



Spade and Auger

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Message from the President

I can't think of a worse environmental disaster in my lifetime than the oil spill in the Gulf of Mexico. I thought Exxon Valdesse was bad, but this one sure takes the cake. The whole thing made me feel so helpless; oil spilling out day after day and no one could stop the leak. Last week friends and colleagues were deployed to Louisiana as part of their federal jobs with NOAA and the US Fish and Wildlife Service to assist in the disaster. I asked them, "What are you going to do?"



Mark Stolt, SSSSNE President

They didn't know: clean birds, barricade wetlands with sand bags to reduce oil movement into the marshes, make plans for the long-term clean-up, or maybe just see firsthand what a terrible mess this is. It will be interesting to hear their stories when they return.

The search for energy is a scary one. What would we do if the oil spill occurred along our coastline? I can't imagine--yet we debate whether we should put up a few wind turbines along our coast. Surely it is a time to think about our choices for energy and how those choices effect our environment now and in the future. These issues are also a reminder that as soil scientists we are the chosen stewards of the land (and with it, the water). Our daily practices within our job and science have significant environmental ramifications. Maybe these seem like mere pittance against the giant oil spill, but they are real, and combined are significant. Keep up the good work; let us continue to work toward sound environmental choices and solutions whether little or big.

Read about Society Member Ben Vin-hatero's work in Hawaii:
<http://www.uri.edu/quadangles/features/conservation-specialist/>

Not getting emails about Society?

Send email changes to soils@cox.net

View this edition in color at:
<http://nesoil.com/ssssne/newsletter.htm>

All articles by Jim Turenne, unless noted

National Soil Judging—Lubbock, TX- by Mark Stolt

The University of Rhode Island recently represented southern New England at the 50th annual National Collegiate Soils competition. The contest was centered in Lubbock, Texas. This area of west Texas is known as the Southern High Plains. A large area of the Ogallala aquifer underlies the alluvial and wind-blown sediments that are the parent materials for these soils. Nearly all of the production agriculture (primarily cotton) is supported by water from the Ogallala. The upper part of the Ogallala formation is capped by a petrocalcic horizon (soil horizon cemented by calcium carbonate). In some cases the petrocalcic was meters thick. Over the Ogallala are wind-blown sands and

loess. The only relief on this very flat plain are dune fields and playa lakes. Lacustrine deposits dominate the basins of the playa lakes (the major wetland of the Southern High Plains). Most of the soils were Haplustalfs, Argiustolls, Calciustolls, and Paleustolls. Soils in the playas were primarily Vertisols (shrink-swell soils). Gilgai micro-relief was observed in a number of the playa lakes.

Twenty-one universities from across the US participated in the competition. The University of Rhode Island placed third overall in the contest. One of our students, Jillian Phillips, was the number one individual at the competition. The practice and competition were excellent learning experiences for our students. Thanks to the SSSSNE for helping to support our travel to represent southern New England at the competition.

Photos: Left: Jillian Phillips, 1st Place Individual Winner. Top right: The URI 2010 Soil Judging Team



Copies of the presentations made at the 2nd National Workshop on Subaqueous Soils available at: http://nesoil.com/SAS_Agenda_2010.htm

Welcome New Society Members

Please welcome our new Society members (Not included are new Associate members):

Basic Members:

Mark Bartow; Mattapoisett MA, Marissa Theve; Preston, CT., Abigail Cadman; Ashford, CT.

Professional Member:

Michelle T. Ford; Middletown CT, Christopher Lucas; Quincy MA, Michael J. Sheehan; Moosup CT, Rebecca Elwood; Middletown, CT.

This brings our total membership to 237 (including Associate members) through September 2010.

Information on SSSSNE Membership: <http://nesoil.com/ssssne/membership.htm>

NRCS Updates - by Jim Turenne



Rhode Island: Jim Turenne is now the State Soil Scientist for Rhode Island. Previously the position was shared with the Connecticut NRCS. Maggie Payne is now the Resource Soil Scientist for RI. Jillian Phillips has joined the RI Soil Survey program as a summer temporary employee. Jill was the 1st place individual winner of the National Soil Judging contest in Texas. Phase 1 of the Coastal Zone Soil Survey has been completed, folks using RI soils data should download the new spatial and tabular data from the Soil Data Mart once it is posted (mid October). The updated spatial data also fixes some errors and joins with neighboring states.

