



# Spade and Auger

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January 2008

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## Inside this issue:

<i>President's Message</i>	1
<i>New Members</i>	2
<i>Site Specific Soil Mapping</i>	2
<i>Historic Soil Docs</i>	3
<i>2007 Soil Judging</i>	3
<i>Soils in the News</i>	4
<i>Recent Advances Meeting</i>	4
<i>RI Hot Spot</i>	5
<i>MA. Regulatory Updates</i>	6
<i>NRCS Updates</i>	7
<i>1st Spade and Auger</i>	7

## Message from the President

*Mark Stolt, President.*

Another year is nearly in the books. Time to take stock in last year and look forward to the next. First, I want to welcome all of the new members in 2007. Seems like over the past 6 months we have had a record number of applications to review during our board meetings. That's great. Secondly, I want to thank all of those who put in many hours for our society this year, especially those that worked to make our recent annual meeting a great success. Thanks go out to those that organized and participated in our 2007 technical conference at Alton Jones. Nearly 100 soil scientists filled the meeting room to hear a range of talks focused on recent advances in soil science in Southern New England and demonstrations on subaqueous soils and IRIS tubes for identifying hydric soil conditions.



So what is in store for soils scientists in Southern New England for 2008? The first thing that comes to mind is the opening of the Smithsonian's exhibit on soils at the National Natural History Museum in Washington D.C. We hope to organize a bus trip later in the year to visit the exhibit. While we are in the area, maybe we can take a side trip to the University of Maryland to see Del Fanning's excellent monolith collection. Discussions and meetings will continue through at least the 2008 on the regionalization of the ACOE Wetland Delineation Manual. Several SSSSNE members are part of the New England region contingent bartering for inclusion of a number of our regional hydric soil indicators into the national list for use in New England and the North-Central regions. Look for progress reports and up-dates in future *Spade and Augers*. This spring Connecticut and Rhode Island are hosting the Northeast Region National Cooperative Soil Survey Work Planning Conference. A very limited number of registration spots will be held open for SSSSNE members interested in the soil survey program in the northeast. In addition, this spring the 48th National Soils Contest will be held in Rhode Island. This will be the first time the national competition will be held in New England. Approximately 100 soil judges and their coaches will participate in four days of practice and two days of competition to decide the national champion. Someone may be tapping you on the shoulder and looking for your assistance.

On behalf of the Board of Directors of your Society I want to wish you and yours Happy Holidays and a healthy and prosperous New Year.

**New URL, Same Site: <http://ssssne.org>**

# Site Specific Soil Survey for RI

The URI Cooperative Extension, College of the Environment and Life Sciences has released a final draft version of the Standards and Procedures for Site Specific Soil Mapping in Rhode Island. The document and methodology were presented at the Spring 2007 SSSSNE workshop, a CE session on the document was also conducted at URI in November.



This is a final draft of the document, the Cooperative Extension is seeking comments from soil scientists through April 1, 2008. Any comments and suggestions can be sent to Lorraine Joubert at [ljoubert@uri.edu](mailto:ljoubert@uri.edu). Comments sent to Lorraine will be considered and changes made as needed at the end of the comment period. The plan is to finalize the guide after shortly after April 1. Once finalized it will be available for purchase.

It is hoped that this document will now allow towns and planning organizations a protocol to require site specific soil mapping data for better planning and land-use decisions. Many states require a site specific soil map be performed in the initial stages of a development proposal to provide more detailed soil information that the USDA-NRCS Soil Survey maps may not show (traditional soil surveys were not intended for site specific planning but rather larger scale planning).

To download the final draft version visit the NEMO Site:

<http://www.uri.edu/ce/wq/NEMO/Publications/> Printed copies of the guide are also available for \$10 each (less with bulk orders) using the order form available at the CE publications website.

A training course in using the manual is planned for the summer, information will be posted on the SSSSNE site and CE web page.



