

January PLP newsletter

[The Spore Print \(01/29/2024\) Department of Plant Pathology January Newsletter](#)

Please enjoy these updates from our department!

Best wishes

- Ko, representing the editorial team: Elliott, Madan, Kristen, Roshani, Ninh, Sam, Anita, Monique, Xianming, and Cynthia.

[Click here to access the past newsletters!](#) You will also be able to download the PDF version there.

If you have any feedback, please fill out the [questionnaire](#) for the Spore Print!

The Plant Pathology Graduate Student Organization is holding a fundraiser!



The PLP-GSO is holding a fundraiser by selling clothing items featuring art from some of our students - Katie Kiick and Roshani Baral! This money will help support PLP-GSO activities. The PLP-GSO helps put on multiple events every semester, including organizing fungal forays, providing professional development opportunities, and hosting student-invited speakers twice a year. Our GSO does incredible work building community within our cohort and creating a welcoming atmosphere that extends beyond our department. None of that work would be possible without the support of our department, GPSA, and fundraisers like this.

The order form will be open from January 29, 2024 to February 12, 2024. You can find the order form, including sizing information and examples of some of our past shirts as worn by students and faculty, [here](#)! A copy of your order will be emailed to you, and you will have a chance to edit your order until the order form closes.

Once the order form has closed, we will send out invoices and begin to collect payment so that an order can be placed. The GSO will arrange pick up and/or shipping of individual items. We appreciate your support of our GSO and their efforts!



1 - We're offering hats in gray and red with the WSU logo.



2 - Black crewneck sweatshirt featuring Katie Kiick's design on the back.



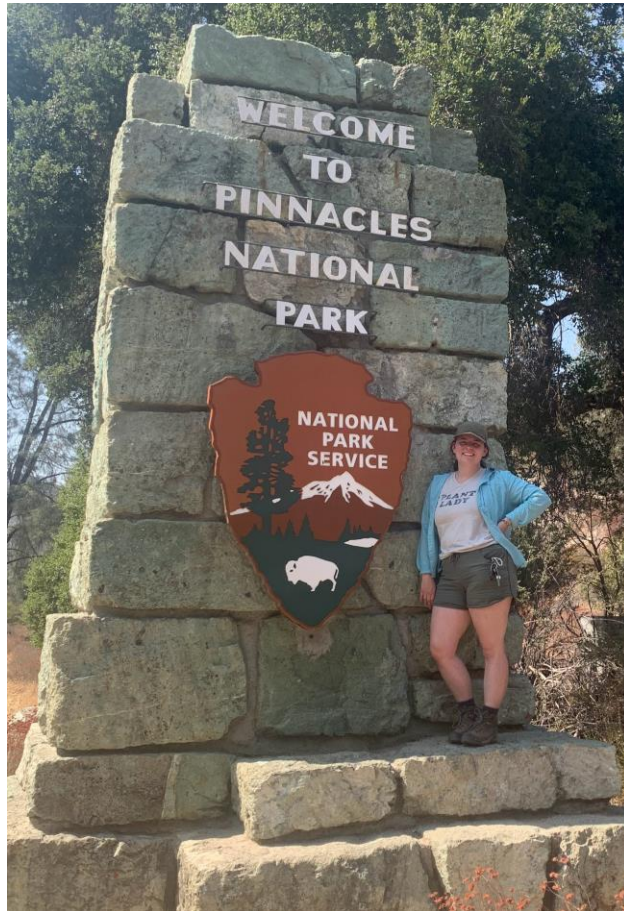
3 - Red t-shirt featuring Roshani Baral's design on the front.



4 - Our classic departmental polo, perfectly professional in every way.

Student Spotlight

Hannah Merrill



Degree sought: Masters Degree in Plant Pathology

Advisor: Dr. Xianming Chen

Academic Background

- I got my BS in Environmental Science from William Jessup University in 2020 with departmental honors for my contributions to the PCT Biodiversity Megatransect research project. I started this Masters degree in 2022 and I am currently working on developing KASP markers associated to avirulence in Stripe Rust.

