

Bee Campus USA - Truckee Meadows Community College

Report on 2023

Pollinator Habitat Creation & Enhancement

Please describe pollinator habitat creation or enhancement projects in your community in 2023, and whether your committee hosted them or not.

- Countess Dandini Garden within our Dandini Campus was approved by TMCC President, Dr. Karen Hilgersom to be established as our official pollinator Garden, on our Dandini Campus.
- We also have a garden club which has garden beds on Dandini Campus, that has also been incorporating bee pollinator plants in this area. This is also where two bee hives were placed in the Fall of 2022.
- In the Spring of 2023, the Meadowood campus also planted native pollinator plants in this campus extension, as a Year of Sustainability project, and supported by a Foundation Sustainability Grant.
- Our campuses grounds manager David Murray, makes sure that the many pollinator plants across all campuses meet all criteria for esthetics, education, and to enhance our pollinator endeavors. In consideration of our Bee Campus USA status, plants on campus, when necessary, are replaced with shrubs, trees, ground cover, etc., with pollinators in mind.
- Our community partners Save the Bees Foundation, placed native bee housing on the Countess Dandini Pollinator Garden.
- The plants in the pollinator garden were chosen by botany students, taught by Dr. Megan Lahti. She created a class project where the students designed the garden given the region ecosystem, and chose native plants according to that ecoregion, thus meeting the in this way many of the competencies to be covered in the course. The design was in coordination with the grounds manager and the Bee Campus USA Committee.
- Community member and member of Save the Bees Foundation Barbara Fenne donative native plant seeds.
- All native plants have been purchased via Washoe State Tree Nursery <https://forestry.nv.gov/washoe-state-tree-nursery>. Drs. Lahti and Vigil applied and received innovation grant managed by TMCC foundation, to purchase plants from the above-mentioned agency.
- We also received donation of native plants via Shannon Swimm, then manager at the time of the Prison Sagebrush Project
- Professor Hieu Doe and Stephan Brown donated two hives for the backyard bee class and pollinator efforts on campus

How many habitat projects did you help to create or enhance in 2023?

2

How many people (staff, volunteers, students, partners, etc.) helped with those projects?

200

How many projects benefit monarchs, milkweed, or nectar plantings?

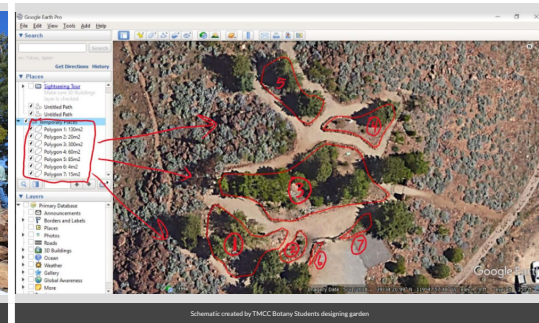
10

How many total square feet of habitat were created or enhanced?

25000

Please check all that describe the habitats your affiliate helped to create or enhance last year with pollinator benefit in mind.

- Flower garden
- Vegetable garden
- Pollinator-friendly lawn (with flowering clover, dandelions...)
- Native milkweed planting for monarchs and bees (where appropriate)
- Invasive/exotic plant species removal for habitat improvement
- School garden



Education & Outreach

Please describe pollinator conservation events or outreach activities in your community in 2023, indicating whether your committee hosted them or not.

- The Sustainability Champions enacted The Year of Sustainability, with many projects that utilize the garden for meetings, class projects, etc.
- Both in Fall of 2022 and 2023, Tahoe Expedition Academy brought over elementary & middle school children to learn about becoming a bee campus USA and establishing pollinator gardens on their campus'.
- BIOL 190 and BIOL 191, Botany, and Entomology students do clean-up before Erath Day and before Winter break, preparing the pollinator garden every semester.
- FREE had a presentation, guest speaker Juliana Urtubey, AKA Ms. Earth, who spoke about sustainability and pollinators/garden projects.
- Earth Day 2023 is when we had our Pollinator Garden Ribbon Cutting ceremony.
- During 2022 and 2023 Earth Day, students from the TMCC Children Center released ladybugs and lacewings and were taught an about natural pest control.
- Two of our TMCC Bee Campus USA members (Drs. Ayo Akinola and Cecilia Vigil) are board members at Keep Truckee Meadows River