## Welcome New Society Members

Please welcome our new Society members:

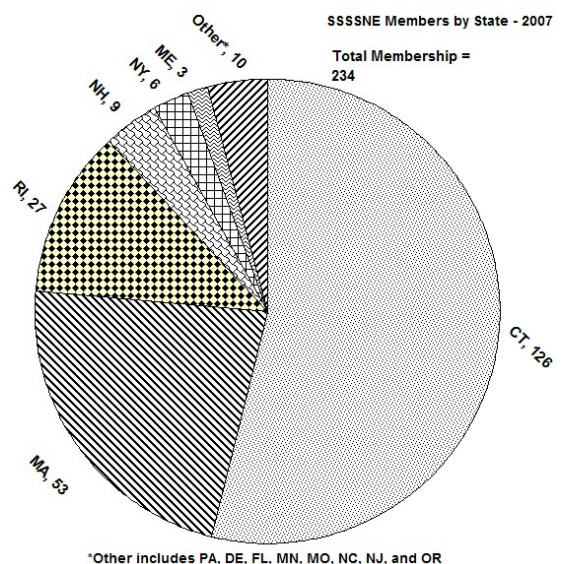
### Basic Members:

Dale Knapp from Chelsea Maine, Demian Sorentino from Plainfield CT. Dave O. Cook from Lyme CT. David Laiuppa from Bloomfield CT. Jed Waddell from Dennis Ma. Darcie Winther from Bloomfield CT. Rebecca Elwood from Middletown CT. Art Talmadge Jr. from Ashford CT.

### Professional Member:

Richard Canavan, Professional from Woodstock, CT.

Not included are members who have upgraded from Basic to Professional or new Associate members. This brings our total membership to 234 through 2007. The Board handled a large number of applications for new membership, membership upgrades, and general inquiries in 2007. Many of the applications were incomplete and required extra work for the board to send letters back to the applicant. Members looking to join or upgrade to Professional status should read the requirements on the <http://nesoil.com/sssssne/membership.htm> page. Official transcripts and letters of recommendation need to be sent with the application.



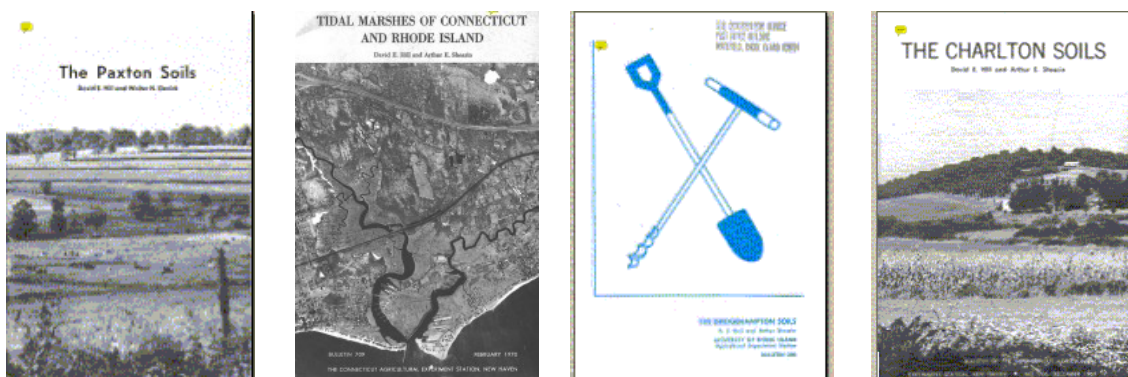
# Remembering the Past: Historic Soil Documents now online

by Jim Turenne

An effort is underway to convert historic soil documents into electronic format to make the important soil information available on the Nesoil.com (and SSSSNE) website. The effort is lead by the RI Soil Survey Program using summer intern employees and personal time by the Nesoil web master. The historic soil documents include archived soil surveys such as the 1904 Soil Survey of Rhode island, Benchmark soil series reports (Paxton, Charlton, Bridgehampton Series), special soil reports (Tidal Marsh Soils of Ct and RI), and old pedon descriptions that were made during the RI Soil Survey field mapping (1968-1977).

