



# Through the Seasons A Front Range Colorado Native Wildflower Garden

by: Susan E. Quinlan

I created this quadryptic artwork of a native plant garden throughout the seasons to illustrate that native trees, shrubs and wildflowers deliver year-round beauty. While I don't enjoy a view of Long's Peak from my yard, I have planted a native plant garden in my yard that includes all of the species depicted in my paintings (along with quite a few others).

My goal is to share the great joy I experience from my wildflower gardens throughout the entire year in hopes of inspiring you to join me and thousands of others in the growing movement to replace our lawns and introduced plants with native plant species.

# Contents

## Through the Seasons: A Front Range Colorado Native Wildflower Garden I

### Why grow native plants?

Native plants help create a sense of place, need less water and no fertilizers!	4
Native plant gardens provide critical habitat!	5
Native plant gardens serve as critical habitat connection corridors	6

### A Key to the Flora and Fauna of Through the Seasons 7

SPRING	8
SUMMER	9
AUTUMN	10
WINTER	11

### Trees, Shrubs and Wildflowers Depicted

#### Conifers or Cone-bearing Plants

Cupressaceae: Cedar Family	12
----------------------------	----

#### Flowering Plants

Anacardiaceae: Sumac Family	12
Apocynaceae: Dogbane Family (subfamily: Asclepiadoideae)	13
Asparagaceae: Asparagus family	13
Asteraceae: Sunflower / Composite Family	14
Berberidaceae: Barberry Family	18
Brassicaceae: Mustard Family	18
Campanulaceae: Bell Flower Family	18
Cleomaceae : Cleome Family	19
Cornaceae: Dogwood Family	19
Fabaceae Legume or Pea Family	19
Grossulariaceae: Gooseberry Family	20
Lamiaceae: Mint Family	20
Linaceae or Flax Family	21
Malvaceae: Mallow or Hollyhock Family	21
Orobanchaceae: Broomrape Family	21
Plantaginaceae: Plantain Family	22
Poaceae: Grass Family	23
Polygonaceae: Buckwheat Family	23
Ranunculaceae: Buttercup Family	23
Rosaceae: Rose Family	24

## Birds and Other Vertebrate Fauna Depicted

### Birds

Hummingbirds	25
Swallows	25
Corvids	26
Chickadees and Tits	26
Wrens	26
Thrushes	27
Waxwings	27
Grosbeaks	27
Sparrows	28
Orioles	29
Finches	29

### Other Creatures

Woodhouse Toad	29
----------------	----

## Insect Pollinators Depicted

### Wasps and Bees (Hymenoptera)

Bumblebees and Honey Bees (Apidae)	30
Sweat Bees (Halictidae)	32
Leafcutter Bees (Megachilidae)	33
Wasps (Vespidae)	33

### Butterflies and Moths (Lepidoptera)

Parnassians and Swallowtails (Papilionidae)	34
Whites and Sulphurs (Pieridae)	35
Brush-footed Butterflies (Nymphalidae)	35
Skippers (Hesperiidae)	37
Hawk Moths (Sphingidae)	37

## Adding native plants to your yard..Where to begin...

What is a <i>native</i> plant?	38
Planting Seeds	39
Planting Starts and Seedlings	40

## Sources for additional information about Native Plants and Native Plant Gardening 41

## References and Resources to Learn More 42

# Why grow native plants?

## Native plants help create a sense of place, need less water and no fertilizers!

Colorado is a beautiful place with stunning scenery and a sunny, dry temperate climate. Most native Colorado plants are well-adapted to survive these conditions. Why grow petunias from South America, clematis from China, or geraniums and red hot pokers from South Africa when there are native plant species that provide equal beauty with less effort and expense?

Native plant species are adapted to our Colorado climate and soils. While it may be necessary to water seeds and seedlings to get native plants established in your yard, continued watering and fertilizers are usually not required. This will save you both time and money! About 70% of the water used by most Coloradans is used to water their lawns. So switching from a lawn to a wildflower garden can save a lot of water!

Unlike most introduced flower and shrub species, native plants are adapted to survive periods of drought and the extreme cold and periodic snowfall that often characterize Colorado's wild winter and spring seasons.

Once established, perennial native plants usually survive over winter to deliver many seasons of beauty rather than needing to be replanted every year like most exotic species.

Annual native plants often reseed themselves too. Though their seedlings often pop up in different places than you originally planted them, the annual surprise appearance of native annuals in new places in your gardens is part of the fun of native plant gardening.



Native plants are adapted to Colorado's climate. In addition, native plants provide food for butterflies, moths, bumblebees and other native insects. Most native insects cannot feed or live on most introduced plants which were brought to the United States from other continents.

# Native plant gardens provide critical habitat!

Wild birds and the insects they feed upon, and those that wildflowers need for pollination, require native plants. Over millions of years, plants have evolved a variety of strategies to minimize loss of their leaves, stems and roots to plant-eating animals, including insects. Their defenses range from spines and hairs that protect their leaf surfaces to a wide variety of chemical compounds that are toxic to many insects and other invertebrates intent on consuming them. Animals that consume native plants have developed ways to tolerate or detoxify some of the defensive chemicals of plant species they have been feeding on for millennia. Consequently, native plant-eating insects, including the caterpillars of our native butterflies, can feed on native plants.

