

ASSOCIATION OF OHIO PEDOLOGISTS

OHIO SOIL PROFESSIONALS

www.ohiopedologist.org



I want to take this opportunity to thank the Executive Council for their outstanding assistance during the past year. We had some very good discussions on AOP policies and objectives. During one of these discussions, the need for a part time Executive Director to follow through on projects was mentioned. This needs to be given some serious thought if AOP is to meet the professional and educational needs as stated in Article I of the Constitution. Give Jerry Bigham and other members of the Executive Council your thoughts on this. Possibly, AOP could hire a part time Executive Director that has a similar position with another organization or is retired.

See the agenda for the Annual Meeting in another section of the newsletter. Installing Energy Distribution Systems is a very timely subject that affects many people. A group of farmers in the Upper Sandusky area would not sign the easement to cross their farms unless the general contractor hired a well know drainage subcontractor to fix all of the agricultural drains cut by the pipeline installation. Soil compaction is a big issue. I am looking forward to all of the presentations, especially, Joe Ringler's presentation on "Monitoring Pipeline Construction" and Steve Culman's presentation on "Research to Assess the Agricultural Productivity of Reclaimed Pipeline Soils".

Hope to see you at the meeting.

Larry Tornes

WELCOME NEW MEMBERS:

Scott Demyan , Pedologist, Ohio State University, demyan.4@OSU.edu

See Bio Below

Daniel King, Pedologist CPSS PWS, dking@blcompanies.com

Senior Project Scientist, Blcompanies, Green Ohio

FaceBook AOP Available

FaceBook Page is now enabled. Our user name is 'Soil Place'. I had problems with Face Book account ownership. The abbreviation of AOP also caused problems because it is used a lot on the web.

I will send out friend requests to the people I know use Face book. Others can send a friend request to Soil Place. There are pictures of the last 3 training sessions. This is kind of a beta test. I have been using two accounts on my laptop which can get confusing. Let me know if anything looks strange.

Get to Know the OSU faculty OP has let our relationship with OSU decline. We are actively trying to improve that.

Jerry has asked the Soil related professors to write a bio. This is the first of those.



I would like to take this opportunity to “re-introduce” myself to the AOP membership. My name is Scott Demyan and I am an assistant professor of soil and environmental mineralogy in the School of Environment and Natural Resources at Ohio State University. I started the position in January, 2017. I mentioned that I am “re-introducing” myself, as during my previous time at OSU, I was a student member of AOP while working on my BS (2003) and MS (2006) degrees. I studied pedogenesis in mine soils in SE Ohio and Dr. Neil Smeck was my advisor. When I finished my MS degree I joined the Peace Corps and served as an environmental education volunteer for two years in Armenia. I worked with a small non-governmental organization in Gyumri, Armenia, which was conducting environmental lessons in local schools and separately, water quality research. Since I was interested in soils, I brought some of that knowledge to develop several joint research projects with a soils component. This very applied aspect of the Peace Corps really got me interested again in research, so I decided to go back into research/academics. This brought me to the University of Hohenheim in Stuttgart, Germany, to work in a project on regional assessment of soils and soil organic matter for climate modeling and to complete a PhD. I worked intensively on new methodological applications of mid-infrared spectroscopy in the characterization of soil organic matter. After completing my PhD, I was able to continue as a Post doc with the same project, but focusing more on modeling of soil carbon dynamics.

In addition to my previous research interests, I plan to delve more into organo-mineral interactions in soil as these interactions form the strongest stabilization processes for organic matter and are important for many soil processes. I also intend to further develop rapid assessment techniques for acquiring soil data and focus on inorganic carbon cycling as this is often left out of ecosystem models. In addition, soil formation and related processes in drastically disturbed sites still interest me.

I will be teaching a soil management course and in the fall of 2018, soil mineralogy, which was last taught by Dr. Jerry Bigham a number of years ago. As a teacher in the field of soil and environmental sciences, my main goal is for students to understand the interconnected nature of ecosystem components as related to the soil/plant interface. I believe that it is very important to learn through doing, which for soil and environmental sciences involves field and/or laboratory experience. I would like to get students outside during every course at least once, but it is not always easy due to time or other constraints.

In closing I look forward to interacting with the AOP membership in order to form relationships that will be for the benefit of teaching and research, and to help build the standing of soil science amongst our students. I welcome suggestions on how we might better prepare our students for possible careers in the public and private sectors related to soil science.

