

# The Sharpshooter

## Oregon Society of Soil Scientists

AUGUST 2018—QUARTERLY NEWSLETTER



**SOIL!!! There's no alternative!**



### Summer Tour Registration details inside!

**Wallowas on the Lake! Sept. 10th-12th**

***Just added: Optional lodging before and after the tour***

#### President's Message,

Hey Folks! Hope you are all well and out there doing your thing for SOIL!!! I am in the thick of it farming the student farm and the crops are doing great! Our last CSA box had over 18 separate items in it! The soil provides! 13 interns are funded through the sale of these veggies—THANKS SOIL!!!

Looking forward to seeing all of you for the summer tour coming up soon! GET IT ON YOUR CALENDAR and register ASAP—September 10th—12th at the Wallowa Lake Camp Right on the lake! (hop onto the website NOW and register or, there is a paper registration form in this issue). This will be my first time in the Wallowa's so I am thrilled to get away from it all. I am really interested in the geologic history of the area so please tell me all about it! \$100 for members, \$75 for students! There's even van transportation from Corvallis if you need! (select on the registration forms)

For those of you driving long distances to get there (like most of us) we have **reserved the evening of Sunday the 9th** at the lodge for an addition \$44 which includes hot supper and breakfast the following morning. And because the official activities don't start until 1pm on the 10th, you can sleep in and enjoy putzing around the lodge! Nina and I will definitely be taking advantage of the leisurely drive over and sleeping in so join us for a Society Brown Russian or two!

As for the tour, we'll be hiking up on the GIANT glacial moraines, visiting some great prairie soils (with soil pits!) where they grow the barley for the Terminal Gravity Brewery near by (trying to arrange a tour still!), we'll also be visiting and talking about (and hopefully seeing) the spawning Kokanee salmon that reside in the lake., and a few surprises!



It all starts @ 1:00pm on Monday and we finish around 2 on Wednesday. Again, if you are driving long distances, we have **the lodge reserved for those who wish to stay Wednesday night** for an additional \$44 which is also available for those who are going on the Eagle Cap Wilderness Area Expedition for a 3 day MIND-BLOWING trek into even higher elevation—that trip is leaving Thursday morning and goes through most of the weekend. (see details elsewhere in this edition.) SEE YOU IN SEPTEMBER!!!! Don't miss it. James

# Eagle Cap Wilderness Backpacking Tour

Unofficial OSSS fun! Immediately following the Summer Tour!!!

**September 13th — 16th...Make a week of it!!!**

If you've traveled a long way across the State of Oregon to get to Wallowa Lake like most of us, then you may be interested in sticking around after the tour for an unofficial adventure into Oregon's largest wilderness area, the Eagle Cap Wilderness.

Your current Vice President, Sean Rochette will be organizing a **30 mile loop** backpacking trip to spend 3 nights exploring the Eagle Cap Wilderness Lakes Basin area. This trail will start near the South end of Wallowa Lake by going up the West Fork Wallowa River for about 6 miles before climbing up into an area covered by alpine lakes with an optional 4 mile side trip to summit Eagle Cap at 9,572 feet of elevation. The trip will begin the day after the OSSS Summer Tour ends so **make sure you add the extra Wednesday night lodging option to your registration.**

If you are ready for a real wilderness, mind-blowing adventure or want more information then email Sean at [sean.rochette@gmail.com](mailto:sean.rochette@gmail.com) no later than August 31st. You can also get more information about the lakes basin loop here: <https://www.mountaineers.org/activities/routes-places/eagle-cap-lakes-basin-loop-oregon>

**DO IT!!!**





# OSSS Strategic Retreat—a great success

## Next Level Strategizing – A Plan and a Tool

Shannon Andrews - Past

This past April, most of the OSSS Board of Directors, plus a couple of other engaged members participated in a “Strategic Retreat” to map out a course of action for the coming year with OSSS. Soil scientists like to have fun and many of us live by a “work hard, play hard” kind of motto. The weekend epitomized that motto as we got a huge amount accomplished and made time late-night for bonding.

We met at a beach house in Lincoln City on Friday after work and kicked off the weekend by playing a game we refer to as “Drunk on Power.” It is designed to teach people the proper way to use Roberts Rules of Order in a fun kind of way. While we became experts on the esoteric rules designed for larger and more precarious discussions, we learned that this is not the way we tend to manage our meetings or how we want to talk to each other.



Endlessly marveling at the beauty and mystery of a Spodosol.

