

What's Inside This Issue:

- President's Message
- Summer Tour Info
- Member Spotlight
- Westside and Eastside Notes
- Out-of-Order 3 – An Ongoing Mystery!
- Winter 2010 Meeting Report
- Dates to Remember

PRESIDENT'S MESSAGE

by Cory Owens



Greetings OSSS! I am excited to begin my year of leading the society by introducing myself and outlining my plans for the year.

As most of you know, my name is Cory Owens. I graduated with a degree in Crop and Soil Science from OSU in 2001. Herb Huddleston was my mentor who encouraged me to apply for a Soil Scientist student position with the Natural Resources Conservation Service (NRCS). I got the job my sophomore year and haven't stopped yet! I spent the beginning of my career mapping the valleys around Tillamook County where I learned firsthand about some of the amazing Andisols we have on the coast. After a few years on the coast I took a break from NRCS to attend University of California, Davis where I completed a master's degree in Soil Science. At Davis,

I had a unique opportunity to couple my graduate work with the U.S. Peace Corps where I served for two years (along with my husband and OSSS Vice President Joshua) in Senegal, West Africa. While in Senegal I explored the indigenous soil knowledge of the village I lived in and had the opportunity to sample and characterize their top three agricultural soils. After completing my Peace Corps service and degree at Davis, I went back to work for the NRCS. I moved around the state for a couple years taking details on the South Malheur County Soil Survey, and as a Resource Soil Scientist in the Willamette Valley. As a resource soil scientist, I got the chance to work with Matthew Fillmore out of the Salem MLRA Soil Survey Office. Since June of 2009 I have settled in to my current position as the NRCS Resource Soil Scientist for the Willamette Valley based out of Tangent. I can truly say it is my dream job to work with fellow NRCSers, partners, and the public, helping them to understand and use the soils information that is available to them. I also get the chance to work on various projects to increase the body of soil knowledge in my area. I also spend a fair amount of time on some of the compliance aspects of working with the USDA in the wetlands and highly erodible land arenas, which I enjoy (yes, I like compliance!) because I get to problem solve and help folks make informed management decisions. I currently live in Corvallis with Josh and our 18-month-old son Gabriel.

I'm sure that's way more than you wanted to know about me, so how about I move on to some of the fun things I have in store for this year.

I am excited to introduce the OSSS theme for 2010:

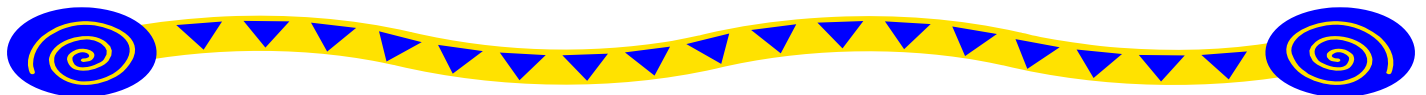


The estimated amount of carbon stored in world soils is about 110 to 1600 Pg, more than twice the carbon in living vegetation (560 Pg) or in the atmosphere (750 Pg) (Sundquist, 1993). Soil carbon and the role it is staged to play in global carbon sequestration initiatives and ultimately in global climate change make this a timely topic. I am interested in exploring several aspects of soil carbon over the next year including current research on:

- Defining and quantifying soil carbon pools
- Carbon credits and economic futures
- Hot topics and research initiatives by the EPA, NRCS, USFS, and others
- What it means for Soil Scientists in Oregon

I plan on exploring this theme in the Sharpshooter, with regular updates to the OSSS webpage, and culminating in our annual Winter Meeting. I invite all OSSS members to join me this year as I research and explore this fascinating topic.

Sundquist, E.T. 1993. The global carbon dioxide budget. Science 259:934-941



2010 WSPSS-OSSS Summer Tour General Announcement



From Volcanoes to Vineyards in the Scenic Columbia River Gorge

July 22 – July 24, 2010 in Hood River, Oregon
(Thursday, 1-4:30 pm followed by wine tasting and banquet at 6:00 pm; Friday, 9 am – 4 pm, Bus Transportation;
and Saturday, 9 am – noon, Carpool)

Pre-registration will run May 10 through June 30, 2010

Receive 12 ARCPACS CEUs for attending Thursday-Saturday!!!

WSPSS & OSSS members: \$85

Nonmembers: \$100

Full-time students: \$50

All fees include: catered dinner on Thursday evening at the Mt. Hood Winery and Lunch on Friday, PLUS bus transportation on Friday. **LODGING IS NOT INCLUDED.**

THURSDAY, JULY 22 – MT. HOOD WINERY, HOOD RIVER, OR

2882 Van Horn Drive (4 miles south of Hood River on Hwy 35, turn left at the yellow blinking light)

11AM-12:30 PM WSPSS Business Meeting—refer to WSPSS Website for details
(<http://www.ieway.com/wspss/>)

1PM-5PM Summer Tour Technical Session

1PM-1:15PM Introductory Remarks and Welcome by WSPSS & OSSS

1:15PM-2:00PM *Developing a site selection GIS for inland grape production*, Ian Yau, WSU Graduate Student

2:00PM-2:45PM Patricia A. Skinkis, Ph.D. Viticulture Extension Agent Oregon State University

