

## PRESIDENT'S MESSAGE

by Teresa Matteson

#### Oregon Society of Soil Science 40<sup>th</sup> Anniversary on January 12, 2014!

Piles of paperwork smother my desk. One pile, topped by the OSSS 501(c)3 application, regularly sieves to the top of my priorities after 10 PM; makes for slow progress. Bedtime immersion into corporate lingo and IRS documentation has honed my appreciation for the dedication of board members before me.

Thanks to those who drafted concise bylaws and achievable objectives. Thanks for their vision to promote the soil science profession and provide educational programs that stimulate cooperation and fellowship. I witnessed some of that fellowship firsthand during the summer tour when Dan Cressy and Ed Horn, tourists, were reunited with their long lost associate, Dale Stewart. Read Ed's note in the Saturday tour brief.

I encourage all OSSS members to visit <u>www.oregonsoils.org</u> and dig into YOUR professional organization. A new history section will be posted soon.

Past editors of the Sharpshooter, Ed Horn and Kathy Clark, have volunteered to serve as OSSS historians! Ed has provided valuable historical items such as meeting minutes that discuss the original formation of OSSS on January 12, 1974. Ed has also provided a copy of the first Sharpshooter dated, October 3, 1977, which lists the names of members in that era, some that continue to attend OSSS events and support our mission. My epiphany—OSSS turns 40 on my watch!

So, what's changed for OSSS over the course of the last 40 years?

Then, Now,	Sharpshooter written on manual typewriter; Mistakes crossed out and corrections in ink. desk top publishing – definitely better!!
Then,	the annual meeting was held in November and cost \$6.25, includes one dinner – definitely cheaper!
Now,	the annual meeting is held in February, it costs more but now you get breakfast, two lunches, and tour transportation!
Then, Now,	three candidates ran for each board office. board members are "recruited" via arm twisting and begging – definitely NOT better!!!
Then, Now,	there were 95 paid members after first year. Way better!! there are only 59 paid members. WHAT???

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#### What's Inside This Issue:

- President's Message
- 2013 Summer Tour Journal/Report
- Eastside Notes
- Member Spotlight
- Dates to Remember



Teresa Matteson, shown here sampling acid soils for John Baham in a Tolovana-Reedsport complex near Otter Crest.

As a side note we are currently carrying 132 names on our mailing list; let's make it a goal to convert these to paid members. An opportunity is at hand for OSSS to activate an aggressive membership recruitment campaign.

Past president, Joshua Owens, suggests that we revive the 1978 newsletter feature titled, *Scrapings From the Ol' Auger*. This section included short updates on members' newsworthy accomplishments. Write up your *Scrapings* and send them to the newsletter editor for the winter issue.

Please join me to salute Ryan Stewart, PhD, out-going OSSS Treasurer, and newly appointed Professor of Soil Physics at Virginia Tech University. Ryan has been a considerable force in OSSS management for the past three years. His vision of nonprofit status and constant encouragement to submit the IRS paperwork has been motivating and inspirational. His motto – "just get it done"! Congratulations Ryan!!!

Thanks to Shannon Andrews, OSU PhD candidate, who will slip in to fill Ryan's bookkeeper shoes and keep OSSS solvent and legal through its 40<sup>th</sup> year.

The 40<sup>th</sup> Anniversary of OSSS calls for a big celebration and fantastic 2014 annual meeting!

Save the Date!

Winter Meeting 2014 Earth I Fire So Water: The Crooked River Caldera February 27 and 28, 2014 Old St. Francis School 700 NW Bond Street Bend, OR

http://www.mcmenamins.com/OldStFrancis

(877) 661-4228

Make your lodging reservations now!

Day 1 – presentations about the recently-identified geological relic, The Crooked River Caldera, that has been right under our noses.

Day 2 – field trip around the caldera to explore the geology, soils and related land management issues. Time to celebrate the soil!

## **OSSS 2013 Summer Tour Journal**

The 2013 Summer Tour was proof that members and non-members from around the state are eager to mingle with edaphic comrades. This collection of tour briefs tells the story from various perspectives. Before we start, a special thank you goes to Maggie McHugh, geologist, and husband John, both retired Forest Service folks, who generously spent an entire June day with Teresa and Curtis Matteson exploring the Rogue River area between Quosatana and Hunter Creeks. They shared secret sites that made the summer tour a fantastic adventure. Here we go...