Massachusetts: Al Averill has been selected to replace Bill Taylor as the Assistant State Soil Scientist. The Plymouth County Soil Survey is now complete. Folks can download the data from the Soil Data Mart. Franklin County mapping is almost complete. A mapping detail spent several months in Franklin County conducting soil survey work.

Connecticut: Debbie Surabian has been selected as the Soil Survey Project Leader for the 12-6 Soil Survey Office now located on Tolland, CT. The office has responsibility for soils mapping and data covering 14 million acres including most of the SNE region. Don Parizek also works in the 12-6 office. The 12-6 MLRA Soil Survey Office has been busy conducting soil survey activities for the initial for the initial surveys in New York City and heavily urbanized Hudson County, NJ. Plymouth County Massachusetts has been completed and posted on Web Soil Survey with help from the 12-6 Soil survey team. The first ever Coastal Zone Soil Survey with portions of CT and RI will be up on web soil survey soon. The Rapid Carbon Assessment (RCA) Program is underway in the region. Assistant State Soil Scientist, Shawn McVey has left Connecticut NRCS to take a job at the National Soil Survey Center in Lincoln Nebraska.

Movie Review—by Margaret Washburn

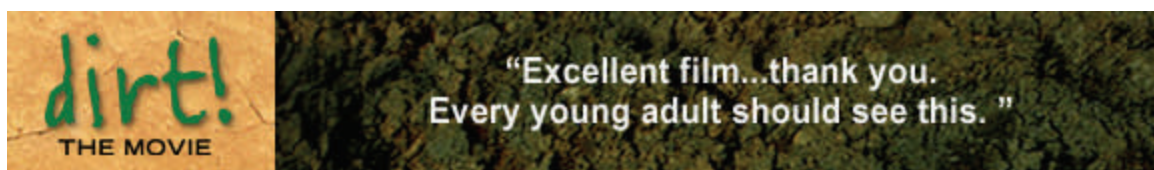
Dirty Movie: Is “Dirt” a Four-Letter Word?

“Dirt! The Movie” would be a good introduction of the most basic values that members of the general public associate with soil, for students ranging from junior high school through college undergraduates. I wouldn’t recommend it for those majoring in a soils-related degree, as it is too elementary and soil is called “dirt” throughout the entire movie. At times the narrator, Jamie Lee Curtis, becomes a bit impassioned when she discusses the destruction of natural resources, as in mountaintop mining.

Directed by Bill Benenson and Gene Rosow, the movie mainly consists of what seems like hundreds of 30-second clips of different people from around the world talking about “dirt”. These clips strung together give the movie a stream-of-consciousness feeling that is both fast-paced and unsettling. There are also clips of humorous animated soil microbes to lighten things up while illustrating drama occurring in the living fraction.

Based on William Bryant Logan’s book [Dirt: The Ecstatic Skin of the Earth](#), the movie’s final message is a reminder of the fact that all things come from the soil, and there they shall return. This may not be a bad message for young folks these days, who seem to be increasingly disconnected from the land. I would give “Dirt! The Movie” two-and-a-half stars out of five from a soil scientist’s perspective. Just be prepared for “ashes to ashes”. For more information, go to www.DirtTheMovie.org

Society Note—The Board of Directors voted to purchase the DVD for public screening, plans are still being made to show the movie. Society members interested in borrowing the DVD should contact Jim Turenne, Secretary at soils@cox.net.



2009 Soil/Geology Tour of Martha's Vineyard

On October 16, 2009 twenty one society members braved a nor'easter to tour the unique geology and soils found on Martha's Vineyard. The long awaited fall tour (several years in the planning) was organized by Peter Fletcher who gave an excellent overview of the Islands geologic history at the Landfall restaurant on October 15th 2009. Assisting with the workshop was society member and former president, Douglas Cooper who lives on the Island. Doug was instrumental in locating sites and getting access to properties. Bill Wilcox with the Martha's Vineyard Commission helped out with logistics and provided information about the island's geology and natural resources.