In contrast Colorado's native insects do not have the ability to tolerate or detoxify the chemicals produced by non-native plants from distant regions of Earth. For this reason, most native insect larvae cannot survive on most introduced, non-native plants. That might sound like a good thing if you don't want the leaves or stems of your garden plants eaten by insects. However, nearly all of our songbirds, from robins to chickadees, goldfinches to bluebirds, must have a good supply of caterpillars and other insects to raise their young. No caterpillars and other insects munching on our plants also means no birds raising young.

A 2019 report\* by bird scientists concluded that three billion birds have disappeared from North America since 1970. Many factors are involved, but loss of habitat and the simultaneous decline in insect populations are critical causes. Converting our lawns to native plant gardens and avoiding use of pesticides and herbicides could help many bird species raise more young, preventing further population declines. If enough people participate, our combined efforts could potentially restore many North American bird populations.

\*Read more about this study here:

[Living Birds Magazine](#)

Or read the scientific report here:

[\*\*DECLINE-OF-NORTH-AMERICAN-AVIFAUNA\*\*](#)

Like most songbirds, Western Bluebirds must capture several dozen caterpillars and other insect larvae and adults every day after their chicks hatch. Each nestling needs to be fed about every 20 minutes for 15 to 20 hours each day until they fledge. Without native plants to feed insect larvae, songbirds like bluebirds can't nest successfully.



# Native plant gardens serve as critical habitat connection corridors

Ecologists now recognize that the islands of nature we have set aside for nature preservation are insufficient to maintain populations of many species over time. Perhaps one of the most enlightening examples of this serious conservation problem was revealed by the isolation of six square mile parcel of land during the building of the Panama Canal. Now known as Barro Colorado Island, this forested island in the midst of the canal's Gatun Lake was once home to several kinds of mammals, almost 287 bird species, an estimated 500 species of butterflies and 500 species of trees. Protected and isolated, this tropical island ecosystem has been studied by numerous scientists ever since it was set aside as an ecological reserve in 1923, over 100 years ago.

Scientists expected that the island's remote location and protection from logging, hunting, development and other human disturbances would ensure the longterm future of the plant and animal species that lived on the island. Contrary to expectations however, many species in this protected area have not survived. In just the 100 plus years since the island was isolated and protected, the largest mammals, and even some small mammal species, have disappeared. Nearly sixty species of birds, almost one-third of all the bird species present once on the island, have also disappeared. Several plant species and at least twenty-three once abundant butterfly species are now gone from the protected island too. Most likely, many other invertebrate species have also disappeared, but their loss remains undocumented due to lack of data.

This unsettling loss of so many species from a protected reserve in such a short time period led many biologists to begin investigating the longterm survival of species in other large and small protected natural areas. The results of many studies now clearly show that isolated islands of nature do not, and in fact can not, sustain most species over the long term. The smaller the protected area, the faster species disappear. Fortunately, however, when natural areas are interconnected with other nearby natural areas via corridors of usable habitat, hope for the longterm survival of many more species exists.

Take a look at any aerial photo of our landscapes in Colorado and you will quickly notice that most of our remaining wild, natural areas are essentially islands in a sea of urban development and agricultural fields. To ensure that our state's natural areas continue to harbor healthy populations of the many species of mammals, birds, invertebrates and plants that currently live here, we must create connection corridors among all of our natural area islands. Thankfully, some of our state's leaders have recognized this issue already. Impressive work has already been done to create and maintain 60 corridors for wildlife to cross over or under some major highways, creating connections between otherwise isolated islands of habitat.

Growing native wildflowers, shrubs and trees in our yards is a great way for individuals to directly participate in the conservation of nature. The small islands of nature we create in our yards will provide habitat, resting spots, and usable corridors for birds and pollinators to move to and from larger natural areas. Doug Tallamy, one of the national leaders of the native plant landscaping movement, calculated that "if half of American lawns were replaced with native plants, we would create the equivalent of a 20 million acre national park."

# A Key to the Flora and Fauna of *Through the Seasons*

The numbers and letters placed in each of the seasonal scenes on the following four pages match to the names and information about all 41 species of plants, 14 species of birds, one amphibian and 19 species of invertebrates that I included in this artwork.

A few caveats about my art and the plants included:

My quadtryptic is intended to convey the wonderful beauty and amazing life that a yard full of native shrubs and wildflower can deliver through all four seasons. However, my art is also somewhat fantastical. Crowding so many different plant species together in such a small area is not actually feasible. Each wildflower species and shrub needs a bit more space to grow than my art may suggest.

I created “Through the Seasons” art by combining reality with imagination. As previously mentioned, all the plants shown are native wildflowers that I have added to my own gardens. All species could be grown in any garden along the Front Range. And all the insects and birds shown are species that regularly visit my gardens.

I chose which plants to feature in each season, as well as the relative heights of each species, based on their appearance and general blooming schedule in my gardens. Since I live at about 6,000 feet elevation on a south-facing slope, the phenology and heights of some of the plants I featured each season may differ from what you may see in your garden at a lower elevation or on a north-facing slope.

All of the plants I included are ones that grow in full sun to partial shade on my property. I placed the species that, in my experience, prefer more water or shade on the left side of the walkway. Those that have survived best on the driest, sunniest sites in my gardens I placed on the right side.

