

Bee Campus USA - Central 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.

Our first habitat creation project of the year was April 28th at the Columbus Garden planting during our annual Earth Month event on that campus. Staff and students planted over 30 new plants that were sourced from Nebraska Statewide Arboretum's Bloom Box program. Native grasses, sedges, and flowering herbaceous plants were added to the existing 9750 sq ft garden. This is part of our annual plan to replace any plants that have died and fill out any open areas within the existing footprint. On May 5th Staff and students planted over 30 new plants in our Administrative Walkway Garden that were sourced from Nebraska Statewide Arboretum's Bloom Box program. This 760 sq ft garden was created the previous year to replace removed nonnative landscaping. We also used some of the Bloom Box plants to replenish empty spots in our Grand Island Pollinator Garden. May 9th Staff and students from Grand Island and the Ord center doubled the size of the existing garden near the Ord cemetery and added over 150 native plants to the new 400 sq ft area. Plants were sourced from the Statewide Arboretum and the Nebraska Crane Trust. This garden has garnered much attention from the public as it is next to a popular walking/bike trail in the small town. Residents enjoy watching the plants and insects interact and take immense pride in having the garden in their town. On September 20th ESO staff enhanced two separate pollinator gardens on the Grand Island Campus. 32 plants were added to the 760 sq ft Administrative Walkway Garden and the remaining plants were planted in our 6000 sq ft pollinator garden. Plants were sourced from Nebraska Statewide Arboretum. On Sept 27th Staff and Students from Grand Island and Ord once again increased the total square footage of the Ord Garden. Taking it from 285 sq ft at the beginning of the year to over 950 sq ft at the end of the year adding another 150 plus plants sourced from the Statewide Arboretum and a local greenhouse named Elyria Gardens.

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

7

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

8

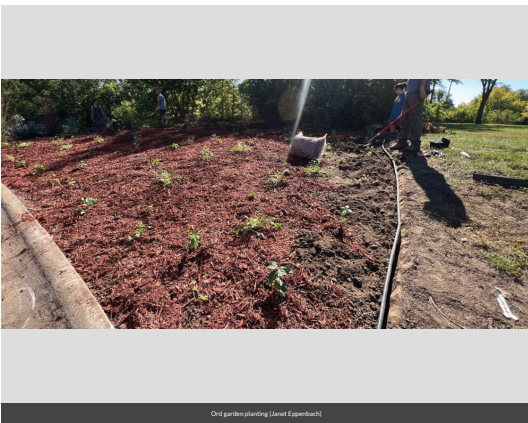
How many projects benefit monarchs, milkweed, or nectar plantings?

7

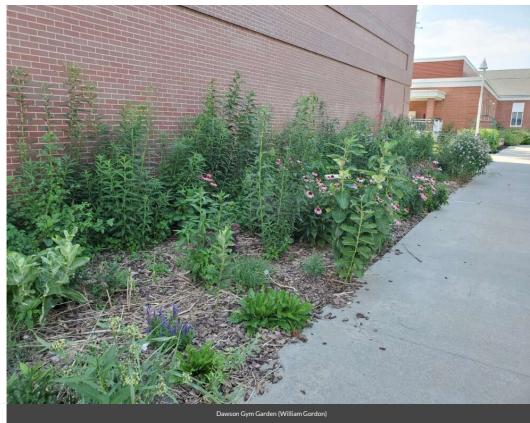
How many total square feet of habitat were created or enhanced?

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

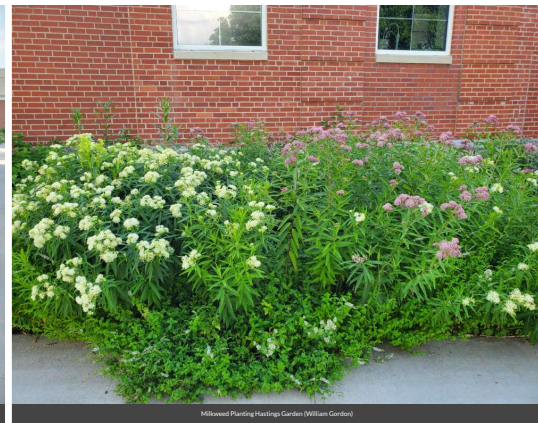
- Flower garden
- Vegetable garden
- Herb garden
- Native milkweed planting for monarchs and bees (where appropriate)
- School garden



Child gardening (Leland Espenbach)



Dawson Gym Garden (William Gordon)



Milkweed Planting (Hastings Garden) (William Gordon)