On Saturday morning we started with a discussion on the age old questions regarding “Who is OSSS?” “What is OSSS?” “What does being part of OSSS mean for members?” Once we had a solid agreement on these answers we were able to come up with goals for the society for the year. Once we had our goals determined we discussed mechanisms and specific actions for how to accomplish these goals and addressed potential goals for the future. By Sunday morning we were able to put

together a tool called the “Strategic Calendar.”

All of the actions needed to accomplish our goals for the year are put into this Strategic Calendar so we can track our progress and make our monthly board meetings much more efficient. This helps us to know when we need to have decisions made, who needs to take actions when, and helps us arrange the agendas our Board of Director and Committee meetings.

One of our major goals is member engagement. We have since created a simple Google form that we want all of our members to fill out so we can gauge what you want out of OSSS and how you might be interested in participating. If you [fill out this form](#) and are a member ([update membership here](#)), we will give you a free spiffy new OSSS T-shirt at the next meeting you attend.

We encourage you to join us next year as Sean takes the reins. I bet we will make next year even better.



Burning all the notes after cataloging them in the calendar! It just seemed like the right thing to do...the Spodosol cave agreed.

## **Treasurer's Corner—It doesn't ALL come down to money...**

**FYI — Pam Keller is the current OSSS Treasurer (a Board of Directors position) and has been guiding and perfecting our economic security for a few years now. She has guided us through a number of tax issues and recently gained us our non-profit status. Along with Shannon Andrews (out-going President) Pam has been updating out bylaws to help them reflect how we actually run the society. But more than that, Pam is really great person and fun to work with - say hi to her next time you see her at a meeting and thank her for her terrific leadership.**

**From Pam:**

**In the last Sharpshooter I presented a summary of last year's income and expenses. The OSSS Board has developed a budget for this year (Fiscal Year 2018, 7/1/18 - 6/30/19). The Board will vote on the budget in August and is requesting review and comments from the membership.**

**A few notes: OSSS income and expenses can be divided into those associated with putting on events and those associated with general operations. The budget reflects this and groups expected income and expenses by "Summer Tour", "Winter Meeting", "Workshop" and "General Operations". Workshop is a new event starting this year. It is a one day event intended to provide technical training that qualifies for Continuing Education Units (CEUs). Annual operating expenses tend to be more fixed while event income and expenses are estimates based on best information and past experience. Event expenses are covered by registrations while regular operating expenses are covered by member dues.**

**The draft budget is found here: <http://www.oregonsoils.org/financial-report/>  
Comments may be sent to [oss.pres@gmail.com](mailto:oss.pres@gmail.com) or [oss.treasurer@gmail.com](mailto:oss.treasurer@gmail.com)**



## 2018 Soil Moisture Regime Investigation

Submitted by: Marissa Theve, Westside Director

On May 30th, USDA-Natural Resources Conservation Service (NRCS) staff, in partnership with The University of Idaho, installed a soil moisture monitoring station straddling the xeric/udic soil moisture regime boundary on a piece of land managed by the Bureau of Land Management.

NRCS soil survey staff Jason Martin, Brandi Baird, Taylor Cullum-Muyres excavated one location by hand to describe and characterize the site, and sample the soils for analysis at Kellogg National Soil Survey Lab in Lincoln, NE. This site was the third of five planned sites for the field office. At each site, three bulk density samples were collected from each horizon as well as three liters of bulk sample. Before backfilling, NRCS staff installed soil moisture sensing probes at depths corresponding to the soil moisture control section as described in Soil Taxonomy (Soil Survey Staff 1999). This particular pit classified as fine-loamy, isotic, mesic Typic Palehumult, with Apt (fine, isotic, mesic Typic Haplohumults) as the nearest soil series match. Soil temperature probes are placed at a depth of 50 centimeters. The probes will remain for two to four years to collect adequate data to verify or update the moisture regime.