2:45PM-3:00PM Break

3:00PM-3:45PM **TBD**

3:45PM-4:00PM Break

4:00 PM-4:45PM **TBD**

4:45PM- 5:00PM Closing Remarks and Announcements

5:00PM-6:00PM Break, on your own

6:00PM-8:30PM Social Hour and Catered Dinner, Mount Hood Winery

6:00PM-6:45PM Social Hour. Mount Hood Winery wines and a local microbrew will be available by the glass to purchase, appetizers will be served

6:45PM-8:30PM Dinner and Dessert
Geology, Soils, and Winegrape Vineyards of the Columbia Gorge, Dr. Alan Busacca, Vinitas Vineyard Consultants, LLC

FRIDAY, JULY 23 – FIELD TOUR:

Join us on for a day-long field trip to examine the geology and soils of the Columbia Gorge and the terroirs of vineyards in this wonderful wine-growing region. Terroir involves the complex interplay of climate, soils, geology, and other biophysical factors that influence the character and quality of wine grapes. Our trip will take us from the high-rainfall, conifer-covered western Gorge area with its volcanic soils and cool-season white wine-grape and Pinot noir vineyards to the dry, sagebrush-covered eastern Gorge with its flood-derived and eolian soils and big red-wine grape vineyards with varieties like Cabernet Sauvignon and Barbera. Lunch will be at Maryhill Museum of Art.

The trip will depart from Mount Hood Winery at 8:00AM with stops along the Columbia Gorge AVA and the adjoining western part of the Columbia River AVA and return by 5:00PM. Motorcoach transportation, snacks, lunch, and wine tasting are included in your Summer Tour registration fee. The trip will be led by Dr. Alan Busacca, Emeritus Professor of Soils and Geology, Washington State University, and owner of Vinitas Vineyard Consultants.

SATURDAY, JULY 24 – FIELD VISIT (OPTIONAL)—POLSON'S CHERRY ORCHARD

OSSS member Dick Polson has graciously offered to host a short site visit to his newly established cherry orchard. The site visit is arranged for one last look at soils along the gorge for those of us who just didn't get enough soils on Friday. Mr. Polson will share his experiences with establishing a fruit crop along the Columbia. For those of you looking for alternatives, the Hood River area is surrounded by recreational outdoor activities; *please see suggestions and links below.*

LODGING OPTIONS:

Late July is high season for vacationers in the Columbia Gorge and hotels and campgrounds are commonly completely booked, so we strongly recommend that you make reservations early for this event.

A block of rooms is being held for WSPSS and OSSS members *for the night of July 22 only* at Sunset Motel, 2300 Cascade Avenue, Hood River, OR 97031. They are holding 5 double queen bed rooms at \$89/night plus tax and 7 single queen bed rooms at \$79/night plus tax. Call Margaret at 541-386-6322 to reserve.

Other options are:

Hood River Hotel, www.hoodriverhotel.com, 541-386-1900

Best Western Hood River Inn, www.bestwesternoregon.com, 541-386-2200

Comfort Suites, www.comfortsuites.com, 541-308-1000

Riverview Lodge, www.riverviewforyou.com, 541-386-8719

Several options for other motels exist within 20 miles of Hood River: The Dalles (~18 miles east of Hood River); Cascade Locks (~18 miles west of Hood River); Stevenson, WA (17 miles west of Hood River—crossing at Hood River or Cascade Locks).

CAMPING:

Polson's Cherry Orchard

OSSS member Dick Polson has been gracious enough to host free camping on his newly established cherry orchard. Camping would be available Thursday and Friday nights. Amenities include: an outhouse, potable water, either forest or orchard camp sites, limited access to indoor restrooms, and gas camp stove cooking allowed in safe locations. This option will be available for 15-20 tents. There is also space for a limited number of RVs. If you are interested in this option you must register with OSSS President Cory Owens by July 16, 2010 via email: president@oregonsoils.org. Registration will be first come first serve. Pack it In-Pack it Out. Thanks so much to Mr. Polson for this option.

Oregon State Parks—Viento Campground

Cost: Tent-\$17, Electrical/Water Hookup-\$20, Extra Vehicle-\$5. First-Come, First-Served; 56 Electrical & 18 Tent Only Sites.

Directions: Approximately 6 miles west of Hood River on I-84.

More Information: http://www.oregonstateparks.org/park_171.php

Oregon State Parks—Memaloose Campground

Cost: Tent-\$19, Full Hookup-\$24, Extra Vehicle-\$5. Reservations call 1-800-452-5687; 44 Electrical & 66 Tent Only Sites.

Directions: Approximately 9 miles east of Hood River and 11 miles west of The Dalles, on I-84.

More Information: http://www.oregonstateparks.org/park_163.php

USFS—Wyeth Campground

Cost: \$10 per night. First-Come, First-Served, 13 total sites

Directions: In Hood River, OR, take I-84 west 12.7 miles to Exit 51 (Wyeth). Take exit ramp to stop sign. Turn left and go less than 0.1 miles to a "T" intersection. Turn right and go 0.1 miles to campground on left.

More Information: <http://www.forestcamping.com/dow/pacificnw/crgcmp.htm#wyeth>

Hood River County Parks—Tucker Park

Cost: Overnight full hookup \$20, Overnight self-contained RV site (river side) \$22, Overnight self-contained RV site \$19, Overnight group Tent Site \$72, Overnight Tent Site \$18, Overnight Tent Site (river side) \$20, Extra Tent \$8, Extra Vehicle \$5; First-Come, First-Served.

