



Spade and Auger

Volume 29, Number 3

Internet: <http://nesoil.com/ssssne>

December 2004

2004 Board of Directors

- President
Mark Stolt (03-05)
- Vice President
Donald Parizek (03-05)
- Secretary
Joyce Raabe (04-06)
- Treasurer
Art Allen (04-06)
- Board Member
Margaret Washburn (05-07)
- Alternate
Robert Tunstead
- Web Master and Alt. Board Member
Jim Turenne

Inside this issue:

<i>President's Message</i>	1
<i>Soil Poll</i>	1
<i>Sauter Fund</i>	2
<i>Soil Judging</i>	2
<i>Annual Meeting</i>	3
<i>Walter Gonick</i>	3
<i>Soil Hydrology Workshop</i>	4
<i>NCSS Retirements</i>	5
<i>NETCHS Hydric Soil Tour</i>	5
<i>Soil Survey Horizons</i>	6

Message from the President

The days are getting shorter and my term as President of SSSSNE is nearly complete. As I wrote in the last Spade and Auger, it's been a wonderful experience. I have enjoyed working with all of you as we continue the tradition of insuring that SSSSNE is one of the premier professional soil scientist organizations in the world!

I'm excited that Mark Stolt will assume the office of President in January. He has been an active Board member for years. Margaret Washburn joins the Board as an elected member. Rob Tunstead, NRCS soil scientist from Plymouth, MA is the newly appointed Alternate Board member. Donald Parizek continues as Vice President, Art Allen as Treasurer, and Joyce Raabe as Secretary. This Board of Directors is top notch and will run the Society well! Please continue to support the Society (and Board) in any way that you can – volunteer to help at workshops, send in news articles for the Spade and Auger, and suggest other society activities.

Margie Faber, President.

Professional Soil Scientist Poll

By Margie Faber

The Soil Science Society of America and the U.S. Consortium of Soil Science Associations conducted an electronic survey of professional soil scientists in the spring of 2004. Nearly 900 soil scientists from the U.S. (and a few from other countries) completed the on-line survey of 16 questions relating to soil science. The compiled results of the survey will be posted on the Consortium's web site soon (<http://soilsassociation.org/>). Our website was the only state/regional soil science society website to make it to the top 10 answers for the question asking which soil websites people use for information (out of 572 responses).

Speaking of polls, the Soil Science Society of America is also conducting an online poll titled "Help Identify Soil Science Priorities in Research, Education, Extension" visit the newly redesigned www.soils.org web site for more information.

Connecticut: Fourth State to Reach \$10,000 Goal

Article from CSA Newsletter

The Society of Soil Scientists of Southern New England Southern worked this year to help make the Smithsonian Soils Exhibit a reality. The soil science association worked together to promote the project, solicit exhibit ideas and raise the \$10,000 to support the Connecticut soil monolith in memory of Edward H. Sautter. Sautter, the retired NRCS State Soil Scientist for Connecticut and Rhode Island, was a tireless promoter of soils and advocate for soil conservation in Connecticut and beyond.

The soil to be displayed for Connecticut is Windsor (mixed, mesic Typic Udipsamments). SSSSNE collected contributions from Society members and friends. In addition the Society sponsored a very successful fundraising workshop,

2004 Soil Judging Competition

By Mark Stolt

The Northeast Region Soil Judging Competition was hosted this fall by Wilmington College in Wilmington Ohio. Eight schools from the region participated in the competition including the University of Maine, University of New Hampshire, and the University of Rhode Island. Soil parent materials were dominated by calcareous friable and dense till, glacial fluvial deposits along former glacial stream channels, and a mantle of loess. Excellent examples of Mollisols, Alfisols, and Inceptisols were observed by the students during the 2 days of practice and 2 half days of competition. The most interesting soils contained thick E and Eg glossic subsurface horizons.

Congratulations to the University of New Hampshire and coach Steve Hundley (4th place) and the University of Rhode Island (3rd place) for qualifying for the national competition to be held this spring in Auburn, Alabama. Three of the top 12 individuals at the contest were from the University of Rhode Island including 6th place finisher Trish Brennan (the recipient the SSSSNE Undergraduate Student Scholarship), Nathan Socha, and Kaytee Manchester.

Thanks to the society for supporting the University of Rhode Island Soil Judging Team again this year.