Beautiful (KTMB) and work together to promote our programs. As of January of 2024, Dr. Vigil is the acting the chair for the education/sustainability group of this non-profit agency (KTMB). • TMCC received an award from KTMB for our sustainability efforts. • We participated with The Save the Bees Foundation in both: Bowers Mansion Blue Grass Festival and KTMB clean up in both falls of 2022 and 2023 – where pollinator education was the emphasized. • We work closely with Partners: University of Reno Nevada (UNR) Extension, City of Reno Parks & Rec, Washoe County Sustainability, Reno Food Systems, Bee Friendly Reno, NV Monarch Society, Nevada Bee Association, Bees for Vets, Sagebrush in Prisons Project Coordinator for NV, and the Native Plant Society. All of which have tables during our Erath Day. • Every semester we organize an Ecoblitz at San Rafael Regional Park, where students and general public (citizens of science) are invited to learn and study about ecological and biodiversity in the largest urban green park in Reno Nevada. Biology and entomology students work on biodiversity of insects. • Insects from the previous are collected, and preserved and curated for the TMCC Natural History Museum. • TMCC Bee Campus USA and Sustainability Champions members are notified of learning opportunities like: Bee Friendly Gardening <https://pollinator.org/bfg>, Wild Ones presentations, CERCES presentations, and many other. • Dr. Micaela Rubalcava (Chair of FREE) created lesson plan that incorporated 7th Generation Indigenous Philosophy and her Educational students created pollinator mural • TMCC welding student created artwork for the garden, which our facilitated mounted and installed

How many pollinator-related events or outreach activities did you host or help with in 2023 (in total)?

15

How many people attended those events (in total)?

760

Number of permanent interpretive/educational/Bee Campus USA signs installed to date?

3

Number of temporary interpretive/educational/Bee Campus USA signs installed in 2023?

1



Tahoe Expedition Academy brought over elementary & middle school children to learn about becoming a bee campus USA



UNR, TMCC Citizen Scientists volunteered at Ecobitz at Rancho San Rafael Regional Park



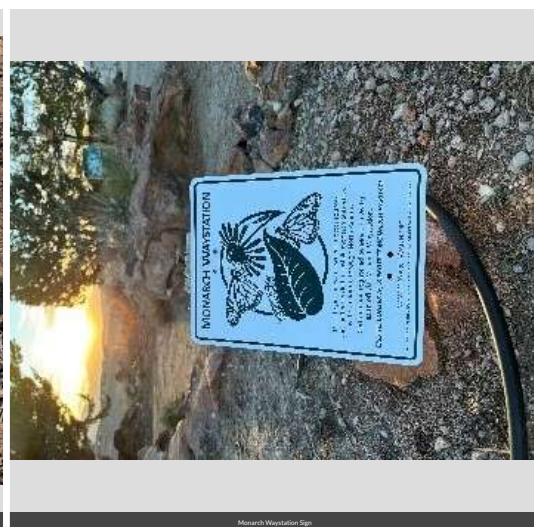
TMCC Bee Campus USA had educational booth at KTMB Clean the River event



Bee Friendly Nevada Sign



XERCES Pollinator Habitat Sign



Michaech Wastation Sign

Curriculum, Continuing Education, & Service Learning

Please describe the curriculum your campus engaged in 2023, indicating whether it was part of a for-credit course or continuing education.