Directions: About 6 miles north of Hood River; map of Hood River County Parks: <http://co.hood-river.or.us/vertical/Sites/%7B4BB5BFDA-3709-449E-9B16-B62A0A0DD6E4%7D/uploads/%7B896104D4-EE39-4DD4-88EF-CCA7B447901B%7D.PDF>

More Information: http://www.co.hood-river.or.us/index.asp?Type=B_BASIC&SEC={471AE695-C054-4F8C-BEB1-639B721C63E0}

Hood River County Parks—Tollbridge Park

Cost: Overnight full hookup \$20, Overnight self-contained RV site (river side) \$22, Overnight self-contained RV site \$19, Overnight group Tent Site \$72, Overnight Tent Site \$18, Overnight Tent Site (river side) \$20, Extra Tent \$8, Extra Vehicle \$5; Reservations (at least 3 weeks advanced warning) 541-352-5522, otherwise First-Come, First-Served.

Directions: About 16 miles north of Hood River; map of Hood River County Parks: <http://co.hood-river.or.us/vertical/Sites/%7B4BB5BFDA-3709-449E-9B16-B62A0A0DD6E4%7D/uploads/%7B896104D4-EE39-4DD4-88EF-CCA7B447901B%7D.PDF>

More Information: http://www.co.hood-river.or.us/index.asp?Type=B_BASIC&SEC={471AE695-C054-4F8C-BEB1-639B721C63E0}

RECREATIONAL OPPORTUNITIES:

The WSPSS/OSSS summer tour is an excellent opportunity to bring your family and take in the amazing range of things to do while you are in session Thursday and Friday, and on the weekend as well.

Hood River is an outdoor enthusiasts' dream, and there is a wide array of attractions and activities for the whole family within a short distance from downtown Hood River—including: windsurfing (Hood River is the self proclaimed windsurfing capitol of the world), camping, birding, scenic byways touring, hiking, skiing, biking, kayaking, wine tours, fruit picking, and many, many other recreational opportunities to explore.

To go on a self-guided tour of wineries and vineyards in the Columbia Gorge/Hood River area, visit: <http://www.columbiagorgewine.com/> and download their winery touring map.

Hood River Chamber of Commerce, <http://www.hoodriver.org/>. The Hood River Chamber of Commerce website has an amazing set of pages with links and phone numbers: http://www.hoodriver.org/HRCCC_CategoryTemplate.asp?CategoryINDX=504 to connect you with over thirty categories of fun things to do, from historic aircraft museums to Maryhill Art Museum to Mount Hood Scenic railroad, Hood River Saturday market, and Bonneville Dam tours.

REGISTRATION FORM – WSPSS-OSSS SUMMER TOUR

Name: _____ Affiliation: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ Fax: _____

E-mail: _____

Registration Costs:

WSPSS member: \$85.00

Non-Member: \$100.00

OSSS member: \$85.00

Full time student: \$50.00

Submit registration form and payment by June 30, 2010.

WSPSS Members can pay by check, payable to WSPSS, by sending payment to:

Toby Rodgers, WSPSS Secretary
PO Box 247
Mount Vernon, WA 98273

OSSS members can pay by check, payable to OSSS, by sending payment to:

Summer Tour 2010
Oregon Society of Soil Scientists
P.O. Box 2383
Corvallis, OR 97339

Payment must be received with your registration to enroll you in the tour. Depending upon initial numbers of participants, registration may be re-opened after July 1, but don't wait as there is limited space.

Refunds: Full refunds are available up until two weeks prior to the tour (July 8, 2010). A refund of half the tour cost will be available if cancellation occurs between July 8 and July 22. If you are a WSPSS or OSSS member and you would like to donate the refund money to one of our designated scholarship funds, please let us know. If you can't make the tour and would like to apply for a refund, WSPSS members should contact Dan Ufnar (dufnar@tss.net, or 360-236-1899) and OSSS members should contact Cory Owens (president@oregonsoils.org or 541.967.5925 ext 119).

By completing and submitting this form, I am verifying that as a workshop participant, I agree to hold the Washington Society of Professional Soil Scientists (WSPSS), the Oregon Society of Soil Scientists (OSSS) or its agents, harmless of any accidents, injury, loss or damage to property that may occur during this workshop. In the event of an emergency, I give permission to WSPSS or OSSS to secure proper medical treatment. I understand that any medical expense will be billed directly to me or my insurance company. I grant permission for WSPSS or OSSS to use any photographs of the participant taken during the workshop in newspapers, magazines, brochures or other media for promotional purposes.

Signature: _____

Online Registration and Payment Available Through OSSS

Are you a WSPSS or OSSS member or a Guest interested in registering for *From Volcanoes to Vineyards* online?

Are you a WSPSS or OSSS member or a Guest interested in paying for the event through PayPal?

If you answered yes to either of those questions then you need a myOSSS account. Getting a myOSSS account is easy!

1. Select Join from www.oregonsoils.org
2. Create a username and password
3. Fill in your personal information
4. Fill in your professional information
5. If you are a WSPSS member or a Guest select to create a guest account. If you are an OSSS member select your membership status.
6. Click on submit

Congratulations! You have just created your myOSSS account.