Version 6 of the Soil CD available

Version 6 of the SSSSNE Soil and Environmental Documentation CD is now available. The new version has added many new documents including the following: Soil Quality Fact Sheets, Keys to Taxonomy 2003, an excel version of a pedon description form, an extensive set of educational soil presentations for grades K-12, several new soil Power-Point presentations, several new lists of plant species that occur in wetlands, the National Forestry Manual and Handbook, and numerous other documents. In addition all the official soil series mapped in New England and New York are on the CD and linked in a hyperlinked web-document. The CD is updated as new material is made available. The Society sells the CD for \$10.00, visit: <http://nesoil.com/ssssne/soilcd.htm> for more information.

Soil Survey Horizons

Soil Survey Horizons is a communication network with other field soil scientists. It is a publication for the expression of ideas, experiences, history, and research regarding the study of soils from a field perspective. The audience and contributors include soil survey personnel, private consultants, university faculty, and students. Soil Survey Horizons welcomes papers, short essays, and notes on topics about soils and soil survey. Articles may be submitted to the associate editor for the region, contact Lisa Al-Amoodi at lalamoodi@agronomy.org for more information. There is no publication charge. Subscription rates are \$17.00 per year or single copies for \$4.00 each for an order form or to order online visit: http://www.soils.org/soil_survey_horizons/

SSSSNE 2004 Annual Meeting

It was a full house as 40 Society members gathered at Colonial Restaurant in Webster, MA. for food, drinks, conversation, and fun. The social hour was followed by a delicious buffet dinner. After dinner, a brief business meeting was held and the new 2005 Board of Directors was announced. The student scholarship awards followed—Patricia Brennan from URI received the undergraduate award, and Lesley “Mickey” Spokas received the graduate student travel award. The 2004 elected board members presented outgoing president Margie Faber with a plaque and a gift certificate for her years of service to the society. The evening ended with an interesting presentation by Society member Lisa Krall who talked about her recent trip to Mexico. Photos of the meeting are available at: <http://nesoil.com/ssssne/annual2004.htm>.

Walter N. Gonick 1913—2004

WALLINGFORD -- Walter N. Gonick, 91, of 150 Ridgeland Circle, Wallingford, died peacefully on December 9 at Berkshire Medical Center, Pittsfield, Mass. He was born August 16, 1913, in Satanov, Ukraine. At age 12, he and his mother, Anna, immigrated to the U.S. to join his father Nikita Gonick.

Walter received his B.S. degree from Rutgers in New Jersey, and his Master's of Science from Colorado State College at Fort Collins, where he was a bacteriology lab instructor.

After serving in the European theater for the U.S. Army during WWII, he began his 35-year career as a soil scientist, mapping the soils of Connecticut with the SCS (Soil Conservation Service) of the U.S. Department of Agriculture, first in Fairfield County, then Litchfield County. In 1966 he was transferred to New Haven County.

A memorial service was held Monday, December 13, at 1 p.m. at the Yalesville United Methodist Church, 8 New Place Street, Yalesville.

In lieu of flowers, donations may be made to The American Diabetes Association or Society of Soil Scientists of Southern New England to support the State Soils Campaign: SSSSNE P. O. Box 258, Storrs, CT 06268.

Mark Your Calendar

January 14, 2005 -Certified Professional in Storm water Quality (CPSWQ) Exam Review Course

<http://users.chronomedia.com/snec-swcs/>

9th International Symposium on Biogeochemistry of Wetlands March 20-23, 2005 in Baton Rouge, Louisiana—<http://conference.ifas.ufl.edu/wetlands/>

ASA-SSSA Northeastern Branch Meeting—July 10 to 13, 2005 Storrs, CT. Contact Tomas.Morris@UConn.edu for information.

2006—World Congress of Soil—July 9 to 15th, Philadelphia PA.—www.18wcss.org/

MO-12 Newsletter

If you want to keep up on National Cooperative Soil Survey activities in the Northeast check out the MLRA Office-12 newsletter at: <http://www.ma.nrcs.usda.gov.neasoils>

The fall 2004 newsletter features and article on soil loss from nursery operations, an update on the Northeast Forest Soil Conference, and an article reflecting back on the good old days of soil mapping in Vermont. Information is also provided about NCSS activities, personnel changes, and upcoming events.