What made you interested in plant pathology?

- Ecology and natural ecosystem health is something I care very deeply about, and I wanted to be someone who can contribute to maintaining biodiversity, especially in my home area where logging is a huge industry and replanting protocols are often insufficient. I felt that with the BS I have and the education I am currently pursuing I could ultimately work towards improving those procedures.

What is your favorite plant pathogen?

- Cedar-Apple Rust is the first plant pathogen I found on a plant on my own so that one is special to me!

What are your hobbies?

- I like camping and river days in the warm months and in the cold months I like to do my nails or crochet while listening to an audiobook.

Do you have any Pets?

- No pets right now but I aspire to have a dachshund army someday

What is something interesting most people don't know about you?

- I have summited Mount Whitney twice!

What would you like to do after graduation?

- I want to head back home to Portland and ideally work for the Oregon Department of Forestry

Updates



Thesis Defense and Prelim Results

Joseph Mellow successfully passed his Master's Examination on December 15, 2023. Mellow's thesis was titled "Characterization of *Neonectria*, *Nectria*, and *Sarocladium* spp. on pome fruit in the Pacific Northwest." Achour Amiri was Mellow's MS advisor, and Tim Murray and Lindsey du Toit served on his advisory committee. **Congratulations Joseph!**

Katelyn Kiick completed her M.S. degree with a successful defense of her thesis on January 4, 2024. Kiick's thesis was titled "Studies on antibiotic resistance of *Erwinia amylovora* and copper-based paint for management of fire blight disease." Her M.S. research project was guided by Frank Zhao (chair), Hanu Pappu, and Tim Paulitz. **Congratulations Katelyn!**

Dr. Kiwamu Tanaka presented at Mexican Society of Phytopathology Congress as the Opening Keynote Speaker.

Dr. Kiwamu Tanaka was invited as the Opening Keynote Speaker at the 30th International and National Congress of Phytopathology in Culiacán, Sinaloa, Mexico (organized by the Mexican Society of Phytopathology) on November 21, 2023. His topic was "Modern techniques for pathogen detection: insights gained from detecting potato powdery scab pathogen."



Dr. Gary Chastagner's Work on Christmas Trees Featured Multiple Times During the Holiday Season



5 - Dr. Gary Chastagner lecturing on desirable Christmas tree traits. Photo courtesy of AP Photo/Jason Redmond

Dr. Gary Chastagner's work on Christmas trees was featured in multiple publications over the holiday season! You can read all the articles below.

- [Climate Change is Coming for Christmas Trees. Can They Be Saved?](#) by Jennifer Cole for Modern Farmer, Dec. 1, 2023.
- [Real versus fake Christmas trees: Which is more environmentally friendly?](#) by Julia Jacobo for ABC News, Dec. 4, 2023.
- ["Dr. Christmas Tree" works to save holiday staple from emerging threats: "That's what it's all about"](#) by Laurelle Stelle for Yahoo!Life, Dec. 5, 2023.

More Plant Pathology in the News!

Work by WSU researchers in the areas of mycology and plant pathology were also featured in news articles over the last few months ranging from disease management in lawns to protecting honey bees.

- [Here's How You Could Reduce Powdery Mildew In Your Grass Using One Common Pantry Ingredient](#) by Joanna Marie for House Digest, Dec. 4, 2023.
- [Scientists to study disease plaguing honey bees](#) by Molly Rosbach for Farm Progress, Dec. 4, 2023.
- [Researchers get \\$4.2 million to study honeybee disease](#) by Kyle Odegard for Capital Press, Nov. 30, 2023.

Herbarium Happenings: Shaw Mycological Herbarium





6 - Many thousands of fungal specimens at the Shaw Herbarium, waiting to be accessioned and digitized.



