



PEDOLOGUE

• Summer (2nd 2014 issue) 2014

Newsletter of:
Mid-Atlantic Association of Professional Soil Scientists
Edited by Del Fanning
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2014 MAPSS Officers – with brief description of some of their duties:

President: Brian Needelman. Ex-officio on all committees except Nominations.
Past President: Afton Sterling -- Chairperson of Nominations Committee
President Elect: Carl Robinette -- To Develop Programs for his Presidential Year-2015
Vice President: Robert Bricker -- Chairperson of Membership and Ethics Committee
Treasurer: Sarah Roberts -- Ex-officio member of Finance Committee
Secretary: James Brewer -- Keeps accurate records of MAPSS membership etc.
Member at Large (1yr): Ellen Mussman -- Helps organize and promotes Assoc. meetings
Member at Large (2yr): David Verdone -- In Absence of secretary, record minutes etc.
Ex officio Member: - Dean Cowherd-(NRCS MD State Soil Scientist)—consultant to council
Board of Directors: Board ensures the Council executes its duties, reviews actions of Council, meets with Executive Council at their board meetings etc.
Del Fanning to serve 1 year
Cliff Stein to serve 2 years
Susan Davis to serve 3 years

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Editor's Comments.

I apologize for another Pedologue issue that is late arriving, it's now late July, 2014 as I write these comments. The last issue was prior to the MAPSS membership and business meeting in February this year. To find out what happened at the meeting and to refresh memories on current MAPSS officers, read Jim Brewer's highlights of the meeting on subsequent pages as well as the masthead page of this issue. Thanks to Susan Demas for once again coming thru with an article with pictures, this time on a hydric soils field trip that happened this spring in New Jersey in conjunction with a wetland soils course at Stockton College taught by Dr. Judith Turk. Thanks to Dr. Marty Rabenhorst for his report on the National soil judging contest and other news



On Friday March 14, 2014 some friends, colleagues and students helped me celebrate the 50th anniversary of my first day on the job as an Assistant Professor at the University, March 12th 1964. At the soils group research meeting at noon on the 14th I made a presentation on a few of my memories in what was billed as the last lecture (I hope this is not the case) in room 1104 of H. J. Patterson Hall, which room along with the floor of the old wing of HJP Hall where the room is located will be taken over after renovation that seems to be slow in happening, by university international programs. A portion of 1104, where many MAPSS members have taken and taught courses over the years, is shown in a picture of me and Margaret Boozer, before all of my hair grew back, in 1104 with a soil art piece made by Margaret and her Red Dirt Studio (Mt. Rainier, MD) for the occasion – thanks here to my office mate Ed Landa who commissioned the art piece and took this picture.

As part of my memories I showed an old picture, see the next page, supplied by University Archives of the old wing of H. J. Patterson Hall, constructed in 1931, the year I was born, prior to the construction of the new wing of the hall, which opened in 1967, and provided me with a new office, Rm. 0208, now occupied by Dr. Needelman. Of much interest to me in the picture is a house on the left side that I got to watch be burned down by the university fireman's training program folks in the spring of 1965 to make way for the HJP new wing. That house, I learned from university history folks, was constructed in 1858 and it served for many years as the Maryland Agricultural College, and subsequently University of Maryland, president's house in early college and university years, including when Harry J. Patterson's was president from 1913-16 after many campus building burned down in a fire in 1913. Subsequently the house became what may have been the first women's dormitory on the campus. When I came to the campus in 64 it was the university football coach's house (Coach Tom Nugent, known for the I formation, lived there with his spouse and 9 kids, some of whom used to come into HJP Hall with their coins to get soft drinks from a dispenser machine that stood in the hall near Room 1104).



In June the World Congress of Soil Science took place in Je Ju, Korea. I would have liked to have gone, but didn't make it. There a meeting of the International Acid Sulfate Soils working group took place, in part to make plans for subsequent international acid sulfate soils conferences, the 8th to probably take place in the U.S. in 2016 and 9th probably in Thailand in 2020 Upon my request, Dr. Bruce James and Maxine Levin participated in the working group meeting and according to a minutes of the meeting sent out by working group chair, Leigh Sullivan of Southern Cross University in Australia, Maxine promised a proposal for the meeting in 2016 in 4 months. I look forward to chatting with Maxine and others about this in coming days.

