ira D. Sasowsky** (Professor of Geosciences, University of Akron) gave an overview of his work "Hydrology of an unusual karst landscape in north-central Ohio". Dr Sasowsky's provided a nice introduction on the topic for the next two speakers. **Trevor Dwyer, B.S.** (University of Akron) presented on his ongoing graduate research work "Physical and chemical properties of water from karst springs in NC Ohio." **Dr. George S. Bullerjahn** (Distinguished Research Professor, Biological Sciences, Bowling Green State University) followed up with a talk on "Characterization of the submerged springs in Sandusky Bay, and relevance to their biogeochemistry."

After a short question/answer and break, **Ashly Dyck, B.S., M.A.** (OSU) introduced her ongoing graduate research "Making Ohio Soil MEM-orable: using the Microbial Efficiency-Matrix Stabilization Model to explain C storage in Ohio Soils." Followed by **Dr. M. Scott Demyan** (OSU, Assistant Professor, Soil & Environmental Mineralogy) "Monitoring, recording, and verification; How should soil carbon characterization and modeling play a role in soil carbon markets?" After a short break **Dr. Sakthi Subburayalu**, (Central State University, Assistant Professor, Soil Science and Agronomy) presented his work "What about remote sensing? Could it play a role in the carbon market world?" The technical session was rounded out by **Dr. Brian Slater** (OSU, Associate Director and Professor), who gave us a virtual tour through the "Soils and Landscapes of Iceland."

In between the technical session and the business meeting portion of the program, a Mentoring Certification Candidates panel discussion was held with **Megan Conklin, B.S., R.S.** (Program Manager, Environmental Public Health Services, Cuyahoga County Board of Health), **Dan Michael**, (self-employed consulting soil scientist) and **Nathan Wright, B.S., M.S.** (President, Geophyta, Inc.). They all related their experiences either as potential mentees or as mentors working in the soil consulting sphere.

The business meeting commenced with officer elections. Current president Jeff Glanville stated that nominations for open AOP Executive Council seats were Jessica Burns for member-at-large and Matt Sullivan for president-elect. There were no further nominations from the floor and a motion to approve the candidate list as-is was unanimously approved by the membership.

NRCS update- (Jeff Glanville) George Derringer retired, two resource soil scientists were hired last summer, assigned to state office soil survey. Matt Tucker and Dan Benyei are new survey office leaders. **Collegiate Soil judging** (Jeff Glanville): last April was cancelled and also cancelled for 2021, with the national contest being held virtually. OSU plans to host in 2022.

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New AOP display (Kathy Sasowsky): Kathy presented the new PowerPoint form of the AOP display that both communicates what AOP is as an organization and also the types of work our members are involved in. This PowerPoint presentation takes the places of the static tabletop display that was previously used for meetings. Kathy solicited the membership for pictures showing either their work or Ohio soil landscapes.

Consultant Survey (Scott Demyan): Scott gave an update on the consultant survey and work to make it more accessible on the AOP website. Currently AOP members who hold CPSS and are current members will be included on the list.

Secretary's report: (Scott Demyan): Scott sent around the 2020 AOP annual meeting minutes and went through the highlights. No questions from membership. The meeting minutes were approved by the membership.

Treasurers report (Rick Griffin): Rick distributed via email the annual treasurer's report and noted a total AOP account balance of \$52,060 January, 2020 and \$57,794 December, 2020. Rick noted that in just past two months around \$800 was contributed by members to scholarship fund. Treasurer's report was approved by the membership.

Newsletter editor Julie Rice thanked everyone that has helped with the newsletter and encourages continued contributions to the newsletter. Anyone not receiving newsletter please contact her at Aopeditor2020@gmail.com

Scholarship (Jeff Glanville): EC discussed OSU endowment, or setting up open scholarship for students from any Ohio college or university studying soils. There was a general agreement amongst membership that the EC should explore the possibility and implications of setting up an open scholarship for Ohio students studying soils.

Matt Sullivan: OSU Scholarship was started in 2012. Two scholarships were awarded this past school year to Erica Babuse and Monica Stevenson, who received \$1500 each. The current balance is \$5,687. Reflecting back on the Treasurer's report and the current AOP account balances, there was a lengthy discussion amongst the membership as to ways to utilize some of those funds in the immediate future and to contribute towards the OSU scholarship fund. Members voted and passed a motion to have AOP match 1:1 for scholarship fund donations up to a total of \$2000 by March 31st.

