

Ohio's Professional Soil Scientists

2022 Winter Newsletter Volume 49, Issue 1 Part 1

All about the Winter meeting

Message from our president – Dan Michael

Hello all. I know many of you have been fighting frozen ground in recent times. Here in the extreme Southwest Ohio area the ground is barely frozen a few inches. However, the next County north is frozen about 6 inches deep. So, latitude does matter in this portion of the state.

The Winter meeting will be on Friday, March 4 at the Div. of Geologic Survey's Horace R. Collins Lab and Repository at 3307 South Old State Road in Delaware, Ohio 43015. Most of you have been here before. There will be several speakers of interest. They are from the Division of Geological Survey, LIDAR mapping department and OSU.

I'm hoping many of you are using or plan to use the LIDAR tools soon. Our office has found it to be extremely valuable in our daily operations. At this stage, we could not easily function without it. LIDAR has brought us much better precision, quality and efficiency to our Soil investigations.

The program will also be hosted online which many of you will find convenient. However, I must say that in person attendance is typically more rewarding. It's a public building, bring your masks, we will have sanitizing wipes. A lot of information can be obtained with the informal talks at breaks with other professionals.

Also, there will be voting on new officer replacements during the business meeting.

I want to say thanks to the Executive Council people. They are all fantastic, smart people that give a lot of time to our cause.

I'm looking forward to seeing you all there and I believe you will learn a lot and enjoy meeting old and future friends!

Dan Michael

News from our Treasurer, Rick Griffin

Annual Dues for 2022 and Registration for the March 4, 2022 Winter Annual Meeting at the ODNR Core Repository at Alum Creek Reservoir
You can also renew and sign up for the Annual Meeting on line at

<https://www.ohiopedologist.org/>

Please respond by Friday, February 25, 2022 so we can order enough food.

Meeting registration and dues payments - 2022

Name: _____

Do we have your correct contact information? Please provide contact information (only if there are changes to your previous contact information or if you are not getting the AOP newsletter by e-mail):

Street Address _____

City, State, Zip Code _____

Email Address _____

Phone number _____

March 4, 2022, Annual Meeting registration:

Attending: _____

\$35 per person

Meeting Total: _____

How many attending in person? _____

Dietary restrictions? Ordering from City Barbeque, anything is possible. _____

Attending by Zoom? _____

We need your e-mail to send you the link. _____

Association of Ohio Pedologists Membership Dues starting 2022 (and dues for 2021, if you haven't paid)

For members approved as Professional.....\$40

For members approved as Affiliate Members and Student Members.... \$20

Category of Membership (circle one): Professional, Affiliate Member, Student Member,

Honorary (No annual dues)

AOP Dues Amount: _____

Contributions to Scholarship Fund: _____

Continuing Education Fund: _____

TOTAL AMOUNT ENCLOSED: _____

Make checks payable to AOP and send to:

Rick Griffin, AOP Treasurer

937 Laurel Av.

Zanesville, OH 43701

In addition, we would like to hear from you regarding membership and meeting topic ideas.

We are holding an election at the annual meeting

The Current Executive Council

Jeff Glanville, Past President coming off the Council

Dan Michael, President, moving up

Matt Sullivan, Incoming President, moving up

New Incoming President Position open

Scott Demyan, Secretary, term expires

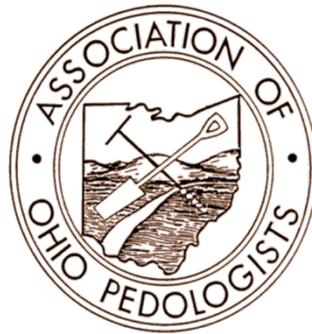
Rick Griffin, Treasurer, term expires

Julie Weatherington-Rice, Newsletter Editor, term expires
Kathy Sasowsky, Member at large, term expires
Jessica Burns, Member at large, one more year
Vacant, Member at large, two more years

Some of us have agreed to run again for our current positions. One person has agreed to run for another slot. I was hoping to have an election ballot to include in this Newsletter but it's not ready yet. I will send it out ASAP for those not coming to the Annual Meeting who want to vote. Nominations are open if anyone wants to volunteer to take on one of these important posts.