Maxine was also involved with others to help bring off the first international soil judging contest at WCSS in Korea, where Maryland student Tyler Witkowski was no. 2 individual while on the U.S. team that placed first in the contest according to news that Dr. Rabenhorst has circulated and which has appeared in the Diamondback and other places. Congratulations Tyler and the U.S. team. Do I remember correctly that Tyler was the recipient of the MAPSS Simonson Scholarship for the 2013-14 school year at UM? It's wonderful that we have such great students to support.

More News – as I have been working on this issue, I have learned from President Needelman that it appears that MAPSS is in line for a new and different web site not directly connected with the university, with work to bring this off by MAPSS grad student member Loretta Collins.

I also want to mention that I am signed up to teach the one credit acid sulfate soils course ENST 4990 again at UM this fall semester. Very few students have signed up so far. This time the lectures will be on Wednesdays at noon with field trip or trips again, most likely in early November.

MAPSS Annual Membership and Business Meeting, 2/26/14, American Legion Hall, Crownsville, MD, by Secretary Jim Brewer

BRIEF HIGHLIGHTS OF MEETING

President Needelman presided over the meeting; Attendance: approx. 45 current members, new members and guests.

Minutes from the 2/27/13 business meeting. No corrections, approved
Minutes from the 1/8/14 Exec. Council meeting. No corrections, approved
Treasurer's report for 2013 Budget Summary. No corrections, approved

Jellick questioned cost of meeting room lease, seemed high; Brewer gave breakdown of meeting total costs (room, dinner, etc)
Needelman suggested Council look into annual meeting costs, may have to charge more for dinner to help cover costs.

Nominations for Executive Council – Past President Glotfelty put together a slate of nominations. Glotfelty asked for nominations from the floor. Nominations were closed, voted on and approved as an election.

Results of the election were:

President Elect – Carl Robinette

Vice President – Robert Bricker

Secretary - James Brewer

At Large Member, 2 year term – David Verdone

BOD Member, 3 year term – Susan Davis

Members already holding office for 2014 are:

President: Brian Needelman

Past President: Afton Sterling

Treasurer: Sarah Roberts

Member at Large (1yr): Ellen Mussman

Ex officio Member: Dean Cowherd-(NRCS Acting State Soil Scientist)

Board of Directors:

Delvin Fanning to serve 1 year

Cliff Stein to serve 2 years

President Needelman called for COMMITTEE REPORTS

Membership and Ethics – Chair Carl Robinette informed the membership of new members for 2013 and 2014: Aaron Friend, Bryan Layman, Sara Mack, Caron Gala, Miranda Livas, Nicci Coffie.

Education and Public Relations -Chairperson Fanning stated he completed 2 newsletters for 2013 and one for 2014 so far; Dr. Fanning mentioned Acid Sulfate soils course at UMD this past fall, would still like to get more engineers exposed to it;

UMD Update:

President Needelman discussed past and recent accomplishment of the UMD Soil Judging Team which won the national contest last year, which was held in WI. He thanked MAPSS and its member for their contributions to the team. He discussed all the positive publicity from NPR, ABC news, local papers. Governor made mention and Ag. and Natural Resources Dean Wei had lunch with the team. He also thanked MAPSS for their help with the NE Graduate Student Pedology tour, and regional soil judging contest last year. He introduced this year's team and stated they would be competing in the National contest this spring in PA. Dr. Weismiller made an on-the-spot donation of \$20 to the team.

Dr. Rabenhorst discussed his project to have the UMD soil judging accomplishments on the internet, showing the history of SJ at UMD; UMD teams competing from the very beginning in the 1960's. He requested any SJ photos from years past from the membership.

Dr. Rabenhorst presented the Roy W. Simonson Scholarship award (\$1000) to UMD student Sara Mack. See picture taken by Fanning below. At Marty's left the upper part of the national soil judging trophy is shown. The University of Maryland soil judging team has brought it home as champions three times, 1972, 1984 and 2013. Sara was a member of teams that came in second in the Fall 2013 NE regional contest in MD (see story in Winter 2014 Pedologue issue) and third in the 2014 national contest hosted by Delaware Valley College in PA (see story later in this issue).



