



Association of Ohio Pedologists

Ohio's Professional Soil Scientists

VOLUME 45 ISSUE 4

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PRESIDENT'S MESSAGE

"2018 – The Year in Review"

The beginning of a new calendar year provides an opportunity to reflect on what has happened over the past 12 months and to consider our needs and opportunities going forward. You may recall that we asked our membership to respond to a short survey at the beginning of the year. I'd like to share some results from that survey and comment on how the responses have informed our decision making.

First, let's consider **our membership**. We recently published a membership list in our Newsletter (Vol 45, No 2). that included 68 names. From a random search of old newsletters, I came across one from 1995 (Vol 21, No 2) that contained a list of 65 members, most of whom were agency employees engaged in the cooperative soil inventory of Ohio. While the numbers are similar, we all know that our demographics have changed significantly since 1995. To that end, we received 20 responses to our 2018 survey instrument. *(We had hoped for more, but I'm told that isn't a bad response rate - especially since we weren't offering free vacations, cars, cash prizes, or other inducements to participate!).* Of those who responded, 8 (40%) self-identified as private consultants, 6 (30%) as being retired, 4 (20%) as state or local agency employees, and 2 (10%) as federal workers. This breakout seems reasonable for the membership as a whole.

We also asked the respondents to indicate their primary **professional interest(s)** from a list of 15 topics. Multiple selections were allowed, as was the option to self-identify other topics not on the list. Perhaps not surprisingly, the big winner was pedology/geomorphology/soil mapping (18/20). An unexpected *(at least by me)* 2nd place finisher was natural resource education and extension (13/20). Not far behind were soil health (12/20), soil as a medium for waste disposal (11/20), soil conservation (9/20), and wetland/hydric soils (9/20). All but one topic was selected multiple times. The diversity of our professional interests and career paths represents both a challenge and an opportunity. For example, in our summer workshop on soil health, we consciously tried to blend in elements of soil morphology and engineering to broaden the appeal. Based on the sell-out crowd, it seems we were successful in tapping into the primary interests of a major segment of our membership.

The future of our profession and the roll (if any) that AOP should play in **recruiting and training new soil scientists** has been a frequent topic of discussion over the past decade. As I've listened to some of those discussions, I've failed to gain a clear understanding of what our rank-and-file membership actually thinks about this issue. We asked in our survey whether AOP should do

more to recruit and train private sector soil scientists. I was somewhat surprised that 17/20 (85%) of the respondents answered **yes**. On the other hand, when queried about **how** to be involved the respondents were mostly uncertain and only 5 indicated a willingness to be actively engaged in recruiting or training. Clearly, it's a complicated issue involving questions of time, effort, money, mission, infrastructure, competitive advantage, etc. Being complicated, however, doesn't excuse inaction. In this newsletter and at the upcoming annual meeting we will hear what Julie Rice has learned from the past training efforts of some of our most experienced private consultants.

We also know that a cornerstone of professional certification is education, and some of our members with non-traditional backgrounds have struggled to find affordable and accessible course platforms. Over the past year, representatives from the EC have had multiple conversations with faculty and staff at Ohio State about this concern. While I can't share any details or make promises at this point, I think it is fair to say there is positive motion toward establishing a soil science certificate program at Ohio State that will ultimately include on-line course options. Time will tell!

Finally, the survey included several open-ended questions about **how to improve AOP and enhance our summer workshops and winter meetings**. I can't cover all the responses, but I'll mention three that we've attempted to address.

1. *Hold the winter meeting someplace other than High Banks Metro Park. The meeting room there has bad acoustics and poor internet service.* We hope we have addressed this issue by switching our winter meeting venue to the H.R. Collins Lab and Core Repository. Let us know what you think.

2. *Consider occasional joint sessions with other professional groups or emphasize interactions with other professions (engineers, geologists, agronomists, foresters, public health, etc.) in some of our meetings.* This year's annual meeting focuses on soil and geologic hazards in Ohio. See what you think.

3. *Set dates and topics for workshops and annual meetings a year or more in advance for planning purposes. Also, provide more regional soils/geology/interpretations in order to learn more about the state as a whole.* In this newsletter and at the annual meeting we will present a proposal that we hope will address these requests, at least for the summer workshops.

In closing this final message for 2018, I'd simply like to thank our AOP membership for the opportunity to serve as your President and acknowledge my fellow officers for their efforts and support throughout the year. It has been a privilege to work with our Executive Council.