Although some of the documents are quite old, they contain significant and important information. Such information is: detailed descriptions and data of benchmark soil series, agronomic data, laboratory analysis, and the history behind the soil series commonly mapped in the region. To view the documents currently online visit: <http://nesoil.com/historic.htm>. More will be added as they are converted.

If anyone has a soil survey document they would like added to the site please contact [jim.turenne@ri.usda.gov](mailto:jim.turenne@ri.usda.gov) or call 401-822-8830.



*“you don’t know your past you don’t know your future (Ziggy Marley)”*

## 2007 Soil Judging by Mark Stolt, URI DNRS

The University of Rhode Island Soil Judging team represented New England at the Northeast Regional competition hosted by the University of Maryland in late October. Prior to the competition it had not rained in Maryland for four months. Wouldn't you know it, during the 4 days of practice and competition it rained essentially every minute? Despite the soggy conditions everyone enjoyed the soils and learned a lot about the Piedmont, Fall Line, and Coastal Plain landscapes. The students experienced first hand soils formed in glauconite (greensands), diatomaceous earth, other coastal plain deposits, colluvium, residuum, and old and recent alluvium. The number one individual at the competition was Michelle Hetu from the University of Rhode Island. The University of Maryland, Ohio State, and Wilmington College qualified for the national competition held this spring in Rhode Island (this will be the first time the national competition has ever been in New England). The University of Rhode Island soil judgers want to thank the SSSSNE for their continued support.



*Soil Judging Team (l to r): Mike Narcisi, Michelle Hetu, Chris Kearns, Sally Paul, Mark Stolt (coach), Mike Salter, Paul Abruzzese, Alex Salisbury (asst. coach)*

## Envirothon, Soil Survey, and NRCS Featured on Local TV.

The Rhode Island Envirothon competition (partially supported by SSSSNE), a segment on subaqueous soil mapping, and a recent RI NRCS training session were featured on the WNBC 10 Water Shed Watch Report, a news segment on WJAR Channel 10. The segments are approximately 90 seconds long and are shown during the 5:00 PM news every Thursday. The Envirothon segment showed students in a soil pit describing a very nice Sutton series at Camp Yawgoo in Exeter. The subaqueous soil mapping segment highlighted the MapCoast Partnership ([www.mapcoast.org](http://www.mapcoast.org)) work on Point Judith Pond (Jim Turenne is featured in this piece). The NRCS training segment highlighted a National Employee Development Training session for about 30 NRCS employees throughout the New England Region. The segment featured Eelgrass transplanting with Save the Bay at Fort Getty in Jamestown, RI.

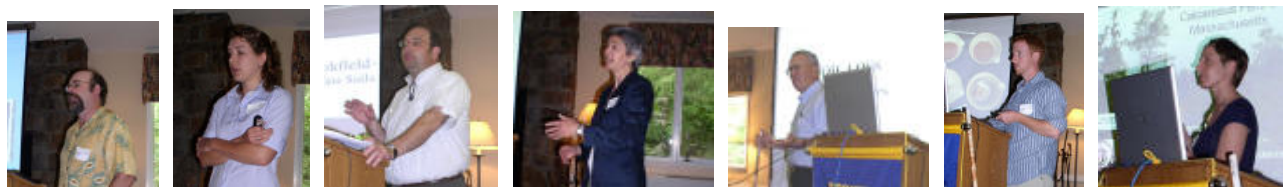


The video features are posted on YouTube and linked in the Google Earth program. To view the segments along with other video features visit: <http://nesoil.com/Video.htm>. The video page will be adding some new features on soil, geology, and land-use in the near future. If you have a video to post, send to [jimturenne@gmail.com](mailto:jimturenne@gmail.com).

## A Sellout Crowd for the Spring Recent Advances Conference.

Over 85 members packed the Whispering Pines Conference Center at Alton Jones Campus for the Spring 2007 Recent Advances in Soil Science conference. The Board had originally set the audience cutoff at 50 people but decided to add the additional seating when registration applications began to exceed the cutoff—this was great news for the organizers of the conference. The conference featured 10 talks from students, professors, and NRCS soil scientists. This was the 3rd conference of its kind, developed to keep members up to date with the latest cutting edge research and topics about soils and environmental sciences.

