



*ASSOCIATION OF OHIO PEDOLOGISTS  
OHIO SOIL PROFESSIONALS*  
[www.ohiopedologist.org](http://www.ohiopedologist.org)

## PRESIDENT'S MESSAGE (January 2016)

Having just returned from the AOP Executive Committee meeting and the OOWA Annual Meeting a little earlier in January, I came to this conclusion: IT IS A GREAT TIME TO BE A SOIL SCIENTIST! There are several reasons I make this bold assertion.

In northern Ohio there is continuing discussion regarding an oil & gas pipeline cutting across several counties before turning toward Michigan. Our late summer 2015 newsletter had information about oil & gas drilling rules, etc. Landowners & others need our services to make sure they are being treated fairly. Of course, there are legal issues which are beyond the scope of our expertise unless you are an attorney, too. I am not, so will leave those legal issues to others who are qualified.

However, there are items we can help John & Jane Public address. For example, after the pipeline is installed, was the topsoil set aside so it can be put on top to help in the establishment of any vegetation? It seems like we have made a favorable impression over the years because companies are wanting to make sure they are doing things correctly. It may be that they are "forced" to because the laws & rules spell out what they are & are not to do. At any rate, they are complying and in some cases asking for our help. We can help with appropriate recommendations for kinds of vegetation, seeding rates, sodding issues, & any lime and/or fertility flags we see. Often during the construction phase, the water content of the soil is not ideal. How many times have we witnessed construction activities in the mud? Once that occurs there is not much that can be done to help the damage already done. It is easy for me to be critical but, at the same time, I am not under the pressures of meeting deadlines, payrolls, etc. I try to understand the construction side of the equation.

We continue to evaluate sites & soils for on-site sewage treatment & disposal. Several decades ago if a site & soil were not very suitable, there was not much that could be done. Now, however, the on-site industry has developed techniques & products to make these challenging sites & soils useable. They may be expensive, but landowners & homeowners have some options. (One of the many things I learned at the OOWA conference.)

Editor Michael Plunkett

mplunket@columbus.rr.com

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Of course, we are in a good position to offer assistance & recommendations for the more traditional soil fertility issues including fertilizers, kinds, and placement. I don't mean for this list to be "all inclusive," because there are other issues I did not mention. Many of you are out there on the "front lines" already helping people with various soil & water-related problems. Keep up the good work & don't forget to invite them to support AOP as we try to balance various competing activities regarding our soils & water issues to help protect the environment.

This may be my last President's Message, because Neil Martin is the President Elect. We will be making the transition at our upcoming meeting Friday, March 11<sup>th</sup>, at High Banks.

Thank you for the opportunity for me to be your president.

Tom L. Zimmerman, C.P.S.S.

Wooster, Ohio

330-264-5521 phone & fax

330-287-6820 cell phone

## **2016 ANNUAL MEETING NEWS:**

The spring annual meeting will be held on Friday March 11, 2016 at the Franklin County High Banks Metro Park Nature Building. The meeting will begin at 8:30 a.m. with coffee and doughnuts available. Formal start of morning session will be 9:00 a.m. with the introduction by President Tom Zimmermann. In the proposed agenda we look at The Onsite Wastewater Disposal Rules one year on, a session about new OUPS rules that have enforcement power aimed at "excavator" regulations (hint: the excavator maybe YOU). An Ethics session that will delve into the new ethical challenges we may face as we expand further the areas and industries we work in. We will have an update on NRCS Soil Survey program. We will discuss drones and their use in agriculture and specifically soil science.

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**DIRECTIONS TO HIGHBANKS METRO PARK NATURE CENTER:**

*Note impacts of construction*

*From the North use US Rt. 23 S to the park which is about ¾ mile from SR 725. There is a light at the park entrance. SR 725 runs East*

*To I-71 which is an option. There are two I-71 interchanges Gemini Park and Polaris Parkway. Polaris Parkway would be the most straight forward route. Polaris Parkway is SR 725. Take this to RT 23 S and turn South to the park*

*The park is about 5 miles North from I-270 and US 23. The interchange at US 23 is under construction. It is finished enough that traffic is flowing so I wouldn't necessarily avoid it. So if you are coming from the East this is ok. However, if you are coming from the South or West there is construction at SR 315 and US RT 33 at 270. These interchanges change daily with a large number of bridges being built. So I would pay attention to traffic reports.*

*I would recommend 315 to I270 over I-71 through town just because of traffic volume. The SR 315 construction starts at route 161 in Worthington but it is normally flowing pretty well.*

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**SCHOLARSHIP FUND UPDATE:**

Included with the dues form is an area for a scholarship fund donation. Please consider a donation so we can keep the fund funded and possibly increase the amount. AOP is the named sponsor of the award given out at CAEFS. It goes to a deserving Natural Resource Major who specializes in soils.

