



VOL. XXVI, NO. 3
SUMMER 2013

What's Inside This Issue:

- President's Message
- 2013 Summer Tour Itinerary and Registration
- Eastside Notes
- Member Spotlight
- Students' Corner
- Dates to Remember

PRESIDENT'S MESSAGE

by Teresa Matteson



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

Ahoy, thrill seekers! Gather your favorite profile-probing tools, binoculars, hiking boots, sun screen, rain clothes, and assorted camp gear for the 2013 OSSS Summer Tour, August 1-3. We will caravan over 500 miles (round trip) to discover Oregon treasures hidden amongst ancient marine terraces and beyond.

With an early start (7:30 AM) Thursday morning, we'll launch from Corvallis on August 1 and take the back roads westward to Florence. After a pit stop, we'll drive south along the coast to Bullards Beach for a tour of the State Park's new wastewater treatment system and lunch—not at the same time!

Next, a visit to Sea Wind Cranberry Farm hosted by farm manager, Knute (pronounce the K) Andersson (2*s), and Dr. Markus Kleber will lead our exploration of a unique spodosol. We'll pitch camp at Cape Blanco State Park, eat supper, and then hike to magnificent Blacklock Point for sunset.

Friday, August 2, we'll make our way south to the "Wild and Scenic" Rogue River in search of serpentine ultramafic soils, earthflows, and giant Sequoias. Quosatana Campground will be home base for this full day of steep sloped exploration.

Saturday, August 3, we'll backtrack Hwy. 101 to search for marine fossils at Cape Arago State Park. On to Reedsport, we'll veer east on Hwy. 38 to view Roosevelt elk at Dean Creek. The final soil exploration and catalyst for interesting chatter will be the Wells Creek block slide near Scottsburg.

Please see the enclosed itinerary on page 2.

Support soil. Do the trip.

PLAN IN ADVANCE! The 2014 Winter Meeting will cover interesting terrain in central Oregon! Join us February 27 and 28, 2014 to ponder **Earth, Fire and Water** and explore the recently identified Crooked River Caldera. The OSSS Board's collective energy helps to plan these events! What a fantastic team! I am honored to participate!!!

OSSS Summer Tour: Secrets of the Soil – Southern Oregon Coast August 1 -3, 2013! Additional secrets – TBD

Date	Arrive	Depart	Where/When	What - Meals	Who	Directions
Thursday August 1	7 am	7:30 am	Meet at OSU	Corvallis Van Pool	Join the caravan	
	9:30 am	10:00 am	Florence	Pit stop		Port of Siuslaw Marina
	12 Noon	12:45 pm	Bullards Beach	Lunch – bring your own		
	1 pm tour	2:30 pm	Bullards Beach	Wastewater System Tour	Brian Rabe Ben Fisher	56487 Bullards Beach Rd 541-260-5534
	3 pm tour	5:00 pm	Sea Wind Farm	cranberry production spodosol and ultisol	Knute Andersson 541-297-1329 Markus Kleber	46532 Highway 101 Langlois
	5:30 pm		Cape Blanco St Pk	Set up camp Hot dinner by OSSS	Group camp RESERVED!	91814 Cape Blanco Rd, Port Orford
	7:30 pm		Blacklock Point	Beach hike Sunset 8:38 PM	flashlights	Cape Blanco State Airport. Drive to road's end.
Friday August 2	7 am	8:30 am	Port & Starboard 541-332-4515	Breakfast – your dime	Port Orford 7a-10p	460 Madrona St
	10 am	All-day field exploration	Bill Moore Creek	Massive earthflows Lunch – bring your own	Maggie McHugh	
	12 Noon		Hunter Creek Bog	Experience Jans Yenny's serpentine syndrome	<i>Darlingtonia californica</i>	
	4 pm		Quosatana Campground	"Wild and Scenic" Rogue River – Hot dinner by OSSS	Group camp site	14 miles east of Gold Beach
	6 pm		F Shrader Trail	Climax old growth	flashlights	Rd 060; 1 m hike
Saturday August 3	7 am	8:30 am	Indian Creek Cafe 541-247-0680	Breakfast – your dime	Gold Beach 5:30a-2p	94682 Jerrys Flat Rd.
	11 am	12 Noon	Cape Arago St Pk	Fossil Scavenger Hunt	binoculars	seals, sea lions, birds
	1 pm	2 pm	Dean Creek	Elk viewing Lunch – bring your own	binoculars	Reedsport E Hwy 38 - 8 m
	2:30 pm	3:30 pm	Scottsburg	Wells Creek block slide	Dale Stewart 541-751-4420	3 m up Wells Cr.
	6 pm	Done!	I-5 north	Corvallis		