## Thursday: Day 1

The Dunes by James Cassidy

Our first stop on the 2013 Summer Tour was at the Siuslaw National Forest Dunes Day Use Area. We walked through a forest that flanked the dunes and came out onto an amazing vista of sand dunes! It had been "heavy misting" a bit that morning and what struck us all when looking at the sand was the "crust" that was present at the

top ¼-inch of sand. Our attention quickly turned from the macro to the micro – what was causing the crust? What were the effects of the crust on the movement of sand under our feet? This crust could easily be undermined by free-flowing sand that lay beneath leaving the crust hanging and then, at some point, it would break under its own weight – we were all transfixed, what were we seeing?

This is one of the greatest moments in OSSS field trips, open discussion about the immediately observable – people feeling free to throw ideas out there and work together to come up with possible explanations of what we are seeing. Small experiments were designed and carried out, more observation, and more



James Cassidy replicates sand crust experiments. Photo © E. Horn

discussion – all of us looking down at sand! I love the OSSS! By the way, we felt pretty sure that what we were seeing was a "crust" that was held together by the water that had accumulated at the surface from the mist that morning and the force of capillarity was responsible for the phenomena we were observing.

- Q: What determined the length of the crust that could be unsupported?
- A: Pore size distribution of a well-graded sand and the amount of water present!

#### Bullards Beach Wastewater Retrofit by Teresa Matteson

Past president (1998) Brian Rabe joined Bullards Beach Park Ranger, Ben Fisher, to showcase the retrofit of the state park's wastewater treatment system. The OSSS tourists hiked to filter units, settling ponds and drain fields to fully appreciate a system that could manage campers' peak summer input. New filters addressed issues such as salamander clogs.



An entertaining field tour of Bullards Beach State Park wastewater treatment. Left to right: Signe Danler, Brian Rabe, Ben Fisher, and Park Ranger Chuck Littlejohn. Photo © T. Matteson



Salamanders dream of filter clogs but are denied by new system design. Photo © T. Matteson



Bullards Beach State Park wastewater settling pond. Photo © T. Matteson



OSSS members ponder drain field size based on volume of wastewater input and hydraulic conductivity of soil. Photo © T. Matteson

## My First Summer Tour by Alicia & Finley Leytem

This past summer tour was the first I have attended – and I can tell you, I am looking forward to future tours! One of the things that allowed me to attend was that I brought my 13-month old daughter, Finley, along (the youngest person to attend a OSSS tour?). Although it meant we had to bring an additional car (no kids allowed in OSU motor pool vehicles) and we slept away from the group one night (due to the southern Oregon forest fire smoke) – it gave me a whole new perspective on the trip. Finley loved visiting different soil pits, and made a point to sample as many of the soils as possible (mostly using her mouth). She especially loved the stop at Bullards Beach Wastewater Treatment Site because she got to dig around in piles of sand.

The Sea Wind Farm's cranberry bog was a huge hit due to the samples of Craisins<sup>TM</sup> that they handed out, and the Wahl-3 ranch was a great place to run around—Finley also found a sheep jawbone to play with. Overall I was extremely thankful to the other attendees of the tour for being so fantastic with Fin – she loved playing with you all and really enjoyed the attention. Finley and I are both looking forward to the winter meeting!



Pedia-pedologist Finley Leytem performs particle size analysis via manual method. Photo © T. Matteson

## Acres of Cranberry Beds by Ed Horn

North of Port Orford, we were met by Knute Andersson and his associate, Andy, from Sea Wind Cranberry Farm and Pat Jones of Coos County Natural Resources Conservation Service. They directed us to an easy access cranberry bog, one of 60 bogs and 150 plus acres that Sea Wind Farm manages. Sea Wind Farms, Inc. is the largest cranberry operation in Oregon. After seeing the pictures on TV of the flooded bogs with mats of floating cranberries, it was surprising to see a field of cranberries in a dry bed. Cranberries are planted in upland depressions with dykes constructed around the beds. The beds are composed of about seven inches of clean sand over a compacted impermeable clay base for water table regulation. Irrigation systems are installed in the beds to keep the plants moist during the dry summer months, and to regulate water levels for harvesting in the fall. Water irrigation also protects the plants from autumn, winter, and spring frosts. Sand is spread on the beds every three to five years to rejuvenate the vines and control pests.

I thought that Andy looked the part of one of the guys on the Ocean Spray TV commercial. He told me that commercial with all the flooded berries was filmed in a bog to the west of our tour stop location, right here in Oregon!