To login to your account either go to the [myOSSS](#) page or sign in on the upper right corner of the page.

Once you login to your [myOSSS](#) account you will see:

- Your account information
- The registration form for “From Volcanoes to Vineyards”
- You will be prompted to select your membership affiliation or if you are a guest, which society you are a guest of.
- You will have the option of paying online or paying through the mail.

If you have any questions about how to create a [myOSSS](#) account or about your account please don't hesitate to contact the OSSS webmaster: webmaster@oregonsoils.org or President Cory Owens (she's the webmaster!)

WESTSIDE NOTES

by Cameron Bergen

Editors Note: Cameron had aspirations of being a photo journalist in a past life. This is showing up with his "Sprig photo" nicely staged in his backyard with a clean bottle in a soil that some of you might recognize as being a little heavier than a silt loam. Good job, Cameron!



Sprig – unearthed in a Fine, mixed, superactive, mesic Aquultic Haploxeralf (silt loam)

“Sprig” Time on the Westside

“Plink!” is not a sound you expect to hear when you push a sharpshooter into a fine, mixed, superactive, mesic Aquultic Haploxeralf (silt loam). So I cautiously proceeded with my excavation, and at about 18 inches below the surface I unearthed an emerald green glass bottle. “Ah, a Heineken,” I thought, but what I removed from the shallow pit was something more unique. *Sprig*, it read, *Never too sweet - Never too sour*. Later, a quick Google search revealed that the bottle marked *A Delicious Drink, A Marvelous Mixer* was (according to the number on the bottom) manufactured in Los Angeles in 1954, the last year Sprig Soda was produced. Perhaps this Sprig bottle was one of the last ever to make the journey north to Oregon. The soil pit that yielded the treasure was located on an abandoned stream terrace, an arm’s throw from a gravel back road that has been in use for well over 100 years, so I suppose some kind of human detritus was inevitable. Rarely do I dig up refuse while conducting field work, and this little piece of garbage was apparently worth 10 dollars in 2006.

Moving on from 50-year-old bottles, its spring field work season in Western Oregon. What I was really looking for in the soil pit was evidence for whether the Aquultic Haploxeralf could be considered hydric or not. Many of you know that a hydric soil is one that is “formed under conditions of saturation, flooding or ponding long enough during the growing season to develop anaerobic conditions in the upper part” (Federal Register, 1994). This definition has been reworked a number of times, but is currently simple and straight forward and inclusive. The actual application of this definition to field determinations can be a little more complicated (as described on the website <http://soils.usda.gov/technical/tssh/index.html>, under the section for *Determinations and Delineations of Hydric Soils*), with monitoring activities sometimes persisting for years. To assist the intrepid Soil Scientist on a schedule with field work, the NRCS in cooperation with The National Technical Committee for Hydric Soils (NTCHS), developed the *Field Indicators of Hydric Soils in the United States*, which is currently operating in Version 7.0 for 2010.

Hydric soils are necessary and beautiful components of any wetland, in addition to the presence of plants adapted to wet environments (up-to-date listings of plants and their wetland status can be found at <http://plants.usda.gov>) and, of course, wetland hydrology. When conducting field surveys to determine the presence or absence of hydric soils for the purpose of delineating the extent of wetlands, the US Army Corps of Engineers Wetland Delineation Manual (1987) has been the go-to guide. However, in 2008, the USACE released the Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region, relevant in Western Oregon. The purpose of the supplement is to increase the regional sensitivity of wetland delineation methods and to bring the '87 Manual up to date with current knowledge and practice for our region. The new supplement replaces the '87 Manual sections on Hydric Soil Indicators Paragraphs 44 and 45, all subparts, and all references to specific indicators in Part IV. The soil profile information requested on the 2008 supplement data sheet includes:

- depth of the horizon being described
- matrix data for color (moist) and percent of matrix with the color
- Redox feature data for color (moist), percent area occupied, type (concentration, depletion, reduced matrix, covered or coated sand grains)
- location (pore lining, matrix)
- texture
- a comment section
- restrictive layer information (type and depth)

This is a fairly standard list of data similar to that required by the '87 Manual. What is new and exciting with this supplement is the use of Hydric Soil Indicators. There are 46 indicators described in Version 7.0 *Field Indicators of Hydric Soils in the United States*, but only 16 from the A (All Soils), F (Loamy and Clayey Soils), and S (Sandy Soils) are currently listed in the 2008 supplement as applicable in Western Oregon. The list is not static and is subject to updates, insights, changes, and clarifications issued by the NTCHS. The field indicators in the manual are morphological characteristics predominately formed by accumulation or loss of iron, manganese, sulfur, or carbon compounds that occur when soils are periodically saturated and anaerobic. Also important are organic matter accumulations and texture. As always, watch out for redox features that may be relict in nature and do not indicate current soil conditions. While a positive result for an indicator means a hydric soil is present, a negative result for an indicator does not mean the soil is not hydric. It is important to take into account other site information including: hydrology, slope, slope shape, landform, soil material, and vegetation before making a preliminary determination. All the details can be found on the Department of State Lands Wetland Resources page under wetland technical resources at http://www.oregon.gov/DSL/WETLAND/technical_resources.s.html.