Please check the OSSS website for the latest updates and changes! <http://www.oregonsoils.org/>

See page 4 for the registration form!

EASTSIDE NOTES

by Meghan Krueger, Eastside Director

"We Can Do It!"

Big thanks to my mentor Charlie Tackman for explaining the working relationships between Soil and Vegetation Specialists on initial Soil Survey. (See the Sharpshooter Spring 2013 issue where Charlie noted his concern about the knowledge of soil/plant relationships being lost as new employees enter the agencies and as experienced folks like himself retire.)

Fair enough. It's taken a career to taste nature's ecological dynamics.



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

"Blue bunch wheatgrass for example doesn't tolerate more than 16 inches of precipitation, whereas Idaho fescue survives."

"In the 4.54 billion years the Earth has been around, there's a lot to understand, but my generation is curious. Cheers to everyone who has been involved with OSSS over the years. We would be lost without our mentors. Hearing stories about life as a soil scientist (or the like), about the geomorphology of Oregon, seeing paintings made of soil, learning about clay minerals or Iron and manganese this is what inspires my generation."

...From Lincoln, Nebraska, while at Basic Soil Survey Training!

MEMBER SPOTLIGHT (PART 1)

~ 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. In this first part of the spotlight, you'll learn about his early years and interests up to his education at OSU. In the fall issue Matthew will share highlights of his long and interesting career soil mapping Oregon, and summarizes his place in the history of Oregon soil survey.

In his own words, here is Matthew Fillmore:

Hi, my name is Matthew Fillmore and many of you know me as a long-time member and previous office(s) holder in the Oregon Society of Soil Scientists (OSSS). I have spent my entire 37-year career working in Oregon as a Field Soil Scientist, a Soil Survey Project Leader, and, most recently, a Major Land Resource Area (MLRA) Soils Office Leader (Salem). I retired from the position in Salem on January 3, 2013.

I was born in North Little Rock, Arkansas and spent the early years of my life growing up in Cameron, Texas, in the heart of the Blackland Prairie region and that "special" Vertisol soil named Houston Black. My Dad re-enlisted in the military before I started first grade and we began the nomadic lifestyle known to so many service families from our generation. We lived in Idaho, Kansas, Mississippi, Italy, California twice, Texas, Arkansas, Alaska, and New Jersey before finally retiring to Portland where I graduated from high school in 1971.



I've always been interested in science and nature, so I went to Mt. Hood Community College for two years to complete the necessary transfer course work for all of the science-related disciplines that I could imagine at the time, and then transferred to Oregon State University (OSU) in the fall of 1973 with the intent of becoming a wildlife biologist. I realized by the end of my junior year that to get ANY job in my chosen field would require an advanced degree (and back then this wasn't something I really wanted to do) so I began looking around within the College of Agriculture for another discipline that would accept most of my undergraduate credits, and I found the Soil Science Dept. and its curriculum. After talking with Jerry Kling (then the undergrad advisor) and learning that all I would really need to do was take a couple additional terms of upper division Soils courses and I could qualify for a Soils degree, I decided to pursue both Bachelor of Science degrees. I thought I could perhaps utilize soils and land use from a perspective of wildlife habitat management to begin my career instead of the

(continued on page 5)

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

OSSS 2013 Summer Tour
Secrets of the Soil: Southern Oregon Coast
Thursday, August 1 – Saturday, August 3
\$60/person