Andy and Knute of Sea Wind Farms described cranberry bog construction and management. Photo  $\ensuremath{\mathbb S}$  E. Horn



Markus Kleber distributes Craisins<sup>™</sup> while standing next to one of Sea Wind Farms cranberry bogs. Photo © T. Matteson

## Spodosol vs. Ultisol near Cape Blanco, Oregon by Ed Horn



Left to right: Earl Alexander, Ed Horn, and James Cassidy dig into the Spodosol vs. Ultisol puzzle. Photo © T. Matteson

What came first, the Spodosol or the Ultisol? This was the question to be answered at the next stop near Cape Blanco at Sea Wind Farms. There were two theories proposed: (1) that Spodosols form first and then develop into Ultisols, and (2) both soils form in parallel. Markus Kleber had a number of sites prepared and waiting for examination. We looked at soils in a Curry County map unit of Bullards-Bandon-Wadecreek complex, 0-8 percent slopes. Both Spodosols and Ultisols are in the same area and on the same age terrace (Silver Butte - 105K years and older). What caused the soil differences?

The Spodosols (Bullards and Bandon series) were formed from coarser eolian materials on a well-drained convex to level microrelief versus the Ultisol (Wadecreek series), which formed in loamy and clayey textured alluvium on a moderately well drained, concave microrelief. Soil classifications: Bandon Series – Coarse-loamy,

isotic, isomesic, ortstein Typic Haplorthods; Bullards Series – same as Bandon but without the ortstein layer; Wadecreek – Fine, isotic, isomesic Oxyaquic Haplohumults. These observations seem to point to the parallel development theory based on microrelief, parent material, drainage, and terrace age. More research anyone?



## Friday: Day 2

#### Random Stops by Teresa Matteson

We'd pull over for a wee break and the tourists would jump from the vans and scamper up trails, climb road cuts, or wander through the vegetation. Herding cats metaphor here. This early random stop was so interesting that it extended into lunch.

Signe Danler displays rock faces coated with chrysotile, a fibrous serpentine form of asbestos. Photo © T. Matteson

#### Forest Service Road 150 by Teresa Matteson

An enigmatic geological marvel, this site we called the amphitheater was complete with druid altar (not archeologically official). The unique landscape set the group off on yet another scientific brain whirl – what ancient phenomena created this wondrous manifestation of boulders placed in perfect terraces? Human? not likely. Massive slide? possibly. The ponderings and proposals were plentiful! Earl Alexander gave a convincing debate for debris avalanche. The definition in the AGI Glossary of Geology for debris avalanche: The very rapid and usually sudden sliding and flow of incoherent, unsorted mixtures of soil and rock. For awe-inspiring examples, Earl recommends a Google search of three recent large debris flows: Nevados Huascaran, Peru, 1962 and 1970; Madison Canyon, or Hebgen Lake, Montana, 1959; Hope landslide, British Columbia, 1965.



Maria Lopez Martin, PhD candidate visiting from Spain, dwarfed by one of the California oaks either canyon *Quercus agrifolia* or live *Quercus agrifolia*. Photo © T. Matteson



Panorama of the enigmatic site. Photo © E. Horn

## Kanhapudult at Redflat by Teresa Matteson



Earl Alexander, PhD, is someone I describe as soil scientist extraordinaire and octogenarian. *Earl's reply, "I am not an extraordinary pedologist, but one too stubborn to realize when it is time to give up field and laboratory work."* Earl learned about the OSSS tour via an email from Lia Webb, of the California Forest Soils Council – Thanks Lia!!! He traveled from Eugene to share his skills, knowledge and love of serpentine soils.

In an email prior to the tour, Earl wrote, "I have sampled serpentine soils across the Klamath Mountains from the dry interior of Shasta Valley to the wet Pacific coast. One of the sampling sites (20) is at Redflat, less than a mile from Hunter Creek bog, and another is at Nesika Beach (site 21)." The graph below shows the diffractogram from Earl's Redflat sample site (20) with several goethite peaks; similar to the soils we visited near Hunter Creek.

Kanhapudult at Redflat, courtesy of Earl Alexander.



