



HERMISTON AGRICULTURAL RESEARCH & EXTENSION CENTER

Pivotal Moments

A Quarterly Newsletter for Friends of HAREC



Oregon State University

SUMMER 2020

From the Director

by Clive Kaiser

The world continues to be in a state of flux, and it seems as though uncertainty is the only certainty we are assured of right now. COVID19 continues to dominate our lives and affect our daily decisions. Nonetheless, HAREC continues to move forward with research and outreach efforts. **Thanks to the dedication of the Farm crew, more than 97% of the on-station research has continued and many of those trials are currently being harvested.** We have had to adapt our delivery systems for outreach and have moved much of what we normally do to an online format. Zoom has become a part of daily our lives, but we are cognizant of the fact that it is easy

to tune out and leave these platforms. HAREC faculty conducted an online event on June 17, 2020, highlighting pertinent findings of their programs as the first **Virtual OSU-HAREC Potato Research Update**. A representative group from the Pacific Northwest and around the USA joined us. In case you missed it, visit the link to see the recording for the virtual field day: https://media.oregonstate.edu/media/t/1_bc5dvkag

We have also started posting regular updates on our HAREC Facebook page. Please “Like” that page and stay in touch with us there too. Of course, we all remain available for Zoom, WhatsApp or in many cases FaceTime conversations with the public on Extension issues. Please feel free to contact any of the faculty with concerns or to just catch up.

Given that the Farm Fair is too big an event to hold applying social distancing rules & regulations, we have made the decision to move Farm Fair 2020 to an online format too. We are mindful of the fact that doing a 2-day back-to-back event online will most likely be too much information at once, & we are asking for your input on how you would like to see Farm Fair delivered. One of the incentives to attending Farm Fair are the continuing education credits for Pesticide Training. To do this we need to offer at least one-hour sessions. **Please take a moment now to complete this Qualtrics survey.** It will help us determine how best to serve you: https://oregonstate.qualtrics.com/jfe/form/SV_42b8gVKZc7Xflup

Thank you so much for your support & we look forward to continuing to serve you, even in this time of reduced contact.

Invertebrate Ecology Lab Updates!

by Sandy DeBano, David Wooster & Scott Mitchell

A lot has been happening in **Sandy DeBano** and **David Wooster's** Invertebrate Ecology Lab. It has been a particularly exciting summer regarding graduate student successes!

Scott Mitchell received his MS and began a PhD program with Sandy. **Katie Arstingstall** also defended her MS thesis this summer and has now officially graduated from OSU. Katie is now working under Dr. Katie Moriarty at the National Council for Air and Stream Improvement as a field crew lead and helping conduct pollinator biodiversity surveys in Oregon.



Katie Arstingstall (left) just successfully defended her thesis and was awarded her degree in June! (Photo credit: Scott Mitchell, OSU PhD student)

David's graduate student, **Kelsey Lotz**, finished her field work last summer and fall and is busy identifying aquatic invertebrates

and riparian spiders as part of her thesis work.



While (debatably) creepy-crawly, there is no doubt that invertebrates like this spider provide beneficial services to humans by consuming (and helping control) pests such as aphids and leafhoppers. (Photo credit: Scott Mitchell, OSU PhD student)

She is examining how stream and riparian restoration in Meacham Creek influences habitat diversity and how this, in turn, influences aquatic-riparian food webs.



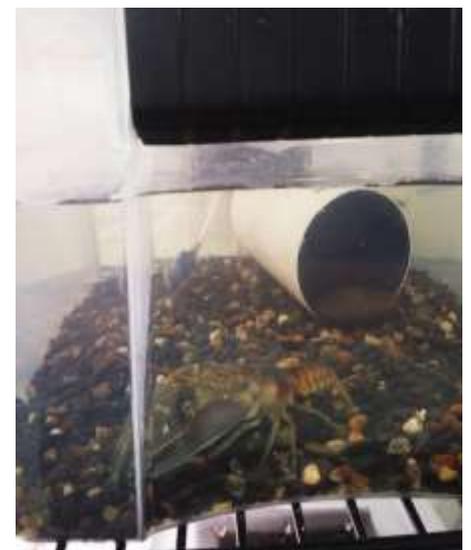
Master of Science student, Kelsey Lotz, and BES intern, Dan Hofmann, record stream depth and flow velocity last summer at Meacham Creek. (Photo credit: David Wooster, OSU Associate Professor)

She and David recently finished a report for the Confederated Tribes of the Umatilla Indian Reservation outlining the major findings of the project.