Respectfully,

Jerry Bigham

FLASHBACK!



L – R: Doug Karcher, Matt Sullivan, David Libben, Frank Thayer, Jeff Stimmel

The 1993 Ohio State University Soils Team placed 3rd in the national contest hosted by Oregon State University. The contest and practice sites were located in the Willamette Valley and foothills of the Coastal Range near Corvallis, OR. The team flew into Reno, NV, and proceeded to-and-from Corvallis by van. Notable sights along the way included Lake Tahoe, the Sacramento Valley, Mt. Shasta, the redwoods of northern CA, the Pacific coastline, and the Columbia River Gorge. A blizzard at Donner's pass almost side-tracked the trip home, but a set of \$100 tire chains saved the day.

LIVING SOIL FILM RELEASED

The Soil Health Institute recently released *Living Soil*, a 60-minute documentary about soil health featuring innovative farmers and soil health experts from throughout the U.S. The film is freely available to download and stream at www.livingsoilfilm.com. Accompanying lesson plans for college and high school students are available through the institute. A link to the full press release can be found [here](#).



Living Soil: A Documentary for All of Us (from the Soil Health Institute).

“Our soils support 95 percent of all food production, and by 2060, they will be asked to give us as much food as we have consumed in the last 500 years. They filter our water. They are one of our most cost-effective reservoirs for sequestering carbon. They are our foundation for biodiversity. And they are vibrantly alive, teeming with 10,000 pounds of biological life in every acre. Yet in the last 150 years, we’ve lost half of the basic building block that makes soil productive. The societal and environmental costs of soil loss and degradation in the United States alone are now estimated to be as high as \$85 billion every single year. Like any relationship, our living soil needs our tenderness. It’s time we changed everything we thought we knew about soil. Let’s make this the century of living soil.”

PROPOSAL FOR AOP SUMMER WORKSHOPS

The Summer Workshops are an essential part of the educational programming provided by AOP to its members. According to our by-laws, the President-elect is primarily responsible for planning programs and events, including the summer workshop and annual winter meeting. This responsibility is both important and time consuming and is made more difficult by the fact the President-elect is selected annually and takes office following the annual winter meeting. Consequently, there is usually little time to plan the summer workshop, and it is becoming increasingly difficult to find members who are willing to accept a nomination for this position on the Executive Council. As noted in the President's message, there is also an expressed desire from the membership for more advanced notice of dates and topics for the workshop, and for more systematic exposure to the characteristics and land use interpretations associated with major Ohio soils. In response to these challenges, the AOP Executive Council is proposing a new approach to planning and implementing the summer workshop that involves more active participation from our AOP membership.

In essence, we would like to implement a rotation among Ohio's soil regions and land resource areas and ask our members to volunteer in developing summer workshops that involve several standard elements. Presumably, those most familiar with the soils of a given region will be the ones providing this service to the membership as a whole. The rotation would begin in 2020 and we would ask the planning "committee" to submit a proposal to the EC with dates and general details one year in advance. The President-elect will serve as a committee member and the EC will continue to provide logistical support, as needed. We would not eliminate the possibility of emphasizing special topics in the workshops but, in general, our objectives, audience and approach would be as follows:

A. Objectives:

1. Learn about major Ohio Soil Associations
2. Gain practical experience with Ohio geology and landforms
3. Gain practical experience with soil morphology and mapping
4. Gain practical experience with important soil interpretations

B. Audience:

1. AOP members
2. Professional soil scientists from adjoining states
3. Students
4. Other "users" of soil information (sanitarians, engineers, SWCD staff, etc.)

C. Approach:

1. Rotate annually among soil and land use regions in Ohio.
2. Encourage joint programs with adjoining states.
3. Make use of MLRA staff, available data sets, and professionals in other disciplines.
4. Where possible and reasonable, utilize university or other state facilities as instructional sites.
5. Develop multiple (1-3) day programs involving both classroom and field activities. For example:
 - a. Day 1: Geology and landforms (taught by consulting geologists, local geology faculty, or our members)
 - b. Day 2: Soil morphology and mapping – taught by professional soil scientists
 - c. Day 3: Soil interpretations for relevant topics (e.g., on site waste disposal, land reclamation, slope stabilization, hydric soils, etc.) - taught by faculty, professional soil scientists, and other knowledgeable individuals
6. Registration could be for 1, 2, or 3 days.
7. Workshops would be scheduled at least one year in advance beginning in 2020.

We hope to have some good discussion of this proposal at the Annual Winter Meeting on February 21.