The plants I included and provide information about here is only a sampling of the many native plant species that are available for your gardens. Many wonderful native species are not included in this art for a variety of reason--mainly space! I simply hope this art and all the information provided in this brochure will get you interested enough in native plant gardening that you will seek out additional information from other sources. A list of additional sources of information about native plant gardening is provided on pages 41 - 44 of this booklet.



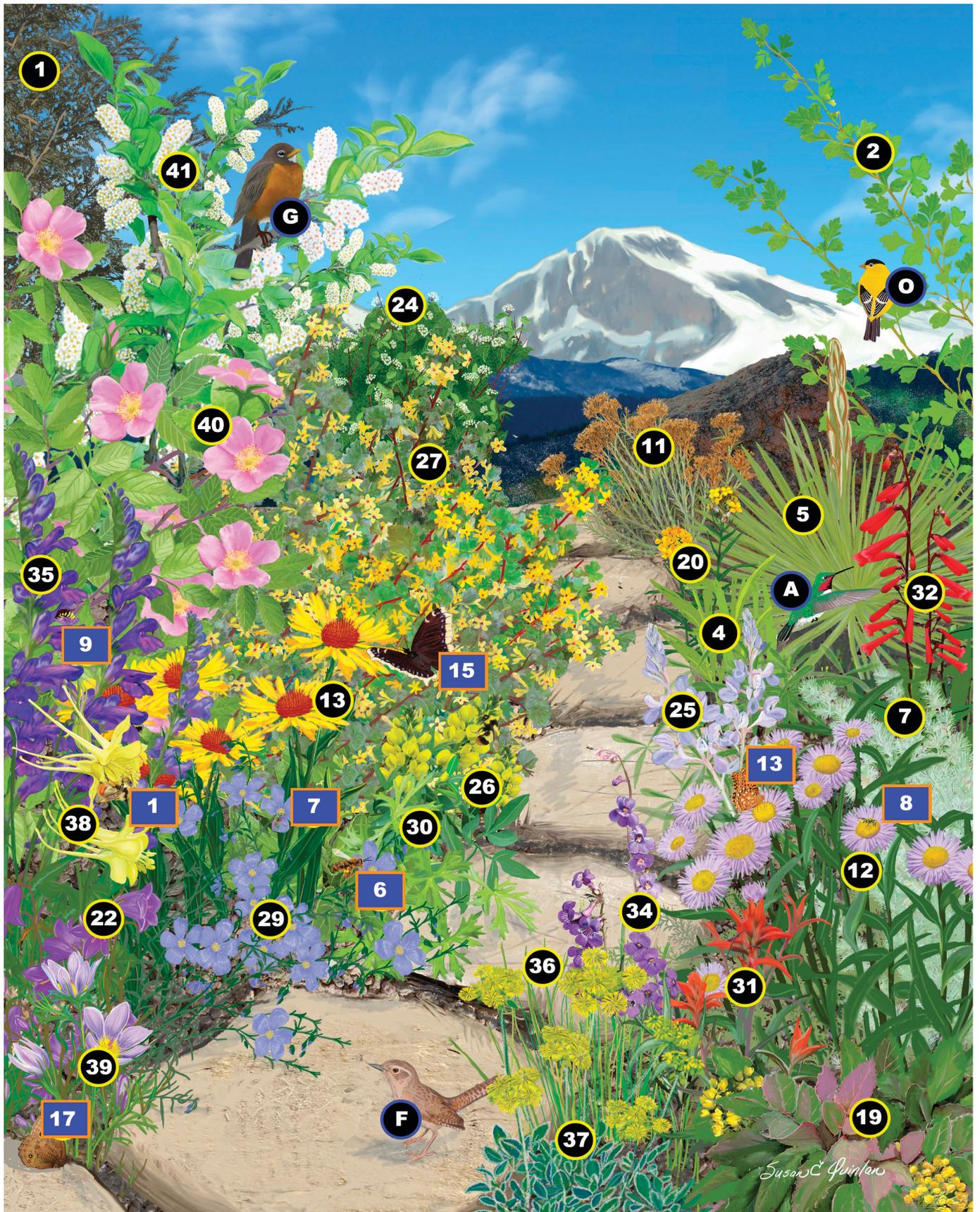
Match numbers in yellow circles to find the plant names.



Match letters in blue circles to find the bird (or amphibian) names.

