

Bee Campus USA - Portland Community College

Report on 2020

Pollinator Habitat Creation & Enhancement

One of the internal Eco Social Justice Grants received to support our pollinator effort was Trees for Bees, which, as its name suggests, was buying trees that are great sources of food for bees and planting them on our campuses. We were able to purchase 61 trees, most with 1 ½" caliper, and distributed them to the campuses to help satisfy the pollen and nectar needs for our bees in the late part of the summer and into fall. Even though their canopies aren't very large right now, within the next ten years, these trees should be providing an additional 42,000 square feet of pollinator habitat! We also had a class of Sustainable Landscape students install a 1,000 square foot Pollinator Habitat Garden outside the HIVE, which consisted of tilling under grass and replacing it with clover, plus adding three pollinator trees that bloom in different seasons, as well as some pollinator perennial plants in a bed directly under the entry to the hives. It was planted right before the COVID shut down in mid March, so the students have only been able to see photos of how successful it has become. There is also an area of 6,000 square feet in close proximity to the HIVE that we've tilled under the grass and planted a mix of yellow mustard and phacelia as a cover crop, since these plants have been recently identified as highly nutritious to bees. Another grant we received was for installing additional Pollinator Hedgerows. One of the locations we started on is along the border of our orchard. Sustainable Landscape students added another 1,000 square feet of hedgerow, using the same types of plants as the first part (completed in 2019) which was incredibly successful. Another hedgerow area is a previously neglected, weedy site between the Learning Garden and the Washington County Master Gardeners Education garden. This is being accomplished in partnership with the Master Gardeners, so their portion (approximately 600 square feet) will be planted when we are allowed back on campus. The other 660 square feet has been planted with pollinator trees, shrubs, and ground covers. Mulch will be added to most of the hedgerow to suppress weed growth.





Pollinator Hedgerow installation near Learning Garden and Washington County Master Education Garden

Trees for Bees planting

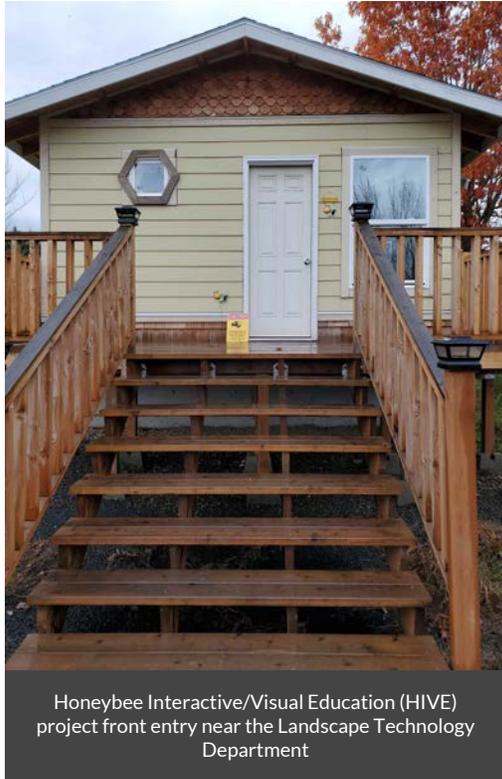
Phacelia cover crop attracting pollinators on campus

Education & Outreach

We were very fortunate to receive a few pollinator grants in 2020. One that is specifically for Education and Outreach was our Honeybee Interactive/Visual Education (HIVE) project. We took a tiny home on campus and mounted educational photos with descriptions on all the walls. If you follow the walls in a clockwise direction, you get a nice introductory education on honey bees and pollination. We also installed two hives inside, which enter/exit through a window, equipped with screened back panels, so that you can see/hear/smell the bees while in the HIVE. These hives are also equipped with a Flow Hive on top so we can harvest honey from inside the HIVE. The project goals were to educate people of all ages with limited pollinator knowledge to the importance of honey bees and the pollination work they do. It was also designed to be used without the need of our beekeeper being present for the tour so tours can happen more often, without the constraints of the beekeeper's schedule. This project was finished in time to have the Grand Opening during Earth Week, April 2020, which was cancelled. But we recorded a live video of the tour and shared it on our webpage and Instagram



