

UO fellow is busy as a bee

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Nico Burns, class of 2025 (environmental science) collects samples at a University of Oregon plot near the Willamette River as part of a research project on pollinators led by UO professor Lauren Hallett. Burns was one of nineteen UO undergraduate students selected in 2024 for the [Vice President for Research and Innovation \(VPRI\) Undergraduate Fellowship](#).

Nicholas Burns, class of 2025 (environmental science), isn't afraid to stop and smell the roses. In fact, digging in the dirt and tending to flowers are necessary parts of his research.

Burns is dedicated to finding and applying strategies to create new pollinator habitats and combat their decline. He studies the fitness of flowering plant species in response to neighboring competition and pollination alongside mentor and professor Lauren Hallett at the [University of Oregon Hallett Lab](#). The lab works with farmers and conservation groups to optimize ecosystem management and restoration by identifying factors which influence biodiversity. On any given day, researchers from the lab will be testing species across Oregon and Northern California's different ecosystems—from grasslands to river basins and [hazelnut orchards](#). Burns's research takes place in the lush meadow near Riverfront Fields, just steps away from UO's Eugene campus, and at White Water Ranch in Leaburg, Oregon.



Research plots are seeded with competing pollinators. After identifying the plants, bags are placed over half of the blooms. Their seeds are collected later in the season and meticulously counted in the lab to determine the level of competition between pollinators.

“Not only is biodiversity declining worldwide, and it's really important for ecological restoration efforts to start, but perhaps most importantly, is that pollinator populations are declining worldwide,” Burns says. “That has really . . . negative cascading implications for ecosystems and our food markets worldwide.”

According to Burns, recognizing competition between pollinators is a key component to finding a solution.

“We're seeing what kind of competition or how much competition plants have for pollination and how that impacts how they go into their next generation,” he says.

Burns was one of nineteen UO undergraduate students selected in 2024 for the [Vice President for Research and Innovation \(VPRI\) Undergraduate Fellowship](#). The fellowship provides students with professional development opportunities and research communication training, as well as a \$5,000 award to support their research, making it easier for students to rent supplies and equipment. Recently, Burns had the opportunity to attend the university's [2024 Undergraduate Research Symposium](#) where [he presented his](#)

[research on how to optimize pollinator and plant restoration efforts](#) through seed production that increases the diversity of plant species, leading to less competition for pollination. The VPRI Fellowship helped support the project.

“I'm thankful to have received that fellowship,” says Burns. “The number one best thing is that I'm getting experience. I knew I wanted to work in either habitat or animal population restoration and protection, but I really wasn't sure what that looked like, or how I could even possibly get involved. It's also given me a good perspective on what kind of jobs I want to get as an adult, and whether I'm going to go to grad school to pursue higher education.”

—By Rosie Martin, Advancement communications associate and Sage Kiernan-Sherrow, Advancement editorial and communications specialist. Photography by Andy Nelson, Advancement visual communications specialist.



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You can support students like Burns who are conducting impactful research that addresses our most pressing environmental concerns by giving to UO programs. Together, we can [support the next generation of global leaders](#) as they mitigate the challenges of a changing climate and adapt to a rapidly evolving world.

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University
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1720 E. 13th Ave, Suite 312
Eugene, OR 97403
Phone: 541-346-3016
Fax: 541-346-2574

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