Figure 1: soil clods dipped in saran, hanging to dry

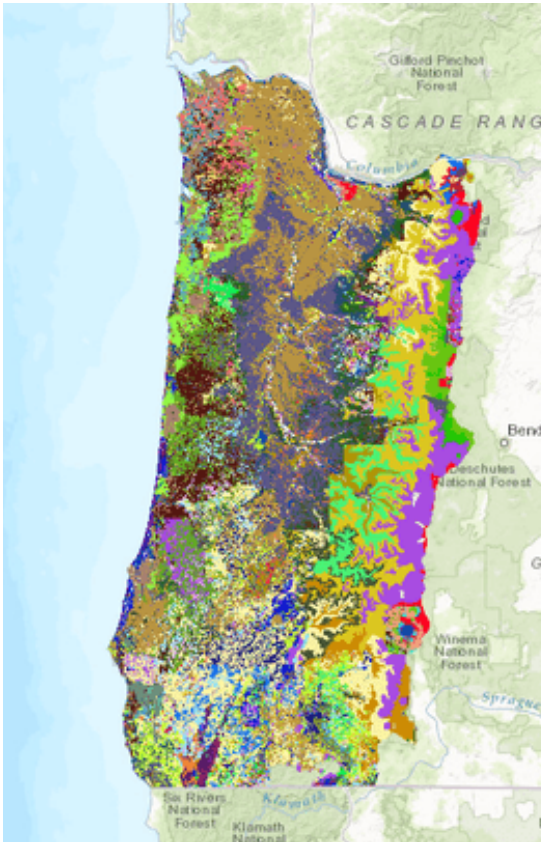


Figure 2: Soil Survey Office Leader Jason Martin checking the probe readings



## Southeast Alaska Adventures!!!

### Jennifer Fedenko—OSSS Student Liaison

Greetings Sharpshooter readers! In the summer of 2018, I had the opportunity to travel to Southeast Alaska to begin my MS research of soils with Dr. Rebecca Lybrand of Oregon State University. Vincent Geoffroy, a MS student from France who spent the summer working in Dr. Lybrand's pedology lab, joined me on this research trip. We met and worked with Dr. David D'Amore, a research soil scientist at the Pacific Northwest Research Station in Juneau, who gave us a tour of soils of the Juneau area.

The soils in Southeast Alaska are located in the perhumid subzone of the coastal temperate rainforest. As one might infer from the word, perhumid, water is of great significance to the ecosystem in the Alaska Panhandle. The mean annual rainfall in these forests range from 141 cm to 300 cm; it's not unusual to receive frequent rain showers in July, as I soon discovered! All of that rainfall allows an abundance of plant productivity and a steady supply of organic litter on the forest floor that decomposes slowly due to the cooler climate.



**Figure 1.** Fossilized clams from the Gastineau Channel Formation were found at the bottom of this very deep soil pit.

As we dug soil pits and collected samples, the influence of precipitation on the landscape and the soil was apparent by observing properties within the soil horizons, including podzolization. The metaphor of soil memory immediately came to mind as we dug soil pits on different landscape positions within the forests. I came across a lot of interesting soils (no Histosols on this trip, hopefully next time), including Spodosols, Entisols, and a yet to be identified soil containing fossils of clams that were originally deposited in saline waters between 9,500 and 12,000 yr BP. (**fig. 1 and 2**)



**Figure 2.** Fossils from the Gastineau Channel Formation. Other fossils previously discovered in the Gastineau Channel Formation in Juneau range from 9,500 yr BP to 12,000 yr BP.



**FYI!**



## Southeast Alaska Adventures Continued...

Jennifer Fedenko—OSSS Student Liaison



**Figure 3.** An example of one of many soils seen in the perhumid coastal rainforest.

The facilities at the Pacific Northwest Research Station in Juneau were stunning to see, the building is certified LEED Gold, with high-efficiency ground source heat pumps and a heat recovering ventilation system. The exterior house posts that adorn the entrance to the building, Eagle and Raven, were carved by a Tlingit carver. I learned so much about soil and landscape relationships in

On a day off, Vincent and I took the opportunity to take a tour on a 65-foot clipper ship that traveled along the Tracy Arm Fjord. I marveled at the ephemeral beauty of the South Sawyer Glacier as it calved right in front of my eyes, dropping blue ice into the water, the glacier continuously undergoing change. Everyone aboard the clipper ship waited in anticipation of the next calving of ice, dropping into the placid fjord, with the sound traveling off the granite cliffs, into the beyond. As the ship traveled down the fjord on an unusually sunny and warm afternoon, a variety of Alaska wildlife that I had not seen before was visible from the vessel: bald eagles, ravens, mountain goats, bears, whales, and harbor seals.



**Figure 4.** Waterfalls and granite cliffs along the Tracy Arm Fjord.



**Figure 5.** The tidewater South Sawyer Glacier at the head of the Tracy Arm Fjord. The glacier calved several times as the ship floated at the mouth of the fjord.

this unique ecosystem during this trip. The opportunity to not only learn about Alaska's coastal rainforest via researching published literature but also being able to view the landscape and see the soils in person was incredibly enriching and insightful for the beginning steps of my research. I cannot wait to continue this project come fall, at Oregon State University!