EFFORTS TO DEVELOP A FIELD TRAINING PROGRAM

Update from Julie Weatherington-Rice: At the Summer AOP meeting in Wooster, several of our membership discussed the need to interview successful AOP members who had served as field trainers for SSSA Certification for on-lot septic systems. Jim Bauder, Joe Steiger and Larry Tornes agreed to be interviewed. It was hoped that by collecting their approaches to training, a standardized process could be established. During the month of September, my daughter Susan Rice and I interviewed our stalwart friends. I have discussed my findings with the AOP Executive Committee. We learned the following:

1. This is not just about checking to install septic systems. Between us, we have identified about 40 different activities that soil scientists are often engaged in. There are probably many more.
2. No two soil scientists used the same training methods, but between them, we have identified some really excellent techniques. Why should we be surprised at that?
3. Rachel Warren, the OSU Civil Engineering/Engineering Education MS student who I am working with, wants to start training this summer and would like to take on the effort of setting up a workshop/on-line certification effort as her PhD project. We have come to the realization that our next generation of certified soils evaluators may be engineers, soil and water conservation district and health district employees.
4. To that end, Ohio Dept. of Health staff are interested in meeting with some of us as well. Hoping to accomplish that soon.
5. Plans are to draft all gathered information for another round-robin discussion after the Winter meeting with those working on the Certification project.
6. Will provide further updates at the Winter meeting.

AOP ANNUAL WINTER MEETING

The AOP Annual Winter Meeting will be held February 21, 2019 at the Geological Survey's H.R. Collins Lab and Core Repository near Alum Creek Reservoir north of Columbus. The theme of our meeting this year will be *Soil and Geologic Hazards in Ohio* and will feature a number of speakers from the private sector as well as the ODNR Div. of Geological Survey. The focus of the technical program will be on soil-geologic relationships and their potential impact on environmental issues relevant to Ohio. 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
SOIL AND GEOLOGIC HAZARDS IN OHIO
February 21, 2019**

**Div. of Geologic Survey's Horace R. Collins Lab and
Core Repository**

- | | |
|----------|---|
| 8:30 am | Registration with Coffee and Doughnuts |
| 9:00 am | Welcome and Announcements –Jerry Bigham |
| 9:10 am | The Role of Soils in Statewide, Seamless Groundwater Vulnerability Mapping, Craig Nelson |
| 9:45 am | Recent advances in the mapping of bedrock topography and drift thickness in Ohio, Andy Nash |
| 10:20 am | Break |
| 10:30 am | Ohio Karst, Douglas Aden |
| 11:05 am | Background Concentrations of Arsenic in Ohio Soils: Sources and Influencing Factors, Nate Wanner |
| 11:40 am | A New Map of Pleistocene Proglacial Lake Tight Based on GIS Modeling and Analysis, Jim Erjavec |
| 12:15 pm | Lunch |
| 1:15 pm | Business Meeting (awards, officer elections, summer meeting proposal, update on recruitment and training activities) - Jerry Bigham and others. |

SPEAKER BIOS

Presentation Title: The Role of Soils in Statewide, Seamless Groundwater Vulnerability Mapping

CRAIG NELSON is a Hydrogeologist in the ODNR Division of Geological Survey's Groundwater Resources Group. His work focuses primarily on groundwater modeling, groundwater mapping, and the maintenance of the Ohio Water Well Database. He received a B.S. in Environmental Science – Hydrology from the University of Maryland, Baltimore County, and an M.S. and Graduate Certificate in Hydrology and Water Resources and Water, Society, and Policy from the University of Arizona. He is a native of Baltimore, Maryland and a Returned Peace Corps Volunteer (Panama 2008-2010, Guinea 2014-2015).

Contact: craig.nelson@dnr.state.oh.us



Presentation Title: Recent Advances in the Mapping of Bedrock Topography and Drift Thickness in Ohio

THOMAS (ANDY) NASH is a Quaternary Geologist in the Ohio Department of Natural Resources, Division of Geological Survey's Mapping Group. He studied geology at the College of Wooster (B.A.) and the University of Illinois (M.S.). His primary research interests include understanding the geographical extent of glacial sediments and timing of their deposition, interpreting paleoclimates using terrestrial gastropods preserved in Pleistocene paleosols, and delineating preglacial drainage networks by mapping bedrock topography.