Education & Outreach

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

2023 began with Students for Sustainability and staff attending the Nebraska Sustainable Agriculture Societies annual Health Farms Conference. NSAS Promotes agriculture and food systems that build healthy land, people, communities, and quality of life for present and future generations. In March, our staff and students hosted a container gardening demonstration at the Kearney CCC center. We showed staff and students how to grow vegetables, herbs, and flowers in containers. Attendants took home seeds and materials to start their own container gardens at home. In April, our staff presented to a class of speech students about the sustainability office and our role on campus including creation of habitat for pollinating plants and insects. ESO (Environmental Sustainability Office) Interns hosted Earth Month events during April across three campuses and one center where we promoted pollinator habitat creation and sold seeds from our campus gardens and did a pollinator planting demo and a compost demo. April 21st our director presented at the Gardening in the valley event in Ord Nebraska. He covered how to create and manage native

pollinator gardens, the ecological benefits of native plants, and he offered up seeds collected by Students for Sustainability. On the 25th of April, our director presented at a Spring Gardening event in Columbus where he spoke about how to create and manage Nebraska native pollinator gardens, the Ecological benefits of native plants, and sold 23 packets of native pollinator seeds from our gardens. On May 16th CCC hosted the annual Nebraska Children's Groundwater Festival. This annual event brings 5th grade students from all over the state to CCC to learn about the importance and preservation of groundwater. The ESO demonstrated the importance of rain gardens and native plants in the filtration of rainwater runoff on its way to becoming groundwater. On June 22nd staff and students hosted a Homegrown Habitat Course offered through our extended learning services. Five attendees learned about native pollinator plants and insects and created planters with native seedlings and bee hotels. On July 7th Marty Stange with the City of Hastings utility department contacted the ESO to look at an area they were interested in introducing native pollinating plants. The area is an old landfill that has been converted into a dog park. The 40-acre property is full of non-native grasses, and we plan to spread seeds from our pollinator gardens to introduce native plants back to the area. On July 28th and 29th CCC hosted the Scouts Merit Badge University and the ESO helped scouts from across the state earn their sustainability merit badges. Scouts learned much about sustainability, including information about the importance of native plants, insects, and habitat. On August 22nd and 23rd Students for Sustainability hosted our club days to spread awareness about our group and the importance of native pollinating plants and insects and in doing so recruit new members and make connections within the student body. August 25th through September 1st the Environmental Sustainability office and Students for Sustainability hosted tables and exhibits in the Sustainability Pavillion at The Nebraska State Fair. This year's projects included a fairy garden that used plant material native plants to create a whimsical fairy village, Eco bricks made from plastic bags and bottles which we made a children's playhouse from, and a handmade diary made from recycled paper and pressed flowers from our gardens. Along with our displayed projects we also hosted tables during Nebraska's Largest Classroom days where grade school classes from across the State visit the fair to learn and play. We interacted with these children through games and trivia which informed them about the importance of creating and preserving habitat for native plants and insects. Nov 14th Regenerative Ag Conference in Holdredge- Staff and students attended the annual regenerative agriculture conference hosted at the Holdredge CCC center. Over 100 farmers and ranchers attended from across the state to listen to speakers promote regenerative agriculture techniques and ideas to create healthier more environmentally friendly practices. Students for Sustainability sold over 50 packets of seeds collected from our pollinator garden to the attendees of the conference. Nov 25th Students for Sustainability began their annual seed sale with seeds collected during the 2023 season. Seeds are packaged and sold to staff and students to fund club activities. Seed packets are also available at all events we attend and are often offered as giveaways at those events. Our seed collection and sales are a great tool for creating off campus habitat and promoting native plantings.

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

24

How many people attended those events (in total)?

7759

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

6

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

8



Students at the Kearney Center plant seeds and learn about container gardening (Kazia Marquez)



Hastings Pollinator Garden Sign (William Gordon)

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.

Central Community College offers a selection of for-credit and continuing education courses that include a range of pollinator inclusive coursework. Some of these courses include Environmental Science, Biology I & II, Plant Management, Principles of Biology, and Introduction to Sustainability. Sustainable concepts are a core element in much

of the culinary coursework. Students in the hospitality program are guided toward business principles that entail learning about pollinators in relation to food systems, growing and utilizing fresh ingredients, and/or food waste management. Each year, program participants are also expected to participate in the culinary garden management process. Public Speaking and English Composition instructors equip students with a range of topics to complete guided writing and speech assignments that afford them more flexible approaches to gaining insight into the lives of pollinators. Additionally, our office strives to furnish all students, regardless of program, extracurricular materials via our website and access to the supplementary e-badging program. While not for credit, students enroll in the program wherein they can obtain a digital accolade for both personal use and it appears on their transcript. The badges requirements are meant to showcase applied knowledge of pollinators outside of traditional coursework. Extended Learning Services grants non-credit course offerings for continued pollinator education including Bee Keeping, Advanced Bee Keeping, Nebraska Homegrown Habitat, NAHA Aromatherapy and Physiology and Eco-Explorers Day camp, Introduction to Herbalism and Plant Medicine and NAHA Aromatherapy and Physiology.

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

16

How many students attended those for-credit courses?