Subaqueous Soil Information—The Mapping Partnership for Coastal Soil and Sediment conducted a user conference that provided information about data collected during on the subaqueous soils in Ninigret Pond (RI). Visit: www.mapcoast.org for more information.

“Measuring Soil Hydrology” Workshop

By Arthur Allen, CPSS

On July 23, 2004, the New Hampshire Association of Natural Resource Scientists sponsored a workshop entitled “Measuring Soil Hydrology”. The workshop was held in Rindge, NH. Tom Peragallo (NH Certified Soil & Wetland Scientist) organized the workshop and provided the field site. Michael (“Mike”) Whited (NRCS Soil Scientist) was the lead presenter. The focus of the workshop was on instrumentation and data collection methods used to quantify shallow groundwater levels and depth to saturation in soils.

The application of these methods to hydric soil interpretation on difficult sites was discussed and demonstrated. Difficult soil sites are those with disturbance (e.g., filling, excavating, mixing, etc.), spodic characteristics, and dark or red parent materials. The New England Hydric Soils Technical Committee (“NHESTC”), of which Mike and Tom are members, has been active in developing indicators for hydric soil identification in difficult situations. In order to develop soil morphologic indicators (i.e., redoximorphic features), the NHESTC is instrumenting difficult soil sites with equipment to measure soil water tables and saturation depths. Instrumentation may also be necessary to determine wetland boundaries in situations where the soil morphology and other indicators of wetland conditions are absent or difficult to interpret. The types of instrumentation discussed included monitoring wells, piezometers, and tensiometers to measure water tables and depth to saturation. IRIS probes, platinum electrodes with voltmeters, and alpha, alpha-Dipyridyl dye were presented as techniques employed to assess redoximorphic potential and anaerobic conditions. Monitoring wells are the simplest instruments to use and will show the depth to a free water table occurring anywhere within the length of the well. The other instruments and techniques measure water table behavior or characteristics of soil water that typically do not need to be determined for wetland delineation purposes.

The U.S. Army Corps of Engineers (“ACOE”) hydrologic definition of wetland is an area that is inundated, or saturated to the surface, for at least 5% of the growing season in most years. In southern Worcester County, Massachusetts, for example, the average growing season is 193 days: approximately April 14 to October 23. In order to qualify for wetland hydrology in southern Worcester County an area would have to be inundated or saturated for at least ten (10) days during the growing season in a year with “normal” precipitation. Inundation is easy to observe and document. Saturation is not as easy to observe or to document. The ACOE defines saturation as the condition in which all easily drained soil pore spaces are temporarily or permanently filled with water. Soil Scientists typically define saturation as the point at which soil water has a pressure that is equal to or greater than atmospheric pressure. The depth to saturation can be observed as the free water table surface in a bore hole or monitoring well. Effective saturation (i.e., “capillary fringe”) may extend above the free water table to a height of up to 6 inches in sandy soils and 12 inches in loamy soils. Mike noted that many soil scientists disagree about the degree of saturation and the presence of anaerobic conditions in the capillary fringe.

Wetland hydrology may be quantified in one growing season using properly installed monitoring wells, assuming that precipitation levels are “normal.” The wells should be checked at least once per week in the early part of the growing season (less frequently in the dry months) until the minimum standard for wetland hydrology is met. For example, in southern Worcester County this standard would be: a water table at twelve (12) inches in loamy soils and six (6) inches in sandy soils for at least ten (10) consecutive days during the growing season.

Happy Monitoring!

*Arthur Allen is Vice President of EcoTec, Inc., 102 Grove St., Worcester, MA 01605-2629.
aallen@ecotecinc.com or 508-752-9666 x24*

Phil Angell Joins Plymouth County Survey

Phil Angell has been hired on as the latest soil scientist to join the Massachusetts NRCS soil team. Phil will be primarily involved with field mapping to complete the Plymouth County Soil Survey Update assisting Rob Tunstead. Phil received his Masters Degree in soil science from UMASS in 2004. Phil’s Masters thesis was on freshwater submerged and subaqueous soils. Phil lives in Carver, Massachusetts.

NCSS Retirements

The National Cooperative Soil Survey has announced the retirement of Maury Mausbach, Jim Ware, Earl Lockridge, and Rick Bigler.