## **MEMBERSHIP UPDATES:**

We have had 3 retirements. Rex Mapes is no longer handling referrals (a second retirement). James Bauder has put down the probe (first time?). Don McClure has retired from the NRCS as of the end of 2015. I think this one is a "first" retirement, but I believe he plans on consulting. If you have the chance please congratulate them on their achievements.

NOTE: I had a picture of Don standing corn stalks and mud, with boots on, in a field somewhere that is flat. He is peering out from his hooded sweat shirt and Cover-all's looking happy as a clam trying to get soil out from a truck mounted probe. (Oh the memories). However, I think he is telling the photographer that he can't feel his fingers or toes. Unfortunately, the picture disappeared down the rabbit hole that is my laptop. I reserve the right to find it and use inappropriately in the future

## **Contact Information Changes:**

### **Jim Bauder**

L 513-887-61117 (answering  
machine)  
C 515-713-7563, best to text  
[jimbauder@fuse.net](mailto:jimbauder@fuse.net)

**Don McClure (newly retired)** [dirtdoctordon@gmail.com](mailto:dirtdoctordon@gmail.com)

**Julie Weatherington-Rice** [jweatherington.rice@gmail.com](mailto:jweatherington.rice@gmail.com) email change from OSU

**New Rules for Excavations :** There are new rules effective Jan. 1, 2016. It gives the state enforcement power for violation of the Call Before You Dig program operated by the Ohio Utility Protection Service. It sets out financial penalties as a registration requirement for "excavators". It is kind of a sliding fine scale determined by the number of violations. I have included a link to the website and I have included a paragraph that described what is an excavator or designer. I think we get clarification at our spring meeting from the OUPS representative. We should know first-hand how we fall into this. The second link is to the PUCO site where rules are explained.

G) "*Designer*" means an engineer, architect, landscape architect, contractor, surveyor, or other person who develops plans or designs for real property improvement or any other activity that will involve excavation.

(O) "*Commercial excavator*" means any excavator, excluding a utility as defined in this section, that satisfies both of the following:

(1) For compensation, performs, directs, supervises, or is responsible for the excavation, construction, improvement, renovation, repair, or maintenance on a construction project and holds out or represents oneself as qualified or permitted to act as such;

(2) Employs tradespersons who actually perform excavation, construction, improvement, renovation, repair, or maintenance on a construction project.

<http://codes.ohio.gov/orc/3781> Sections 25 to 38 apply to OUPS

<https://www.puco.ohio.gov/puco/index.cfm/industry-information/industry-topics/damage-prevention/>

## Geomorphology in the Digital Age Retrospective: Summer Training Revisited

I would say we were very lucky this summer with the weather being perfect for our summer workshop. The days were warm with low humidity and no rain. Can you say El Nino? (As a side note I took a long vacation to the South Pacific this fall, the surface of the central Pacific was 90 degrees and the water as smooth a glass. This is the root of El Nino). We were able to involve the Wilmington College students as well as give our members some tool to keep our skill set up. I have included below some of the outdoor pictures. The indoor ones were a little dark. I did have one of Dr. Slaters landscape position slide but we all know what that one looks like. We had several students sit in on some of the indoor sessions. They saw a variety of topics that were interesting including soil remediation, a Phosphorus Project update and history of the soil survey. Below are few photos of the workshop.

Day 1 of workshop: Determine landscape definition. Where would you expect a digital map of this field to look like when digital tools are applied. How different would you handle the landscape? This pic shows Frank confusing one guy and another leaving scratching his head, (I didn't actually hear what they were saying but I imagine that could be true)



Below: Day 2 Afternoon : Comparing the new Soil Judging Scorecard with the first of 3 pits. Goal was to get some level of consistency with its use. The 2 girls to the left were students of Wilmington College studying natural resources. They were interested in all 3 of the pits and worked with our members extensively (the future).



Day 1and 2 Lunch at the College Farm Building. Wilmington really helped with facilities (except for the one person rest room with limited availability (my oops).



And finally Day 2 our standard “guys staring at a hole in the ground” photo. This pic actually



shows pit two and in the shadows pit three. This allowed for 3 landscape positions to be examined. I think George Derringer is on the right.

### **Alien Soils I Have Seen   Submitted by Larry Miliron**

Being an old, almost retired soil scientist, I sometimes reflect on my experience in soils work and those who supervised and mentored me. This story is about my experience with alien soils. As a student studying soils I was taught about the soil forming factors and soil forming processes. I was encouraged to pursue critical thinking and to follow cause and effect relationships to conclusions. Soil Taxonomy is based on such.

As a field soil scientist trainee I was introduced to the application of my academic training to the variableness of real world conditions. Perhaps I was convinced early on that indeed soil aliens exist. In those early days I too frequently failed to understand the cause that resulted in the effect I observed. What soil forming factors and processes interacted to leave this pedon to confound me once again? With experience I was able to better assess whether each variable of the soil profile was acceptable to a mapping concept or whether it was something of greater significance that would lead to perhaps correlating a new soil series or documenting a different map unit phase. I have been privileged to many field review and map inspection discussions on the formal official soil series concept and the soil map unit concept – their similarities and differences.