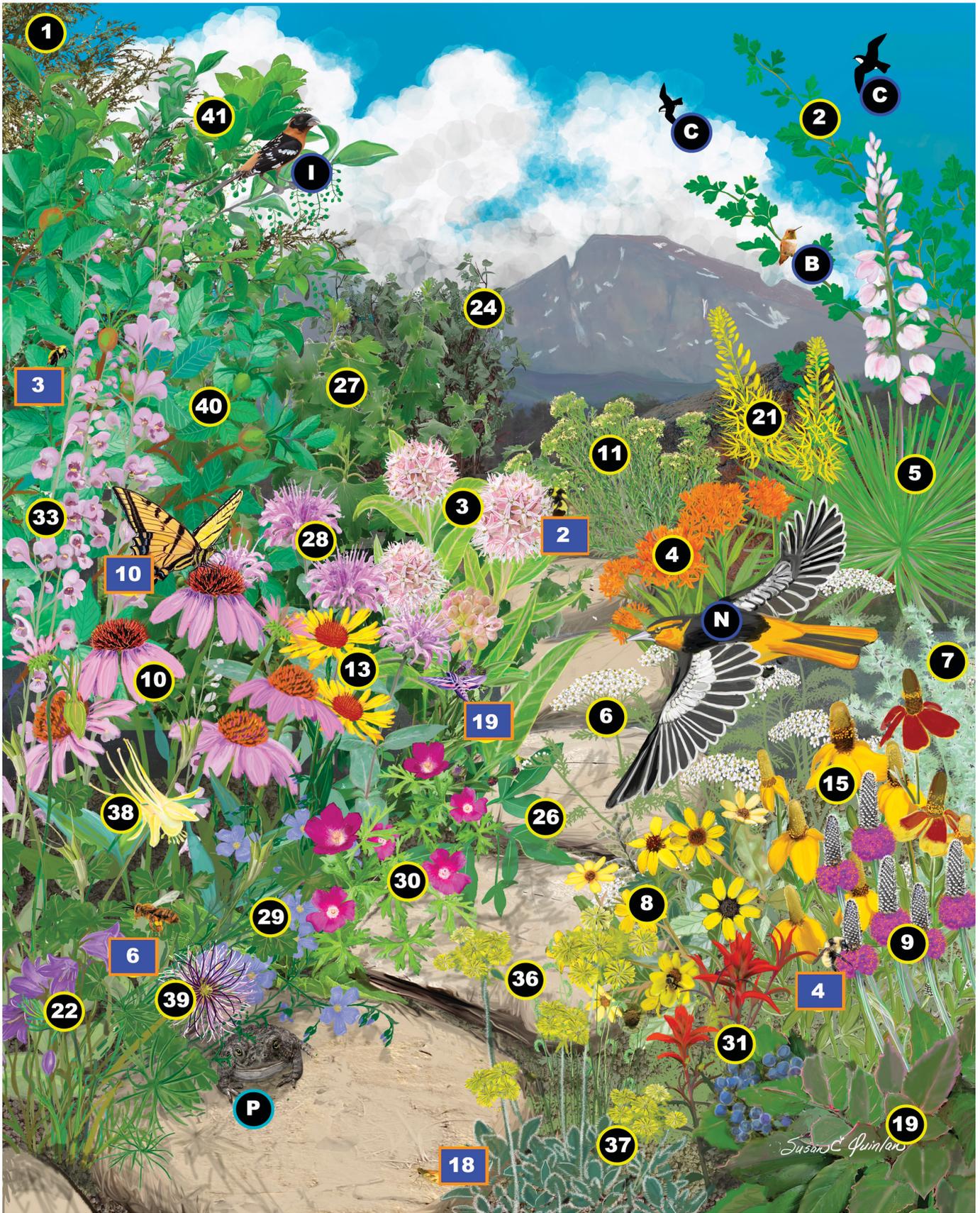


Match numbers in orange rectangles to find the pollinator names.