Before any field visit this spring, be sure to check out the Web Soil Survey at <http://websoilsurvey.nrcs.usda.gov> and the National Hydric Soils List available at <http://soils.usda.gov/use/hydric/lists/state.html>

If you find yourself on the westside of the Cascades and have some news, insights or info edaphic in nature, regarding Pedology, or just have some dirt on soil and would like to share it with the rest of OSSS contact Cameron at EdaphicConsulting@gmail.com.

EASTSIDE NOTES

by Shanna Bernal-Fields and Jenni Moffitt

An Update on the Soil Survey of Malheur County, Oregon, Southern Part and BLM Ecological Site Inventory (ESI)

The Soil Survey of Malheur County, Oregon, Southern Part is being done simultaneously with the Vale District BLM Ecological Site Inventory (ESI). NRCS soil scientists Jim Dorr, Shanna Bernal-Fields, and David Rand are mapping the soils while BLM range ecologists Charlie Tackman, Mike Hale, and Bob Williams are mapping the vegetation and ecological sites. This soil survey office is managed out of the MO3 office in Nevada, but they also work closely with the MO1 office in Portland in matching the two adjoining soil surveys that are managed out of Portland.

- The joint NRCS Soil Survey and BLM ESI crew have mapped about 1.1 million acres to date out of approximately 3.1 million acres total.
- Of the 1.1 million acres mapped so far, about 930,000 acres are mapped with approved map units and about 225,000 acres with provisional map units.
- The 2010 field season marks the fifth year of this survey. The collective acre goal for 2010 is 200,000 acres.
- The survey area is dominated by three Major Land Resource Areas (MLRA's): D23 – Malheur High Plateau, D24 – Humboldt Area, and D25 – Owyhee High Plateau. (For more information about MLRA's visit <http://soils.usda.gov/survey/geography/mlra/> and try the MLRA Explorer!)
- This winter the crew has maintained their survey goal of entering all pedons the winter following collection; they currently have about 1,800 pedons entered in NASIS.



South Malheur County NRCS soils crew at work (left to right: Jim Dorr, Project Leader; Shanna Bernal-Fields; and David Rand, Soil Scientist)



Shanna Bernal-Fields tossing around a boulder from the lightweight Rome sediments, South Malheur County Soil Survey

- The crew has taken the opportunity to do some correlation work and updates for the survey data while learning NASIS 6.0 in the process.
- This last field season (2009) the crew completed a lab characterization sampling project on seven benchmark soils; they look forward to seeing that data when it comes back from the national lab.
- The crew is currently preparing for their progressive field review in May and can't wait to get out in the field (if it will only stop raining!).



Wild horses near Burns Junction in the Malheur County, Oregon, Southern Part soil survey area

MEMBER SPOTLIGHT

KURT MOFFITT

As interviewed by Tom Clark

Each member of the OSSS brings a lot more unique abilities and experience to the table than appears on the surface in the short times we have together. We are also interested in knowing each other to better appreciate one another. These are the key reasons that we feature individuals in our Member Spotlight throughout the year. With this spotlight, I have found Kurt Moffitt to have many unique qualities and experiences along with a family background that I think is quite special.

To borrow from an old TV show, *This Is Your Life, Kurt Moffitt!* Kurt was born on August 3, 1982 in Spokane, Washington. Although Kurt is not technically an Oregonian (he considers himself an Oregonian), the Moffitt's have an historic presence in Central Oregon. Kurt's great-great grandfather homesteaded on the east side of Powell Buttes just to the west of Prineville. His uncle's great-grandfather was Monroe Hodges who filed the original plat for the city of Prineville in 1877! Kurt's grandparents eventually took ownership of a cattle ranch south and west of Brothers. When driving east from Bend towards Burns, check out Moffitt Road leading south from highway 20. The road, of course, is named after Kurt's family.



Kurt digging a soil pit in the shadow of the Three Sisters

Kurt's immediate family (his Dad worked for Farm Credit Services as an appraiser after leaving the family farm) moved to various places around the northwest before ending up in Spokane where Kurt was born. Kurt lived in Spokane through high school, but spent his teenage summers working on his grandparents' (his mother's side of the family) farm in their cherry orchards near The Dalles. This was Kurt's first connection with the wonderful world of soil. When Kurt was 14 he made the first webpage for the Wasco County SWCD. Immediately after Kurt's high school graduation his family moved to Redmond, Oregon and a couple years later Kurt enrolled at OSU in the Crop and Soil Science Department. Kurt was also involved in Soil Judging at OSU and was a recipient of an OSSS scholarship or two! It was at OSU that Kurt met Jenni. They were married during Spring Break in 2006 and graduated together in December of 2006. A match made in soils heaven! Kurt's non-soils interests (besides Jenni) include snow skiing, fly fishing, watching the Travel Channel, and hunting. An outdoor man all the way.