Copies of the speakers presentations are available at: <http://nesoil.com/ssssne/2007conference/>. Questions concerning talks can be sent to [soils@cox.net](mailto:soils@cox.net) and they will be forwarded to the presenter for answer. The next Recent Advances Conference will be held in 2009. Any society members that have an idea or interest in helping out organizing conference and workshops should contact the Board.



Conference Speakers (L-R: Mike Whited, Maggie Payne, Shawn McVey, Lorraine Joubert, Harvey Luce, Dave Millar, and Jamie Morgan)

**Why No CEU's?** The question of whether to give CEU's at our conferences always comes up during the planning stages and is often asked by attendees. The Board's position on CEU's is that we are not in the business of providing them for our conferences. Members attending Society workshops can check with the board they need the CEU's for to see if they will allow the workshop to qualify for CEU's and how many the session counts towards.

# Rhode Island, the Hot Spot for Soils in 2008

The spring of 2008 will be bustling with soil scientists visiting the Ocean State. In April, URI will be the host state for the National Soil Judging competition. Over 100 students and soil professors from around the country will be here for the week-long competition. Plans have already begun to locate the 20 plus soil pits in RI to be dug, described, and even some sampled for the event. Assisting URI are NRCS soil scientists from southern New England. Any Society members available to help out with the competition may contact Mark Stolt at [mstolt@uri.edu](mailto:mstolt@uri.edu). Of particular interest is any member with a small backhoe on a trailer that can help excavate the pits in early April.

In June, RI and CT are hosting the 2008 Northeast National Cooperative Soil Survey Conference. The conference will be held at URI Coastal Institute's Bay Campus. Over 70 members of the NCSS from the northeast region are anticipated to attend the week-long meeting which features a field tour of RI and CT soils and land-use. A Society representative will also be invited to attend the meeting. Information about the NCSS conferences can be found at: <http://soils.usda.gov/partnerships/ncss/conferences/index.html>

## Full House for Annual Meeting

About 40 members attended the 2007 Annual Meeting at the Colonial Restaurant in Webster, Massachusetts. The votes for office was unanimous the board will remain the same as 2007 members are encouraged to serve the Society by running for office and serving on the Board as outlined in our bylaws. Scholarships were given to Jamie Morgan, a graduate student from UMASS, and Sally Paul, an undergraduate from URI. The social hour was followed by dinner and a special talk by Andy Rzeznikiewicz with the Connecticut Audubon. Andy's talk featured a movie presentation of wildlife in the Pomfret Connecticut area that he captured using a special nighttime camera that was baited with dead animals.



Distribution Map of Society Members in 2007

## Why no Newsletter in 2007?

The original date on this edition was Winter 2007, I began writing it in March with plans of getting it out by April. Well, things just kept piling up both work and private life that required more attention than getting the Spade and Auger finished and before I knew we were into 2008. I will try to get at least two newsletters published this year but members should keep checking the website for announcements, events, and news. If anyone would like to serve as associate editor please contact [soils@cox.net](mailto:soils@cox.net).



## Recent Updates to State & Federal Regulations for Massachusetts (AKA:Your Tax \$\$ at Work) - Arthur Allen, CPSS

May 1, 2006: MA Department of Environmental Protection ("MA DEP") issued "Procedures for Coordinated Review under the Endangered Species and Wetlands Protection Regulations for State-Listed Wildlife in Wetlands" (DWW Policy 06-1). The policy may be downloaded from the DEP website at [www.mass.gov/dep/water/laws/habitat.htm](http://www.mass.gov/dep/water/laws/habitat.htm). The Notice of Intent form for projects filed under the Wetlands Protection Act ("WPA") was modified on October 16, 2006 to facilitate joint filings under both the WPA and the Massachusetts Endangered Species Act for projects in and near wetlands and Estimated Habitat for rare species.

