

Bee Campus USA 2017 Renewal Application Annual Report

Portland Community College, Portland Oregon

Portland Community College's (PCC) Bee Campus Committee has continued to make great strides forward on behalf of our pollinators during the year 2017. Projects we accomplished are summarized here.

New Flow Hives Double Honey Output

There's only one thing sweeter than 3.5 gallons of honey...that would be more than eight gallons of honey drawn effortlessly from the tap. The recent increase in productivity is credited to a gift from student Harlene Beuhler, who donated a seven-frame [Flow Hive and three extra flow frames](#) which doubled the honey production at Rock Creek.

Beuhler, a campus neighbor and student at the Rachel Carson Environmental Middle School, is familiar with the campus and recently learned of the beehive project initiated in the campus Learning Garden.



Pictured (left) are Anne LeSenne, Landscape Technology instructor at Rock Creek, beekeeping student Michael Patterson and Flow Hive donor Harlene Beuhler.

"When I learned about the Rock Creek bees, I was excited to see what I could do to help as a part of my eighth grade project for Rachel Carson," said Beuhler. "I wanted to support our local bee population and figured that donating a Flow Hive would be a great start."

Beekeeping and honey production has become popular at the campus. According to Anne LeSenne, Landscape Technology Program instructor and beekeeper in charge, the enterprise started as an experiment last year and has morphed into something rather ambitious. At the center of the elevated excitement is new technology in honey rendering.

"Even though we will be able to harvest the traditional way, the Flow Hives make harvesting much easier, cleaner and faster, with less disruption to the bee colony," LeSenne said. "It's really ideal for those who don't want to or can't lift a 60 to 90 pound box full of honey, as well as those who don't have a honey

harvesting room to contain all the sticky, waxy, mess. Where harvesting could take all day the traditional way, the Flow Hive allows me to harvest a little in a few minutes or all of the honey in just an hour.

"The honey comes out without particles of wax debris, so no filtering or screening is necessary," she continued. "We also love the Flow Hive because of the clear windows so we can see what the bees are doing inside, while they turn nectar into honey."

Because of the educational component of the beekeeping program, the new technology allows even small children to watch the bees do their work in a completely safe setting, which improves Rock Creek's ability to educate the community about the role of pollinators. Currently there are 13 Rock Creek students in the beekeeping program.

Pollinator Week

Have you ever wanted to get a peek into a beehive or wondered where our campus apiary is and how our bees are doing? Celebrate Pollinator Week with us! At Rock Creek we will have activities on Tuesday, June 13th including:

- 11 am -1 pm, Apiary tours with our campus beekeeper, Anne LeSenne. Meet at Landscape Technology, Building 4
- 11 am -1 pm, Make seed bombs (flower seed clay balls) to throw and plant in your yard or a roadside ditch!
- 11:30 am - 3:00 pm, Pollinator education and giveaways during Portlandia FarmStandia, outside building 5. We will have all sorts of freebies including *Give Bees a Chance* buttons, handouts on pollinator plants and bees, two gorgeous pollinator posters on orchids and trees and packets of flower seeds.

Arbor Day

To celebrate Arbor Day this year, we sponsored a free geocaching event in conjunction with our 40th anniversary of Rock Creek campus. We hid geocaches in 40 different species of trees, and shared interesting facts about each species. This event was open from April through September to the public.

Friends of Trees planting event

Lots of volunteers came out on Nov. 17 to plant native plants and trees in the Environmental Studies Center on the Rock Creek Campus. The most difficult part was navigating the mud, but at least the sun was shining. It was a great event - we had 16 volunteers working with Max and Anne-Marie of Friends of Trees. I can ask Friends of Trees how many plants of which species went in the ground - they were primarily shrubs planted in the shrub-scrub wetland north of the oak woodland. We set out to plant 440 trees and shrubs- you can see specifics in the table below, and managed to get roughly 320 planted. We're working to schedule a day to come through and finish the remaining plants up.

Species	Common	# Plants
Alnus rubra	Red Alder	15
Cornus sericea	Red-Osier Dogwood	50
Crataegus douglasii	Black Hawthorn	10
Populus balsamifera ssp. trichocarpa	Black Cottonwood	15

Salix lasiandra	Pacific Willow	50
Salix scouleriana	Scouler Willow	200
Spiraea douglasii	Douglas's Spiraea	100
		440



Bee Tree Discovery

As part of the Biology Department's work to rid the woods of invasive species, as well as identifying some of our largest trees on campus for the Arbor Day Geocaching event, we discovered a large Western Red Cedar with a healthy honey bee colony. We were able to show this tree to several interested classes throughout the summer, and will be doing continuing monitoring of the health of this hive next year.

Food Forest Expansion and Mapping

As part of our commitment to fighting Food Insecurity in our students, we are making maps of the fruiting trees and shrubs available at each campus. We also expanded the Food Forest at Sylvania and SouthEast campuses.



Application for the Green Initiative Grant

We applied for a Green Initiative Fund grant to add an apiary at Sylvania campus. The apiary will be installed early 2018, and honey bees will be added to that campus during the Spring through Fall, then housed at Rock Creek campus over winter. This will add to our ability to educate more students regarding pollinators.

Application for Pollinator Health Fund grant

We applied for a Pollinator Health Fund grant in conjunction with several departments at both Sylvania and Rock Creek campuses. Even though our proposal wasn't chosen, we developed a greater network of pollinator interested individuals on more campuses and new departments.