Kurt's efforts at OSU landed an internship with the NRCS conveniently located in Redmond working under yours truly for portion of that time. For good or bad I made Kurt over in my own image. To quote Kurt, "My first day with Tom was interesting. We were mapping soils near the metropolis of Post, OR, and Tom wanted to hike to the top of a small butte. I said, 'Sure, let's go!'1000 vertical feet later, I finally caught up with the 62-year-old man who had already taken a nap and finished his PB and J sandwich while waiting for me." I think Kurt was exaggerating a little. My retirement in January 2007 worked out well for Kurt as the NRCS offered him a job on the Crook County Soil Survey in Redmond on January 2 of that year. Jenni is working for the BLM in Prineville with her Rangeland Resource Management degree from OSU. As Kurt put it, "Every day at our house is interagency cooperation." No disagreements? Hmmmm.

Kurt has been a member of OSSS since 2003 and has just finished a stint as secretary on the OSSS board of directors. He plans on being involved with the OSSS for quite some time or until "they kick me out."

So, *This Is Your Life, Kurt Moffitt*,so far. Thanks Kurt, for sharing.

WINTER 2010 MEETING REPORT

by Ed Horn



Mark Keller proudly displaying his soil t-shirt at the OSSS winter meeting held at the McMenamins Edgefield

Thanks to Daniel Moreno and his select group of speakers, this year's Oregon Society of Soil Scientists winter meeting was a rousing success. It was held at McMenamins Edgefield in Troutdale on February 18-19, and the theme was "The Soil Waste Interface." We had many informative talks about waste and ways to clean up pollutants from it. The last OSSS winter meeting held at the Edgefield was way back in 1994 when Scott Burns was president. The talk then was about dust from China, fossil soils in the John Day formation, and soil pesticide interactions.

Jay Noller started our meeting off talking about his Cyprus project and the work he is doing with Archeologists. He is trying to get Archeologists to look closer at soils and topography in relation to where they are finding artifacts. Jay suggested that where artifacts are found are not always indicators that people lived there. People generally dump their trash away from their homes. Artifacts at the base of a hill may indicate that people were tossing their garbage and broken dishes out onto the hillside below their living quarters.

Our second speaker, Paul Kay from Rogue Water, defined pollution as "a valuable resource in the wrong place." He proposed using sustainable fixes like his rolled burrito-like substrate that floats on water and allows plants to grow on it. The growing plants will in turn adsorb the excess nutrients from the water and produce an additional economic benefit after the plants are harvested. This technology can be used on rivers or ponds.

Todd Jarvis spoke next. He represents the Rainbow Water Coalition. He talked about the different colors of water, gray water being among them. Gray water is wastewater generated from domestic activities such as laundry, dishwashing, and bathing which can be recycled for on-site uses such as landscape irrigation and

constructed wetlands. The coalition Todd works for is trying to disconnect the gray water from households and recycle it for other beneficial uses rather than adding it to the sewer system.

At high noon we walked over to the McMenamins Theater to have a pizza and salad lunch. After solving a few technical difficulties we watched a screening of "Dirt! The Movie." The movie brings to life the environmental, economic, social and political impacts that soil has. It shares the stories of experts from all over the world, Paul Stamets among them, who study and are able to harness a mutually beneficial relationship with the soil.

After lunch, Emily Calloway from CH2M HILL chronicled a number of bio engineered treatments using plants as a means for taking up pollutants from the soil and the water table. An example was planting trees below grade to get the roots down to where the pollutants are. There was some controversy on what should be done with the plants that took up the pollutants.

Andrew Millison, our next afternoon speaker, told us about gray water treatment in a greenhouse environment. Water is processed through a multi stage system of plant growth bins filled with a filter medium. This system effectively removes pollutants from gray water in colder environments. Andrew cut his teeth on permaculture techniques while living in Arizona doing stints at Paolo Soleri's Arcosanti, and giving workshops in Prescott, AZ, for gray water systems design.

Scott Burns gave us an energized talk looking at the Missoula flood events though time that thundered across Washington and down the Columbia River between Washington and Oregon. Restrictions in flow backed up flood waters into the Willamette Valley, ice rafting a number of granite boulders from faraway places and depositing them as erratics in the valley.

Clark Niewendorp, from the Oregon Department of Geology, is compiling a source list of hazardous material minerals such as mercury and asbestos in Oregon. Knowing the location of these spots helps the Oregon Department of Transportation develop ways to mitigate or ameliorate these hazards before they become a problem.

Sean Dempsey showed more examples of how floating vegetation islands, this time on recycled plastic containers, help to clean up water, and provide fish and bird habitat. Using plastic containers also helps reduce the plastic dumped into landfills and in the ocean as trash. The floating islands can be designed as walkways in wetlands or on rivers to help clean up pollution.

Paul Stamets, one of the stars of "Dirt! The Movie," gave his talk on fungi. Paul says fungi are one of the few organisms that are able to survive catastrophic events as evidenced through Earth's past history. He told us about some amazing properties that fungi have to filter nutrients, make plants grow, and as a source for pharmaceuticals. Paul discovered that specific fungal types can destroy carpenter ant colonies that are a pest to home owners. His advice to students and others in the audience was to be inquisitive, don't take authority for granted and plant a tree.

For the final part of the meeting, Scott Burns led us on a wonderful field trip up the Columbia Gorge. At the first stop, Scott talked about the geology in an exposed road cut along the Sandy River. He also talked about the Sandy River's terraces and the volcanic events that created them. At the second stop we looked at soil profiles



No, Scott Burns is not telling us about the fish he caught but about the wide expanse of flood waters that came down the Columbia River during the Missoula Flood

showing the increasing stages of soil development on terraces of older age. Later stops included views of the Columbia Gorge from Chanticleer and Crown Points, an exposed red colored paleosol in a road cut above an active landslide, and a stop at Latourell falls, which was on the way to our final stop at Multnomah Falls. Thanks, Scott, for another great field trip and also thanks to Daniel for a great winter meeting.