## Walking on Serpentine Soils by Markus Kleber, OSSS Vice President, OSU Associate Professor, Soil and Environmental Geochemistry

People tend to have clear expectations when it comes to soil. A decent soil is supposed to provide generous rooting space, adequate nutrients, and ample water storage for the plants that WE would like to cultivate on it. Sometimes there is not enough water, and sometimes other bad things, such as erosion or compaction happen to soil and prevent it from performing to our expectations. And sometimes one encounters soils that are almost provocative in their refusal to satisfy our standard expectations. During this year's summer tour. Earl Alexander took us to the Klamath-Siskiyou Mountains, the largest serpentine area in North America. Formed deep within the earth's mantle, where there is very little silicon (Si) and calcium (Ca), but plenty of iron (Fe), magnesium (Mg) and a bunch of other heavy metals, the serpentine rocks of the Klamath block found their way to the surface when continental plates collided. What happens to rock when it is exposed to the elements? It weathers to form soil! The resulting "serpentine" soil is much different from the soil that we usually like to have around: Owing to the composition of the parent rock, there is very little calcium (Ca), way too much magnesium (Mg), and enormous amounts of iron oxides, and all this seasoned with a few toxic heavy metals such as chromium. One would think that this is a terrible thing if there wasn't the fact that on serpentine soils, a unique flora has evolved that is especially adapted to survive the severe hardships of drought, heavy metals, and nutrient stress. Complex islands of endemism and rarity develop on serpentine soils - and everybody on the tour was breathless when we walked into a patch of Darlingtonia pitcher plants, many of them as tall as three feet. The stark beauty of the place made everybody forget that this poisonous, nutrient deficient, "low quality" serpentine soil would be considered a serious catastrophe were it the major soil series in the Willamette Valley!



Left to Right: Markus Kleber and Peter Severtson clear the face of a serpentine road cut. Photo © T. Matteson



Iron minerals Goethite (left) and Hematite (right). Photo  $\textcircled{\mbox{$\mathbb C$}}$  T. Matteson



California Pitcher plant (*Darlingtonia* californica). Photo © M. Kleber



"Hematite Tribe" in war paint near Hunter Creek. **From Left:** Ed Horn, Dan Cressy, Peter Severtson, Markus Kleber, Nina Mansell, James Cassidy, Maria Lopez Martin. **Front:** Earl Alexander. **Back:** Teresa & Curtis Matteson. **Tourists not shown:** Signe Danler (photographer), Dianne & Mark Lewis, Will Austin, Alicia & Finley Leytem.

## Saturday: Day 3

#### Wahl-3 Ranch by Teresa Matteson

Thanks to Pat Jones, Coos County NRCS, we visited Terry Wahl, of Wahl-3 Ranch, who has mastered the art of rotational sheep grazing on high organic matter pasture soils to control gorse, an evil, woody, spiked, invasive plant that plagues Oregon's south coast.



Gorse-control sheep. Photo © T. Matteson



Nina Mansell, Pat Jones, Terry Wahl, and Peter Severtson, stand just beyond the thick grove of gorse that is fenced outside the reach of Terry's invasive plantdevouring sheep. Photo © T. Matteson

By the way, Coos County needs a pasture management guide for high organic matter soils.

During the Friday evening campfire, we swore renewed allegiance to the Oregon Society of Soil Scientists. Summer Tour is the sort of adventure that spawns sticky-like-clay lifelong bonds.



In the view from Wahl-3 Ranch, Blacklock Point hides in the fogged distance behind Alicia & Finley Leytem. Photo © T. Matteson

## Wells Creek Block Slide by Teresa Matteson

For an awe-inspiring view of rock, soil and gravity, we ended the tour near Scottsburg, three miles up Wells Creek. There, Dale Stewart, BLM soil scientist, ushered tourists onto the road-blocking slide debris for a down-toearth view of what happens when a mountain side shifts and falls. Upright with roots in an island of soil, small groves of trees were displaced several hundred feet down slope; boulders were strewn like pebbles. The only travel across that paved, buried road was foot traffic.



Dale Stewart, left, points out landscape features while the group stands atop the debris. Photo  $\textcircled{}{}^{\odot}$  T. Matteson



Dale Stewart and Ed Horn, long lost soil comrades. Photo  $\circledast\, T.\,$  Matteson

## **EASTSIDE NOTES**

by Meghan Krueger, Eastside Director

#### "On a Mission"

A 400-mile week, dusty trousers, and fresh perspectives say the least about the eastern Oregon-far-out experience. Malheur County where the dust bowl revisits, crop dusters fly like there's no tomorrow. Where biking five miles to work amidst narrow gaps of enough daylight and too much wilderness, with prep equipment to carry during field season, feels like triumph.



Eastside Director, **Meghan Krueger**, sporting her dusty, black soil hat!



Malheur County Landscape (photo by Meghan Krueger)

Salts and a geologic source of arsenic taint the water in Vale. I often wonder if my health is being negatively affected. The city reports there are higher levels than preferred in the drinking water but the statement also says not to be alarmed. Reporting to duty at Station Vale, Oregon winter correlation and ArcMap digitizing festivities have begun.