Maury Mausbach—Deputy Chief for Soil Survey and Resource Assessment. Maury's career has been closely tied to the technological advances in our agency over the last 37 years. He was a pioneer in developing soil morphology software. He guided the soil survey through its transition to the digital age, and he coordinated transition of the National Resource Inventory from a 5-year cycle to a 1-year cycle, giving our internal and external clients access to the latest resource data. Most recently, he has been in charge of our contributions to the Conservation Effects Assessment Project - CEAP - which will be important to creating the conservation programs of the future. Tom Christensen is recommended to replace Maury.

James (Jim) Ware, Soil Scientist, Soil Survey Division, will retire from Natural Resources Conservation Service (NRCS), Washington, D.C on January 3, 2005. Jim has worked for NRCS for 33 years. He was in the Army Reserves for 26 years for a combined federal service of 33 plus years. Jim started his career in North Carolina then worked in Virginia, the Northeast National Technical Center in Pennsylvania, and the state office in Raleigh, N.C., before joining the Soil Survey Division Staff in Washington, D.C. in 1989. Jim has made many contributions to the scientific field of soil science. He has worked extensively the last few years on the Smithsonian Soils Exhibit which will open in the near future.

After a very rewarding career in soil survey, Earl Lockridge, Training Coordinator, Soil Survey Division, National Soil Survey Center, Lincoln, Nebraska, will be retiring on December 31, 2004, after 31 plus years of government service.. Earl began his career with the SCS in Iowa. During his career he has served as a Soil Scientist, Project Leader, Assistant State Soil Scientist, Soil Scientist (Quality Assurance), and Training Coordinator. He has worked in Iowa, Indiana, Missouri, Minnesota, and Nebraska. Earl has been at the National Soil Survey Center since October, 1987.

Rick Bigler, Soil Scientist (NASIS), Soil Survey Division, National Soil Survey Center, Lincoln, Nebraska, will be retiring on December 31, 2004, after 33 plus years of government service. Rick began his career with the SCS in North Dakota. After a two year tour with Peace Corps- Malaysia, he returned to North Dakota as a Soil Scientist and later became a Project Leader. Rick then moved to Minnesota where he was a Soil Specialist in the State Office. He has been in the National Soil Survey Center since July, 1989.

RI Hosts NETCHS Hydric Soil Tour

Each year the New England Technical Committee for Hydric Soils (NETCHS) conducts a hydric soil tour to review and test the Field Indicators for Identifying Hydric Soils in New England (Indicators) and to identify problems which need to be addressed in the next version. In early October, the NETCHS met in Rhode Island and spent two days examining soils forming in seasonal ponds (ie.vernal pools). This was a unique opportunity because extensive hydrologic data has been collected on 64 seasonal ponds in Rhode Island over the last 4 years. These data were collected by Dr. Frank Golet (URI Professor of Wetland Ecology) and his graduate students Dennis Skidds and Jon Mitchellas part of their master's thesis research. Frank and his students are developing methods to estimate vernal pool ponding frequency and duration based on a number of parameters (including soils and the vegetative community). They have set up elevation baselines from the deepest part of the basin to the upland and recorded the period of inundation along the baseline for each of the 64 seasonal ponds. Three years of data was available for the tour. At each site soil pits were dug along the baseline, soils were described, and using morphology the soil was keyed out as hydric and non-hydric based on version 3 of NE indicators. The hydrology data was consulted to ascertain if the soil morphology and hydrology corresponded. An interesting finding during the tour was that most of the soils occurring in vernal pools formed in glacial fluvial settings had very strong spodic morphology (no Spodosols are mapped in Rhode Island). At some locations we saw Bhs horizons greater than 100 cm thick. Observations gathered during the tour confirmed our suspicions that some modifications are needed to the NE indicators to address mesic Spodosols. This issue will be discussed in detail and the amendments will appear as an appendix to Version 3 and addressed in version 4. Next year the NETCHS will tour Follists in downeast Maine. Anyone interested in the NETCHS should contact the SSSSNE web master at jimjet@cox.net.

**SOCIETY OF SOIL
SCIENTISTS OF SOUTHERN
NEW ENGLAND**

PO Box 258
Storrs, CT.
06268


SSS of SNE



*Dedicated to advancing the soil science profession and encouraging
broad use of soil resource information dedicated to advancing the
soil science profession and encouraging broad use of soil resource*

**WWW: [http://nesoil.com/
ssssne](http://nesoil.com/ssssne)**

Email: jimjet@cox.net
Jim Turenne, editor.