The forecast for the 16th was a huge nor'easter expected to take a direct hit on the island the day of the tour with wind speeds in the 40 to 60 mph range along with heavy rain. Although several participants decided to cancel the tour, most members braved the storm. At 7 am members met at the Woods Hole Ferry and tensions were raised when rumors spread of the ferry being canceled. An 18 wheeler trying to get off the first ferry got stuck due to the storm surge, causing a delay. Never the less, we boarded the ferry and set off for the island. Winds on the boat approached 50 mph gusts and 5-8 foot seas making for an exciting 45 minute cruise.

Stop 1: We arrived on the island and met up with Doug and Bill, and boarded the bus for our first stop—a gravel pit with a huge 50 foot cut into the island's main outwash deposits. As the bus came close to the outcrop, the driver was urged to get a little closer. Then the fun began. A sinking feeling of the buses front end hitting some wet sands meant we arrived at the stop. You guessed it, the bus got stuck in the sand. All the members tried to push it out but to no avail. A front loader had to be called in to town the bus out, the driver of the front loader told this group of soil scientists of the limitations of the soil to support the bus (poor trafficability interpretation)!

The gravel pit stop was a great chance to view the big picture of the geologic forces that formed the island. We observed large clasts of siderite in the horizontal beds, variegated colors caused by water movement through the strata's, and the history of gravel pit which provides much of the sand and gravel to the island.

Stop 2—The Katama outwash plain: There are two large outwash plains on the island; the Tisbury and Katama. Neither of these plains are pitted with kettles as the large outwash plains on Cape Cod and the mainland. Geologists believe this is because the ice did not extend past the terminal moraines to the north. Essentially this part of New England was not covered with ice during the late Wisconsin advance. As a result, areas of these plains exhibit very red colors associated with older soils. The soils at the Katama farm also have very thick natural A horizons similar to mollisols in the mid-west (these have umbric epipedons). The Katama series was established in this area and are only mapped in this location. At this site we also observed many excellent examples of ventifacts in the eolian mantle. Harvey Luce scored the best ventifact with a fossil preserved in it.

Stop 3: We observed two deep backhoe pits showing red parent material interpreted as old interglacial soil deposits.

Lunch was at the historic Gay Head (now called Aquinnah) cliffs and lighthouse. A talk about the geology was provided by Bill Wilcox, then the group walked along the beach and observed the various thrust coastal plane sediments. The final stop was at a closed landfill where outcrops of spodosols and thrust coastal plain sediments were exposed. To view photos of the tour visit the SSSSNE web-page and click the photos slide show.



Tour members at the Aquinnah (Gay Head) Cliffs

Plymouth County Soil Survey—Rob Tunstead

The Plymouth County Massachusetts Soil Survey Update is **finally complete**. The digital polygon data and associated tabular database can be accessed and downloaded via the Web Soil Survey or Soil Data Mart websites. The Plymouth County soil survey update ends an era of NRCS (Natural Resources Conservation Service) county projects of this type. Soil survey updates in the future will be performed on a MLRA (Major Land Resource Area) basis and these projects are to be managed out of the local Soil Survey Offices. The Tolland, CT Soil Survey Office (12-6) is responsible for the update and management of surveys for most of Southern New England, the eastern part of New York (including Long Island), northern New Jersey, and southeastern New Hampshire.

Plymouth County Soil Survey Update Personnel & Overall History

Update started in 1989 when the published 1969 survey was reviewed and showed the need for a re-map.

