

*ASSOCIATION OF OHIO PEDOLOGIST
OHIO'S PROFESSIONAL SOIL SCIENTISTS*



I Would like to thank the Planning Committee, Executive Council, and others for the outstanding success of the joint Workshop with The Indiana Association of Professional Soil Classifiers. Seventy-eight Soil Scientists, Sanitarians, Geologists, students, and others attended the Ohio session.

It is a pleasure for me to work on most soil site evaluations. Land owners, builders, installers, and developers are very pleased to see and work with you on locating the septic fields and the drilling of the test holes on their lots. This is the main reason I am still involved with this work. Occasionally, you provide services to disgruntled clients that don't like where the septic fields must be placed on the lot because of the topography and soils or the long length required on the contour. A question commonly asked is why can't the septic fields be placed in very poorly drained soils like Pewamo. During most soil site evaluations, there are discussions about where the house, barn, driveway, etc. should be located on the lot considering the soils, topography, vegetation, etc. Land owners often ask if they can avoid a wet basement and how stable is this soil for a building. Soil Scientist can provide some very valuable input during these discussions. Land owners in particular appreciate this discussion.

Attention Members: AOP need nominations for Council next year if you would like to be on the Executive Council. Please let Larry Tornes know if you are interested.

Awards: This is also the time to nominate somebody for an award. The nomination form is on our website. Please submit to Neil Martin by Jan.1

The forms for the awards are attached to the email that sent this newsletter

Winter Meeting Announced:

President Elect, Jerry Bingham, has been very busy developing a very timely agenda centered around the energy situation in Ohio for the February 15, 2018 meetings at High Banks Metro Park. Annual meeting is scheduled at the High Banks Metro Park nature center on February 2918. Coffee, drinks, doughnuts and City barbeque are on the menu

Dr. Bingham has gathered a great group of speakers and panelists that will provide a robust discussion of this topic..

The High Banks Metro Park is the location of the February annual Meeting of the Association of Ohio Pedologists. The meeting will be at the Nature Center it is the eastern yellow dot on the map. The Entrance is off US 23 to the east. Construction on the I-270 interchanges is wrapping up. And all of the lanes and exits are open.

TENTATIVE PROGRAM AND AGENDA

ASSOCIATION OF OHIO PEDOLOGISTS ANNUAL MEETING

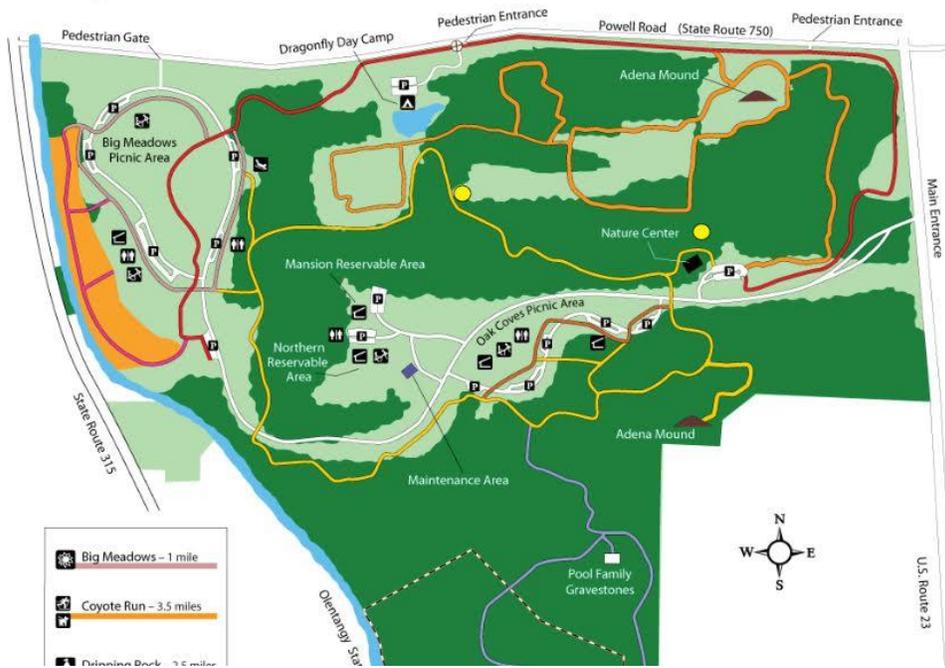
ASSOCIATION OF OHIO PEDOLOGISTS ANNUAL MTG

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
- 9:40 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
- 10:05 am Break
- 10:20 am *Boots on the Ground: A Soil Scientist's Experience with Monitoring Pipeline Construction* – Joe Ringler, Private Consultant
- 10:45 am *Impacts of Pipeline Installations to Ohio Soils and Cropland Productivity* - Steve Culman, Extension Soil Fertility Specialist, The Ohio State University
- 11:10 am *SoilExplorer.net – Soil Properties and Landscapes at Your Fingertips* – Darrell Schulze, Dept. of Agronomy, Purdue University and the ISEE Network

- 12:00 Questions and Answers - Morning Speakers
- 12:15 Lunch
- 1:15 *Soils and the U.N. Sustainable Development Goals*– Rattan Lal, Professor of Soil Science, The Ohio State University, and President, International Union of Soil Sciences
- 2:00 Business Meeting – Larry Tornes

Highbanks Metro Park



Ohio Pedologists and the Indiana Association of Professional Soil Classifiers Workshop (article appeared in NRCS Newsletter)

Submitted by Gary Struben, State Soil Scientist, Indianapolis, IN

The Association of Ohio Pedologists and the Indiana Association of Professional Soil Classifiers held a combined workshop on September 14 and 15, 2017. The main theme of the workshop was the “Soils of The Illinoian Till Plain ~ Clermont/Cobbsfork and associated soils in the Cincinnati Catena” in MLRA 114A and the development of *fragipans* and *fragic soil properties*.