Jennifer Fedenko

OSU MS Student SOIL



# 2018 OSSS SUMMER TOUR REGISTRATION

## Wallowa\$ on the lake!!!

**When:** Monday September 10th – Wednesday the 12th

**Where:** Wallowa Lake Camp 84522 Church Lane, Joseph OR

**Who:** OSSS Members, Students, and Non-members!

**Why:** Soil, Lodge-living, & their doing the cooking!!!

### Attractions to consume!

- Giant Glacial Moraines! – Starts at 1:00pm
- Terrior of Barley and Brewing
- Zumwalt Prairie - prairie soil pits, grazed & never grazed!
- View spawning kokanee salmon!
- MIND-BLOWING Mountain Views
- Lake Wallowa!!! – bring your swim suit!
- All meals included!!! Breakfast, Lunch, & Dinner!!!
- Van transportation provided! ...or drive yourself if you want!!!
- \$100 for Members (\$75 for Students)

Complete itinerary with  
presenters, soils data  
package, and more on  
the website! Be there!

Come spend a few days seeing the grandeur of the Wallowas in the comfort of the lodge on the lake! Big old church camp with semi-private bunk rooms and THEIR DOING THE COOKING!!!

All we have to do is see great stuff, hang out and enjoy life!!! GREAT PRICE!!! Traveling long distances? Add the Sunday Night for another \$44 (includes supper, breakfast, and sleep in!)

Going on the Eagle Cap Wilderness Expedition Sean is arranging? Stay the night Wednesday for another \$44 - just let us know! Seriously, you'll spend more money staying home!

**BYOB - allowed but, be discrete. No Pets.**

**Registration must be received before August 30<sup>th</sup>!**

Register on-line (OSSS Website) or snail mail with check made out to OSSS to:

OSSS Summer Tour 2018, P.O. Box 39,1Corvallis, OR 97333

*Call or email me anytime if you have questions, comments, suggestions...*

Cell: 541-979-5833

Email: [james.cassidy@oregonstate.edu](mailto:james.cassidy@oregonstate.edu)

Name(s)			
Email			
Riding in Van from Corvallis?	YES	NO	No charge!
Add Sunday night? (4pm check-in)	YES	NO	add \$44
Wednesday night?	YES	NO	add \$44
Vegetarian?	YES	NO	
Gluten free?	YES	NO	
<b>Total</b>			



# Summer Tour: Detailed Itinerary @ Wallowa Lake Camp

84522 Church Lane, Joseph Oregon

Subject to change but...we're getting close!

## Sunday Night, Sept. 9<sup>th</sup>

- Optional night but recommended for folks driving long distances (includes supper and b-fast the following morning (add \$44) – check-in after 4pm

## Monday, Sept. 10<sup>th</sup>

- 1:00 pm - Meet at Wallowa Lake Church Camp 84522 Church Ln, Wallowa Lake, Oregon
- 1:30 Car pool to Moraine Trailhead - Hike to top of the Moraine. Vance Almquist will start the discussion about Wallowa Mtn. soils and glacial factors in Soil Formation
- 4:30-5:00 return to Wallowa Lake Church Camp.
- Meet/Greet Social
- 6:00 pm Dinner
- 6:45- Phil Neumann from Mainstem Malt will present on Barley, Soils and Terroir—possible trip to Terminal Gravity(!)
- 8:00 pm wrap up for the evening

## Tuesday, Sept. 11<sup>th</sup>

- 8:00AM breakfast and pack lunch
- 8:45 Head out to the Nature Conservancy at Zumwalt Prairie- all day tour of soils both pristine and restored Heidi Smaltz TNC Site Manager will lead the all day tour.
- 5:00 pm Return to Wallowa Lake Camp
- 6:00 Dinner
- 7:00 Business meeting
- 8:00 pm Wrap up and chat about the “next frontiers” in soils. Informal.

## Wednesday, Sept. 12<sup>th</sup>

- 8:00 am Breakfast and pack lunches.
- 9:00 am Jeff Yanke from Oregon Department of Fish and Wildlife will walk with us along the creek and hopefully there will be spawning Kokanee salmon. Jeff will discuss Kokanee life history, how salmon transfer nutrients from aquatic environments to riparian and uplands.
- 11:30 AM Drive to the lake outlet for an over view and wrap up of the tour. Speaker TBA
- Lunch and head for home.

## Wednesday Night Sept. 13<sup>th</sup>

- Optional night but recommended for folks driving long distances (includes supper and b-fast the following morning (add \$44)
- Also recommended for those participating in the Eagle Cap Wilderness Expedition!