Winter Meeting Preliminary Agendas and Bios from Matt Sullivan

AOP ANNUAL WINTER MEETING



The AOP Annual Winter Meeting will be held March 4, 2022 at the Geological Survey's H.R. Collins Lab and Core Repository near Alum Creek Reservoir north of Columbus. The meeting will focus on mapping tools available to soil scientist, soil organic matter and carbon updates.

The program agenda, registration details, and directions to the meeting venue are provided herein.

Registration includes morning refreshments and a lunch catered by City Barbecue. Don't miss this opportunity to both learn and socialize with colleagues.

PROGRAM AND AGENDA ASSOCIATION OF OHIO PEDOLOGISTS ANNUAL MEETING

**Div. of Geologic Survey's Horace R. Collins Lab and
Core Repository 3307 S. Old State Rd, Delaware, OH 43015**

8:30 am Registration with Coffee and Doughnuts

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9:00 am Welcome and Announcements –Dan Michael

9:10 am An update on the Division of Geological Survey and Tour of the Repository.
D Mark Jones, Chief, Division of Geological Survey.

9:40 am LiDAR Mapping and how it may influence soil evaluations. Tim Burkholder, Mapping Manager and Kyle Ince, Assistant Administrator CADDD and Mapping Services, ODOT.

10:20 am Break

10:30 am The Current State of Carbon Markets in the Midwest. Mike Estadt, Pickaway County Educator.

11:05 am Monitoring, Recording, and Verification of Soil Organic for Carbon Offset Projects, M. Scott Demyan, OSU SENR Assistant Professor.

11:40 am Dynamic Soil Properties and Connections to Soil Organic Carbon. Thomas Doohan, OSU SENR PhD Candidate.

12:15 pm Lunch

1:15 pm Soils Evaluation and Analysis. Test your soil skills (hands-on analysis).

1:45 pm Business Meeting (awards, officer elections, summer meeting proposal, update on recruitment and training activities) – Dan Michael and AOP Executive Committee

AOP Speaker Bios

D. Mark Jones is Ohio's 15th State Geologist and serves as Chief of the Division of Geological Survey, where he oversees ODNR's efforts to provide geologic information and services to the public. Starting as an intern with the Survey in 1996, Jones spent several years in the private sector before returning in 2008 to serve as the Lake Erie geologist and then supervisor of the H.R. Collins Core Laboratory at Alum Creek State Park. Jones is the author or co-author of 12 Survey publications, including *The Geological Guidebook to State Parks in the Lake Erie Region*. He holds a bachelor's degree in geology from Cleveland State University and a master's degree in geology from Kent State University.



Dr. M. Scott Demyan is an assistant professor of soil and environmental mineralogy in the School of Environment and Natural Resources and Core Faculty member of the Sustainability Institute at Ohio State University. Dr. Demyan received his B.S. and M.S. degrees from OSU and



PhD from the University of Hohenheim, Stuttgart, Germany. He joined SENR faculty in January 2017. His research focus is in the areas of soil organic matter and mineral stabilization mechanisms. Dr Demyan teaches courses in soil resource management, soils and carbon: stabilization and permanence, and the natural resource management capstone.

Thomas Doohan is a PhD student at Ohio State University's School of Environment and Natural



Resources. Advised by Dr. M. Scott Demyan in the school's Soil and Environmental Mineralogy Lab, he is investigating how temporal variability of land use and inherent soil properties impact carbon stabilization at different spatial scales. He received an M.S. in soil science and a B.A. in public affairs journalism at OSU. Previously he was a staff writer for The Ashland Times-Gazette and The Daily Record in Wooster.

Mike Estadt is the Agriculture and Natural Resources Extension Educator for Pickaway County.



His areas of specialization are agronomic crop production and farm management. His on-farm research has included Dr. Steve Culman's soil quality work around the active carbon component of soils as well as seeding rates trails, soybean cyst nematode surveys and double crop soybean systems. He co-chairs the carbon footprint working group for OSU Extension.