I reminisce about the past six months spent intimately focused on landscapes, landforms, plant communities and soils; shovel and rock-bar in hand, maps in view and riding rocky off-roads with Range Specialist Charlie Tackman on a mission. Here's an overview.

We note and discuss changes in plant communities and landforms. We study the landscape and then chose a representative sample to begin site and soils documentation. The art of digging, for soils documentation, excavation difficulty and color changes begin the observation.

Carbonate and silica accumulations, duripans, argillic horizons, durinodes are all common features in Malheur County. Ashy loess mantles form epipedons at varying depths across most landforms. We consider site information containing dominant plants, slope and landforms. Then we apply Soil Taxonomy.

Tackman meanwhile gathers BLM range information such as condition and percentage of each plant type and the production potential. Experience leads to familiarity with common soils and ecological sites of Malheur County. Mollisols, Aridisols, Entisols and with various endoaquolls and torrifluvents have to be considered.

Loamy 8-10 inches, basin willow, dry floodplains, and sodic terrace ecological sites, for example, paint memories. While gaining familiarity with soils and sites common to the project, I read the current legend and compare or ask questions.

Challenges, trials, sweat and maybe even tears have presented themselves over the course of my two field seasons on this project. There are starving children in the world to feed and federal and private lands to conserve. Gaining a firm foundation in soils and contributing to the greater good is what I'm about.

In the Spring Sharpshooter issue I alluded to field season being as exciting as seeing Monarch butterflies. By the end of field season and countless 200 mile trips to Mcdermitt for the week, on the Nevada state line, it feels like the butterflies journey to Canada and then back to Mexico. It takes multiple generations, obstacles to overcome and focus to contribute to the mission. It's worth it.

The golden hue of fall is here, the corn long since harvested and it's my first week in the office since May. The ecological sites and soils legend forms cartoons for thoughts. Images of the Owyhee canyon by starlight with echoes from a singing owl penetrate my existence, memories that can't be bought.

My brain after six months of field work:

"Gee, look at the wild rose and willow in this site and the organic rich soil accumulating in this fluvial system."

## **MEMBER SPOTLIGHT (PART 2)**

#### ~ Matthew Fillmore ~

We are pleased to feature this year a spotlight of Matthew Fillmore, recently retired NRCS soil scientist, long time OSSS member, and a distinguished member of the "Million-Acre Club"—a group of individuals that have soil mapped 1,000,000 plus acres. This is the second part of a two-part story (see Summer 2013 issue of the Sharpshooter for Part 1).

In his own words, here is Matthew Fillmore:



Matthew describing and sampling a Tolovana soil (Medial over loamy, ferrihydritic over isotic, isomesic Typic Fulvudands) in the Cascade Head Experimental Forest, Tillamook County, Oregon

#### What were my jobs with Soil Conservation Service/Natural Resources Conservation Service?

In January 1977, I accepted a position with the Soil Conservation Service (SCS), later to be renamed the Natural Resources Conservation Service (NRCS), as a soil scientist working in Linn County. Russ Langridge became the Project Leader in 1978 and began introducing me to many people who would eventually influence my career, including himself. I met Doc Parsons, George Green, Frank Reckendorf, and Herb Huddleston through my association with Russ. All of these exceptional soil scientists really piqued my interest in soil genesis and morphology showing how geomorphology helps us understand the soil-landscape relationships we are trying to map. This knowledge enables us to make better soil maps. These early encounters led to a number of careerlong research interests including soil survey and mapping, geomorphology, and forest soils.

The field work in Linn County was completed in 1982 and I was transferred to Baker County the following summer. Working in northeastern Oregon was truly a wonderful experience. There weren't many soil scientists on that side of the state, so there were a number of opportunities to become involved in a variety of projects and to see a lot of wide-open country with very few people. Working on the National Resources Inventory (NRI) back then was great! We finished the fieldwork in Baker County in 1987 and I applied for the vacant Soil Survey Project Leader position for the Curry County Area survey on the southwest coast (Gold Beach) and was selected. This was my first supervisory position in addition to being responsible for the classification and mapping of all soils within the survey area. Initially this was a project to update older mapping that was done broadly and needed revision.