Contact: thomas.nash@dnr.state.oh.us



Presentation Title: Ohio Karst

DOUGLAS ADEN studied Environmental Geology (B.S.) and Planetary Geology (M.S.) at Ohio University from 2004–2010. Since 2010, he has been working for the Ohio Department of Natural Resources, Division of Geological Survey, Mapping Group. He has spent the last 8 years mapping sinkholes and glacial deposits in Ohio. He has visited over 6000 sinkholes in Ohio.

Contact: doug.aden@dnr.state.oh.us



Presentation Title: Background Concentrations of Arsenic in Ohio Soils: Sources and Influencing Factors

NATE WANNER is a Senior Scientist at Cox-Colvin & Associates with over 14 years of experience leading and completing environmental projects, in addition to six years as an educator and IT director. He holds a BS in Geology: Water Resources from Ohio University and a Masters in Geographic Information Systems from Penn State University. His areas of expertise include brownfields, site investigation, soil contamination studies, data analysis, and database services. Nate is an Ohio EPA VAP Certified Professional (CP), a Certified Professional Geologist (CPG) with the American Institute of Professional Geologists (AIPG) and is a registered Professional Geologist (PG) in Kentucky.

Contact: Nate_Wanner@coxcolvin.com



Title: A New Map of Pleistocene Proglacial Lake Tight Based on GIS Modeling and Analysis

JIM ERJAVEC holds an MS in economic geology from The University of Arizona and a BS in geology from Cleveland State University. He has over 30 years of experience working in the geological sciences and over 25 years of experience with geographic information system (GIS) technologies. He has been employed as a petroleum geologist for Texaco, Inc., a systems/GIS analyst for Intergraph Corporation, and a geologist/GIS analyst for Parsons Corporation. He has worked as a geological, GIS, and environmental science consultant on three DOE environmental remediation projects in Ohio. He has taught geology courses at several colleges and universities. He is co-owner and President of GIS & Environmental Management Technologies, LLC.

Contact: jim@gis-environmental.com



H.R. COLLINS LAB and CORE REPOSITORY

Address:

3307 S. Old State Road, Delaware, Ohio, 43015-7635, United States

Venue Phone: 740-548-7348 ext. 130

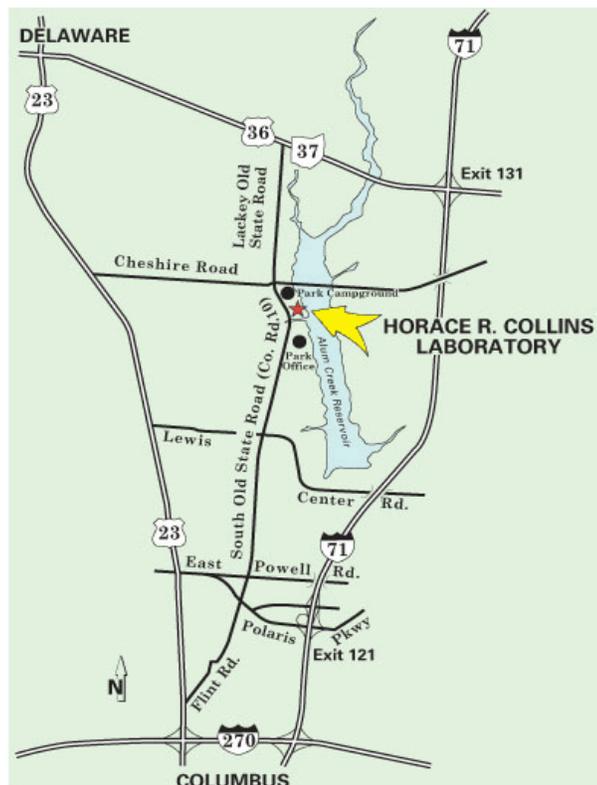
Venue Website: <http://geosurvey.ohiodnr.gov/core-samples/hr-collins-lab-home>

Directions:

From northeast Ohio: Travel south on Interstate 71 to exit 131–Delaware/Sunbury, U.S. 36/Ohio 37. Turn right at traffic light and proceed west on U.S. 36/Ohio 37 for 3 miles. Turn left on Lackey Old State Road (Delaware County Road 10) and travel south for 2.5 miles to Cheshire Road intersection (first four way stop). Travel through intersection and continue south on South Old State Road for 0.5 miles. Pass Alum Creek State Park and Cross Creek Campgrounds, then turn left onto access road (after passing sign for Collins Classroom and Division of Watercraft Office).