**Future meeting announcements and cancelations
None at this time besides the annual meeting**

**AOP Scholarships Announcements and Call Out for Applications
I have no applications so far! Spread the Word, please**

As was mentioned in the Summer and Fall Newsletters and at the Fall Field Days, The Executive Committee has decided to expand our pool of soils scholarships to students attending Wilmington

College and Central State University, both who offer courses in soil science and related fields. We also want to extend our scholarship outreach to Ohio students who may be studying soil science either in person or on line in other states, so whether you are attending Perdue, Cornell, Michigan State or on-line at North Carolina State University but plan to work in Ohio, we want you to apply for an AOP scholarship as well. In addition, since you have very few college choices if you want to study soil science, we have decided to expand our outreach to younger students. We will be funding small awards for projects submitted to the Ohio Academy of Science middle school and high school science fairs. By making these award categories available and posted, hopefully we will inspire some youngsters to consider a career in soil science before they pick a school where it would not be an option.

Currently, our Ohio State University scholarship fund is fairly healthy so we will direct AOP collected scholarship funds to students at other schools. If you wish to contribute to Ohio State, by all means please feel free to continue to contribute directly to that program. Matt Sullivan has that information if you need it. If you wish to help us extend our student base, please make your scholarship contributions directly to AOP.

This is also a “shout out” to anyone who would be interested in applying for an AOP scholarship to help them study soil science. We need basic information about who you are, where you are going to school or plan to go to school and a short essay, 1-2 pages about why you want to study soil science, your hopes and dreams for this career. If applicants would submit that information to me, I will distribute to the Scholarship Committee currently headed by Matt Sullivan. We would like to have applications by June 1st, 2022 at the absolute latest, earlier would be nice, so we have time to consider the applicants to award for Fall, 2022. If anyone knows of a potential student, please pass on my contact information.

We Need Your Help for On-Line Training Modules - Updates

Additional On-Line Training Opportunities and Materials Development

As you read in Dan’s column in the last newsletter and/or witnessed if you came to the Fall Field Days, 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 can make available on the AOP web site.

As you read in Part 2 of the Summer newsletter, the Ohio effort has already begun. One set of PowerPoints from Barry Allred, USDA ARS and I have been hung. More are on their way. We currently have **six more standalone PowerPoints in production** which we hope to have hung on the AOP web page early in 2022. We also videoed the Fall Field Days and have plans to hang those videos on the site. **One video is finished.** The topics and opportunities are limitless.

Clearly funding this effort on an ongoing basis is going to prove to be a challenge that is beyond the funds of AOP and our members, especially if we can ramp up the speed by paying our now volunteer video crew so they don’t have to work other jobs for their livelihood. Imagine having funds to support a few graduate students as well. To that extent, Kathy Sasowsky and I are exploring potential granting opportunities to pay for equipment and travel but also for staff support if we can find

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anything that is a good fit. AOP can apply for and administer grants. It is exciting to be in on the ground floor of a project that should continue long beyond my lifetime.

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.

The Video Production efforts underway

To put it mildly, starting a video production endeavor is not for the faint of heart and if it had not been for my wonderful former graduate student Rachel Warren and my daughter Susan Rice, I would never have agreed to undertake this next leap into educational outreach, but these talented young women assured us it could be done as did Dan Michael and Matt Sullivan who both have children who have become proficient with Go-Pro video cameras and equipment. Research and conversations ensued, lists of needed equipment were made, I handed over my American Express card and orders went out. Since we had never done something like this before, we were not 100% certain that we had purchased everything we needed. We set up a double redundancy recording system, two recording stations, one with the Go-Pro and one with Susan's iPhone. There were last minute trips to MicroCenter for yet one more cable or recharge port for the car in case a battery went down. The Executive Committee gave us a budget of \$900.00 for purchases for the launch. In the end, that was not enough so Dan Michael and I covered the balance. We have started the Continuing Education Fund for 2021.

Then the Fall Field Days arrived and our research team went into video mode. Things did go wrong but the double redundancy saved us. At one point during Dan's presentation, his microphone battery died but fortunately Susan's iPhone picked him up. Finding the best positions to video from also took practice but we also had all the PowerPoints on Matt's computer. Our young camera and technical crew got better. Friday was better than Thursday. We got an on-site interview with Dan Michael on the core taken at the cemetery. They got more self-assured at directing and presenter placement. **I'm sure they will be that much better at the Annual Meeting. We will be recording the upcoming meeting as well.** We ended up using just about all the equipment that we brought along.