2018 Annual Meeting

We will gather at the Nature Center in February. We hope the weather gods are with us. We (Jerry) have put together a program that gets to the heart of what is happening in Ohio regarding fracking and pipeline construction. It is hard not to run into the right of ways to these multiple pipelines. They are being built at breakneck speed (time is money) but they also are an opportunity for us to contribute to the remediation of the lands affected and help with pre-construction planning.

The agenda as well as a map of the park are included below. If you have any questions, please call a member of the executive council. The ballot includes a place to vote for Mike Angle. We will once again be overeating City Barbecue with that yummy chocolate brownie. Of course there will be coffee, drinks and donuts for the early arrivers and the break.

PROGRAM AND AGENDA

ASSOCIATION OF OHIO PEDOLOGISTS ANNUAL MEETING

February 15, 2018 –High Banks Metro Park Nature Center

- 8:30 am Registration with Coffee and Doughnuts
- 9:00 am Welcome and Announcements – Larry Tornes
- 9:15 am *An Overview of Current and Future Energy Distribution Projects in Ohio* – Dale Arnold, Director of Energy Policy, Ohio Farm Bureau
- 9:45 am *The Land-Use Impact of Hydraulic Fracturing in Southeast Ohio: Transmission Lines, Gathering Lines, Compressors, Water Storage, etc.* -Walter E. "Ted" Auch, The FracTracker Alliance, Cleveland, OH
- 10:15 am Break
- 10:30 am *Boots on the Ground: A Soil Scientist's Experience with Monitoring Pipeline Construction* – Joe Ringler, Private Consultant
- 11:00 am *Impacts of Pipeline Installations to Ohio Soils and Cropland Productivity* - Steve Culman, Extension Soil Fertility Specialist, The Ohio State University
- 11:30 am Panel Discussion on the Impact of Energy Distribution Systems on Soil and Water Quality in Ohio
- 12:00 Lunch
- 1:00 pm SoilExplorer.net – *Soil Properties and Landscapes at Your Fingertips* – Darrell Schulze, Dept. of Agronomy, Purdue University and the ISEE Network
- 2:00 pm Business Meeting – Larry Tornes

Speaker Bios

Dale Arnold is Director of Energy, Utility and Local Government Policy for the Ohio Farm Bureau Federation (OFBF). Over the past two decades he has managed education, outreach and technical assistance projects addressing energy generation, transmission and distribution issues. These efforts include power siting, oil & gas leasing, pipeline and transmission line easements, renewable energy and utility interconnection and smartgrid projects. Community stakeholders want to explore how energy development projects will impact their neighborhoods. He works with utilities, energy service providers, regulators, local government officials and community organizations to best determine how an energy project can provide resources for long term economic and community development. The OFBF has over 141,000 member families statewide. Dale works with Farm Bureau leaders to create effective energy policy on local, state and national levels. He has authored papers advocating a *Diversified Energy Portfolio* using domestic oil and coal resources, nuclear and renewable technologies. Dale is a native of Knox County, where his family can trace their involvement in Ohio agriculture starting in the 1820's. He holds a BS in Communications from Ohio Dominican University. **Contact:** darnold@ofbf.org



Ted Auch is Great Lakes Program Coordinator and Lead Researcher for the non-profit FracTracker Alliance and is also an Adjunct Faculty member at Cleveland State University. Ted's primary responsibilities include mapping and bringing to light data gaps associated with the waste, water, and land-use footprint of the unconventional oil and gas build-out across the Midwest/Great Lakes region of North America. Ted's interests include frac sand mining, watershed security/resilience, the food-energy nexus, and oil and gas waste production, transport, and disposal. Ted came to FracTracker after serving as a Cleveland Botanical Garden postdoc fellow quantifying the Great Lakes Basin's vacant lot portfolio, constructing various Vacant Land Repurposing (VLR) models, and working with institutions,



urban planners, and community groups to understand the cost and benefits associated with VLR. Ted holds a PhD from the University of Vermont where he modeled climate, chemistry, and ecosystem fluxes at the global scale. He also completed a MS at Virginia Tech looking at the ecological effects of strip-mining and mountain top removal with a focus on soil ecology and plant diversity. **Contact:**

auch@fractracker.org

Joe Ringler is a certified professional soil scientist and private soils consultant in north central Ohio where his work includes developing comprehensive nutrient management plans, providing agronomic services to producers, planning sewage treatment systems and, most recently, the monitoring and inspection of energy pipeline projects. Joe holds B.S. and M.S. degrees in Soil Science from The Ohio State University. He credits his experience with collegiate soil judging for motivating his education, professional certification, and current career activities in soil science. Joe serves as the AOP secretary.