Mike Angle: Offered that ODNR Division of Geological Survey folks would be happy to contribute to either the upcoming summer/fall field session or next winter meeting.

Jeff Glanville passed the gavel to incoming president Dan Michael.

Dan Michael mentioned that there were **5 ¾ hours for CEUs** from this year's AOP meeting.

New Officers

The AOP is happy to welcome two new members to the Executive Council. **Jessica Burns** is the new member-at-large and **Matthew Sullivan** is the president-elect.

Member-at-large Jessica Burns is originally from Butler County where her love for Skyline Chili and the outdoors began. She attended The Ohio State University and graduated in 2018 with a degree in Environmental Science specialized in Soil Science. During college she really enjoyed competing with the soil judging team. In the spring of 2019, she converted to a full-time position with NRCS as a Soil Scientist in Columbus after starting out as a Pathways Student in Zanesville. Working with NRCS has been an awesome adventure so far. In her free time she loves to make bread (especially pizza dough), cruise on her bike along the Scioto River, backpack with friends and complete DIY home improvement projects.

President-elect Matthew Sullivan is the Superintendent of the Molly Caren Agricultural Center in London, OH. He has been with the Molly Caren Ag Center and Farm Science Review since 2004. His main responsibilities are managing the farm operations and activities of the MCAC along with working with the logistics of the Farm Science Review. Before his role at the MCAC/FSR, he worked in the Department of Food, Agricultural and Biological Engineering teaching Precision Agriculture around the state of Ohio. Matthew also farms 300 acres of corn, soybeans, sunflowers and pumpkins on his family farm. Matthew's professional interests are in soil science and precision agriculture. He has been married for 26 years to his wife Amy and has two sons attending OSU majoring in Ag Business and Ag. Engineering.

News from our Treasurer, Rick Griffin

1. The AOP/OSU Scholarship Fund (thoughts from Matt Sullivan and Rick):

Thanks to all of the AOP members that donated to the OSU Scholarship Fund in 2020-2021. The amount donated by our members to the scholarship fund was \$785.00. During our Winter meeting, it was suggested, and voted on by the members, that we match the amount of the donations made by our members. With that said, the Executive Council has matched the amount, and we have donated \$1570.00 to the fund. Thank you to those members that donated to the Scholarship Fund!

2. Dues:

About your dues. Our paid membership total to date is 52. This includes all of our categories; Honorary, Soil Professional, Associate and Student. One of these categories is right for you. Your dues for membership are a small price to pay, for such a great organization. So, if you haven't paid your dues this year, please pay! You will want to continue to receive our informative newsletter and participate in our winter and summer meetings. Also, consider asking other professionals if they would be interested in joining the AOP. If you have questions about your dues or membership, you can contact Rick Griffin, AOP Treasurer at: rgriffin1741@gmail.com or other Council members.

Future meeting announcements and cancelations

Summer/Fall Field Day(s)

Hold the last week in September and the first week in October. We are hoping to visit northwest Ohio this year. We are committed to doing some kind of a summer/fall field day experience for the membership and guests although what it will look like is still very much up in the air. One option, and our best choice, is to have a 1-2 day field and lecture event. Hopefully most/all of us will be vaccinated and with care, distancing, masks, etc., we can come together in person. However, none of us know today what September and October will look like so our absolute fallback is to hold the gathering via Zoom like we did for the Winter meeting. What may actually happen is that some of us will hold a demonstration field day which we will video and present to the membership via Zoom, either live or at a later date, along with talks that support the field experience. The committee is beginning to think about how to do this. If any of the members want to volunteer to be involved in the planning and the carrying out of this effort, please let Dan Michael, Matt Sullivan or myself know so we can get you into the loop early. A call is going out to members in the region.

As you may remember, last year was to be a follow-up of the National Soil Judging College Competition which Ohio State was to host. That did not happen and this year's competition was virtual so Ohio State will be the sponsor again in 2022 and our Summer/Fall field day for 2022 will follow on at the National competition site, assuming life is back to "normal" by then.