Once home, we began post-video production which created a new set of challenges. These are huge files and we needed to download them from the Go-Pro and Susan's phone and get them onto our newest laptop here in Worthington and to Rachel's laptop in Cleveland via the Cloud. In addition, we had to move the PowerPoints off of Matt's computer and eventually onto the two production laptops. Piece of cake, except that it was not at all. We have been running AT&T Uverse and Internet here at the house after Time-Warner began to fail (we are on the same hub as Thomas Worthington High School so when school is in session, we are dead in the water). AT&T had not been great but at least it worked most of the time for regular tasks. However, it did not work for this video production effort. It took 11 days and nights, being hooked up non-stop to download the Go-Pro and iPhone onto our laptop and send the files to Rachel. Turns out AT&T is coming in on our telephone wire. The house was built in 1960. To fix the situation and speed up the transfer time, AT&T told us we needed to rewire the whole phone system in the house and we still were looking at two years before we could get fiber optics into our neighborhood.

Eventually, all the files got transferred and Rachel began the editing. Because we have not yet purchased dedicated video editing software, Rachel is making due with **four** free programs she was able to find. It's slower but it works until we decide what software we really need and can find the funds to

purchase two copies. We also resolved our impossible internet problem by installing WOW mesh 500, whatever that means, here at our house. We can already see the difference. It's been great. I am blessed to have two young engineering minds at work who simply research and trouble shoot each roadblock as they come to them but absolutely never give up. We will get better and faster with time. This has been a steep learning curve but the rewards for all of our AOP members should be worth it.

One video is finished and ready to go up on the AOP web site.

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Doc Redmond's 90th Birthday party

On January 13th, we held a Zoom 90th birthday party for Doc. Redmond at Brookside in Mount Vernon where he current resides. The party was arranged by the folks at Brookside. Jim Piper arranged the link for friends from NRCS and AOP. I was not able to attend because of a schedule conflict but I understand that a good time was had by all. It's so nice to have memories of a happy event after the long two years of sadness that have been such a close part of our memories. Doc has left a special legacy for soil scientists in Ohio and beyond.



From Lynn Elfner, Ohio Journal of Science Editor

A book review of note, Lynn tells me the author is an OSU grad.

OHIO JOURNAL OF SCIENCE

G. KREBS

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<https://doi.org/10.18061/ojs.v12i12.8794>

Book Review

Malabar Farm: Louis Bromfield, Friends of the Land, and the Rise of Sustainable Agriculture

Abbott, Anneliese. November 2021. Malabar Farm: Louis Bromfield, friends of the land, and the rise of sustainable agriculture. Kent (OH): Kent State University Press. 312 p. 7 × 10 in., paper. \$29.95. ISBN-13: 978-1-60635-431-5.

THIS BOOK IS A FASCINATING TOUR THROUGH the history of environmentalism, ecology, intelligent land use, and sustainable agriculture using the lens of Louis Bromfield and his Malabar Farm in north-central Ohio. It is a must-read for anyone involved in these disparate movements to understand how we got here, how we almost got derailed, and how we got back on track.

Eleven chapters—with well-documented text and historic photographs—chronicle the soil conservation efforts of Bromfield from 1939 until his death in 1956. The book lays bare the financial uncertainty of Malabar after Bromfield's death until the state of Ohio created Malabar Farm State Park in 1976.

People came from far and wide to see Bromfield's efforts to stop soil erosion, improve yields, and increase livestock health. Yet in reality, it has been a tough slog to get his methods adopted widely. Every Sunday in the 1940s and '50s, hundreds traipsed through and over his beloved Malabar, ate his sandwiches, and left for home still afraid to challenge the local standards: where you moldboard-plowed everything in sight, because that is what your grandfather did. The beginning of the soil conservation movement, plus ecology, land use, and a host of other science-based movements (many in response to the devastating Dust Bowl of the 1930s) owe their existence to Bromfield's tireless work—even though the agricultural authorities never embraced his ideas during his era.

As we arrive on the 25th anniversary of the Ohio Farmland Preservation Task Force report, it is highly beneficial to review the history of Malabar Farm.