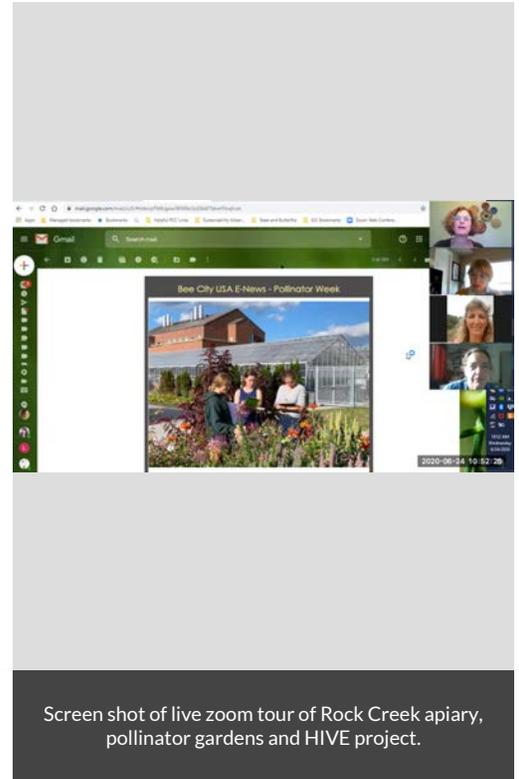
instead.



Honeybee Interactive/Visual Education (HIVE) project front entry near the Landscape Technology Department



Side shot of HIVE showing beehives in window



Screen shot of live zoom tour of Rock Creek apiary, pollinator gardens and HIVE project.

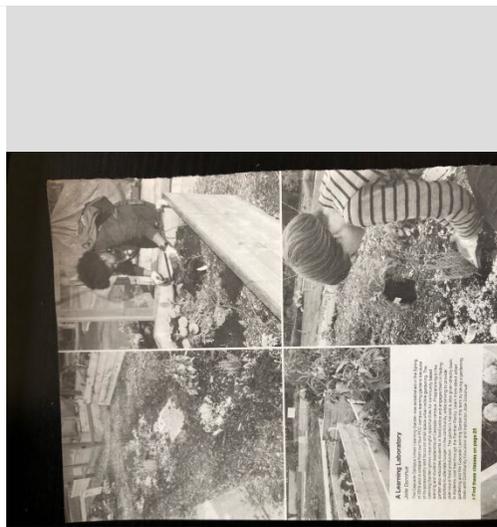
Courses & Continuing Education

We have several classes, both for credit, as well as community education, that have pollinator education included. Most of them are found when searching for Gardening, but some are with Biology or Landscape Design. Many, but not all, of these courses have successfully switched to an online format. Our Cascade Campus, Learning Garden Coordinator, Jolie Donohue taught vegetable gardening basics, small space vegetable gardening, culinary herb & edible flower gardening, cool season vegetable crops, warm season vegetable crops, planting for a fall & winter vegetable garden, fall care of the vegetable garden, crop rotation & companion planting, and troubleshooting the organic vegetable garden. Each class included a component on pollinators and in particular, the troubleshooting and companion planting classes. All of these classes successfully transitioned from in-person to virtual synchronous classes that were very well attended.

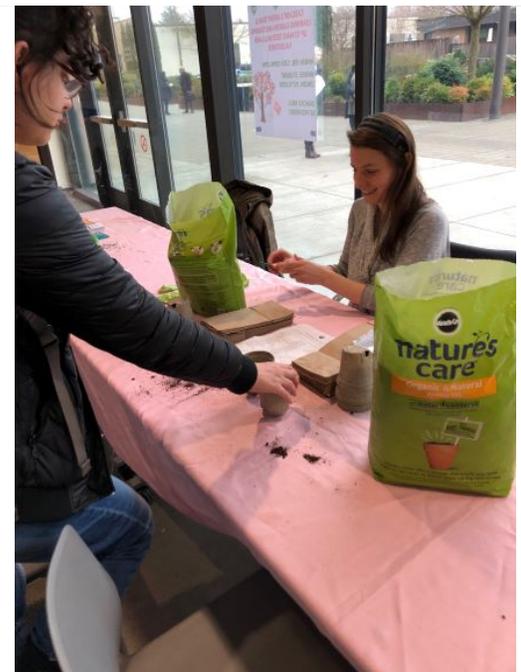




Summer 2020 Community Education Classes offered by Cascade Learning Garden Coordinator