Contact: ljenvironmental@gmail.com

Steve Culman is an Assistant Professor and State

Specialist in Soil Fertility in the School of Environment and Natural Resources at The Ohio State University. He is stationed at the Ohio Agricultural Research and Development Center in Wooster, Ohio. Steve has a diversity of interests in soil science and agronomy, including soil fertility and nutrient management, soil food webs and soil health and agroecology. He earned a B.A. in Biology from Thomas More College and a M.S. in Soil Science and Ph.D. in Agronomy from Cornell University. He subsequently worked as a postdoctoral researcher at the University of California - Davis and the Kellogg Biological Station at Michigan State University before joining the faculty at Ohio



State. *Contact:* culman.2@osu.edu

Darrell Schulze is a Professor of Soil Science in the Agronomy Department at Purdue University. His current interests center around: (1) utilizing existing soils data to visualize soil landscapes and deliver soils information to users in new ways, and (2) understanding how differences in soils and landscapes impact the livelihoods of smallholder farmers in West Africa, specifically Kenya and Uganda. Darrell currently teaches two courses, a field-oriented, dual level undergraduate-graduate course in *Soils and Landscapes*, and a graduate course in *Clay Mineralogy*. The *Soils and Landscapes* course features an innovative teaching-with-maps approach that has students using detailed soil maps on iPads in both the classroom and in the field to learn how and why soils vary at different scales and why it matters. Darrell leads a multi-state Integrating Spatial Educational Experiences (Isee) Project that is expanding the teaching-with-maps approach to additional US states, and he leads the development of the SoilExplorer.net website and Soil Explorer app available in the Apple App Store.



He holds B.S. and M.S. degrees from Texas A&M University and a PhD in Soil Science from the Technical University of Munich in Freising, Germany.

Contact: dschulze@purdue.edu

Directions to High Banks Metro Nature Center:

The Nature Center is marked by the right most yellow dot on the map below.

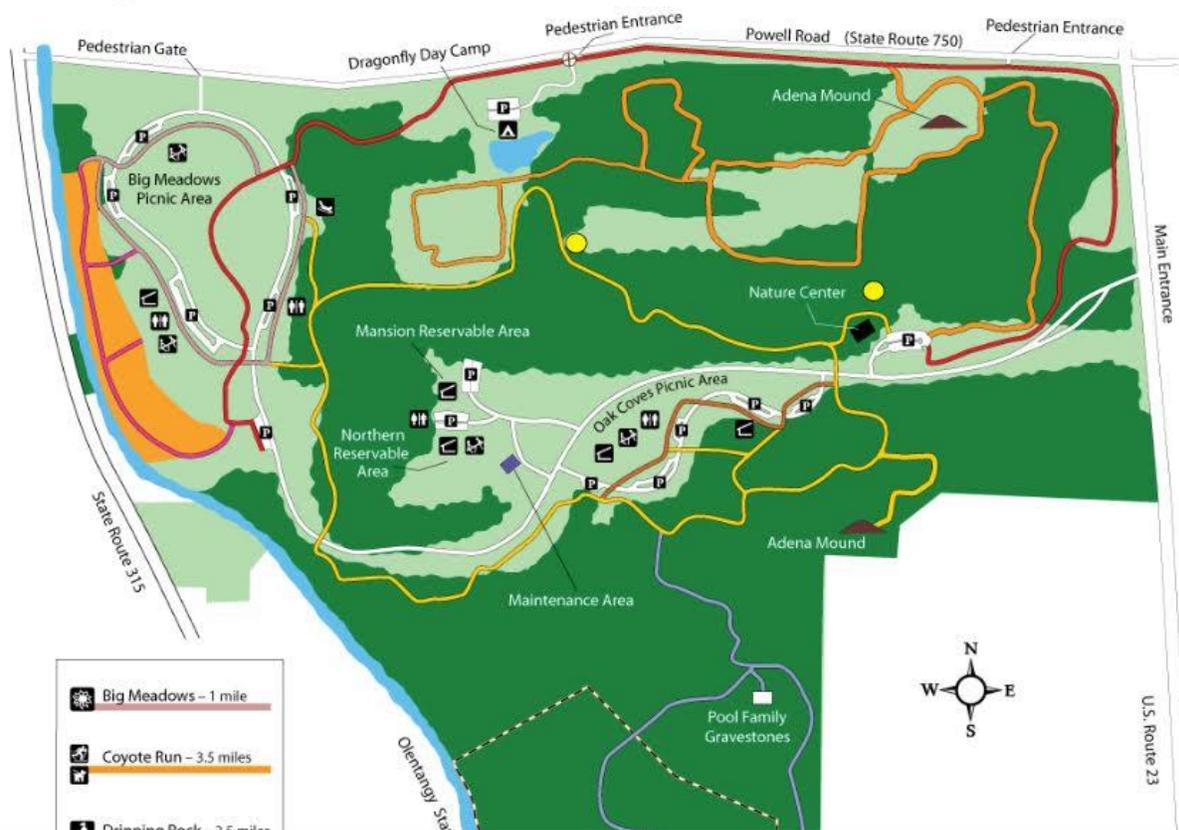
Arriving from the South on US 23 the entrance is the first right after Powell Road.