As a member of the aforementioned task force, I heard Bromfield and Malabar referenced often; yet the knowledge base was thin on the specifics of what it meant. As the book makes clear, the powers of the *status quo* in the middle of the 20th century, and to this day, view farmland preservation and associated policies as a nice spectator sport: something to watch and keep at arm's length lest you get yourself dirty. If the task force report had been aggressively adopted by the then Voinovich and later Taft Administrations, Ohio would be in a stronger position financially with an increasing population yet denser cities, more greenspace, and much more preserved farmland. If the agricultural authorities of the time had not viewed Bromfield with so much suspicion, Ohio (and America) would be better off. Economic development in Ohio, and

As the book makes clear, the powers of the status quo in the middle of the 20th century, and to this day, view farmland preservation and associated policies as a nice spectator sport: something to watch and keep at arm's length lest you get yourself dirty.

indeed in most states, is still "smokestack chasing," where local governments pursue, with bags of cash, the legacy industries of the previous generation—but not the cutting-edge new ones. Raising local food in an environmentally sensitive manner was Bromfield's goal, and he

achieved it; however, he was derided by the same establishment that now pays lip service to his work.

The book revolves around soil husbandry. I've been consistently and continuously no-tilling on our 400-acre farm in southwestern Ohio since 1978, and as such was one of the first hundred (or so) in the state to adopt such an approach. My neighbors see my yields, see my results, but only a fifth of the row crops in America are continuously no-tilled, and those numbers are also represented locally here. In addition, I've planted *by hand* a mix of 10,000 walnut, locust, and alder trees overall on our farms. Yet few have copied the silviculture that both Bromfield and I embraced.

As you can tell, I empathize strongly with Bromfield. He saw with clarity what needed to be done; yet even though he spent two decades—and much of his fortune—on this project, it did not come to true bloom until well past his death.



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In addition to his fortune, which was considerable, Bromfield put his hand to writing on this issue in every major and minor publication of the time. Now largely forgotten as a writer, he was famous in his day for both his bestselling books and many screenplays. It was his screenplay work that brought him into contact with all the movie stars of the 1930s, including Humphry Bogart and Lauren Bacall, who were famously married at Malabar Farm in 1945.

This is not a happy book; it is about the real lives of real people, with real foibles and much bad money management. There are pig-headed bureaucrats here, and folks blinded by ideological adherence to one method of farming or another, one value of land over another. Except for Bromfield, however, who was always about what worked—and that is where he got ahead of the native farmer population. In his youth, Bromfield would only *visit* his grandparent's farm; while he loved it, he was not married to a specific method or type of farming; so he tried darn-near everything. In the end what wore down the farm was the fact that in farming, like any mature industry, long-term profits tend to average out with long-term losses. He had the best dairy farm in that

region of Ohio, yet milk was now a commodity, and even he could not make money. This despite his cows producing far more milk, and at far less cost, than his neighbors. He tried various niche farming

Malabar is a complex story. Anneliese Abbott has done a superb job of making it an easy, entertaining, and yet thought-provoking read for anyone.... You can apply many lessons learned by Bromfield as you approach your own work.

businesses, and in a fit of armchair quarterbacking, I think he missed the mark by not getting into the cheese business when he considered entering that discipline. With his celebrity (he was on par with Beyonce or J.Lo today) in the 1950s, middle-class hostesses everywhere

would have loved to say that “the cheese came from Malabar Farms.”

So, as you can gather, Malabar is a complex story. Anneliese Abbott has done a superb job of making it an easy, entertaining, and yet thought-provoking read for anyone, in any discipline or interest, in the various topics covered by Bromfield in his tumultuous, short life. You can apply many lessons learned by Bromfield as you approach your own work.

Reviewer: Gene Krebs, co-author of *Bridges Across Every Divide*, Camden, OH 45311, USA.

Email: ekkrebs@gmail.com

I'm certainly going to order a copy of this book. I have long considered the Malabar Farm story one of the most important land conservation stories in Ohio's history of land degradation and reclamation. I'm excited that someone of this time and generation has decided to take another look at the story. I am also thankful the Lynn Elfner was able to get Gene Krebs to review the book for the Ohio Journal of Science. As Gene says, he has long been an advocate of sound farming practices and land reclamation. I have known Gene for a number of decades now, following his work on the local and state level as he found ways to fund environmental and conservation efforts. In the 1990's he got a bill through the Ohio House and Senate that paid for a number of County scale Ground Water Pollution Potential maps and reports. He is from Preble County, as he puts it, one of the other six families besides my husband's, who settled the county.

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 Winter Newsletter

This ends Part One of the Winter 20221 Newsletter. Because the main thrust of this issue is to get out the information about the Winter Annual Meeting in a timely fashion, there will be no Part two of this issue.