7 - George L. Zundel surrounded by a few of his Ustilaginales type specimens

The Shaw Herbarium contains about 76,000 specimens accessioned into both old-school card files and databases - and around 10-20,000 specimens awaiting their turn! How to prioritize which fungal specimens to catalog next? One of several high-priority categories are "type" specimens. For those who don't know, "A type specimen is a preserved specimen designated as a permanent reference for a new species, new genus or some other taxon. The type is the first specimen bearing the new scientific name, and the one true example of the species. Since they are considered permanent reference specimens, types are the most important specimens in a herbarium; they anchor their species." (That definition is from a wonderful short article by S.C. Gruff & K.T. Hodge of the Cornell Plant Pathology Herbarium, which you can enjoy here: <https://cup-herbarium.cals.cornell.edu/extras/what-is-a-type-specimen/>)

While searching the many shelves of un-accessioned specimens for types to digitize, I recently discovered a small old box of about 60 interesting type packets containing small bits of the original specimens, plus dozens of additional packets. They're all Ustilaginales from the personal herbarium of George L. Zundel, acquired from various collectors in many different countries in the 1890's - late 1940's. Zundel was an accomplished plant pathologist "with definite mycological leanings" who developed a keen interest in the taxonomy of smut fungi as a hobby alongside his regular extension duties. A graduate of Cornell, he was assigned to smut control work at the Pullman Agricultural Experiment Station at the start of World War I as part of the war emergency food production program. He was promoted to extension pathologist for Washington State & the USDA until 1926, when he moved back east to continue his career. (Zundel's tribute in *Mycologia* is at

<https://www.jstor.org/stable/3755540>) Since Zundel died in 1950, it's likely that he donated our small set of types to the Shaw just prior to that time. His extensive original herbarium still resides in the US National Fungus Collections at the USDA/ARS facilities in Beltsville, MD. His manuscript *The Ustilaginales of the World* was published posthumously in 1953 by Pennsylvania State University.

At first glance the Shaw, like other herbaria, might seem to be a dry (pun intended) collection of mycological and botanical specimens - but a deeper look reveals the rich history of all kinds of people with all sorts of stories who left their scientific legacies for new generations to discover!

Events in Pullman and REC Locations



Please contact the corresponding person for more details!

Pullman Events



Monday Coffee hours

This upcoming Fall semester, join us **every Monday at 3.00 pm - 4.00 pm in Clark 299** for coffee and snacks before seminar. All are invited!!

MPS Friday Coffee hour

MPS (Molecular Plant Sciences) coffee hour will be happening this **Friday from 1-2:30 every other week**. Free coffee and tea will be from the CUB Starbucks as it is free for graduate students on Fridays. We will be meeting outside in the shade in front of the CUB

The White Elephant Party Gift Exchange!



8 - The spread was absolutely incredible



9 - Group photo 1



10 - Group photo 2



11 - Hira showing off her prize.



12 - Elliott enjoying some green onions.



13 - Faculty, staff, and alumni enjoying the party.



14 - Dr. Xianming Chen reading his new book.



Send off for our REC students - We miss you already!

Students met up to say goodbye to Mary Steele (Mt. Vernon REC), Mason Hoskins (Prosser REC), and Harpreet Kaur (Prosser REC) before they left the Pullman campus to go to their REC locations.



Congratulations Joseph

Joseph Mellow has successfully graduated as a master's student from Amiri's lab at the Tree Fruit Research and Extension Center in Wenatchee, Washington. During his studies, Joseph focused on the project titled "Characterization of *Neonectria*, *Nectria*, and *Sarocladium* spp. on pome fruit in the Pacific Northwest." His research revealed the identification of one *Neonectria* species and three *Nectria* species responsible for causing Neonectria fruit rot on apple and pear. Additionally, two *Sarocladium* species were identified as the culprits behind Sarocladium brown spot on apple and pear. We hope that Joseph's findings will contribute significantly to the scientific community and assist growers in effectively managing pome fruit diseases.