- *Ride – van pool or cars as needed – gas donations accepted.*
- *Tour – wastewater treatment system and cranberry bog.*
- *Hike – Blacklock Point, Frances Shrader Memorial Trail.*
- *Eat – you bring breakfast and lunch; we'll provide dinner; bring your mess kit!*
- *Camp – bring your own gear! Cape Blanco State Park (Aug 1); Campground (Aug 2).*
- *Dig – spodosol, ultisol, ultramafic soils, and more.*
- *Probe – profile after profile.*
- *Hunt – fossils, earthflows, carnivorous plants.*
- *Ogle – sunsets, sea lions, seals, birds, Roosevelt elk.*
- *Ponder – the wonders of soil!!!*

Register Early - by July 18, 2013 - \$60/person

Late - \$70/person

**Register and pay online at <http://www.oregonsoils.org/>
or mail check to OSSS, PO Box 391, Corvallis, OR 97339
with the following:**

Name	
Address	
City, State, Zip	
Phone	
Zip	
Van?	Yes or No?

Questions, comments or suggestions? Call 541-840-3616 or email tmatt0@rtdata.com

Ride, tour, hike, eat, camp, dig, probe, hunt, ogle, ponder! - For soils' sake!



John Muir Laws
©
<http://www.johnmuirlaws.com/>
Darlingtonia californica

MEMBER SPOTLIGHT (PART 1) (CONT.)

dominant emphasis of managing wildlife populations that was prevalent at the time. I graduated in June of 1976 with dual degrees (back in those days the diploma read B.S. in Soil Science). I can still remember sitting in a class (Soils and Land Use) spring term of my senior year listening to a young, newly-hired professor in the Soils Department from back east/midwest who was guest lecturing for this course since his own teaching schedule hadn't been fully developed yet. That young professor was Herb Huddleston, and at the time I couldn't imagine how much of an impact Herb would have on my career.

To be continued...

You can find out more about Matthew and his long career as a soil scientist in the second part of this Member Spotlight in the Fall 2013 Sharpshooter.

STUDENTS' CORNER

by Gabby Coughlin

In the last year or two of soils classes and soil judging I have had the great pleasure of getting to know **Leanna VanSlambrook**. When she's not nerding-out on all things food, soils, or lichens you will most likely find her rabble-rousing at the nearest derby match or soccer game. Below are some topics of conversation you might use the next time you run into her.

So I guess we'll start of with a little bit about you. Where do you call home? How long have you been in Oregon? I guess I will claim Memphis, TN, as home and I moved out to Oregon about six years ago.

Coming from the heartland of home cooking, what is your favorite Southern dish? Anything Cajun: jambalaya, true red beans and rice, gumbo WITH okra (otherwise it's not gumbo), fried chicken and gravy, grits, anything fried...

What about your favorite childhood memory? There was ditch behind my house about 4 ½ feet tall that we could walk underneath the whole town and pop up through little manholes and sewer-ways and scare little kids playing basketball. When it rained we would slide down the algae coated ditch walls, just getting all kinds of nastiness on us. It wasn't sewer sludge or anything but it wasn't the freshest smelling stuff...looking back, that's probably why I have such a good immune system. *(Laughs)*

And possibly be even part Teenage Mutant Ninja Turtle? Haha. Yes! We totally were Ninja Turtles! We used to joke about that and call ourselves the Ninja Turtles. This was also during the time the movie "It" came out so we were all afraid Pennywise would be lurking down in the tunnels. It could get kind of scary down there...

What is the most fascinating aspect of soils to you? The diversity. The geology. The ecology. The unscrambling of all the puzzle pieces that when put together will give you a big-picture understanding of what we're looking at and why we would expect soils to be in certain areas.

Which class at OSU has been the most interesting and/or most beneficial to you? Definitely Markus's (Kleber) Soil Resource Potentials class, because in there we would do a full profile description and run bulk density and C:N samples to be analyzed in the lab. We'd then enter data into different spreadsheets that allowed us to calculate things like CEC, pH, available water holding capacity that we could then use to decide if the site was better suited for things like blueberries or Douglas-fir. The class really helped tie together all of our soils classes and calibrate what we'd see in the soil pits to tangible management decisions.