### Random Text Box!

Did you see the New York Times article that appeared 7/25/18 that actually used the word “Soil” in the subheading (though “Dirt” twice in the headline...). Still, even them city folk are getting the message! Click [here](#) for the article.

## Get to know your Board of Directors!

We want to know more about you to draw on our collective expertise!

Fill out your member info on the website today!

[fill out this form](#) [Click here](#)

Questions? Contact a member of our Board of Directors today!

**Vice President:** Sean Rochette – [sean.rochette@gmail.com](mailto:sean.rochette@gmail.com)

Sean is a certified professional soil scientist that works for Oregon DEQ as on Onsite Wastewater Specialist

**President:** James Cassidy – [james.cassidy@oregonstate.edu](mailto:james.cassidy@oregonstate.edu)

James is a Senior Instructor 2 @ OSU teaching Soil Science, Organic, and Sustainable Agriculture

**Past President:** Shannon Andrews – [osss.pres@gmail.com](mailto:osss.pres@gmail.com)

Shannon manages the OSU Central Analytical Lab and is a PhD candidate

**Treasurer:** Pam Keller – [pam.mark.keller@gmail.com](mailto:pam.mark.keller@gmail.com)

Pam is a retired soil scientist with a background in computer science and specialization in GIS

**Secretary:** Alicia Leytem – [alicia.leytem@oregonstate.edu](mailto:alicia.leytem@oregonstate.edu)

Alicia is a pesticide specialist at the National Pesticide Information Center

Eastside director: Sarah Hash – [sarahjanehash@gmail.com](mailto:sarahjanehash@gmail.com)

Sarah works for the USFS as the District Soil Scientist in the Deschutes National Forest

**Westside director:** Marissa Theve – [mtheve@blm.gov](mailto:mtheve@blm.gov)

Marissa is the BLM soil scientist in Salem for Marys Peak and Cascades field offices

**Webmaster:** Adam Lindsley – [adam.lindsley@gmail.com](mailto:adam.lindsley@gmail.com)

Adam is an E-campus soils instructor for OSU, is in charge of the Crop and Soil Science website

**Sharpshooter editor:** Vacant

**Student Liaisons:** Larissa LaMere and Jennifer Fedenko – [larisa.lamere@oregonstate.edu](mailto:larisa.lamere@oregonstate.edu) and [jennifer.fedenko@oregonstate.edu](mailto:jennifer.fedenko@oregonstate.edu)

Larisa is a master's student at OSU doing a project on agricultural potato production and soil health and Jennifer is a graduate student at OSU, working with Dr. Rebecca Lybrand studying soils near Juneau, Alaska.



## SHARPSHOOTER

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

pres.oss@gmail.com or

OSSS | P.O. Box 391 | Corvallis, OR 97339

### Advertisements:

Reach more than four hundred soil science professionals with an advertisement in the Sharpshooter.

Whole page—\$50, 1/2 page—\$25, 1/4/ page—\$15, or 1/6 page—\$10.

Provide a jpg file copy to osss.pres@gmail.com by the deadline (first of the month—February, May, August and December).



OREGON SOCIETY OF  
**Soil Scientists**

### Membership Rates:

\$50.00 Regular Member

\$30.00 Student Member

\$500.00 Lifetime Member

OSSS Webpage: [www.oregonsoils.org](http://www.oregonsoils.org)

Please feel free to submit an article. We welcome input from soil

## EXECUTIVE BOARD

President: James Cassidy

[OSSS.pres@gmail.com](mailto:OSSS.pres@gmail.com)

Vice President: Sean Rochette

[sean.rochette@gmail.com](mailto:sean.rochette@gmail.com)

Past President: Shannon Andrews

[Shannon.Andrews@oregonstate.edu](mailto:Shannon.Andrews@oregonstate.edu)

Secretary: Alicia Leytem

[Alicia.leytem@oregonstate.edu](mailto:Alicia.leytem@oregonstate.edu)

Treasurer: Pam Keller

[pam.mark.keller@gmail.com](mailto:pam.mark.keller@gmail.com)

Westside Director: Marissa Theve

[mtheve@blm.gov](mailto:mtheve@blm.gov)

Eastside Director: Sarah Hash

[sarahjanehash@gmail.com](mailto:sarahjanehash@gmail.com)

Student Liaison: Larisa LaMere, Oregon State University

[larisa.lamere@oregonstate.edu](mailto:larisa.lamere@oregonstate.edu)



OREGON SOCIETY OF  
**Soil Scientists**

P.O. Box 391 ♦ Corvallis, OR 97339

<http://oregonsoils.org>