15 - Joseph Mellow, WSU, Pullman, Washington



16 - Amiri's Lab, TFREC, Wenatchee, Washington

Mount Vernon Events

Spinach Fusarium Wilt Open House

On January 15th, 2024, Vegetable Seed Pathology Lab in Mount Vernon conducted an open house for the 15th Spinach Fusarium Wilt Soil Bioassay. Dr. Lindsey du Toit described the disease, trials, and risk assessment showing

Prosser Events



17 - Prosser covered with snow from the winter storm!

We would like to welcome Sudeep Poudel to Dr. Frank Zhao's lab! Sudeep comes to us from Nepal where he did his master's degree in Plant Pathology at Tribhuvan University in Kathmandu. Sudeep will be working on the epidemiology of Fire Blight! We would also like to welcome Harpreet Kaur and Mason Hoskins to Prosser after having spent their first semester at WSU in Pullman. The new influx of grad students is great for building community! The current students in Prosser include Mason Hoskins, Harpreet Kaur, Ninh Khuu, Sheersa Manna, Noah Nilson, and Sudeep Poudel. We have enough folks to actually fill out a seminar room, now.

Dr. Harper attended the Western Colorado Horticultural Society meeting in Grand Junction, CO as part of a multi-state collaboration on X-Disease to understand how growers and stakeholders are affected by the disease in their area.

We would also like to congratulate Katie on her successful defense of her M.S. thesis! We have been grateful to have Katie as part of our community in Prosser and she was very active with the GSO while she was in Pullman. We are sad to see her leave, but excited for her future!



18 - Harpreet Kaur with a department shirt!

Publications



Alkan, M., Bozoglu, T., Dervis, S., **Paulitz, T. C.**, Ozdemir, F., Morgounov, A., Muminjanov, H., Amer, M., Imren, M., Dababat, A. A., and Ozer, G. *Bipolaris sorokiniana* associated with common root rot in Azerbaijan and Kazakhstan. (2023). *8th International Cereal and Nematodes Symposium*.

Divya, K., **Zhai, Y.**, Makesh Kumar, T., Moriones, E., and **Pappu, H.R.** (2023). *Genome Editing Strategies: A Way Forward for Developing Resistance Against Plant Viruses, Advances in Plant Disease Management*. 1st ed. Chakrabarty, P. K., Mondal, K. K., Saharan, M. S., Mayee, C., and Kumar, J ed. Boca Raton, CRC Press.

Ilyas, U., **du Toit, L. J.**, Hajibabaei, M., and McDonald, M. R. Influence of plant species, mycorrhizal inoculant, and soil phosphorus level on arbuscular mycorrhizal communities in onion and carrot roots. (2023). *Frontiers in Plant Science*, 14. <https://doi.org/10.3389/fpls.2023.1324626>

Spawton, K. A., Stein, L. A., and **du Toit, L. J.** Evaluation of Spinach Cultivars for Resistance to Stemphylium Leaf Spot (*Stemphylium vesicarium*) and White Rust (*Albugo occidentalis*). (2023). *HortScience*, 59(1). <https://doi.org/10.21273/HORTSCI17373-23>

Zobrist, K. W., Bomberger, R. A., Darr, M. N., **Glass, J. R.**, **Hulbert, J. M.**, and Roberts, E. S. Emerald Ash Borer and Its Implications for Washington State. (2023). Washington State University Extension, EM127.

Zobrist, K. W., Bomberger, R. A., Darr, M. N., **Glass, J. R.**, **Hulbert, J. M.**, and Roberts, E. S. Managing Emerald Ash Borer in Washington State. (2023). Washington State University Extension, FS384.