OSSS members at Chanticleer Point, overlooking the Columbia River Gorge

OUT OF ORDER 3

by Stan Winther

A week later Sedgwick Holmes received a phone call from an official with the Ministry of Immigration informing Sedgwick that a Mr. Tom Clark was leaving England on the next flight. "Should he be held until you could arrive?" the official asked. Obviously Mr. Clark did not go home after the last OSSS summer tour, which was held at the museum. Holmes responded by saying that he was coming immediately but do not alarm Mr. Clark. Sedgwick did not expect trouble, but he had Watson bring his service revolver anyway.

At the airport there was the usual scurrying of people and luggage, but Holmes noticed a small group of people listening intently to someone telling a joke. All was going well until one of the women turned red and fainted. The storyteller completed the joke to a chorus of laughter and then everyone gathered around the fallen woman in an effort to revive her. Dr. Watson broke through the crowd with smelling salts, which caused her to regain consciousness quickly.

When the commotion had died down and everyone had gone their own way, Holmes approached the storyteller and asked if he was indeed Tom Clark, the author of many OSDs from Oregon including the Ginserly, Breese ranch, Longbarn, Hatrock, Pilotbutte, and Warpaint soils, and "...maybe the Powellbutte soils."

"Yes, that is me," said Tom, with an easygoing smile.

Holmes continued. "I thoroughly enjoyed the way you described each soil in the REMARKS section of your OSDs. Phrases such as 'it stuck to my boots, it was a rock pile, it was wetter than a rubber boot with a hole in it, or it was coarser than a 5 day old beard' made the soils 'come alive for me.' Are you also the owner of numerous monoliths obtained from eastern Oregon soils?" asked Holmes.

"Yes, yes! Many of which go back 30 or 40 years!" said Tom with pride.

"Well then, I arrest you for rearranging the soil monoliths in Sir Crumley's collection," Holmes said.

Mr. Clark was stunned. "Well maybe I had help writing the Powellbutte OSD," said Tom reluctantly.

"No matter! Are you ready to confess?" Holmes continued.

"Not so fast. Aren't you going to read me my rights?" asked Tom.

"Most assuredly," answered Sedgwick. "You have the right to remain silent but anything you say can and will be held against you at the next soil review. You have the right to an attorney. If you can not afford one, a slick-talking conservationist with only a few soils courses will be appointed to represent you. Do you understand?"

"Yes, of course," Tom replied. "What do you know already?"

Holmes cleared his throat and started listing the facts:

"...that you are a private, wealthy collector of monoliths. A long time ago you realized there was little money in soil survey but great potential in soil monoliths. So you began collecting monoliths while your fellow soil surveyors were attending training sessions.

"...that you picketed outside of the state legislature building hoping to make the shallow, loamy-skeletal Licksillet soil the official Oregon State Soil. You organized the 'Stop-the-Jory-soil!' campaign, obtaining funds from the rival Willakenzie soils, grape-growing lobby. All the while you were secretly pushing for the Licksillet soil.



“...that you donated your ‘countdown to retirement’ clock to the Smithsonian. They had never seen such a clock that records both minutes and seconds, as well as years and days.

“...that you pioneered the concept of metric days and received an award for it. Up until recently, all American OSDs used English measurements such as feet, miles, inches, and Fahrenheit. Yet, there has been a gradual movement to use metric measurements because Soil Taxonomy is written in metric. Examples of metric measurements used in OSDs include centimeters for depth, centigrade for temperature, kilometers for distance, and meters for elevation. Up until your groundbreaking solution, there was no way to express time other than the counting the number of days required for the Earth to revolve around the sun. Now, thanks to you, there are metric days. How did you succeed where others had failed?”

“I won’t reveal everything,” Tom said, “but it involves adding back the 3 months required to move the fiscal year back to the calendar year. Then dividing that number by the number of pay periods in a year followed by moving New Year’s Day to a Monday to make a 3-day weekend and subtracting the Columbus Day holiday. Finally, I divided everything by 1000 to make the answer appear to be metric. I was always good in math.”

“Good enough,” said Holmes, “but in general, converting from English to metric has led to much confusion amongst many older soil surveyors. How will they deal with the change?”



Shovel picture courtesy of Forestry Suppliers Inc. website

“One way is to give them a different measuring shovel,” Tom responded. “Rarely does a soil surveyor carry a tape measure with him as he walks the hills. Instead, his sharpshooter doubles as a 40-inch measuring rod. His new shovel will have metric units engraved in the shaft. When the shovel is held against a soil profile, the depth is easily read in the new units.”

Holmes continued. “...Lastly, you had an argument with Sir Crumley over displaying your collection of shallow, loamy-skeletal soils in his museum. He laughed at your collection of ‘bonsai’ monoliths. ‘Furthermore,’ he said, ‘they all looked alike.’ Belvedere had overheard someone arguing with Sir Crumley.”

“It is all true, but how did you know I was the one?” asked Tom.