Within two years the Siskiyou National Forest (NF) had expressed interest in a collaborative survey effort, and became a major cooperator. The entire county was now the survey area, including all the wilderness areas in the Siskiyou NF. Fortunately I had an outstanding staff and a great working relationship with the federal partners, especially the Forest Service. Ed Gross, Forest Soil Scientist for the Siskiyou NF, was located in Brookings and was such a blessing. With his help, and the assistance from several other discipline managers on the forest, we were able to accomplish all of the multi-agency goals developed for this survey project. We had a lot of fun doing it yet all the while learning how this unique part of Oregon is put together from the ground up.

The Curry County Area Soil Survey allowed me an opportunity to learn from Frank Reckendorf and his fieldwork experiences with coastal soil-landscape relationships as we began investigating the sequence of marine terraces along the southern Oregon coast, and ultimately being able to correlate the terrace sequence there to similar landscapes along the central and northern Oregon coast as was done with the completion of the Tillamook County soil survey. It also afforded me an opportunity to collaborate with Duane Lammers, Region 6 Soil Correlator for the US Forest Service, on geomorphic relationships occurring on forested mountain landscapes, a large portion of which turned out to be accreted terranes from other parts of the world. Professionally, the Curry County project was the best experience of my career thanks to several great people. The fieldwork for the Curry survey was completed in 1994 and I was transferred back into the Willamette Valley to update the out-of-date Benton County Area survey.

Through a cooperative effort led by Herb Huddleston at OSU, and Jerry Latshaw, then SCS State Soil Scientist, the Benton survey office was located on the OSU campus in the Soils Department. This was the beginning of a long string of collaborative ventures with many others that lasted until my retirement. In addition to soil survey activities of the Benton update project and conservation education activities organized through local school and Soil and Water Conservation Districts, the Benton survey staff was able to assist Herb Huddleston annually with the Future Farmers of America State High School Soil Judging contest held in various spots around Oregon. What a wonderful opportunity and experience this was! It led to another adventure assisting Herb with field assistance he was providing Anthropologist Dr. Roberta Hall regarding cultural resource investigations (if memory serves me right, I think Dr. Hall made a presentation at an OSSS annual meeting in Newport some years ago about this work). When Herb's schedule began filling up and didn't allow him much travel time, I began working with Dr. Hall and her students, first down around Coquille since I knew something about the soils, and then down into my old stomping grounds in Curry County around Cape Blanco. When Dr. Hall retired, an opportunity arose to work with Dr. Loren Davis and some of his grad students (also in Curry County) to investigate possible cultural sightings associated with migratory settlement patterns along the Oregon coast during the Late Pleistocene. Most recently I've had an opportunity to work with Dr. Mark Johnson from the EPA Lab in Corvallis - first with research in ecosystem services and carbon sequestration, and then with assessing the accuracy of soil carbon inventories in forested watersheds by comparing conventional and advanced methodologies to measure the carbon stocks. The fieldwork for the Benton County update was completed in 2003 and the Soils office was relocated to Tangent where the Benton County soil manuscript was developed and submitted in 2004.

From 2004 to 2007 I worked on several field investigation projects mainly in the Coast Range and one project in the Cascades (evaluating the Soil Resource Inventory mapping on the Willamette NF within the HJ Andrews Experimental Forest in order to determine what would be needed to bring that work up to National Cooperative Soil Survey (NCSS) standards). In 2005 I was assigned the responsibility of completing the Tillamook County manuscript and database population when the Project Leader retired. Not having mapped an acre in that survey area made this a somewhat challenging task, but fortunately that individual was a great help to me in completing that project later on.

In 2007 I was transferred to Salem as NRCS Oregon prepared to reorganize its soil survey offices into the new MLRA Office alignment. In 2008 I applied for the Soils Office Leader position in Salem and was selected. This was another supervisory position with the area of responsibility essentially being all of western Oregon except for Jackson, Josephine and interior portions of Curry and Douglas counties. The office is responsible for the

classification, correlation and mapping of all soils within the area. Along with that go all the spatial and tabular database responsibilities as well.

Two projects in the area are currently ongoing or nearing completion: (1) the update of the Willamette Valley portion of Yamhill County should be completed in 2013; and (2) beginning in FY 2011 NRCS Oregon initiated a Terrestrial Ecological Unit Inventory (TEUI) mapping project/ initial soil survey project on the Willamette National Forest (OR657) in Oregon. This is the first such soils inventory on the western slope of the Cascade Mountain Range, which is dominated by federal lands.