Funding & Opportunities



- **TA position opportunity in School of Biological Sciences**

If you are interested in a TA position in the School of Biological Sciences this fall, please contact Kara McClanahan at karamac@wsu.edu

- **GPSA Travel Grants**

GPSA travel grants are available all year round and are awarded as reimbursements post travel, for our of pocket travel costs. Pullman Service and Activity fee paying students are eligible to apply. Please see all information at GPSA grants website [here](#). Contact gpsa.granst@wsu.edu if you have questions.

- **Here is a list of all available fundings worldwide.** Please login using your WSU account and refine the search.

<https://pivot.proquest.com/session/login>

Seminars



Dr. Achour Amiri will be leading the seminars this coming fall. Please direct all questions about seminar towards Dr. Amiri at a.amiri@wsu.edu

Department of Plant Pathology Seminar, Location: Clark Hall 149 (Every Monday, 4:10pm to 5:00pm)

[Zoom link](#). Meeting ID: 951 0261 0389 Passcode: 4417 Call in number: 1 646 558 8656

January 29. Dr. Tim Murray, Washington State University

February 5 Dr. Erica Goos, University of Florida

February 12 Leah Morrison, Washington State University

February 19 Sheersa Manna, Washington State University

February 26 Lora Keyte, Washington State University

March 4 Holly Whittenbyrg, Washington State University

March 11 Spring Break

March 18 Noah Ault, Washington State University

March 25 Megan Nickerson, Washington State University

April 1 Anita Paneru, Washington State University

April 8 Dr. Jeff Anderson, assistant professor in the Department of Botany and Plant Pathology at Oregon State University. He will be our student invited speaker for Spring

April 15 Dr. Michelle Moyer, Washington State University

April 22 Dr. Christina Hagerty, Oregon State University

Other Department Seminars

Molecular Plant Science seminar, Location: BLS402 (Every Wednesday, 12:10pm to 1:10pm)

[Zoom Link](#)

January 31 MPS meeting

February 7 Dr. Toby Kellogg

Elizabeth A. Kellogg is the Robert E. King Distinguished Investigator at the Donald Danforth Plant Science Center in St. Louis, Missouri. [Google Scholar](#) "The genome that took over the world."

February 21 IBC guest TBD

February 28 DEI guest speaker TBD

March 6 Luigi Peracchi, Crop and Soil Sciences: Title "ABA-induced xylem cell wall remodeling contributes to drought avoidance in *Triticum aestivum*."

IBC seminar McCarter Seminar Series

Location: BLS 402, Friday 4:00pm – 4:50pm

[Zoom Link](#)

February 5 ---Dr. Andrew Nelson, Assistant Professor, Boyce Thompson Institute

“An exploration into RNA-mediated responses to environmental stress in non-model plants”

February 19 ---Dr. Larry York, Staff Scientist, Biological and Environmental Systems Science, Biosciences Division, Oak Ridge National Laboratory

March 4-- Dr. Kateřina Schwarzerová, Faculty of Science, Department of Experimental Plant Biology, Charles University, Prague, Czech Republic

Department of Horticulture seminar, (Every Thursdays, 2:55pm to 3:45pm)

Please use the [Seminar Registration](#) page to receive information to join the seminar remotely.

Location: Pullman – Clark 151, Mount Vernon – Annex East, Puyallup – K109, Tri-Cities – WSC 201

January 25 -- Rhuanito Ferrarezi --title: "Global career enhancing yield, quality, and profitability of indoor horticultural crops “

February 1 ---Brendon Anthony, Title: "From Academia to Industry: My Journey from Preharvest Research to Postharvest Innovation"

February 8 ---Alex Cornwall

February 15 ---Tracey Somera, Title “Utilizing host plant genetics (in combination with other strategies) as part of an integrated approach to managing apple replant disease”

February 22---Hayden Lenz

February 29 --- Dr. Nicolas Champouret, Interim head of Syngenta’s Global Flower Seed Development