Spring 2020 Community Education garden class- Learning Lab



Cascade campus pollinator party 2.2020

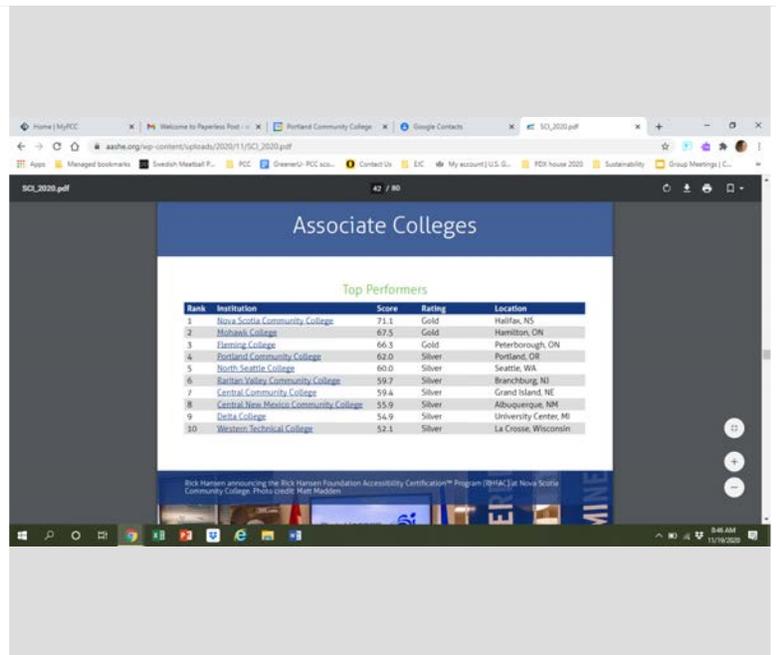
Service-Learning

A total of 12 community-based learning (CBL) projects were created with credited Environmental Science and Research classes (ESR). Jolie Donohue also created and facilitated a CBL project with ESR 172: Biological Perspectives II class. The class was studying integrated pest management and she engaged them in a virtual CBL project on the impact of organic pesticide use on bees. Jolie presented a virtual tour of the Cascade Learning Garden in the synchronous virtual classroom, introduced pollinator decline, shared information on common organic pesticides and their impact on bees. The class then split into small groups, selected one common vegetable garden pest, researched the recommended organic pesticide, its impact on bees, and created an informational brochure on alternatives. This information will be included on our learning garden website, social media, and garden signage.





Biology students created pollinator signage for the Cascade Learning Garden in 2020



PCC and its sustainability programs, like Bee Campus USA, help us maintain our ranking as one of the top Community colleges in the nation

Educational Signage

A Biology class on the Cascade campus in Spring 2020 had a section in their syllabus on interpretive pollinator/insect signage.





Two of the types of pollinator education signs we have on campus



Pollinator pesticide free zone signage



A sign of the times! Milkweed in bloom in one of our pollinator gardens on campus

Policies & Practices

We currently don't use any neonicotinoid pesticides and only use herbicides when other methods are unsuccessful. There are many pollinator habitat areas where no pesticides are used at all. These areas are managed with mowing, string trimming, hand pulling and mulching. This year has been more challenging than most, with very limited personnel allowed on campus, so the weeds have been more successful than in years past, but we are continuing to work diligently. We are currently working on updating the IPM plan to include more pollinator specific wording.

Integrated Pest Management Plan:

Recommended Native Plant List:

Recommended Native Plant Supplier List:





Learn More

<https://www.pcc.edu/sustainability/on-campus/rock-creek/bees/>
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<https://www.instagram.com/pcclandscapetechnology/?hl=en>



Table tent flyer designed to educate and encourage more participants in our Bee Campus USA committee