An Equipment Scholarship opportunity

We are pleased to announce that Jeff Rice wrote the winning Essay and has been forwarded the list of available equipment. He is invited to ask for anything on the list that he needs and can use. If he is upgrading equipment that he already has, he is encouraged to donate his older but still serviceable equipment and pass it on. Our second runner up is Rick Griffin who will be transitioning his life to more independent soils investigations. Rick then gets second pick of anything on the list he can use. Anything left over will be collected and stored, probably by me, and made available to young interns who will be starting their field experiences in the upcoming years.

As each of you come to the ends of your field careers or upgrade your still serviceable equipment, consider donating it to the next generation. I am reminded that I have field equipment that I inherited from Gene Johnson's estate when he passed (I also inherited his scientific library and passed that on). I also have equipment that I am no longer using so I will be creating a "lend/lease" gifting program for up and coming soil scientists out of my stash here. I would be pleased to take usable equipment to pass on.

Ohio State University & AOP Scholarships

In the last year, there have been significant discussions about the Ohio State AOP Scholarship. It had long been the hope that AOP would endow a Soils Scholarship at Ohio State and for a while, it looked like that might be possible. However, Ohio State has upped the ante and they now require \$100,000 for an endowed scholarship, more than it looks like we could reasonably collect. We also have been made aware that other colleges and universities in Ohio offer soils courses and training and students attending those programs are effectively cut off from AOP support. In addition, Ohio students go out of state for soils training, most notably to the on-line program at South Carolina, but have every intention of practicing soil science here in Ohio.

At this point, members are contributing to the scholarship fund two ways. Some members are directly contributing to Ohio State. We had information on that process in the last newsletter. However, some are contributing through AOP and the contributions have been significant. The EC is proposing that we convene an Ad Hoc committee to explore the idea of setting up a more broadly supported scholarship program with the AOP funds and report back to the membership at next year's annual meeting. Matt Sullivan, who has had much experience with the Ohio State and Farm Bureau scholarship programs, has offered to chair this Ad Hoc group. Several more of us have offered to help. If any more of you would like to be involved in this discussion, please let Matt Sullivan or I know. We are open to any and all ideas here. The goal is to help get the most future soil sciences trained.

We Need Your Help for the new AOP Display & On-Line Training Modules

New AOP Promotional Display

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We all got an opportunity to see Kathy's "Beta" version of her digital AOP Display at the Winter meeting. She continues to have a call out for ideas and Ohio photos as she finalizes this version of the promotional display. Plans are to hang it on the AOP web site so that any of us who need it, can download it for our event.

Send input and files to kathryn@sasowsky.com

Additional On-Line Training Opportunities and Materials Development

As we have begun exploring the options of creating training modules for AOP members and beyond, we are reminded that SSSA offers short training videos and PowerPoint programs that can be downloaded and taken for continuing education credit. In fact, this has been a source of revenue for the Society. Our organization is blessed with some gifted educators who have the ability to create short presentations that we could make available on the AOP web site. We might offer them to the membership for a nominal charge or free but charge a more realistic fee for others. Perhaps any funds collected could go into the AOP Scholarship Fund?

I have a PowerPoint lecture that I developed for the Ohio Dept. of Health several years ago on limiting settings for leach field installations. I've recently upgraded my computer equipment and have the ability to turn that lecture into a standalone presentation. I'll start working on it in the next month or two. But I'm not the only one out there who could contribute to a series of short videos. How about a short video on the tools used for field site investigations, how you use them and how you take care of them? How about a short video on how you gather the information you need to fill in the ODH septic form? The list is endless if you think about what you do and break it into small segments.

If you are not comfortable in pulling the information together but would be willing to let one of us video you, we can get someone out into the field to meet you. These are topics that we assume everyone knows about, but they don't. If you are new to the field, you are starting from scratch. Maybe we in Ohio are not up to teaching the core soils courses on line but we sure have the ability to create mini-classes. Think about what you do and break it down. Think in ½ hour to 2 to 3 1-hour short courses. I'm thinking about doing one on how to read a soil survey. Did you know that they are all on-line? I was also thinking about doing short courses on the supporting maps, reports, bulletins, etc. available from the ODNR Div. Geological Survey. They have excellent supporting information that would really help a new soil scientist understand their part of the state.