Dept. of Crop and Soil Sciences Seminar, Location: FSHN 354 (Every Monday, 2:10pm to 3:00pm)

[zoom link](#) Meeting ID: 948 3236 9338. Passcode: 349823

January 29 -- [Ryan Behnke, USDA Headquarters Postdoc Bioinformatics](#)

February 5 ---[Kim Garland Campbell, Crops Graduate Coordinator](#)“*Review of Graduate Student Programs and Climate at WSU*”

February 12 ---CSS DEI Committee

February 26-- [Steven Norberg, Regional Forage Specialist – WSU Extension](#)“*Economics and Yield of P and K applications in Alfalfa*”

MARILYN & JAMES HYDE SEMINAR SERIES, Department of Entomology, Location: FSHN 354 (Every Monday, 12:00pm to 1:00pm)

[Zoom Link](#)

January 29th – Dr. Jackie Serrano – USDA ARS – ‘Insect Chemical Ecology in Washington State: Using a Different Kind of Chemistry to Tackle Agricultural Issues.’

February 5th – Dr. Jessica Goldberger – ‘Understanding Grower Decision-Making: The Importance of Collaboration Between Biological and Social Sciences’

March 4th – Stephanie Eckard – MS exit seminar, Environmental toxicology

Jobs



Graduate Research Positions

- None at this time

Post-Doctoral Positions

- Dr. Cassandra Swett is seeking two post-docs to work at her lab in UC Davis's Department of Plant Pathology. Start date is flexible, applications received until Feb. 15 will be considered on a rolling basis. For more information and to apply, [click here](#).
- A post-doc position focusing on engineering diseases resistance into wheat at King Abdullah University of Science and Technology in Kaust, Saudi Arabia with the Wullf Lab. Applications are due before February 8. For more information and to apply, [click here](#).

- UC Riverside is hiring a postdoctoral scholar in *Fusarium* biology and management. Position is 100% full time for two years with the possibility of renewal. Please send a cover letter, CV, and contact information for three references to Dr. Alexander Putman (alexander.putman@ucr.edu) and Dr. Jason Stajich (jason.stajich@ucr.edu).

Technician, Industry, and Other Non-Academic Positions

- Ward Laboratories in Kearney, Nebraska is hiring a lab manager for their feed, forage, and environmental department. They're seeking someone with both strong chemistry and leadership skills. Please contact Ryan Dennhardt at ryandennhardt@wardlab.com for more details.
- Trical Diagnostics in Hollister, CA is seeking a molecular specialist. Primary responsibilities would include molecular diagnostics including PCR and ELISA. Position is full time with benefits. For more information about the position and how to apply, please contact Steven Koike (skoike@trical.com).
- Mast Reforestation is hiring a Senior Horticulturalist in Etna, CA. Primary responsibilities would include growing forest seedlings and working closely with forestry nursery workers. For more information about the position and how to apply, [click here](#).

Faculty Positions

- Oregon State University is hiring a cereal pathology tenure-track faculty position in the Department of Botany and Plant Pathology. Position is full-time, 9 month appointment with 50% research and scholarship, 30% teaching, 10% mentorship, and 10% service. Find out more and apply [here](#).
- Oregon State University is hiring a tenure-track assistant professor in Plant-Microbe Interactions in the Department of Botany and Plant Pathology. Position is full-time, 9 month appointment with 50% research and scholarship, 30% teaching, 10% mentorship, and 10% service. Find out more and apply [here](#).
- A non-tenure track research assistant professor position for small grains research is open at the University of Nebraska-Lincoln Institute of Agriculture and Natural Research. The appointment is full-time, 12 months, and 100% research based. For more information about the position and how to apply, [click here](#).

Contact us



If you have an item you would like included in the newsletter, email it to Itsuhiro.ko@wsu.edu.

Also, please complete this questionnaire to help us improve our newsletter. We appreciate your feedback!

<https://forms.gle/DubmGBiAjbEfyeqW9>