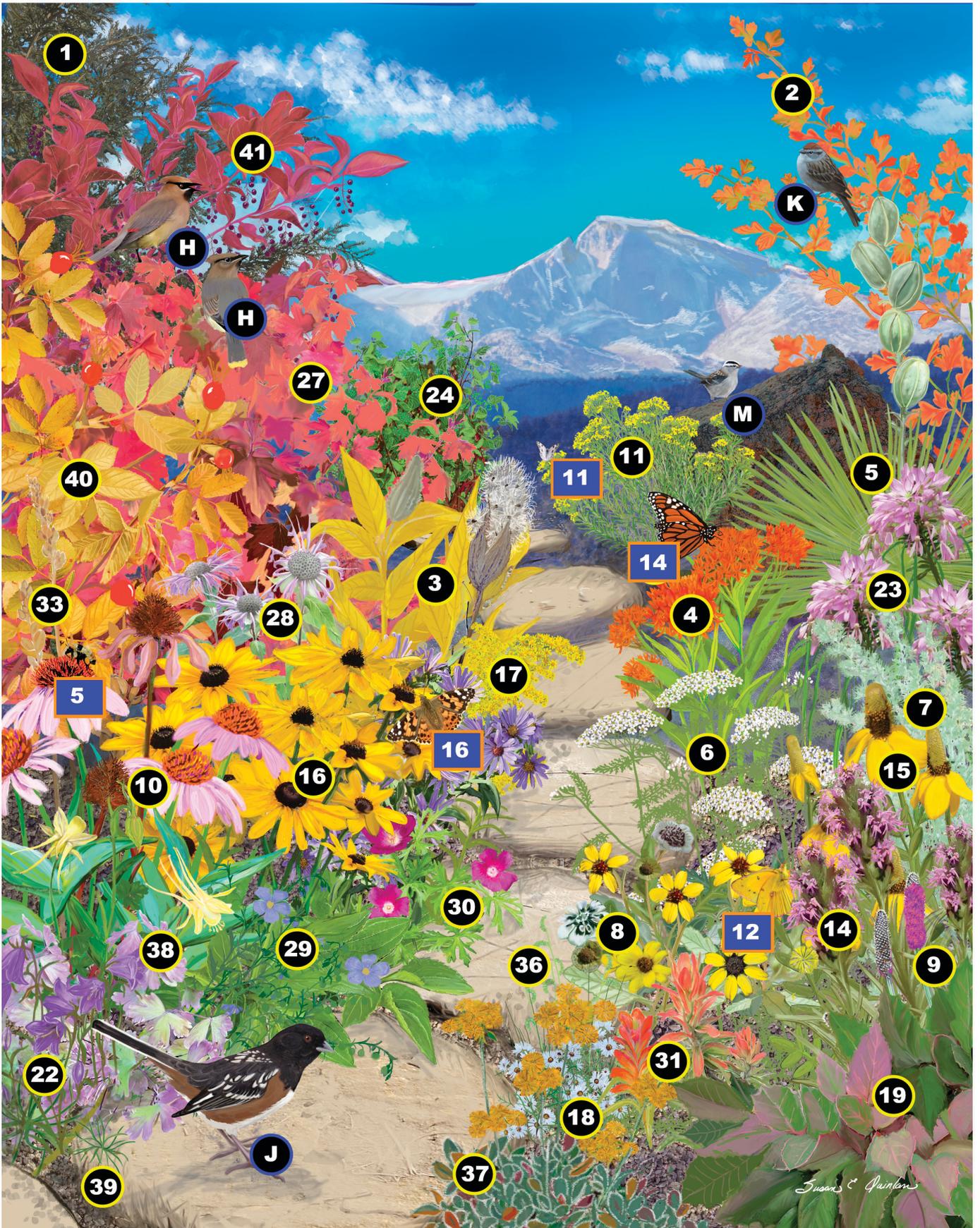
## SPRING

This scene depicts the flora blooming in my garden from late April through mid-June along with a few of the birds and pollinating insects I regularly observe during this season.



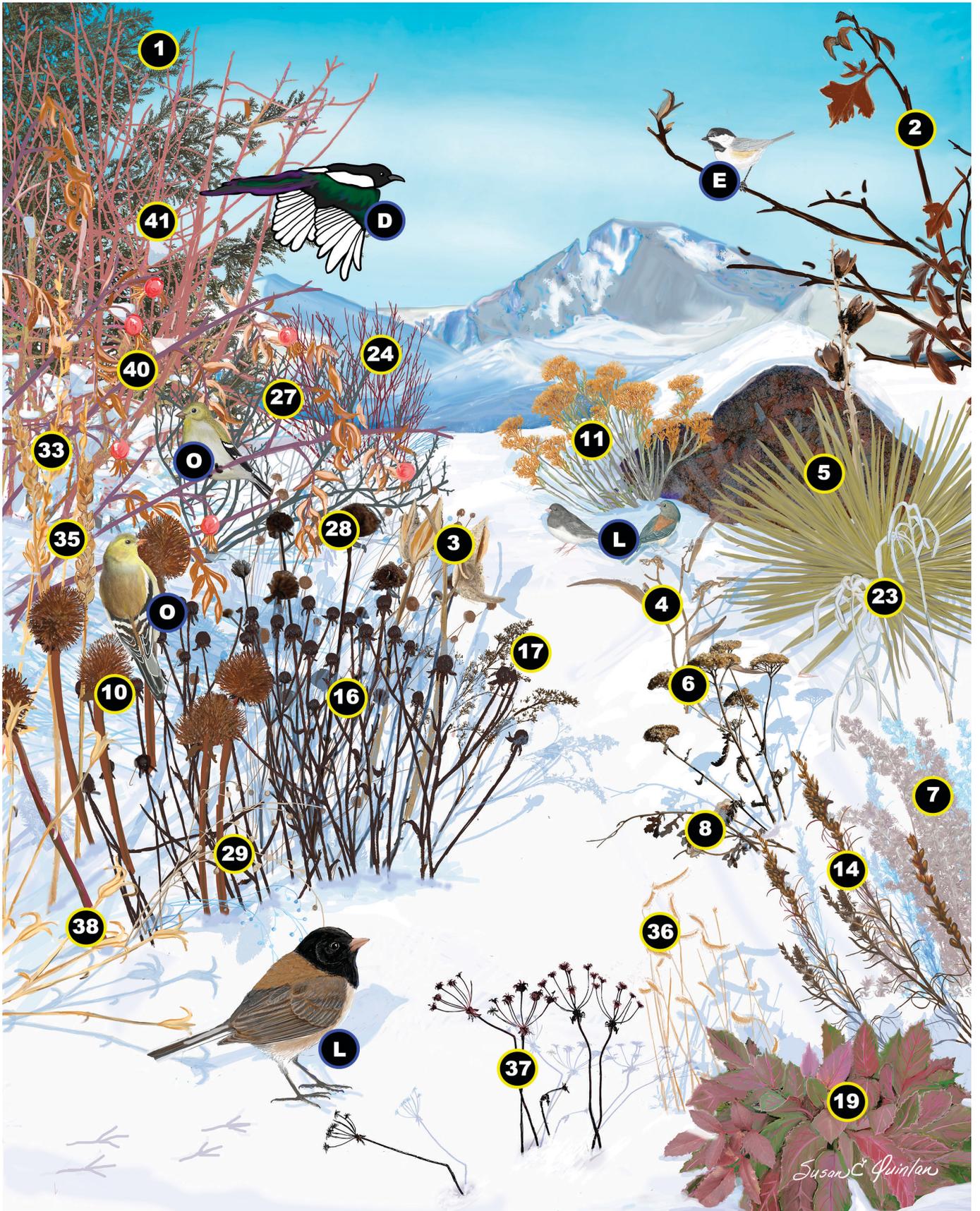
## SUMMER

This scene depicts the flora blooming in my garden from late June through mid-August. I included some of the birds and pollinating insects I often see during this part of the year.