“We found a whoopee cushion in a trash can in Sir Crumley’s study. On the label it stated that it was ‘made in Oregon’ and it was ‘made of the finest rubber.’ Furthermore, the cushion was guaranteed for a 100 whoopees and, according to the whoopee meter, 99 had been used.”

“Yes, I was fond of that cushion,” said Tom with mischievous grin. “Many times it had been difficult to get the cushion back.”

“You then decided that a whoopee cushion was not enough, so you switched the order of the monoliths knowing that it would cause great distress throughout the world of soils and Sir Crumley’s household,” said Holmes.

“Yes, I thought it quite ingenious of me,” said Tom.

“Did you have an accomplice in changing the order of the monoliths?” Holmes wanted to know.

“My wife, of course,” said Tom. “She did the alphabetizing.”

“By the way, do you know why the soil scientist crossed the road?” asked Tom, seeking to change the subject.

“I would assume the soil scientist wanted to examine the road cut for clay films, rock fragments, lime accumulations, etc.,” answered Sedgwick.

“No. No. He wanted to be sure it was safe for the chicken to cross there. If not, then a roadkill dinner was a possibility,” chuckled Tom. “Okay, I have another riddle for you. Why did the soil scientist walk into a sports bar with a beaver under his arm and then walk out with three ducks waddling after him, following the annual Civil War game?”

Holmes was ready this time. He answered, "... because the ducks were favored to win by a 3:1 margin."

"No, no. Nice try though," Tom said. "The truth is the ducks were too drunk to drive home and soil scientist was the designated driver."

With that, Sedgwick paused and declared that the man before him was not Tom Clark but his twin brother Don. Watson was shocked. Tom or Don, on the other hand, showed a slight grin at the hoax.

"You are right again, but how did you know?" asked Don.

"Elementary, sir," said Holmes. "Your passport picture features both of you shaking hands. Most unusual, I must say! Furthermore, you attended training sessions and were out shopping for monoliths at the same time. And from what I was told, Tom was never good at math."

"Before I tell you anything more, who are you?" inquired Don.

"I am Sedgwick Holmes, distant relative of the famous Sherlock Holmes. I am a private detective specializing in soil survey crime. I have investigated everything from murder of influential soils people to surveyors falsifying the number of pores in their soil profile descriptions. The most common offense is ignoring lab data whenever the data does not support the soil classification.

"Whoa!" exclaimed Don. "Maybe you could come to Oregon and speak at one of our OSSS meetings. This is one topic that has never been covered before."

"Thank you for the kind words," said Sedgwick. "Please continue with your story."

"Okay. Tom and I were separated at birth," said Don. "Tom was adopted by a family and taken to the west coast to live. In college he majored in Soil Science whereas I stayed with a family on the east coast. I also majored in Soil Science. We both applied for the same soil survey job in Harney County and were hired. How? After the initial shock of realizing that we were twins, we decided to job share. Tom would work the mornings while I took over for the afternoon. It was common for us to complete each other's sentences. For example, in the late afternoon, I would write in my new OSD that 'the Alpha series consists of moderately deep, well drained soils...' and he would finish the sentence with '... on mountains' the next morning. Because Tom was the older brother by several minutes, I looked up to him. When Tom decided to get a small truck, I had to have one. When Tom thought he needed a wife, I went out and got one. When a cat adopted Tom, I went to a local animal shelter and bought several kittens. We were twins. Yet, we were different. Tom collected old music records while I collected soil monoliths."

"Well, the mystery of who switched the order of the soil monoliths is solved," said Holmes. "Because I am not a policeman, I do not have authority to arrest anyone. Therefore, you are free to go."

Then Sedgwick added, "If you are still serious about the speaking engagement, my fees are somewhat high."

"I will see if our OSSS slush fund can cover your fees," replied Don. "I will be in touch."

DATES TO REMEMBER



May 16, 2010, 10:00 AM – 4:00 PM: Mount Pisgah Arboretum's 30th Annual Wildflower Festival and Plant Sale! Mount Pisgah Arboretum at Howard Buford County Park off of Seavey Loop Road in Eugene. Take exit 189 off of I-5 and follow signs. For more information:

<http://mountpisgaharboretum.org/home>

June 20-24, 2010: Western Society of Crop Science & Western Society of Soil Science, with the National Cooperative Soil Survey Conference, University of Las Vegas.

July 22-24, 2010: Oregon Society of Soil Scientists and Washington Society of Professional Soil Scientists Summer Tour, Hood River, OR. From Volcanoes to Vineyards. For more information:

http://www.oregonsoils.org/?page_id=339

Aug 1-6, 2010: A [19th World Congress of Soil Science](#), Brisbane Convention and Exhibition Centre, Brisbane, Australia.

Oct 31-Nov 4, 2010: ASA-CSSA-SSSA International Annual Meetings, Long Beach, CA. Meeting theme: "Green Revolution 2.0: Food + Energy and Environmental Security." For more information: [ASA-CSSA-SSSA International Annual Meetings](#).

February 24-25, 2011: Tentative dates for Oregon Society of Soil Scientists 2011 Winter Meeting, Corvallis, OR, "Soil Carbon and You: It's Complicated!" For the latest information visit our web site at:

http://www.oregonsoils.org/?page_id=29

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