Beekeeping Class

The Beekeeping class ran two terms, Spring and Summer. The classes were very successful in both teaching and giving hands on experience in managing honey bees. Two swarms were captured and over eight gallons of honey was extracted and sold. One student has now become a beekeeper as part of his employment.



Oregon Bee Project Participation

Dr. Jaimie Powell, Anne LeSenne, and Elizabeth Brewster were accepted into the Oregon Bee Project. This research will be conducted on our campus to identify the native pollinators. The PCC staff will be trained and given the materials to capture and preserve pollinators on our campus and send them to OSU to be identified. This information will help the OSU Bee Lab understand and document which species of bees are throughout the state. It will also help us identify what type of habitat we need to expand.

PCC 3D Design Art Class

William Moss' 3-D Design art class at Rock Creek had 14 students in the spring quarter and made mason bee hotels. He brought the class to the Learning Garden and apiary on May 22. The students asked questions regarding the parameters for the needs of mason bees and their habitat needs and then they designed creative and artistic mason bee hotels that will be hung around the campus in early spring 2018.

Media

Elaine Cole, Bee Campus Committee Chair was interviewed for an article in the Sustainable City Network, a website and print publication for leaders in government, education and healthcare.

<http://www.sustainablecitynetwork.com/>

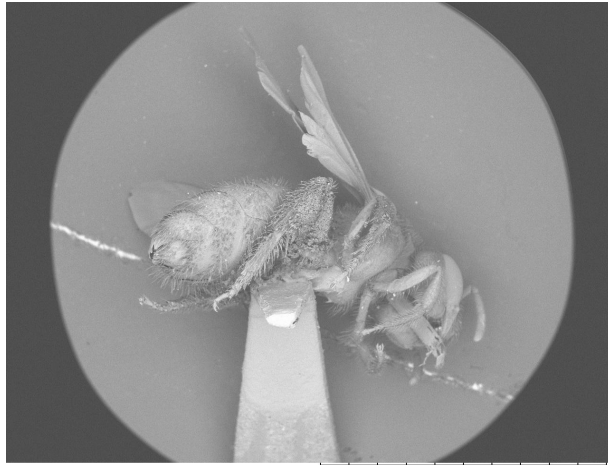


Washington County Master Gardeners on campus

We have entered into an agreement with the Washington County Master Gardeners to build a demonstration garden on the Rock Creek campus, adjacent to the Learning Garden. The Master Gardeners will have a number of specialized gardens that they will use to teach a series of classes to our students and the community. All of their practices are pollinator friendly, and will further expand our pollinator habitat footprint.

Jaimie Powell has started some preliminary work on the identification of local pollinators and pollen. Her goal is to work with students to 1) identify pollinators using morphological techniques and to 2) identify pollen using a combination of morphological (light and scanning electron microscopy) and molecular techniques (meta DNA barcoding).

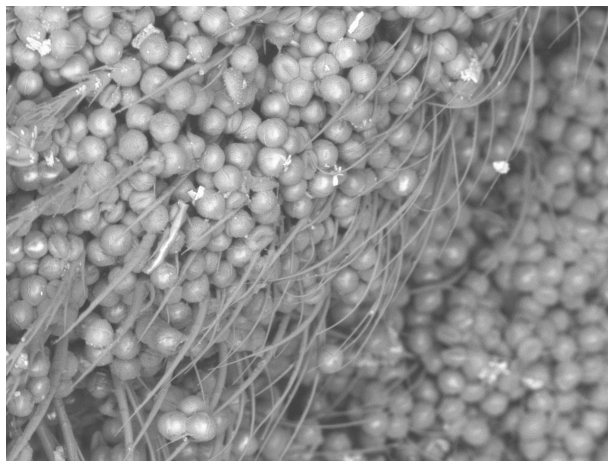
Scanning electron micrographs of Halictid Bee with pollen grains at 20x, 100x, and 500x magnification.



0021 2016/07/28 11:24 F D7.6 x20 4 mm



0018 2016/07/28 11:17 F D7.5 x100 1 mm



0019 2016/07/28 11:19 F D7.5 x500 200 um

http://www.pcc.edu/about/sustainability/rock-creek/bees_html_MMtmp259b1776/bees.html

<http://www.pcc.edu/about/sustainability/rock-creek/ResourcesResearchReports/MMtmp7d090cf2/ResourcesResearchReports.html>

Association for the Advancement in Higher Education (AASHE) Conference Presentation

Elaine Cole gave a presentation at the national AASHE conference in San Antonio, Texas in October 2017. It was titled, ***Bee Hives on Campus: Strategies to Make This Happen***, and there was a good turnout faculty, staff and students from across the country.

Campus Tour with Phyllis Stiles, Executive Director, Bee Campus

11/14.2017 *Dear PCC Friends: I could have sworn I answered this email during my travels, but if not, please know that I was in awe of you and your work in pollinator conservation at PCC. It was such an honor to visit and I'm grateful for the time you spent showing me around your amazing campus. warmly, Phyl*



Pollinator Habitat

This area has been planted with pollinator-friendly flowers and is protected from pesticides to provide valuable habitat for bees and other pollinators.

To learn how you can help to bring back the pollinators, please visit www.xerces.org.



**BRING BACK
THE
POLLINATORS**

The Xerces Society for Invertebrate Conservation
(800) 233-6039 www.xerces.org

CAUTION



**Honeybees busy at
work pollinating our
food and flowers**

For a closer look contact
Rock Creek Bee Coordinator
971.722.7843