Potential Fundraising 2014 Events:

Sec. Brewer updated membership with Executive Councils thoughts on possible fund making events for 2014:

Glotfelty discussed possible engineering training related to storm-water design and sanitarian training, both with soil pits that he could secure.

Jellick mentioned need for the sanitarian training maybe in western MD.

Brewer discussed upcoming changes to HSG's (hydrologic soil groups) and other soil properties because of data calculations in NASIS., possibly combined with soils information training (WSS, soil apps, Google soils, etc).

President Needelman discussed informal soils field trip for members (ideally in combination with one of the above).

Could offer CEU's with all. Stein commented on Eng. Credits and how that worked.

At Large member Mussman commented on need for the Web Soil Survey fundraiser project.

After dinner, **Updates:**

UMD - Some positions may be opening up in ENST. H. J. Patterson Hall is being renovated, soils group will probably have to move to another building, some changes in course work to get more students into soils, working on trophy case and making sure monolith collection stays intact – but will likely eventually move to another building..

UDE – No representatives present

Del Val – site of national soil judging contest (Joe Valentine in charge, MAPSS member)

Donation of \$500 approved for National Contest to Del Valley.

MD NRCS – Dean Cowherd-(NRCS Acting State Soil Scientist), presented certification to MAPSS for assistance with National Cooperative Soil Survey Work Planning Conference held last year. 17 soil scientists, many of them MAPSS members helped as pit and bus monitors and with refreshments and setting pits up. He also thanked MAPSS for refreshment contribution to a national Soil Health forum held in two locations in MD in Feb. NRI still to do this year, Soil Health project in Anne Arundel County, state soil again failed in state legislature – can't get out of committee seems to be the annual problem (editor's comment).

National NRCS – Thomas Reinsch discussed renaming of soil survey division to soil science div. With reorganization of soil survey, soil scientists are now under Soil Survey leaders not under state conservationist. Agency is also going through an administrative reorganization. And:

- Large CREP program in the Chesp Bay for modeling purposes.
- Ecological site inventories starting to be set up in Eastern States.
- Revising the role of the state soil scientist.
- Having problems with numbers of entry level soil scientists compared to the large amount that are due to retire.
- New Farm Bill favorable to NRCS

Dr. Reinsch also thanked MAPSS for its work on 2013 National Cooperative Soil Survey Work Planning Conference.

NOTE: meeting was followed by a presentation by Dr. Mike3 Folkoff from Univ. of Salisbury on “Mill Pond Catena on Lower Shore of Maryland, Case Study of Wicomico County.

South Jersey Hydric Soils Field Trip by Susan Demas, Soil Scientist NJ NRCS

On Saturday April 5, 2014 Susan Demas, MLRA Soil Scientist, NRCS and Gary Jellick, Soil Scientist, Acorn Environmental led a group of graduate students to several sites in South Jersey to examine hydric soils. The students are registered in the Professional Science Masters Program in Environmental Science at Stockton College and were enrolled this Spring in Dr. Judith Turk's wetland soils (ENSC 5230) class. The morning stop entailed visiting a wetland restoration site near Fairton in Cumberland County, NJ (Photo 1). Here, the students learned how the identification of landforms (.i.e. tidal marsh, submerged uplands, or uplands) can aid in predicting soil type. The stop also provided an opportunity to examine mineral and organic, active and potentially active, acid sulfate soils.



Photo 1. Gary Jellick (left) provides an overview of a wetland restoration project to Dr. Turk and her students near Fairton, NJ.

The Fairton site has been managed for agricultural use for several generations by the Durham family, who constructed a levee and tide gate on Abbot Creek in the 1960's to restrict tidal flow onto the property. The tide gate failed shortly after it was constructed, and a new tide gate was installed on a man-made ditch located south of the site. The wetland restoration project will breach the levee that restricts tidal access to the upper reaches of Abbot Creek in order to restore tidal hydrology to wetlands that are currently dominated by phragmites. Soils east of the levee (unrestricted tidal influence) support the growth of salt hay. Salt hay is a generic term for several species of plants and includes salt marsh hay or salt-meadow grass (*Spartina patens*), salt grass or spike-grass (*Distichlis spicata*) and black grass (*Juncus gerardi*). Slight differences in elevation and drainage determine which species will occupy a given area. Salt marsh hay occupies the higher marsh while saltmarsh cordgrass (*Spartina alterniflora*) can be found growing on the marsh-water edge or on the lower elevations. While on-site, students were able to view an active salt hay operation, one of the few remaining salt hay operations South Jersey. In the Northeast, salt hay is valuable mulch, prized for its ability to suppress weeds, and can bring as much as a \$15.00/bale.