Did you have any jobs while going to school that allowed you to make use of your soils background? Yeah, so I began working for the Army Corps of Engineers as a Plant Materials Specialist outside of Eugene in 2010. Aside from taking an introduction botany class I knew almost nothing about growing things before I was in charge of identifying over 100 different native plant species and propagating them from seed and planting them. It was quite the learning curve. During that time I would also help with outreach, teaching kids about plants or running volunteer and sheriff crews on different restoration projects, all of which helped me realize how important

it is to lead through action. I knew I wouldn't be able to convince them that this was an important project unless I was working alongside them. It really helped everyone stay engaged in the task at hand.

Did this ability to lead by example help when you were captain of the Sicktown Roller Derby team?

Totally. This also helped me identify and highlight peoples' strong points.

Where do you see your degree in soils and a minor in botany taking you in the future? Something involving smart, thorough restoration projects that consider plants and soils in tandem. Most botanists have an image of what an ideal plant community should look like but sometimes they don't have the right soils to sustain that community and end up planting it anyways and that leads to some of the projects failing. And the same can be said for soils people who don't know the physiological mechanisms for healthy plant growth. You've got to know both sides of the coin.

What are your plans after graduation? I will be working for the Nez Perce National Forest as a soils technician helping in ecological assessments of pre- and post-timber harvests. Once that position ends in October I hope to be working for the Food Corps implementing farm-to-school programs, educating kids and families about the importance of healthy, home grown food. Although, the AmeriCorps funding might not be available for some of the positions that I have applied for, so we shall see. There's a lot of work to be done to get communities thinking differently about their food—where it comes from and how soils play a vital role. And I want to do something for those communities now before we have another generation of children who don't know where their food comes from or even what fresh food tastes like.

And then the last 30 minutes of the interview turned into a heady foodie discussion about how kids these days should really like green beans and Brussels sprouts because they are amazing, even when they're not fried or cooked in an appreciable amount of bacon grease.

Oh, and for the record, her favorite Ninja Turtle was Leonardo.

DATES TO REMEMBER



July 21-24, 2013: Reno, NV. The 68th Soil and Water Conservation Society's International Annual Conference: Resilient Landscapes: Planning for Flood, Drought and Fire. Many sessions, educational and networking opportunities, three educational tours. For more information visit http://www.swcs.org/en/conferences/2013_annual_conference/

Take advantage of discounted hotel rates offered three days pre- and post-conference. Stay and play!

July 25-26, 2013: Washington Society of Professional Soil Scientists Summer Tour, WSU Research facility in Puyallup, WA. Low Impact Development Techniques and Technologies. Check out their events page for the latest information: http://www.ieway.com/wspss/wspss_events.html

August 1-3, 2013: OSSS Summer Tour: Secrets of the Soil

We will explore southern Oregon Coast soils to unearth secrets of unique parent materials, current research projects, historical relics, agricultural production, and more. Ride the Corvallis van pool or join us along the route. Overnight camp sites near Port Orford (August 1) and Gold Beach (August 2). Many stops will require 1-2 mile hikes to access secrets off the beaten path.

November 3-6, 2013: ASA-CSSA-SSSA Annual Meetings in Tampa – And you don't even have to be in Tampa! The ACS Annual Meetings will be held in Tampa, FL, on November 3-6, 2013. The Soil Science Society of America and American Society of Agronomy will hold two days of special sessions focused on the practicing professional on Monday, November 4 and Tuesday, November 5. While these special sessions will be held in Tampa, professionals will be able to access the live sessions of their choice via the internet and will be able to earn CEUs for the sessions attended. More information coming soon! <https://www.acsmeetings.org/>

February 27-28, 2014: OSSS 2014 Winter Meeting "Earth, Fire, Water": Explore the geologic anomalies of Oregon's Super Volcano and see how it affects soils, groundwater quality, and land management decisions in Central Oregon. Location: Old St. Frances School, Bend, OR. Field Tour: Crooked River Caldera. Reserve your room or cabin today! Call McMenamins' Old St. Frances School (877) 661-4228.

Remember all of these events are opportunities for continuing education credits!