From northwest Ohio: Travel south on U.S. 23 to Ohio 37 exit in Delaware, Ohio. From exit ramp traffic light, turn left on Ohio 37 and travel east 4.5 miles to Lackey Old State Road (Delaware County Road 10). Turn right on Lackey Old State Road and travel south for 2.5 miles to Cheshire Road intersection (first four way stop). Travel through intersection and continue south on South Old State Road for 0.5 miles. Pass Alum Creek State Park and Cross Creek Campgrounds, then turn left onto access road (after passing sign for Collins Classroom and Division of Watercraft Office).

From Columbus and southern Ohio: Travel north on Interstate 71 to exit 121–Polaris Parkway/Gemini Road. Exit Polaris Parkway and turn left at traffic light onto Polaris Parkway. Proceed west for nearly 2 miles to South Old State Road (Delaware County Road 10) and turn right on South Old State Road. Travel north for 5.7 miles. Turn right onto access road (after passing sign for Collins Classroom and Division of Watercraft Office). **Note:** Landmarks along this route include Lewis Center Road, Hollenback Road to the Alum Creek Lake Marina, and the Alum Creek State Park Office.



UPDATE ON AOP SCHOLARSHIP FUND WITH OHIO STATE UNIVERSITY

Representatives from the AOP Executive Council met with Dr. Pat Whittington, Asst. Dean for Student Development in CFAES, on 14 Dec 2018 to review the AOP Scholarship Fund established through Ohio State University. Scholarship details include the following:

Fund Number: 314160

Public Name: Association of Ohio Pedologists Scholarship Fund

Fund Type: Current Use (does not accrue interest on the balance)

Fund Purpose: Undergraduate Student Support

Start Date: 12 Sept 2012

Balance Available (1 Jan 2019): \$8,897.00 of which \$1,000 is committed

Scholarship Amount: Variable

Home Dept: None – Awarded through Food, Agriculture and Env. Sci. College Admin.

Description: *Scholarship support for one or more students enrolled in the CFAES studying soil sciences, with an emphasis in soil geography and/or soil genesis, morphology and classification. Special consideration will be given to members of the OSU Soil Judging Team*

Funding History: Since fiscal year 2014, scholarship support has been awarded to 5 students with individual award amounts ranging from \$500 to \$3,000. The five recipients have all been ranked as juniors (4) or seniors (1). Their academic majors have included Sustainable Plant Systems (2), Agricultural Systems Management (1), AgriScience Education (1), and Animal Sciences (1). *Note: There is not currently a Soil Science major at Ohio State, but a specialization in Soil and Water Science exists under the Environmental Science Major. **All students selected to date have been current or previous members of the Ohio State University Soil Judging Team.***

Selection Protocol: As already noted, the AOP Scholarship is not tied to an academic unit or a specific academic major; therefore, selections are made by Dr. Whittington and his staff at the College level. In order to be eligible for consideration, a student **must** complete a CFAES application for scholarship support. Participation on the Ohio State Soil Judging Team is the primary criterion considered for the AOP Scholarship. Other factors, such as major, GPA, rank, etc. may be considered when there are multiple applicants. Financial need is **not** a criterion unless it becomes a factor in head-to-head competition.

The CFAES application form can be viewed at: <https://students.cfaes.ohio-state.edu/forms/scholarship>

The College scholarship application is due by February 15 but, in reality, the filing period extends through September in order to not disadvantage transfer students. That said, Dr. Whittington and his staff begin reviewing applications for the upcoming academic year after grades are posted in the Spring. Most awards are made during the summer for the following autumn and spring semesters and are used to offset tuition and fees; checks are not sent directly to the students. The number of AOP scholarships and the amount of money awarded depends on the number of worthy applicants and the balance in the scholarship fund. Matt Sullivan has been the primary liaison with AOP when questions arise. Students receiving financial support are required to submit a hand written thank you note that the College forwards to sponsors. Matt Sullivan receives these notes for AOP.

In the past, contributions have been held for 180 days (6 months) by the Foundation to accrue interest that is used to pay operating costs. According to Dr. Whittington, that requirement has recently been dropped, and all donations are now fully and immediately available for use in the designated fund.

Want to Contribute?

Donations to the AOP Scholarship Fund can be made directly to The Ohio State University Foundation or to AOP. Direct contributions from OSU alumni can be used to help establish sustaining member status with the university and can be made by mail, telephone, or on-line. For details, go to: https://www.giveto.osu.edu/makeagift/?Source_Code=DEV_AG-0-OSURibbon-ON-S All direct gifts should include the Fund Number (314160) in order to be properly credited.