The second stop was to a construction site near Medford in Burlington County to view problematic hydric soils formed in glauconitic sediments. These soils are post active acid sulfate soils, but with sulfidic materials within 2 meters of the soil surface, which upon exposure to air can produce extreme acidity. In addition, glauconitic soils are considered problematic as the redox features may be associated with past acid-sulfate weathering (relict features) and not related to current wetness. (Photo 2).



Photo 2. Students examine problematic hydric soils which are currently being monitored by the Mid-Atlantic Technical Committee for Hydric Soils (TCHS) for possible adoption and inclusion in the field manual “*Field Indicators of Hydric Soils in the United States*”.



measuring anaerobic conditions.

The last stop of the day was to Barkers Brook, a wetland mitigation site in Burlington County, NJ. There students examined hydric soils formed from glauconitic bearing fluviomarine sediments with typical as well as atypical hydric morphological characteristics. This site is considered classic wetland restoration in that the site was extensively ditched for agricultural production, and wetland hydrology has been re-established by eliminating the drainage ditches. In addition, Jellick discussed techniques for monitoring hydric soils (Photo 3).

Photo 3. Left, Gary Jellick downloads water table data from an automated well. Right, Dr. Turk installs a set of IRIS tubes by drilling a 7/8 inch pilot hole for

2014 National Soil Judging Contest Results, UMD third in contest hosted by DVC, by Marty Rabenhorst.

For the 6th time in the last 7 years, the University of Maryland retained a place among the “final four” at the 54th *National Collegiate Soil Judging competition*, this time *placing 3rd overall*, and for the 3rd year in a row, the Soil Judging Terps *finished 1st in the Group Judging* portion of the competition. The field of 19 teams from Universities and Colleges representing the best among 7 regions around the country, convened in Quakertown Pennsylvania in the event that was hosted by Delaware Valley College. The University of Maryland entered this event as the 2013 defending national champions, but were edged out by Virginia Tech (1st place – the 2012 national champs) and the University of Rhode Island (2nd place – the 2011 national champs) with Maryland finishing 3rd. The two-part event included a segment on Thursday where students competed for individual honors and another segment on Friday where they competed as a group -- the combined scores determining the overall winner. This year’s competition has special significance in light of the upcoming (first-ever) [International Collegiate Soil Judging Competition](#) to be held in conjunction with the [20th World Congress of Soil Science](#) in Jeju, South Korea. The top 8 individuals at the Quakertown competition have been invited to be part of the US team (which includes UMD judger Tyler Witkowski) for the June 5-7, 2014 event in Jeju.



UMD Soil Judging Team - Front Row: Jessica Rupprecht, Sara Mack, Tyler Witkowski (7th place individual), Keegan Rankin, Jaclyn Fiola. Back Row: Martin Rabenhorst (Coach), Chris Palardy (Asst. Coach), Chris Seitz.

Maryland State Envirothon Contest Results by Jim Brewer

As they did in 2009 the Carroll County Envirothon team, called Venturing Crew, won the 2014 State Envirothon Contest which was held June 18-19 at Camp Pecometh in Queen Anne's County. Obviously these are all new students which shows you that the coaches of the team are very good. The 5 member team also won top honors in the soil resource part of the contest where they received \$50 each from MAPSS. 90 students from 18 counties across Maryland took part in this year's competition. The students are trained and tested in four natural resource areas including soils, aquatics, forestry and wildlife plus an environmental issue that changes from year to year. This year's special environmental issue was "Sustainable Agriculture/Locally Grown".



Calendar of some coming events:

November 2-5, 2014. Soil Science Society of America and American Society of Agronomy Annual Meeting, Long Beach, CA.

Future articles etc. Pedologue needs articles, pictures, poems, cartoons, letters to the editor or other things soil scientists and/or other readers of Pedologue may be inspired to submit. Please submit such items to the editor, preferably to DelvinDel@aol.com . Be an author, support your newsletter, it's a way to promote yourself and your work and things we all need to know about soils and the environment.