Despite COVID-19, we have been able to get out in the field (observing proper safety

precautions, like wearing masks!) and summer is continuing to ramp up with both ongoing and new projects.

David and Sandy are continuing a collaboration with Ken Frost that uses molecular techniques to look at the diet of **invasive crayfish** in the John Day Basin. They are interested in how this invasive species influences stream food webs and whether individuals have different behaviors, morphologies, and diets (and therefore, impacts) depending upon their proximity to the invasion front. Work so far suggests that smaller, more active individuals may be those that are responsible for spreading invasions to new habitats.



A rusty crayfish collected from the John Day basin. The crayfish's behavior and morphology were examined in the laboratory and its diet was examined by collecting fecal samples and using molecular techniques to identify DNA from food it ingested. (Photo credit: David Wooster, OSU Associate Professor)

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Sandy and Scott started work on two new, multi-year projects this summer. They began data collection on the first project at the USFS Starkey Experimental Forest and Range in upland forests with their USFS collaborators. This project focuses on the effects of **forest thinning and fuels reduction** on diverse communities of **native bees**. Forest thinning will happen this autumn and so they have been busily collecting baseline, pre-treatment data on bees and vegetation.



Graduate student Scott Mitchell setting up a vane trap to collect bees while P.I. Sandy DeBano records important field notes. This is part of our new project at Starkey Experimental Forest and Range. (Photo credit: Scott Mitchell, OSU PhD student)

Right now, they are establishing study sites, collecting bees, and counting flowers. Stay tuned for a short video that Scott is producing to tell everyone more about the project!

The second project focuses on **beneficial invertebrates** – that is bugs, spiders, and other groups that provide benefits to humans – in **cherry orchards** near The Dalles. This project is still in the planning stage with field visits and meetings with collaborating growers and researchers.



Cherry orchards in bloom in The Dalles. We are starting a new project in collaboration with other OSU researchers and a commercial grower to understand how cover crops impact beneficial invertebrates (Photo credit: Emily Carlson, OSU PhD student).

For this project, the lab will focus on understanding how the use of cover crops affects the beneficial services provided by non-pollinator beneficial invertebrates. As this new and exciting project continues to unfold, we will keep updating everyone!



Photos from our talented staff and faculty at HAREC.



The SNAP-Ed Food Hero Team Takes Things Remote

by Angie Treadwell

As for most of you, the last few months have brought a lot of change to our lives and our jobs. While change can be difficult to navigate at times, restructuring our work to fit the current environment has given us the opportunity to engage participants in creative ways and acquire new skills.

We were the first **SNAP-Ed** unit in the state to offer the 6-week **Cooking Matters for Families** course remotely and it was awesome! We used Zoom as our platform and our partner, Umatilla Morrow Head Start, delivered groceries to participants' homes so families could prepare each week's recipe.



This family loved the Crunchy Baked Kale Chips they made at home and were kind enough to send a picture to the Food Hero team.

Believe it or not, Food Hero Crunchy Baked Kale Chips are a kid favorite!

Another fun endeavor has been the **Food Hero Cooking Show**. The episodes provide cooking instruction as part of our remote programming.



Watch the Berry Cucumber Salad episode to learn how to make one of our favorite summer recipes.

You can check out all the episodes here: <https://foodhero.org/food-hero-cooking-show>



Another happy kid—Food Hero Beef and Broccoli got two thumbs up!

The **Food Hero** team is grateful for our wonderful partners and participants who make our jobs fun and engaging no matter the venue!

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HAREC Office: 541-567-8321

OR 541-567-6337

HAREC Fax: 541-567-2240

Website:

<https://extension.oregonstate.edu/harec>

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