



In 2019, the Alliance built a demonstration garden at Crail Ranch using native plants that are wildlife friendly, water wise, and preserving of the historic landscape.

This is our garden's story three years later.



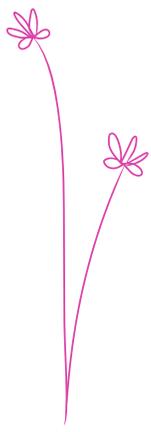
2019-2022

1,036	Wildflowers Planted
43	Native Species
17	# of Events
126	Volunteers
491	Hours



Inspire  
Educate  
Conserve





# Why Plant Native Plants?

Native plants:

- are adapted to local conditions, requiring less fertilizer and pesticides.
- improve air quality by reducing mowing and sequestering carbon.
- require less watering to thrive and can help control stormwater runoff.
- provide food and shelter for wildlife and support pollinators.



*All land is habitat,  
and all habitat is critical.*

Native plants are the foundation of the terrestrial food web.



Because animals directly or indirectly depend on plants for their food, the diversity of animals in a particular habitat is very closely linked to the diversity of the plants in that habitat.

*Chamerion angustifolium,*  
Fireweed, is nutritious because it's high in digestible energy.

As a late season bloomer, fireweed is an important resource for many pollinators.

When fireweed is abundant, elk and moose have greater reproduction rates and bigger calves at weaning.



# Crail Gardens are a Pollinator Buffet

Bees aren't the only pollinators.

The list of pollinators is long and includes hummingbirds, moths, wasps, flies, beetles, ants, bats and butterflies — just to name a few!



 Singing Sky Photography





Native plants and eco-friendly gardening practices provide natural sources of the four elements of habitat:



*Food*



*Water*



*Cover*



*Raising Young*



In 2021, a white-crowned sparrow nested and successfully reared her young among the prairie sage in our largest garden.



# Keystone Species at Crail Gardens

Keystone plants have a disproportionately large effect on the abundance and diversity of other species, like insects, in an ecosystem. These keystone species are found at Crail Gardens.



*Helianthus maximiliani*, Maximilian Sunflower

*Symphotrichum laeve*, Smooth Blue Aster

*Solidago rugosa*, Goldenrod

*Erigeron compositus*, Cutleaf daisy



## Top Native Host Plants for Pollen Specialist Bees

*Erigeron speciosus*, Showy Fleabane

*Ratibida columnifera*, Prairie Coneflower

*Gaillardia aristata*, Blanketflower

*Echinacea pallida*, Pale Purple Coneflower

Diversity of species  
is a sign of a healthy ecosystem.



# Lessons Learned

Nature is Messy  Establishing native grass.

Fall 2020:

- Killed weeds and non-native grass (smooth brome) twice.
- Raked up plant materials.
- Added 1/4" topsoil.
- Seeded with Idaho Fescue

Spring 2021:

- Driest spring on record resulted in little to no germination.
- Remaining non-native grasses were killed.

Summer 2021:

- Installed a temporary irrigation system.
- Prepped area again and added 1/4" layer of topsoil.
- Seeded Idaho fescue in late summer. Germinated well under irrigation.



Late Summer 2021:

- Because the area around the cabin could not be irrigated at all, seeding was put off to late fall. Erosion control mats were used for protection.

Spring 2022:

- A wet spring resulted in germination around the cabin.

*Success!*

Summer 2022:

- Noxious and nuisance weeds, as expected, were weed whacked and pulled by hand. This will continue until grass is established.



# Nature's Ways

## Invasive Species are Agressive

In 2020, we planted noxious weeds for educational purposes in a metal stock water tank.



Planted:

- Canada thistle
- Hoary alyssum
- Houndstongue
- Musk thistle
- Oxeye daisy

After 2 years, Canada thistle dominated the planting and even punched through metal tank and crept outward, getting a foothold in our native grass area.

The thistle was managed and will be monitored as their creeping root systems are notoriously persistent.



Native bees can be found sleeping under flowers, clasping the stem to stay secure.



Rocky Mountain Penstemon makes for a great sleeping spot.



## Natives Travel

Both Buttercup and Many Flowered Stickseed were found in the gardens this year. They were not planted, but found their own way to our gardens.

"If something is not eating the plants, then the garden is not part of the ecosystem."

- Crail Garden Rabbit



# 2022 Projects

Volunteers, including Cooper, replaced shredded bark mulch in the west garden with fire wise pea gravel.



Big Sky Landscaping helped us build a path to the vegetable garden and water spigot, and added large rocks around the base of the smaller cabin.



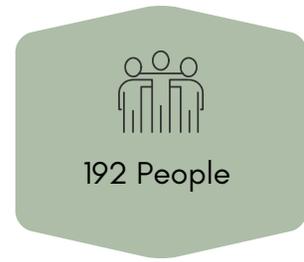
Planted 8 new wildflower species, bringing the Garden's total to 43!



# The Gardens are a Place to Gather



Native Plant Sale  
Open Houses  
Educational Tours & Workshops  
Bag the Peak Cornhole Tournament  
Summer Wine Down



The highlight of the summer was celebrating the beauty of Big Sky's wildflowers and sharing the important role they play in the ecosystem at our...



## Big Sky Wildflower Festival

### Events

Flower Arranging Workshop  
Crail Garden Open House  
Wildflower Sidewalk Chalk Art @ BASE  
Noxious Weed Bouquet Contest  
Weed & Wildflower Hike  
Creating Native Landscapes Workshop  
Wildflower Photography Workshop

### Partners

Hungry Moose Market & Deli  
Arts Council of Big Sky  
Signing Sky Photography





Volunteer

Donate

Shop

- Purchase native plants during our spring native plant sale fundraiser.
- Purchase Crail Garden items from our shop to support the gardens.



[gallatinisa.org](http://gallatinisa.org)

Thank You Volunteers!



48 volunteers



116 hours



Thank You Partners & Donors!

Beth MacFawn Landscape Design  
Big Sky Community Organization  
Big Sky Landscaping  
Big Sky Owners Association  
Big Sky Resort Tax  
Big Sky Water & Sewer  
Big Timberworks  
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