On September 14th the workshop was located in Ohio with presentations and field visits. Mike Angle, Assistant Division Chief with the Ohio Geological Survey, gave a presentation on Illinoian Till Formation and distribution in Ohio and Indiana.

Dr. Julie Weatherington Rice, Geologist with Bennett & Williams Environmental Consultants, Inc., gave a presentation on deep cores from a landfill site in the Clermont soils formed in Illinoian Till and the group also examined these cores which were on display at the workshop.

Dr. Jerry Bigham, retired Professor of Soil Science at The Ohio State University, discussed the OSU Lab Data and Research Sites including *Fragic Soil Properties* and Water Table Data and the implications for the division of soils such as Westboro with *Fragic Soil Properties* and Schaffer with a *fragipan* in Ohio.

On the field visits, the group examined fractured Illinoian Till along Backbone Creek in Clermont Co., Ohio. We observed two soil pits of the Clermont soil, comparing the soil properties in a cropland site versus one in a wooded site.

Matt Deaton, Consulting Soil Scientist, discussed a Soil Quality Study from 2006 for the cropland site and Steve Hamilton, Retired ODNR Soil Scientist and current Consulting Soil Scientist, lead the discussion of the paired woodland site. On the last stop of the day, the group examined the Westboro and Schaffer soils and evaluated the characteristics of *fragipan* vs *fragic soil properties*.

Dr. Jerry Bigham and John Allen, NRCS Acting Soil Survey Leader, lead the discussion at these sites. The discussion at the four soil pits included the implications for Soil Health, Drainage, Water Table Data, Septic Systems, and Hydric Soil Indicators.

Dan Michael, Consulting Soil Scientist, demonstrated the use of GPS, survey equipment and a drone and how they can be used in accurately locating property boundaries and boring sites for on-site investigations.

On September 15th the workshop was located at the Southeast Purdue Agricultural Center in Indiana and again featured presentations and field visits. Dr. Don Franzmeier, Retired Professor of Soil Science from Purdue University, reviewed *fragipan* formation.

The group then traveled to the field sites to examine soil pits in Cobbsfork and Avonburg soils and compared soil properties in cropland sites versus those in paired woodland sites. Dena Anderson, NRCS Resource Soil Scientist, and Gary Struben, NRCS State Soil Scientist for Indiana, lead the discussions, which centered on the development of *fragipans* and *fragic soil properties*,

After a hardy lunch and business meeting, Byron Jenkinson, Retired Professor of Soil Science from Purdue University, reviewed water table data collected from the Muscatatuck Wildlife Refuge Research and the use of *Iris Tubes* in determining reducing conditions in hydric soils.

Soil pits in Cincinnati and Muscatatuck soils were examined that afternoon and Dena Anderson and John Allen lead the discussion on *fragipans* and *fragic soils properties* and their implications for Septic Interpretations on water tables and dynamic soils properties related to soil health systems.

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For those interested, a web link was set up for this combined workshop and plans are to keep this site up for some time. The link is: <http://arcg.is/1H8XSz>. Alena Stephens and John Allen of the Indianapolis Soil Survey Office developed this web site.

Both states had very good participation in each training session. Ohio had about 70 attendees for their session and Indiana had 60 participants with about 20 soil scientists attending both days! Special thanks to all involved for conducting an outstanding Soils and Geology Training Workshop. Plans are to do this again in the future to continue to foster communication and share ideas across state lines!

The photographs below were provided to us by Frank Gibbs. Thank-you Frank for all your work.

Previous Core sample from Wisconsin loess through the Illinoian till



Fractured till - oxidized fractures penetrating into the dense Illinoian till.



Dena Anderson discussing the glossic properties of the Cobbsfork soils.



The bench in the soil pit below shows the large prisms in the fragipan of the Schaffer soil.



Dr. Jerry Bigham discussing the fragipan development in the Schaffer soils.



Dan Michael, Consulting Soil Scientist, demonstrating the use of a drone and survey equipment.



Monolith building skills demonstration during September field training:

The skill required for soil monolith construction is usually underestimated by those who haven't tried. Getting a core was rather a simple affair provided you didn't have issues with the probe truck. However, there were time it had to be done by hands. Digging a pit, cleaning the face "chipping" away peds to best show structure and color. Chiseling out a "chunk" of soil with a spade. And finally trying to break such face away from its mommy.



George Derringer Demonstrated this in September. I have photo evidence as you can see. I am not sure what this weighs. I am guessing about 100 pounds. I haven't heard if backs were broken or not.

The North Carolina Soil Survey program produced a slide showing the history of the Soil Survey Program and the partnership that made it possible. Link is below: <http://nrcs.maps.arcgis.com/apps/Cascade/index.html?appid=b82e3bb353ae4adcb>

thanks to Bob Parkinson for this item