Donations may also be made through AOP by forwarding a check (credit cards for scholarship donations cannot be accepted) in the desired amount to:

Jon Gerken, Treasurer
5890 Rauch Rd.,
Carroll, OH 43112

Please indicate AOP Scholarship Fund on the memo line.

AOP CONSULTANT LIST

The Association of Ohio Pedologists maintains a list of Certified Soil Scientists who are currently available for soil consulting. The list may be viewed on the AOP website at:

<https://www.ohiopedologist.com/consultant-list.html> Certification is through the Soil Science Society of America, and inclusion on the AOP list is voluntary. We are aware the list is not current and would like to take this opportunity to update the information provided. If you are currently on the list or would like to be added, please respond to the following:

Name: _____

Action Requested:

1. I am on the list and no changes are needed _____
2. Please remove my name and contact information from the list _____
3. Please add my name and contact information to the list _____

Provide the following information, as appropriate:

Name: _____

Business Name: _____

Address: _____

Email: _____

Telephone No: _____

Facsimile No: _____

Website URL: _____

Degrees and Certifications: _____

Usual Service Area: _____

4. Please modify my existing personal/business information as shown above _____

Please return this page to:

Jon Gerken, Treasurer
5890 Rauch Rd.,
Carroll, OH 43112

NOMINATIONS FOR OFFICE – AOP EXECUTIVE COUNCIL

Three positions on the AOP Executive Council will become available following the Annual Winter Meeting. These positions include: President-Elect, Secretary, and Member-at-Large. In accordance with the AOP By-Laws, three individuals have consented to be nominated for these positions. They are:

Jeff Glanville: President-Elect

Scott Demyan: Secretary

Kathy Sasowsky: Member-at-Large

Additional nominations may be made from the floor at the Annual Meeting, but all such nominees will be asked if they consent to serve before being added to the ballot. If they decline, their names will be withdrawn, so please confirm before making a nomination.



ABSENTEE BALLOT FOR HONORARY MEMBERSHIP

The AOP Executive Council received and approved a nomination of Mr. Tim Gerber for Honorary Membership at its meeting of January 9, 2019. The nomination includes the required number of signatures (see following page) and must now be approved by a 2/3 vote of the membership. A vote will be taken at the Annual Meeting on February 21, 2019. If you cannot attend the meeting, please take this opportunity to submit an absentee ballot.

To approve Mr. Tim Gerber as an Honorary Member of AOP:

Yes _____ No _____

Please return this ballot to: Jon Gerken, Treasurer
5890 Rauch Rd.,
Carroll, OH 43112

ASSOCIATION OF OHIO PEDOLOGISTS

AWARDS NOMINATION FORM

Date: December 4, 2018

Nominee: Tim Gerber

Nominee's Profession: Professional Soil Scientist

Nominee's Address: 259 Beckenham Circle, Unit 202
Bel Air, Maryland 21014-4356

Nomination for:

Honorary Membership

I nominate Mr. Tim Gerber for the Honorary Membership in the Association of Ohio Pedologist. He was an outstanding leader in the Ohio Soil Survey Program during his career with the Ohio Department of Natural Resources, Division of Soil and Water Conservation. This leadership was evident in the way he conducted Project Soil Surveys and as leader of the Soil Inventory and Evaluation Section.

Tim's cooperation was also evident in the way he assisted the Ohio Soil Inventory Board in shifting from County Project Soil Surveys to the Major Land Resource Area Concept in updating soil surveys. In addition to Tim's work in Ohio, he was also very active in the soil survey program at the regional and national level. Tim frequently provided input to regional offices and national program leaders regarding the role of state partners in the program.

Tim was always seeking ways to improve the usefulness of soil survey to the public, especially the Soil and Water Conservation Districts and other county, state and federal agencies. This effort lead to the recompilation and digitizing of a number of published Ohio Soil surveys.

I hope you agree with me that he deserves this recognition.

<u>Heil E. Arneck</u>	Date <u>1/3/2019</u>
<u>Robert Paulson</u>	Date <u>1/3/2019</u>
<u>Jonathan C. Hecker</u>	Date <u>1/3/2019</u>
<u>K. Keith Huffman</u>	Date <u>1/8/19</u>
<u>Alexander Ritchie</u>	Date <u>1/8/19</u>
<u>Samuel A. Toran</u>	Date <u>1/10/19</u>