- TMCC has incorporated pollinator curricula and labs for: BIOL 100 – Introduction to Biology, BIOL 190 – Cell & Molecular Biology, BIOL 191 – Organismal Biology, BIOL 202 – General Botany, and BIOL 137 – Introduction to Entomology.
- Backyard Bee keeping had not been offered since 2018, and has now been reincorporated into TMCC EPIC (Educational Program Inspiring Community) offerings, and was imparted in the Spring and Fall of 2023 (see photo below).
- We added Introduction to Entomology to our course offering, with the first one taught in the Fall of 2022. This class is now part of a Wild-Life Technologist Certificate program that began to be offered in the Spring of 2023. The entomology students are tasked with producing a Reno/Sparks insect field guide – adding species per student every semester
- TMCC welding student created artwork for the garden, which our facilitated mounted and installed

How many of your for-credit courses included pollinator-related information in 2023?

5

How many students attended those for-credit courses?

133

How many of your continuing education courses included pollinator-related information in 2023?

1

How many participants attended those courses?

23

How many service-learning projects did your campus host and/or support to enhance pollinator habitat on- and off- campus?

8

How many students participated in service-learning projects in 2023 to enhance pollinator habitat on or off-campus?

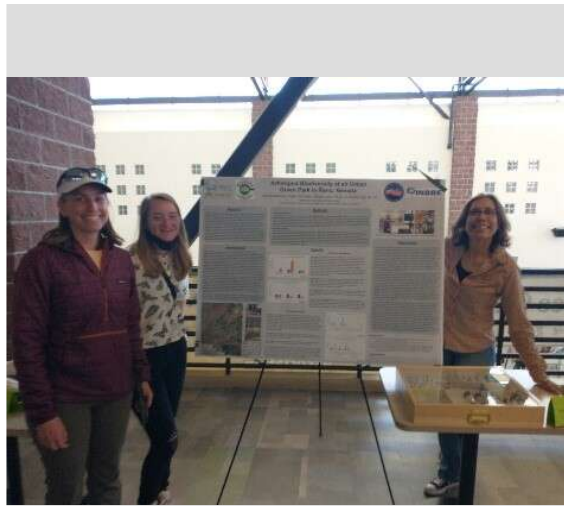
250

Please describe the service-learning projects your students were engaged in 2023, indicating which, if any, were associated with a course.

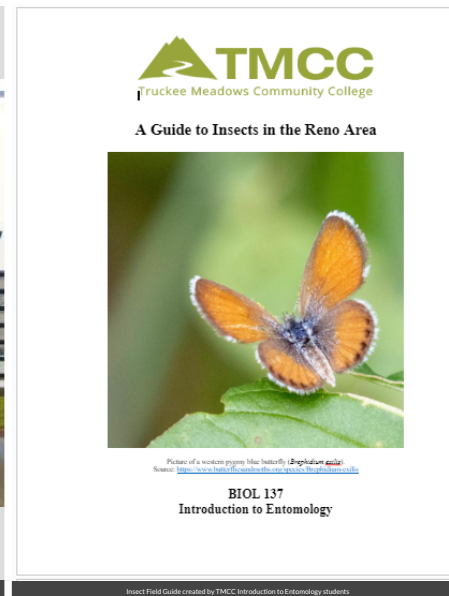
Welding – create artwork or pollinator garden BIOL 190, 191, entomology, anatomy and physiology, botany students – assisted with preparing grounds for pollinator garden, Earth Day, and Ecoblitz, and participated in wellness run that lead to pollinator garden



Students taking Backyard Bee Keeping Class



Poster Presentation by Biology students related to insects



Insect Field Guide created by TMCC Introduction to Entomology students



Biology students preparing garden for native plants



Student from TMCC Children Center - released ladybugs as natural pest controllers



TMCC Welding Students created artwork for garden

Policies & Practices

Please describe actions taken to make pest management more pollinator-friendly.

- TMCC follows strict policies related to pesticides. Only natural biological pest control means are used here, for example neem oils.