2305

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

7

How many participants attended those courses?

50

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

9

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

804

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

On the 25th of April, our director presented at a Spring Gardening event in Columbus where he spoke about how to create and manage Nebraska native pollinator gardens, the ecological benefits of native plants, and sold 23 packets of native pollinator seeds from our gardens. On May 16th CCC hosted the annual Nebraska Children's Groundwater Festival. This annual event brings grade schoolers from all over the state to CCC to learn about the importance and preservation of groundwater. The ESO demonstrated the importance of rain gardens and native plants in the filtration

of rainwater runoff on its way to become groundwater The Bee Atlas Survey was completed on Monday, August 15, 2023 This work included the use of an insect net to capture bumblebees of all species. The plant or flower the bumble bee was feeding on had to be identified. Although a Nebraska plant identification guide was available, the existing garden map and your knowledge of such made that relatively easy. The bumble bee was then placed in a vial in a cooler for later identification using a Nebraska Native Bee identification book. The identification procedure involves taking the chilled bumble bee out of the vile and placing it on a large, white, grid cards. The bee is then photographed with the insect's measurements being clearly noted due to the grid. This is used for additional identification purposes by experts that receive the initial identification from the field researcher, the plant species, and the photographs. The insect is allowed to warm up and make its way back home. The collection period is set according to guidelines of 30 minutes on a defined land area. In that time, we collected about 24 bumble bees for use in the research. The purpose of identifying what bee is on what plant at whatever time of year has several purposes. These include 1) identifying bee species present at the time, 2) Identifying the flowering plants at the same time, 3) what is predominantly being fed on at that time, and, as I understand it, 4) this aids in the development of native seed planting mixtures and procedures to support native bee species. This type of research has multiple applications, such as reintroduction of plant species to support at-risk bee species.



Children's Groundwater Festival students learning about rain gardens (Kazia Marquez)

Policies & Practices

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

All of our pollinator designated areas are strictly non-use pesticide or herbicide areas. When pesticides or herbicides are used on other areas of campus it is only when necessary and in line with our Integrated Pest Management

In your city or campus, are any policy initiatives underway to further protect pollinators, people or waterways from pesticides?

Not currently

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

Not in 2023

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
- Sourced plants for city or campus grounds using “Buying Bee-Safe Plants” methods recommended by Xerces Society. (See <https://xerces.org/publications/fact-sheets/buying-bee-safe-plants>)
- Sourced plants for city or campus grounds that were not treated with neonicotinoids





Committee members receiving Nebraska Statewide Arboretum award (Scott Miller CCC)

Learn More

Integrated Pest Management Plan:

[http://Each%20campus%20maintains%20a%20written%20IPM%20plan%20which%20includes%20the%20avoidance%20of%20pesticides%20in%20designated%20pollinator%20habitats%20and%20other%20sensitive%20sites%20\(except%20when%20targeted%20herbicide%20use%20is%20deemed%20the%20best%20option%20for%20invasive%20or%20noxious%20weed%20management%20like%20circumstances%20listed%20above\).%20The%20Grand%20Island%20campus%20continues%20to%20utilize%20non-chemical%20pest%20prevention%20and%20management%20methods.%20Each%20campus%20has%20eliminated%20pesticide%20uses%20that%20are%20solely%20to%20maintain%20aesthetics%20and%20reduced%20the%20number%20of%20sites%20where%20pesticides%20are%20used.%20Additionally,%20we%20have%20continued%20to%20further%20restricted%20the%20pesticides%20used%20to%20organic%20pesticides%20and%20dropped%20pesticide%20use%20altogether%20where%20possible.%20](http://Each%20campus%20maintains%20a%20written%20IPM%20plan%20which%20includes%20the%20avoidance%20of%20pesticides%20in%20designated%20pollinator%20habitats%20and%20other%20sensitive%20sites%20(except%20when%20targeted%20herbicide%20use%20is%20deemed%20the%20best%20option%20for%20invasive%20or%20noxious%20weed%20management%20like%20circumstances%20listed%20above).%20The%20Grand%20Island%20campus%20continues%20to%20utilize%20non-chemical%20pest%20prevention%20and%20management%20methods.%20Each%20campus%20has%20eliminated%20pesticide%20uses%20that%20are%20solely%20to%20maintain%20aesthetics%20and%20reduced%20the%20number%20of%20sites%20where%20pesticides%20are%20used.%20Additionally,%20we%20have%20continued%20to%20further%20restricted%20the%20pesticides%20used%20to%20organic%20pesticides%20and%20dropped%20pesticide%20use%20altogether%20where%20possible.%20)

Recommended Native Plant List: [Plant list.docx](#)

https://plantnebraska.org/file_download/inline/c9385c9d-c453-4e9e-ad39-f0d766ed4810

Recommended Native Plant Supplier List:

<https://plantnebraska.org/store/>

<http://www.cccneb.edu/pollinators>