Stevens Hydra Probe Soil Sensor

your solution for quality soil data



All-in-One Multi-Parameter Sensor

- Soil Moisture (WFV %)
- Soil Temperature
- Soil Electrical Conductivity
- Real Dielectric Permittivity
- Imaginary Dielectric Permittivity
- and many more!

Features of the Stevens Hydra Probe

- Excellent precision and accuracy
- Temperature corrected measurements
- Smart Sensor technology
- No calibration required for most soils
- SDI-12 or RS-485 signal output
- Measure temperature down to -10° F (-30° F probe option also available)

The most robust and consistent soil sensor ... *Guaranteed!*
5 year performance warranty

Over 100 universities, government agencies (USDA, USGS, NOAA, DOD, NASA), farms, vineyards and other companies rely on the Hydra Probe for quality data collection and analysis!

Other Soil Measurement Solutions from Stevens Water



The **NEW** Wi-Fi Enabled POGO Wireless Soil Sensor

The POGO enables manual soil readings to be taken quickly and easily. Use with your **Apple iPhone, iPad, or iPod Touch** (Android coming soon) to take readings wirelessly via Wi-Fi connection. Save collected soil data and email to anyone for further analysis.



Stevens pF Sensor

The Stevens pF Sensor is a matric potential probe that measures soil water potential using an innovative heat capacitance method. This makes the Stevens pF Sensor more accurate and provides high-accuracy readings even in dry or saline soils. Additionally, the sensor offers a measurement range of 10,000 bar, for a wider range of applications.



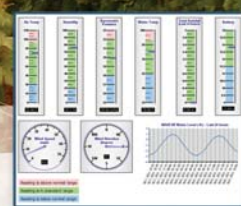
Data Loggers



Weather Sensors



Data Communication



Data Collection & Analysis

Tel: 800.452.5272

503.445.8000

Web: www.stevenswater.com

**Celebrating 100 Years of
History and Innovation
1911 - 2011**

Stevens®
Water Monitoring Systems, Inc.

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:

OSSS

P.O. Box 391
Corvallis, OR 97339

Website:

<http://www.oregonsoils.org/>

Advertisements

Reach more than a hundred soil science professionals with an advertisement in the *Sharpshooter*. And the price is right—whole page \$45, 1/2 page \$25, 1/4 page \$15, or 1/6 page \$10. All you need to do is provide a jpg file copy to the *Sharpshooter* editor by the deadline (first of the month – January, March, June, and November).

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.

Member rates

\$50.00	Regular Member
\$55.00	Sustaining Member
\$30.00	Student Member
\$500.00	Lifetime Member

E
X
E
C
U
T
I
V
E

B
O
A
R
D

President: Teresa Matteson

ph: 541-840-3616
email: tmatt0@rtdata.com

Vice President: Markus Kleber

ph: (541) 737-5718
email: markus.kleber@oregonstate.edu

Past President: James Cassidy

ph: (541) 737-6810
email: james.cassidy@oregonstate.edu

Secretary: Alicia Leytem

ph: (541) 908-0336
email: leytema@gmail.com

Treasurer: Ryan Stewart

ph: (541) 737-2291
email: ryestewart@yahoo.com

Student Liaison: Kathryn Barnard

Portland State University
email: katbarnard@gmail.com

Westside Director: Mark Fery

ph: (503) 399-5741, Ext. 107
email: siltyclayloam@gmail.com

Eastside Director: Meghan Krueger

ph: (541) 221-2667
email: meghan.krueger@or.usda.gov

Newsletter Editor: Andy Gallagher

ph: (541) 745-7878
email: avg@redhillsoil.com

Membership Directors: Alicia Leytem, Ryan Stewart

ph: (541) 908-0336, (541) 737-2291
email: leytema@gmail.com, ryestewart@yahoo.com

Publications Administrator: Tracy Mitzel

ph: (541) 737-5712
email: tracy.mitzel@oregonstate.edu

Student Liaison: Gabriella Coughlin

Oregon State University
email: coughlig@onid.orst.edu



OREGON SOCIETY OF SOIL SCIENTISTS
P.O. Box 391 • Corvallis, OR 97339