The purpose of this project in the Willamette National Forest is to provide integrated resource information needed to manage the physical and biological components of landscapes. Cooperating agencies include the Forest Service, the Natural Resources Conservation Service, and the Western Ecology Division of the Environmental Protection Agency. FY 2011/2012 involved sampling representative parent materials, landforms, climatic zones and vegetation types in addition to establishing soil moisture/temperature transects across the northern and southern parts of the forest. FY2012 was the first year of initial mapping in the forest.

#### How did I become involved with OSSS?

In the late 1980s I was asked if I'd consider running for the Westside Director of OSSS. I said yes, and after that was finished, I was approached to run for OSSS President. I again said yes, which involved the commitment to a year as Vice President, the year as President in 1991, and then a year as Past President where you are the head of the nominating committee for open positions. The year I was President we had the summer tour down in Curry County looking at forest management issues one day and then discussing the marine terrace sequence along the coast near Cape Blanco looking at several representative soils on each terrace level. This area is, once again, where the OSSS summer tour was down that way looking at some very different issues.

#### Do you have any interesting stories about soils?

Having spent my career in the field mapping soils, I've seen quite a few interesting soil profiles in places I still can't explain to this day; their genesis and morphology just stumped me. Like a lot of soil scientists who spent their careers mapping soils (especially those of us who worked in the West where there was a lot of unmapped lands), one of the things I'm most proud of was being able to map over a million acres during my career in Oregon. Several current or former members of OSSS have accomplished the same feat, and we all know that's a lot of holes dug! The other achievement I'm proud of is having been a trainer of many young soil scientists just getting started in their careers. A little guidance and direction, some practical field experience, lots of words of encouragement and then knowing when to step back and give them enough rope to either get themselves all tangled up or go lasso the moon. Most of them were motivated enough to use the rope wisely. It's a real pleasure to see what they've done with their lives and careers today and know that in some small way I helped them.



Chad McGrath presenting Matthew with the Million Acre Club certificate

One soil story that comes to mind has to do with the naming of a new series while I was mapping out in the Unity Basin in Baker County. The soil that I wanted to show on the Progress Field Review that year was a shallow to a duripan, clayey-skeletal, well-drained soil in a frigid temperature regime on old, high Pleistocene terraces and adjacent fans that had a pale- or abruptic feature to the argillic horizon. It was a really lousy soil dominated by stiff sage and lots of cobbles on the surface. The type location was located near the West Fork of Camp Creek so I named the soil Westfork, organized all the documentation materials and showed the soil on the review to Thor Thorson who was then Oregon's Correlator. Thor looked at it and agreed it was a new soil series based on its mapping extent and tentative classification. So he went back to Portland after the review and started to process the Progress Review report. He discovered a problem, the name Westfork was already being used somewhere else, so like every good Correlator he tried to keep semblance and order to the progressive legend and classification table by keeping the tentatively named Westfork in the "W's"; but he couldn't find another usable name beginning with W on the USGS quad where the pedon was located. So he searched for other names beginning with W that could work. Jerry Latshaw was Oregon's State Soil Scientist at the time, and the next thing I know is my new soil has been renamed Wahstal (Latshaw spelled backwards) and now I had to put my name on the Official Series Description as the author! I can't remember how long it was before Jerry caught onto the deal, but I'm pretty sure it wasn't right away. I think we even had a ball cap embroidered with WAHSTAL on it to give Jerry at his retirement party. The eventual classification of this soil was clayey-skeletal, smectitic, frigid, shallow Palexerollic Durixerolls. Those of you who know your Soil Taxonomy can understand what a \*& #@!^=%\* soil this really is!

When I was in high school I spent most of my time in wood shop and acquired a love for making or refinishing furniture. I've got a list of projects to start on whenever I can find some spare time! While I was going to school at OSU a bunch of friends and I started playing together on a softball team; 38 years later we're still playing (though nowhere nearly as competitive as we were). My wife Elaine and I like to travel, and we've already got a couple junkets planned for the future. She inherited a small cabin and a couple acres on the Canadian border in an eastern Washington ghost town, and we try and get up there a couple times a year or so to make sure the tumbleweeds aren't creating a fire hazard. I always wondered how the retired friends I talked with were busier after retirement than when they were gainfully employed, and now I understand.

I truly enjoyed my 37 years working for the SCS/NRCS, getting paid for playing in the dirt, drawing anything but straight lines on maps and writing about what I did. I can't think of a career that I would have enjoyed more. The opportunity to see how a lot of Oregon is put together from the ground up was very rewarding, but the really wonderful people that I had a chance to know or work with and learn from over my career is truly what I'll remember the most.