December 18, 2006: The U.S. Army Corps of Engineers made modifications to the Massachusetts Programmatic General Permit ("PGP") for minimal wetland impact activities including:

- Temporary fill is now included in the allowable activities for Category I (non-reporting) as long as "combined temporary and permanent fill totals <5,000 SF".
- The Massachusetts River and Stream Crossing Standards are now referenced in the PGP.
- Slip lining of existing culverts and new plastic culvert pipes are not allowed under Category I.
- Any modifications of existing structures that affect up or downstream flooding or wetlands must be reviewed under Category II.
- Dredging projects of any size are now allowed under Category II as long as the primary purpose is wetland restoration or hazardous waste remediation.

The entire amended PGP is available at the website [www.usace.army.mil](http://www.usace.army.mil) then "Regulatory/Permitting", then Programmatic General Permits", then "Massachusetts".

December 29, 2006: MA DEP issued significantly revised 401 Water Quality Certification Regulations (314 CMR 9.00) applying to dredging projects. Changes were made in the areas of sampling and performance standards, management alternatives, aquatic management, upland management, facilities management and transport and wetland restoration projects.

August 2007: The Massachusetts Natural Heritage & Endangered Species Program ("NHESP") released updated Forestry Conservation Management Practices guidelines for conducting timber harvesting within known habitats for species protected under the Massachusetts Endangered Species Act. Currently seven documents are available covering nine state-listed species and one recently de-listed species. Although written for those preparing and implementing Forest Cutting Plans, these documents provide a wealth of information for anyone planning or permitting projects of any sort in habitats for these species.

May 1, 2007: New England Army Corps of Engineers issued a public notice entitled: Proposed Addendum to New England District Mitigation Guidance: Compensation for Impacted Aquatic Resource Functions. This public notice may be found at [http://www.nae.usace.army.mil/reg/1073\\_001.pdf](http://www.nae.usace.army.mil/reg/1073_001.pdf). The revised guidance proposes compensatory mitigation ratios for eight different resource areas and the ratios vary depending on type of impacted resource and whether the mitigation is restoration, creation, enhancement or preservation. For instance the proposed ratios for impacted forested wetland are 4:1 (created:impacted) and 20:1 (preserved:impacted).

General: MA DEP is in the process of revising the Wetlands Protection Act Regulations to incorporate a modified version of the Stormwater Policy standards for Massachusetts. Proposed modifications include the promotion of increased stormwater recharge, the use of low impact development techniques, the removal of illicit discharges to stormwater management systems, and the improved operation and maintenance of stormwater management systems. The proposed revisions also detail when the Stormwater Management Standards apply. Proposed new sections to the Wetlands Regulations, 310 CMR 10.02 and 10.04, provide that: (a) the maintenance of a stormwater management system constructed in accordance with the Stormwater Management Standards does not require the filing of a Notice of Intent; (b) the operation of a stormwater management system constructed after the effective date of the proposed revisions does not create additional wetland resource area or buffer zone; and (c) review of proposed modifications to a stormwater management system constructed after the effective date of the proposed revisions shall be limited to maintenance of the stormwater functions of the system, compliance with the Stormwater Management Standards, and compliance with only those performance standards that would apply in the absence of the stormwater management system.

## USDA—NRCS Updates by Jim Turenne

**Retirements:** One of the Society's Founding Father's, **Bruce Thompson** will be retiring on January 3rd of 2008. Bruce has been with the Soil Survey Program for 42 years and has been the MO-12 Region Leader and State Soil Scientist for Massachusetts since 1995. Prior to returning to Massachusetts, Bruce was the State Soil Scientist in Missouri. Bruce began mapping soils in the Connecticut River Valley area in 1966 then became the Project Leader for the Middlesex and Norfolk County surveys from 1969 to 1974 after which he "volunteered" (back then you were told where you would be reassigned) to work on the Cape Cod and the Islands Surveys. As MO-12 Leader, Bruce has been responsible for NCSS quality assurance, technical guidance, transfer, and support for the Region which extends from northeastern Ohio to northern New Jersey and northeast to Maine. Bruce has an MS in Forestry Soils from UMASS, he plans to remain in the Amherst Valley helping to control the deer population. On a personal note, the first time I met Bruce was during a soil workshop and I heard the new MO Leader would be coming along. I was expecting your typical upper level person in a suit to show up but found just the opposite, Bruce came with his field kit, color book, spade, and knife and got right into the soil pit and began showing the class how to describe a soil. This continued right up until the end of the field season of 2007, always getting his hands dirty and providing valuable insight into our soils. We hope Bruce will stay in the area long enough to join us for a long planned soil tour of Martha's Vineyard so he can provide an overview of the survey. Enjoy your retirement, Bruce, you deserve it!