# AUTUMN

This scene depicts the flora blooming in my garden from late June through mid-October along with some of the birds and pollinating insects I often see at this time of year.



## WINTER

This scene depicts the garden on a sunny day after a few days of snowfall. I included some of the birds that frequent my gardens throughout the winter.

# Trees, Shrubs and Wildflowers Depicted

To create habitat for a variety of birds and pollinators, a native garden ideally includes trees, shrubs and wildflowers. The trees and shrubs provide nesting sites and cover (perching, roosting, and hiding places) for birds. Some also provide important fall and winter food sources for wildlife in the form of berries.

Additionally, while many pollinating insects visit a wide variety of flowers to gather nectar and pollen, many have caterpillar stages that can not survive except on specific kinds of native plants. In some cases, the required plants are shrubs. I noted the plants in my artwork that are trees or shrubs to the left of the plant name. All other plants shown are wildflowers. The seasons each plant is depicted are listed to help you find them in the artwork.

## Conifers or Cone-bearing Plants

### Cupressaceae: Cedar Family

1

#### Rocky Mountain Juniper

(Tree)

*Juniperus scopulorum*

Spring Summer Autumn Winter



With dark green foliage and light blue berries, Rocky Mountain Juniper is a pretty tree. Its dense feathery branches provide a place for birds to escape from harsh weather and hide from predators. I have observed junipers being used for shelter by juncos, small owls, and nesting towhees. Robins, waxwings, Townsend's Solitaires (and probably other birds) eat the small blue berries from this juniper during both fall and winter. There are many junipers offered in the plant trade, so be careful to select this native species that is best adapted to this region.

## Flowering Plants

### Anacardiaceae: Sumac Family

2

#### Three-leaved Sumac, Skunkbush or Lemonade Bush

(Shrub)

*Rhus trilobata*

Spring Summer Autumn Winter



This shrub is a member of the Anacardiaceae, a family perhaps best known for mangoes, cashews, and poison ivy. It produces somewhat inconspicuous flowers before it leafs out in spring. During summer, its foliage provides good cover so it is used by a variety of birds for nesting. Its leaves turn a beautiful variety of yellow, orange and red in fall. In addition, its dark orange berries provide a source of food for robins, towhees, and thrashers. This shrub has a distinctive odor especially when its branches are cut, but it does not smell like skunk as one of its common names suggests.

## Apocynaceae: Dogbane Family (subfamily: Asclepiadoideae)

### 3 Showy milkweed

*Asclepias speciosa*

*Summer Autumn Winter*



Best known as plants that attract monarch butterflies, milkweeds also attract many other kinds of pollinators and other insects. A common wildflower along wetland edges and roadsides, the showy milkweed produces large globes of light pink flowers. A close look at the individual flowers reveals a flower architecture unique to milkweeds. The flowers bloom in mid to late summer. These eventually fade, replaced by giant greenish seed pods. In late fall, milkweed leaves turn bright yellow and the now dried gray-brown pods begin to open. Out spew armadas of black seeds, borne aloft in the wind on silky parachutes.

### 4 Butterfly Milkweed

*Asclepias tuberosa*

*Summer Autumn Winter*



This milkweed species produces clusters of bright orange flowers. Its native range is scattered between the northwestern Wasatch Mountains and southern Colorado, but it will grow in gardens anywhere along the front range. Many butterflies and other pollinating insects visit its flowers, but its most widely recognized visitor is the monarch butterfly. Monarchs actually visit a variety of flowers for nectar, but they only lay eggs on milkweed plants. The caterpillars acquire toxic glycosides from the milkweeds. These are retained in their bodies when they metamorphose in adults. As a result, adult monarchs are poisonous, and avoided by most animals that eat other kinds of butterflies and moths.

## Asparagaceae: Asparagus family

### 5 Yucca

*Yucca glauca*

*Spring Summer Autumn Winter*



Yucca is a quintessential front range plant. Its distinctive growth form makes the plant easy to recognize and its leaves remain green year-round. Its tall flowering stalks sprout up in late spring with its large showy blossoms appearing in June or July. I make certain to enjoy the flowers as soon as they bloom because deer usually snack on the blossoms shortly after they bloom. Remarkably the flowers are pollinated almost entirely by a single species of moth, the yucca moth. Despite having looked carefully for these, I have yet to find any. Somehow though, my garden yucca flowers get pollinated most years to form large pods full of black seeds. The pods and tall flower stalks remain on the plants year-round, serving as perfect perching posts for a variety of birds.

## Asteraceae: Sunflower / Composite Family

6

### Western Yarrow

*Achillea millefolium*

Summer Autumn



Yarrow plants have a circumpolar distribution and a wide variety of species and subspecies exist. Botanists do not seem to fully agree on whether *Achillea millefolium* is a native plant or one that was introduced to North America and has become naturalized, meaning it spreads on its own and has become an established part of North American ecosystems. The Colorado Native Plant Society lists the European variety of this same species on their “Do Not Plant” list (See: [https://conps.org/wp-content/uploads/2015/05/species\\_avoid.pdf](https://conps.org/wp-content/uploads/2015/05/species_avoid.pdf)), while also indicating a native variety of this species exists. They advise only purchasing yarrow from a reputable native plant provider. (See their list of seedling sources on page 40 for more information.) Yarrow grows readily in poor soils and does not require watering. It does spread and can take over in some places. Yarrow flowers are visited by many kinds of pollinators.