I do plan to stay involved with the soil science profession by continuing my membership in the Oregon Society of Soil Scientists (OSSS), Soil Science Society of America (SSSA), maintaining my Professional Soil Scientist certification, and volunteering at the NRCS Tangent Field Office. I hope to see you at one of the next OSSS meetings.

Happy Trails!

## DATES TO REMEMBER



November 3-6, 2013, Tampa, Florida, Joint ASA, CSSA & SSSA International Annual Meetings

January 2014, Organic Training for Agricultural Professionals

Jan 7-8 Salem, Oregon Jan 23-24 Medford, Oregon Jan 27-28 Pendleton, Oregon Jan 30-31 Redmond, Oregon

February 12-13, 2014, Mount Vernon, Washington, Soil Quality Network 2014 Washington State University, Northwestern Washington Research and Extension Center

February 27-28, 2014, Bend, Oregon, OSSS 2014 Winter Meeting, Earth, Fire, Water: The Crooked River Caldera

Old St. Francis School 700 N.W. Bond Street Bend, OR

Meeting registration opens in December, <u>http://www.oregonsoils.org/</u> Make your lodging reservations now! <u>http://www.mcmenamins.com/OldStFrancis</u>

(877) 661-4228

May 1, 2014 - Mar 31, 2015, Sacramento, California "Dig it! The Secrets of Soil" The California Museum 1020 O Street Sacramento, CA

The 4,000-square foot exhibition reveals the complex world of soil and how this underfoot ecosystem supports nearly every form of life on earth. Developed by the Smithsonian's National Museum of Natural History with support from SSSA, "Dig It!" includes interactive displays, hands-on models, videos, and 54 soil monoliths representing soils from all over the U.S. and including a Jory from Oregon. Contact: Amanda Meeker, 916-653-0399 email: <a href="mailto:ameeker@californiamuseum.org">ameeker@californiamuseum.org</a> website: <a href="mailto:www.CaliforniaMuseum.org">www.CaliforniaMuseum.org</a>

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USDA ORGANIC	ORGA BRAIN FOR AGRICULTURAL F	NIC NIC NOFESSIONALS
raining Agenda includer:	January 7-8 January 23-24 January 27-28	Salem Medford Pendleton
Implementation of nutrient management (590); cover crops (340); buffers on organic operations NRCS pest management assistance for organic operations	January 30-31 For questions or regist contact Ben Bowell, Organic Benjamin.Bowell@por.usd	Redmond ration information, Conservation Specialist, la.gov, 503-580-4767
Resources on working producers A farm field visit and case study	Register September 22	r by 7th, 2013
USDA ONRCS United States Department of Agriculture Natural Resources Conservation Service	These trainings are a collabora NRCS, Oregon Tilth, Northwest Pesticides, NCAT-ATTRA, and Or	tive effort between USDA Center for Alternatives to regon State University with

nla

NCAT

National Center

REGO TILTH

for Appropriate Technology

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NRCS, Oregon Tilth, Northwest Center for Alternatives to Pesticides, NCAT-ATTRA, and Oregon State University with funding provided by the Western Sustainable Agriculture Research and Education Program (WSARE).

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**Oregon State** 

# OSSS is looking for... A FEW GOOD MENTORS

The idea behind this year's mentoring program is to pair together students and mentors based upon shared career paths and experiences.

Here's how it'll work: Students will apply for a chance to be develop a stronger, more focused interaction with a mentor who can really provide insight into the professional world. Once selected, both mentors and mentees will be encouraged to exchange emails prior to the meeting to help break the ice. During the meeting, mentees will in a sense "shadow" the mentor as a way to develop a sense for the art of conference networking. Once the meeting is over, mentors and mentees will have established a foundation for future connections while adding to the deeper sense of camaraderie OSSS is known to embody.

So, if you or anyone you know would be interested in participating in the beta edition of the 2014 OSSS Student Mentorship Program, please feel free to contact your local student liaisons Kat Bernard (katbernard@gmail.com) or Gabby Coughlin (mollysol7.5@gmail.com) by December 1st.

We look forward to hearing from you!

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#### Sharpshooter

The *Sharpshooter* is the official newsletter distributed to the members of the Oregon Society of Soil Scientists. Published quarterly by the Oregon Society of Soil Scientists. Send address changes or inquiries about membership to:

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All articles and advertisements submitted are subject to room available basis.

#### **News items**

Remember all articles submitted to the Sharpshooter can be emailed to the Sharpshooter editor (see below) in most any text, http, or word processing format. Pictures are best in 300 dpi jpg format.

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