Also recently retiring from the NRCS is **Steven Hundley** who was the State Soil Scientist for New Hampshire and formerly Massachusetts. Steve plans to continue doing some part time teaching, working with Land Trusts, and hopefully stay active with the New England Technical Committee for Hydric Soils.

**Visits:** Soil Scientists from the National Soil Survey Center in Lincoln Nebraska spent a week touring the CT. and RI Coastal Zone Soil Survey Project in September. Attending the tour were Craig Ditzler, National Leader, Soil Classification and Standards (and former URI Graduate), Karl Hipple, National Leader, Soil Survey Interpretations, Robert Dobos, Soil Scientist, and Philip Schoeneberger, Research Soil Scientist. The crew visited the subaqueous soil mapping projects in Little Narragansett Bay and Ninigret Pond, examined some soil cores, and visited the URI Pedology lab and it's research on subaqueous soils.

**Re-organization:** As mentioned in the Fall 2006 Newsletter the NCSS has been re-organized into the MLRA structure and the office responsible for most of Southern New England will be in Windsor, CT. Two attempts have been made to fill the critical Project Leader position for the Windsor Office but as of now no qualified person has been selected. Plans are to attempt another vacancy announcement possibly at a higher pay level or with a signing bonus.

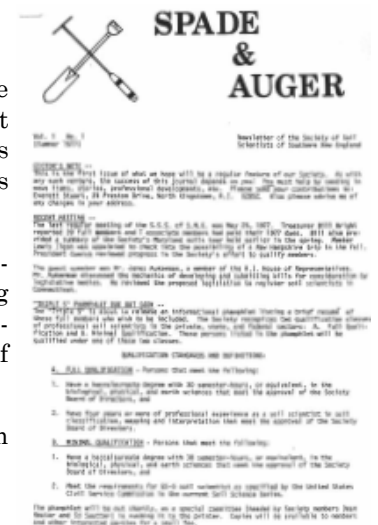
## First Spade and Auger Online

Over 30 years ago the first Spade and Auger was published in the summer of 1977. The editor of Volume 1 Number 1 was Everett Stuart (Retired Assistant State Soil Scientist for RI), treasurer was Bill Wright (retired soil professor for URI), and President was Walt Gonick. There were 39 full members in the Society in 1977 and membership was \$5 per year.

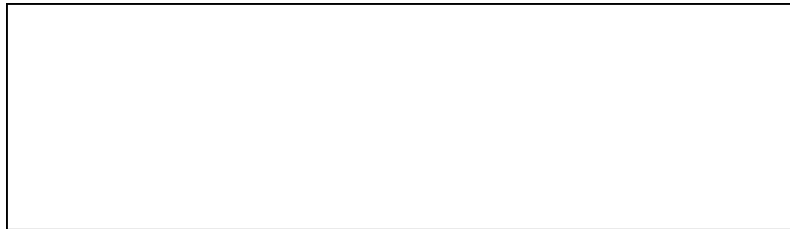
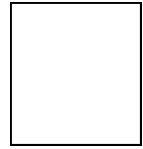
The Edition features articles about the last acre ceremony for Middlesex County Connecticut (been a long time since one of those), news briefs about the RI survey wrapping up, retirement of John Mott, and of course the legendary "Sautter Say's". Ed also announced he would soon be selling innovative soil buttons (anyone still have one of these?).

If any members have clean archived copies of old Spade and Auger's send to Jim Turenne, 35 Buoy St. Jamestown, RI 02809 and I will get them online for folks to read.

View the first edition at: <http://nesoil.com/ssssne/newsletter.htm>



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use of soil resource information.*

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