Arriving from the North on US 23 the entrance is on the left about 2 miles North of I-270.

From the East and West, Powell road is the way to US 23. This is a major intersection with stoplights.

The entrance to the park is marked by a large sign. The entrance does have a traffic light

Highbanks Metro Park



HONORARY MEMBER ELECTION;**Michael P. Angle****Nomination for Honorary Membership**

Mike Angle joined the ranks of Ohio's glacial and environmental geologists more than 30 years ago. For most of these years, he has worked at the Ohio Department of Natural Resources in the Divisions of Geological Survey, Water and Soil and Water Conservation. Following in the footsteps of George White, Dick Goldthwait and Jane Forsyth, he has dedicated his professional life to the further understanding and appropriate uses of Ohio's geologic materials and soils. Mike was trained at both the University of Akron and at Miami University at Oxford. Mike adds to his classical training in geology and soils, university training in hydrogeology and on the job training in Geographic Information Systems (GIS). Since the beginning of his career, he has worked closely with the soil scientists of Ohio at all levels of involvement, from one-on-one activities to leadership roles for the development of statewide mapping resources and research efforts. He has been involved in educational outreach as a meeting or field trip organizer, a workshop lecturer and a co-author of geologic and soils related publications. He has long been an associate member of the Association of Ohio Pedologists.

Among his many activities, he has overseen the county based Ground Water Pollution Potential (DRASTIC) mapping effort, 78 counties now completed. Plans are to create a statewide coverage once each county is completed. He has been involved in the statewide unconsolidated and consolidated aquifer mapping, the statewide potentiometric surface mapping and the ongoing statewide glacial materials stack mapping. He has long served as a co-coordinator of the Ohio Fracture Flow Working Group, an ad hoc group of soil scientists, geologists, hydrogeologists and agricultural engineers who are involved with understanding how water and contaminants move from the surface of the earth to underlying tile drainage, the water table and underlying aquifers. Mike was involved in the very early recognition of secondary fracture formation, developing a bibliography on the topic in the late 1980s while working in the Division of Water. He was an early member of the Working Group, a major organizer of the 1997 Field Day at Molly Caren Farm Science Review. He was involved in the planning and hosting of every additional field day thereafter, He became a co-coordinator of the Working Group shortly after the Molly Caren Field Day, served as co-editor of the April 2006 special issue of the Ohio Journal of Science, and co-wrote four of the papers contained in the issue.

As he now trains the next generation of Ohio glacial and environmental geologists, introducing them to Ohio's soil scientists, he continues to be active with the Association and organized a field stop for the Summer 2017 Field Day in Clermont County. For a lifetime of distinguished service, provided with good humor and unstinting generosity, we are pleased to nominate Michael P. Angle for Honorary Member, Association of Ohio Pedologists.

Respectfully submitted,

Julie Weatherington-Rice, PhD, CPG, CPSS

Meeting registration and dues payments

Name: _____

Please provide contact information:

Street Address _____

City, State, Zip Code _____

Email Address _____

Phone number _____

February 15, 2018 Annual Meeting registration:

attending: __

\$35 per person

Meeting Total: _____

Association of Ohio Pedologists Membership Dues for 2018

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: _____

Make checks payable to AOP and send to:

Jon Gerken, Treasurer

5890 Rauch Rd.,

Carroll, OH 43112

TOTAL AMOUNT ENCLOSED: _____

2018 Association of Ohio Pedologists Election Ballot

2018 Association of Ohio Pedologists Executive Council Ballot

Nominations : (Nominations from the floor will be accepted)

President-Elect	Duane Wood
Treasurer	John Gerken
Secretary	Joe Ringler
Member at Large	Bill Schumacher
Editor	Mike Plunkett Danielle Badloff
Honorary Member	Mike Angle