<https://www.appa.org/facilities-manager/tmcc-facilities-a-commitment-to-environmental-sustainability/> • The campus grounds/facilities consult with Bee Campus USA Committee when related situations occur. For example, in Summer of 2023 some students complained about bees by the bus stop. The campus botany and entomology professors met with facilities personnel, identifying the bees as native, and determining establishing signage in area that would educate about these bees, also moving plants that would attract said bees to other areas on campus. • TMCC Bee Campus USA Committee worked with community partners who led passing of AB162 bill in Spring of 2023 – controlling the use of neonicotinoids

In your city or campus, are any policy initiatives underway to further protect pollinators, people or waterways from pesticides?
 Not to our knowledge.

Did your committee participate in any continuing education on ecologically-based Integrated Pest Management planning?

- TMCC has incorporated pollinator curricula and labs for: BIOL 100 – Introduction to Biology, BIOL 190 – Cell & Molecular Biology, BIOL 191 – Organismal Biology, BIOL 202 – General Botany, and BIOL 137 – Introduction to Entomology. • Backyard Bee keeping had not been offered since 2018, and has now been reincorporated into TMCC EPIC (Educational Program Inspiring Community) offerings, and was imparted in the Spring and Fall of 2023 (see photo below). • We added Introduction to Entomology to our course offering, with the first one taught in the Fall of 2022. This class is now part of a Wild-Life Technologist Certificate program that began to be offered in the Spring of 2023. The entomology students are tasked with producing a Reno/Sparks insect field guide – adding species per student every semester. • TMCC Earth Day 2022 screened to the attending public the movie My Garden of a Thousand Bees • TMCC biology students participated in spring and fall of 2023 in biannual Ecoblirz, where part of what they learn, is the

biodiversity of insects in San Rafael Regional Park (green park in Reno). • Natural History Museum and above-mentioned students collect entomological specimens and then preserve and curate these for the museum – which shares related data worldwide via arctos database (see photo above). • Biology students participated in Undergraduate Research and then present their findings via Poster Presentation during the Spring and Fall 2023 INBRE (IDeA Networks of Biomedical Research Excellence) organized event, as well as at Earth Day events. Here we had many posters related to entomological work related to ecoblitz and museum work mention above. • In Fall of 2023 Biology Students promoted Bee Campus USA and Par course during wellness running event (see picture below right), organized by one of our members Ben Davis (TMCC Wellness and Health Director). The Par course transects the garden, and is used for wellness and physical and educational activities. • In fall of 2023 we promoted via social media leaves the leaves campaign.

Please check actions you have taken to make pest management practices more pollinator-friendly.

- Implemented or maintained a written IPM plan
- Only use pesticides as a last resort within the IPM plan
- Avoided use of pesticides in public sites containing designated pollinator habitat or other sensitive features (except when targeted use is deemed the best option for invasive or noxious weed, insect or disease management)
- Implemented non-chemical pest prevention and management methods on city or campus grounds
- Restricted pesticides used to organic pesticides on city or campus grounds
- Eliminated use of neonicotinoid insecticides on city or campus grounds
- Distributed educational materials to residents or students to encourage the reduction or elimination of pesticide use

Any lessons learned you would like to share?

Do not impose, be transparent, get a team that is committed and engaged.



<https://youtu.be/a4k0i1pCpG0> Video of how TMCC supports Bee Camus USA endeavors



TMCC Sustainability Champions Committee

Learn More

Integrated Pest Management Plan: [INTEGRATED PEST MANAGEMENT PLAN_TMCC_Application Jan 2022.docx](#)

<https://www.appa.org/facilities-manager/tmcc-facilities-a-commitment-to-environmental-sustainability/>
Recommended Native Plant List: [Pollinator Garden Proposal Native Plant List Application Jan 2022.pdf](#)
[Washoe State Nursery](#)

Recommended Native Plant Supplier List: [Plant_Species_Information_LahtiNativeSpeciesAdditions.xlsx](#)
<https://nevadagrown.com/washoe-state-nursery/>

<https://www.tmcc.edu/diversity/sustainability/bee-campus-usa>
BeeCampus@tmcc.edu

<https://www.instagram.com/tmccnevada/?hl=en>
<https://www.facebook.com/TMCCNV>

<https://twitter.com/tmccnevada>