But, having training and gained experience as my reference, I can now recognize an alien soil when I see one. Alien soils relate to unique anomalies I don't understand. There are three in northeast Ohio that still haunt me.

One is in Ashtabula County. While on a site evaluation where wetlands was a dominant concern I happened upon an area about two acres in extent that was characterized by many pits about

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mplunket@columbus.rr.com

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three feet deep with narrow ridges around the perimeters. The ridges were well drained and the floors of the pits poorly drained. The area was vegetated with mature hardwood timber. Trying to rationalize how this could be I resorted to consider that a localized pocket of small ice blocks was deposited in or with the till and subsequently left this mystifying area, or perhaps hundreds of years earlier a strong tornado uprooted virgin forest trees, or – this was one of those alien soil.

Another alien soil I've seen was shown to me by Rick Bizard and Lynn Roth in northern Columbiana County. They investigated a fresh dig for a house basement. About four feet below the surface was an alien layer. It was uniformly about 4 inches thick on all four walls of the dig and parallel. It was gelatinous, faint pale greenish yellow in color and did not have a sticky consistence with water being added to it. This feature was not spatially consistent and therefore not predictable across the landscape. However, higher up on the valley walls, some drainage ways had erratic remnants of this same material maybe an inch thick and nearby the outfalls into the large valley. Definitely alien to me!

Another alien soil I observed is in Wayne County East of Wooster. Working with Tom Jones, former SCS Area Engineer, we were checking soils to site a large pond. The geology was silty clay loam till over hard sandstone bedrock at depths of about five to six feet with slopes 6 to 15 percent. The alien feature was a clean coarse sand and fine pebble layer consistently about 10 inches thick below the till and resting on and parallel to the hard medium sand grain size bedrock and followed the undulations of the bedrock vertically and laterally across that local area. I've seen weathered bedrock capping hard bedrock but never like this. Has to be alien!

Another alien soil that haunts me when I let my mind wander is one I observed in Montana, northwest of Jordan in Garfield County, 1987. Using a 2-inch truck mounted power probe on loess deposits I pulled my first core on an upland flat. Within a couple feet from the top the soil core was laminated like pages of a book. As each 'page' was separated perfect carbon imprints of a fossilized plant (mostly leaves) was exposed. This area that now only supports short prairie grasses had once apparently flourished with leafy vegetation in times past. I never saw anything like this before or since. Alien to me!

Even in Nebraska alien soils exist – well, at least alien geology. We had permission to explore a sizeable gravel pit with 30 to 40-foot-high walls. Fossilized wood and the large dense bones of small prehistoric animals could be found that made great days of adventure with the boys. Most of the gravel was 4 to 10 inches in diameter, hard igneous or metamorphosed material. The alien influence was exhibited as inclusions of round basketball sized silt pockets. They would be randomly nested among the hard large gravel. If you scratched these silt inclusions with your fingernail they would freely crumble. Strange, mysterious – alien! Best that I could conclude was that the volume, velocity and energy of the depositing water did not destroy and separate all the frozen silt but rounded small surviving remnants were left with the rock gravel deposit. Otherwise, definitely alien!

Anyways, just wanted to put my testimonial out there to alert you that there are alien soils lurking about. They will definitely confound you when encountered. And maybe even haunt you as you age and reminisce on them. I am sure you likely have interacted with such soils whether or not you were aware they are alien.

Sworn on a stack of soil survey reports, Larry

Editor Michael Plunkett

mplunket@columbus.rr.com

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**My Friend the Soil:**

Rick Griffen sent the attached article reprint a while back, I thought it was pretty intriguing. The author describes how soil really is the art in the landscape. A little different perspective. It is an attachment because I couldn't get the formatting correct in Word and Adobe.

**Meeting Registration** is included on the dues page. It is \$35 per person for coffee and doughnuts along with a barbecue lunch from City Barbecue.

**Association of Ohio Pedologists Membership Dues for 2016**

For members approved as Pedologists and Soils Professionals.....\$40

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

Please submit the following form and mail it as a whole sheet with your check for the appropriate amount made out to:

**AOP c/o**

**Mr. Jim Svoboda**

1131 Goshen Ave.,

New Philadelphia, OH 44663

Name of member\_\_\_\_\_

**Has your contact information changed? (Please circle) YES, NO (If YES, then please only add information that has changed.)**

Street Address\_\_\_\_\_

City, State, Zip Code \_\_\_\_\_

Email Address\_\_\_\_\_

Phone number\_\_\_\_\_

**Category of Membership (circle one):** Pedologist   Soils Professional   Affiliate Member   Student Member   Honorary (No annual dues)please note changes to contact information above.)

AOP Dues Amount: \_\_\_\_\_

Scholarship Donation: \_\_\_\_\_

Annual Meeting Registration \$35: \_\_\_\_\_

Total amount enclosed: \_\_\_\_\_

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