7

### Fringed Sage

*Artemisia frigida*

Spring Summer Autumn Winter



This native plant is common in front range natural areas and easy to grow. With a pleasant sage smell, lacy foliage and a sea green color that it retains for most of the year, this is a nice plant to include in a native plant garden. In addition to its attractiveness and year-round presence, it is one plant that can help native paintbrush plants get established and thrive. It spreads readily, so I often pull new plants out to ensure it doesn't crowd out some of the other wildflowers I want to thrive in my gardens.

8

### Chocolate Flower

*Berlandiera lyrata*

Summer Autumn



A charming flower named for its curious chocolate-like smell, this plant blooms profusely from late spring into late fall and once established does well even during dry spells. It attracts bees and butterflies. I have noticed goldfinches feeding on its seed heads in fall.

---

**9**

## Purple Prairie Clover

*Dalea purpurea*

Summer Autumn



The flowers of this prairie plant remind me of dancing ballerinas wearing pink to purple tutus. They grow readily from seed and if you have deer around, I suggest sticking to seeds to grow these plants as deer seem to love nibbling off seedling starts of this plant. Having a lot of seedlings sprouting up from seeds increases the odds that some will survive to flower.

---

**10**

## Narrowleaf Coneflower

*Echinacea angustifolia*

Summer Autumn Winter



I hesitated to include the beautiful Echinacea in my *Through the Seasons* art because, in Colorado, this species is a true native only on the eastern plains. Additionally, Purple Coneflower (*E. purpurea*), the species most often sold by most greenhouses, is not native in Colorado, but rather to the eastern United States.. However, coneflower is recommended by many native plant organizations, is readily available, planted very frequently, and attracts many pollinators. And I have included this plant in my gardens. It requires some extra water during dry spells, but its large flowers and seed heads provide a lot of beauty as well as food for pollinators, other insects, and birds. While coneflowers are widely available at traditional plant nurseries, most are not offering either native species, but rather cultivars which differ from the native species in flower color and/or size. I worry that these traditionally available cultivars may be produced using seeds coated with neonicotinoid pesticides, which harm both insects and birds. When I inquired about this at a few local nurseries, the nursery staff claimed to not be aware of neonicotinoid pesticides or their dangerous impacts on pollinators and birds—an answer I find difficult to believe. If you add coneflowers to your garden, try to find native *E. angustifolium*.

---

**11**

## Rabbitbrush

(Shrub)

*Ericameria nauseosa*

Spring Summer Autumn Winter



Rabbitbrush is one of my favorite native shrubs because it is so hardy. It never seems to need water and it produces lots of bright yellow flowers in fall after many other plants have gone to seed. Just as aspen trees paint the mountains in yellow leaves each fall, rabbitbrush paints the plains and foothills in yellow flowers. A surprising variety and number of insects are attracted to rabbitbrush flowers, so I always keep a close watch when these flowers are blooming. Note the pale green color of rabbitbrush stems throughout the cold season; it is one of a few species of local plants that continue photosynthesis during winter. A variety of subspecies and cultivars exist, varying widely in height and flower production. Check carefully to verify the traits of the variety you select.

---

**12**

## Showy Fleabane

*Erigeron speciosus*

Spring



Profuse lavender and yellow blooms make this plant a stand out in late spring and early summer. It forms a large clump over the years and at least in my gardens, has persistently survived for several years in both cool, semi-shaded spots as well as in full sun. Once it is past flowering, I tend not to notice it, which must be why I only included it in the spring art. Doing so allowed more room to include other species in the summer and fall artwork.

---

**13**

## Blanket Flower

*Gaillardia aristata*

Spring Summer Autumn



Blanket flowers are an early season flower and a true native in my location. The native species I portrayed in my painting doesn't feature ray flowers with contrasting red and yellow like the cultivars of this species that most plant nurseries feature. I have planted some of the cultivars over the years because that was all I could find. However, the true native variety flowers are the ones that have stood the test of time, coming back year after year in my yard. These spring flowers attract a variety of bees and butterflies.

---

**14**

## Dotted Blazing Star / Gayfeather

*Liatris punctata*

Autumn Winter



This is one of my favorite fall flowers. Its bright purple flower stalks attract a surprising variety of butterflies and other insects. I have found some good wild patches of these flowers by noticing their dried flower stalks sticking up through the snow in winter. I made a note to revisit these locations the following fall to enjoy the profusion of flowers and insects during the last days of warm fall weather. I included this species because it is so nice to have around. However, I have not been able to get this species to reliably grow through many seasons in my gardens, though it grows profusely in nearby wild lands.

---

**15**

## Prairie Coneflower

*Ratibida columnifera*

Summer Autumn



This is one of the easiest native plants to get established as it produces lots of seeds and grows readily from these. Once established, prairie coneflower tends to spread itself around. However, I have never felt it was taking over or crowding out other plants in my gardens. Rather, it just pops up here and there in surprising and happy new places each year. The most common flowers have solid yellow ray flowers, but some produce flowers that may be a solid dark red, or red at the base and yellow at the tips.