How about a short training video on the Web Soil Survey? What else comes to your attention? If you are interested in participating, interested in being interviewed or just have topics that you think we should be covering, please let Kathy Sasowsky, kathryn@sasowsky.com or I, AOPEditor2020@gmail.com know so we can get you scheduled.

Interns in Search of Training

Currently, we are blessed with three young women seeking to undertake their one-year field training required by SSSA for CPSS accreditation. While we know it's a one year, 2,000 hour experience, we also know it does not have to be completed in one year. Further, it does not need to be completed under just one person nor does it absolutely have to be just in the field. Clearly, parts of it are in the office and

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other parts can be from the short courses we are starting to work on. Most of you have met or know two of the perspective trainees and some of you know them all.

You met Megan Conklin at our Winter meeting. She is currently the Program Manager of the Environmental Public Health Service at the Cuyahoga County Board of Health. That's her day job and she intends to keep it, but as a CPSS, she will be able to do her job better and it will allow her to develop a second career later in life when she retires. Megan is excited about working with others in northeast Ohio, both with the soil scientists and with other health departments. She has the abilities to form a nucleus of exceptionally qualified staff in health departments in the northeast as well as helping to build even better working relationships between the two groups. She is currently in her first soils course on line from South Carolina. She is available evenings and weekends for field experiences. You can reach her at:

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Our second interested trainee is Rachel Warren. Rachel completed her BS in Food, Agricultural & Biological Engineering at Ohio State and a double MS in Civil Engineering and Engineering Education where Dr. Ann Christy was her advisor and I oversaw her Senior Project and MS Thesis. I featured her thesis in an earlier newsletter. She has recently returned to Ohio, to the Cleveland area for now, where she continues to work part time for an engineering firm. This is the Cleveland Office of the national firm where she has been employed in Virginia Beach, Virginia. Her special work for that firm is storm water management. She has most of her hours needed to take the PE exam.

While a master's student at Ohio State, she either took or audited four of the five core soils courses. She has had some limited field experience with Larry Tornes and several other soil scientists here in central Ohio. She has reduced her work load here in Ohio to part-time so she can devote parts of her week in the field training with soil scientists. For the moment, she is in the northeast Ohio area but she plans to be able to take assignments around the state in the future. You can reach her at:

Rachel Warren
rachelpwarren@outlook.com
614-404-8154 (mobile)

The third interested trainee is my daughter, Susan Rice. Many of you have known her just about all of her life. As we are transitioning from being full-time care givers from my husband and her father to the next stage of our lives, she finds that she is more and more drawn to the field experiences of soil science. Susan was half way through a degree in Materials (Ceramic) Engineering when her father

needed more help. She will be heading back to school shortly to complete that degree. However Susan also has more than 25 years training and experience in ceramics that go back to summer classes while in grade school. She has interned in two different ceramic manufacturing facilities here in central Ohio and in the Canton area where one of her assignments was to prove out a new clay/shale deposit near Bolivar, Ohio. She has worked for a year in a glaze manufacturing facility here in central Ohio and ran the McConnell's Art Center open ceramic studio for five years where she was responsible for all aspects of studio materials, equipment and firing schedules of the kilns. She also taught ceramics. We like to say she just takes my dirt and bakes it. She is a very gifted potter.

As we are in the process of setting up a full ceramic studio here at the house, it has become clear that a part time career in soil science would fit very nicely into a career in ceramic research and production. She has had the opportunity to spend some time training with Larry Tornes and would be interested in working with others in central Ohio. As I can no longer work in the field, I cannot undertake that part of her training. She is available on a part time basis as her schedule permits. She can be reached at:

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Letters to the Editor

This section of the Newsletter belongs to you, our members and future members, in the hopes that if we communicate with each other, we can find pathways to move forward to train the next generation. Please send your letters and/or responses to the Editor at AOPEditor2020@gmail.com and I will include them in upcoming issues of the Newsletter which is developed and disseminated quarterly.

There are no letters to the editor this issue.

Part one of the Spring Newsletter

This ends Part One of the Spring 2021 Newsletter. I will be completing the second part shortly and sending it out to all the members.