- 3 Soil Data Quality Specialists (Al Averill, Steve Fischer, and Andrew Williams).
- 3 State Soil Scientists (Dave Hvizdak, Dick Scanu and Bruce Thompson).
- 11 Survey Mappers (Jim Turenne, Pete Fletcher, Tom Peragallo, Brian Lesinski, Bill Taylor, Terry Snider, Brian Parks, Meredith Ashworth, Debbie Surabian, Donald Parizek and Rob Tunstead)
- 3 Digitizing Units (MA Department of Food & Agriculture, NRCS Missouri, and NRCS Montana)
- 3 Soil Survey Project Leaders (Pete Fletcher, Jim Turenne, and Rob Tunstead).
- 10 Progress Field Reviews.
- 6 New Soil Series Established—Tihonet, Mashpee, Massasoit, Wapanucket, Rainberry, Mattapoisett.
- Mapping made at 1:12,000 scale with minimum delineations 0.5 to 1 acre, mapping utilized high-resolution CIR imagery, GPS, and remote sensing to produce the maps and collect data.
- Over 28 pedons sampled for full characterization, numerous special studies made (Cranberry Bed map units), 20 water table monitoring sites established, all data posted on the Plymouth web page on Nesoil.com.

Considerable recognition should be paid to the Windsor SSO (Donald Parizek and Debbie Surabian) for their efforts in completing this soil survey update. Dave Hvizdak (MA State Soil Scientist) and the MO12 Staff should be considerably thanked for their continued support and guidance.

For a copy of the recently completed soil survey update please visit Web Soil Survey (view mapping and interpretations) or the Soil Data Mart (download GIS spatial and tabular data, and reports) websites. An electronic version of the survey is under production there are no plans for a paper survey. A last acre ceremony is being planned contact the MA NRCS for information.

Jim Turenne Receives the Silver Spade Award

At the 2010 Northeast Regional Soil Survey planning conference RI State Soil Scientist Jim Turenne received the Silver Spade award. The award was presented to Jim by the 2008 award winner Dr. John Galbraith from Virginia Tech. Jim was selected for the award for his 23 years of service to the soil survey program and developing innovative approaches to advancing soil survey such as setting up the Nesoil.com website, Google Earth products, and his involvement with the Society of Soil Scientists of Southern New England. The Silver Spade is awarded every two years at the regional planning conferences. Past winners of the award include; Ed. Ciolkosz, Ed Sautter, Sid Pilgrim, William Wright, Del Fanning, Bob Rourke, John Sencindiver, Peter Veneman, Marty Rabenhorst, Steven Carpenter, Jim Baker, Ronnie Taylor, and John Galbraith.



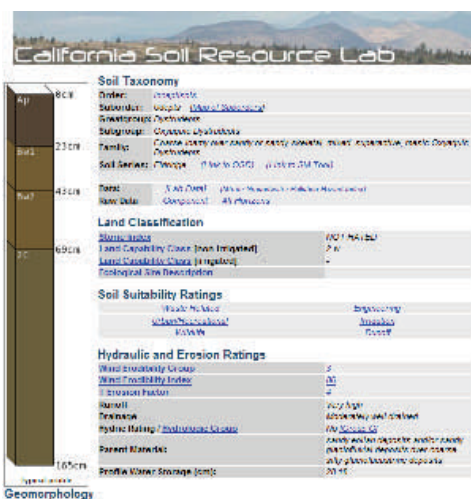
For additional information about the 2010 Northeast Regional Planning Conference visit:

<ftp://ftp-fc.sc.egov.usda.gov/NSSC/NCSS/Newsletters/issue52.pdf>

Soils Data on a Smart Phone and Google Earth

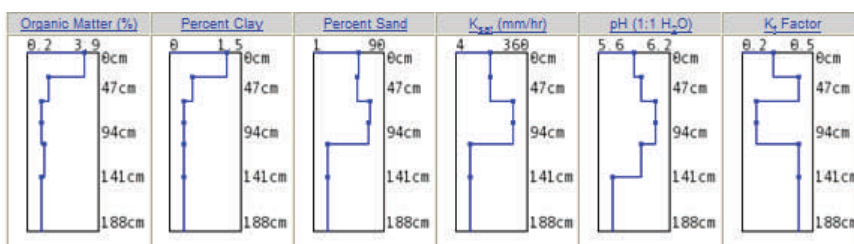
During the field tour for the 2010 Northeast Regional Planning Conference in Pennsylvania, the person sitting in next to me showed me an amazing app on his Iphone—the Soil Web app. As we drove to sites he was able to push a button and display what soils were mapped at his exact location within seconds. The app does not show the soil map but provides a neat graphical display of the soil components that are mapped. Clicking the screen brings up complete information about the soil all linked with descriptions of the properties (hydro group, parent material, hydric rating, etc.). The Soil Web app is developed by the California Soil Resource Lab at UC Davis. A version for Android phones is being developed and should be available shortly. Folks with GPS enabled Iphone should make this app a must. To run the app just search SoilWeb on the Itunes Store site, it is a free download or visit: <http://casoilresource.lawr.ucdavis.edu/drupal/node/886> (or see link on the Nesoil.com main page).

The Cal Soil Resource Lab also has a nice interface for displaying soil maps via Google Earth. This product will show the SSURGO soils when you zoom into an area. Clicking the map unit symbol brings up detailed information about the map unit and soil properties, similar to the smart phone app. A nice feature of this over the NRCS web soil survey is the ability to pan to different areas without having to re-define the area of interest and provides much better imagery than the WSS.



Visit: <http://casoilresource.lawr.ucdavis.edu/drupal/node/538> for information or open the KMZ file at:

http://casoilresource.lawr.ucdavis.edu/soil_web/kml/SoilWeb.kmz you must first install the free Google Earth program from www.earth.google.com.



2009 Annual Meeting

The 2009 annual meeting was held on November 11 at the Colonial Restaurant. Member turnout was quite low for the annual meeting, this was attributed to the meeting being held on Memorial day (logistics with Board members caused the date selected), and the peak of the Swine Flu outbreak. The speaker for the meeting was scheduled to be society President Mark Stolt who was going to talk about the soil judging competition but Mark had to cancel due to the flu at the last minute. Filling in for Mark was a series of talks by Board members about the numerous events held in 2009 and open discussions with the participating members.

The 2010 Annual meeting is planned for November 10, 2010 at the Colonial Restaurant in Webster, MA. Please plan to come and vote for board members up for election. Registration forms are included in this edition or visit online at www.sssne.org. Mark will give a talk on the history of soil judging.

Photo left: Marissa Theve receiving the undergraduate scholarship award.

Photo right: Christina Pruitt receiving the graduate scholarship award.



Registration form for the Alluvial Soil Workshop—October 13, 2010

For information and Directions visit : www.ssssne.org

Please complete this section and return it to SSSSNE at P.O. Box 258, Storrs, CT 06268, with a check for the registration fee at \$50.00 per person for members, \$70 non members. Registration includes morning beverages and pastry, beverages in the field, and midday sandwiches, salads, cookies and fruit provided by the Vanilla Bean Restaurant.

Name:

Address:

Phone number:

email:

Number of members at \$50.00 each:

Number of non-members at \$70.00 each:

Names of non-members:

Please indicate your sandwich choices: ☐ Vegetarian (Multi-grain, Swiss & veggies) ☐ Tuna (Wrap, lettuce, tomato) ☐ Roast beef (pumpnickel, lettuce, tomato) ☐ Chicken salad (multi-grain, lettuce, tomato) ☐ Turkey (Multi-grain, lettuce, tomato).

2010 Annual Meeting, November 10: Colonial Resturant, Webster MA.

Visit: www.ssssne.org for info and directions

4:30 p.m. Meeting of the Board of Directors, all members welcome! 5:30 p.m. Social Hour, appetizers and cocktails.
6:30 p.m. A Buffet Dinner will be served. Following dinner, Mark Stolt, Society President, will give a narrated audio-visual presentation discussing his national soils judging experiences

Registration is limited. Confirmation must be received by November 1, 2010.

Please complete this section and return it to SSSSNE at P.O. Box 258, Storrs, CT 06268, with a check for \$20.00 for each buffet dinner.

Name: _____ Phone: _____

Address: _____

Email: _____ Number of Attendees: _____

Dietary Concerns _____

2010 Election Ballot—please send in and vote even if not attending the Annual!

I vote for Mark Stolt for Office of President ☐ yes ☐ no

Write In Candidate _____

I vote for Margaret Washburn for the Office of Board Member ☐ yes ☐ no

Write In Candidate _____

Society of Soil Scientists of Southern New
England
PO Box 258 Storrs, CT. 06268




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

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Jim Turenne, editor.