---

**16**

## Black-eyed Susan

---

*Rudbeckia hirta*

Summer Autumn Winter



Black-eyed susans are one of my favorite late summer and fall flowers. Maybe I'm biased because my mom once said she named me after them, but I love their bright yellow flowers and their willingness to grow in big eye-catching patches. They do require more water than most of the native plants I have brought into my yard and I have to admit that I have to give those growing on south-facing sites extra water to keep them thriving, especially during hot, dry spells. The dark maroon seed heads of these flowers add a splash of color in winter. Another bonus, pine siskins and goldfinches search for food from the seed heads during winter.

---

**17**

## Goldenrod

---

*Solidago missouriensis*

Autumn



Goldenrod blooms in fall and attracts a variety of pollinators. Several species occur in Colorado. Contrary to popular opinion, goldenrod is not a source of fall allergies. Goldenrod pollen is not wind-borne, which makes it unlikely to spread widely or cause allergic reactions. Goldenrod blooms in the same season as ragweed, which does produce lightweight, airborne pollen that triggers allergic reactions in many people. Beware the different varieties of goldenrod. *S. missouriensis* grows just 1.5 to 2 feet tall, whereas *S. rigida* grows over 5 feet tall and rapidly spreads via underground rhizomes.

---

**18**

## White Heath Aster

---

*Symphyotrichum ericoides*

Autumn



This small white composite flower heralds the end of the hot season with blooms opening in late summer to fall. It tolerates dry, sunny conditions and is widespread in the prairies and foothills of Colorado. It attracts a variety of butterflies and bees.

## Berberidaceae: Barberry Family

### 19 Creeping Mahonia

*Berberis repens* (formerly *Mahonia repens*)

Spring Summer Autumn Winter



This spreading ground cover plant with its holly-like leaves may bring year-round green to a garden. In some locations it stays green all year, while in other sites its leaves change to a beautiful maroon red in winter. Creeping Mahonia blooms with small yellow flowers in spring. If these are pollinated, the plant will produce dark blue berries in late summer to fall. In my experience, Creeping Mahonia needs some protection from wind to thrive.

## Brassicaceae: Mustard Family

### 20 Wallflower

*Erysimum capitatum*

Spring



This is a short-lived spring flower, but quite a treasure when it is in bloom. Most of the wild ones I have encountered are bright yellow, but some plants produce orange flowers. It spreads by seeds, but in my experience, only sometimes sprouts back up in the same location from year to year. I enjoy it wherever it decides to pop up.

### 21 Prince's Plume

*Stanleya pinnata*

Summer



Bearing a tall stalk of large, but delicate yellow flowers, Prince's Plume is a fun plant to get established. I do have some of it growing in my garden, but I have planted several that did not survive more than a season or two. I have found this plant growing in the wild in the most inhospitable places. It is said to prefer soils that are high in selenium, so I wonder if that is what might be lacking in the soils I have attempted to grow it in. Still experimenting. That is part of the fun of native plant gardening,

## Campanulaceae: Bell Flower Family

### 22 Harebell

*Campanula rotundifolia*

Spring Summer Autumn



This beautiful small blue bell flower is found around the world in the northern hemisphere. It is tolerant of a variety of environments from city gardens to alpine tundra. It begins blooming in late spring and, at least in my gardens, continues producing some flowers into the fall. It is bee pollinated, but can also self-pollinate.

## Cleomaceae: Cleome Family

### 23 Rocky Mountain Beeplant



*Cleome serrulata*

*Autumn Winter*

Stalks of this plant produce stalks with beautiful racemes of pink-purple flowers that attract bees and butterflies. I have had this flower bloom in spring, but mostly it blossoms in late summer and fall. The plants can be anywhere from 1 to 5 feet tall, with one to many stems. In my experience, the difference in height depends upon soil conditions and precipitation or watering levels. We made the mistake of planting the seeds in our vegetable garden bed one year. The beeplants took over! These are annual plants so they die back over winter and won't necessarily reappear in the same spot the next year. Their seeds are easy to gather and save to scatter in places you liked to see them growing. The seeds may require two winters before they germinate.

## Cornaceae: Dogwood Family

### 24 Red-Osier Dogwood, Red-Twig Dogwood

(Shrub)



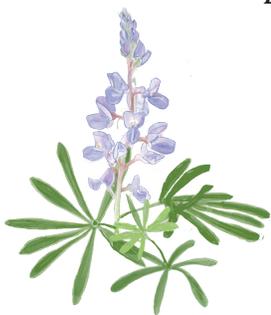
*Cornus sericea*

*Spring Summer Autumn Winter*

Red osier dogwood is a nice plant to have because it flowers in spring, and produces white berries that attract some birds in late summer. Its leaves turn maroon red in fall. Its dark crimson stems provide a splash of color all winter long. In my experience, this shrub needs a bit more water than the other native shrubs. Occasional winter watering is needed to keep it thriving, especially if winter doesn't deliver much precipitation.

## Fabaceae Legume or Pea Family

### 25 Lupine



*Lupinus argenteus*

*Spring*

Lupines are a widely distributed group of flowers in the pea family. We have several native species in Colorado, but the widely available varieties at garden stores are generally not the native species. Many are cultivars derived from lupines of northern Europe. The locally native species where I garden has light-colored lavender flowers. Other native species have darker purple flowers and more dense floral racemes. Lupines are perennial and have deep roots. Your best bet to get native lupines established is via seeds or purchase seedlings, if you can find them.

**26**

## Golden Banner

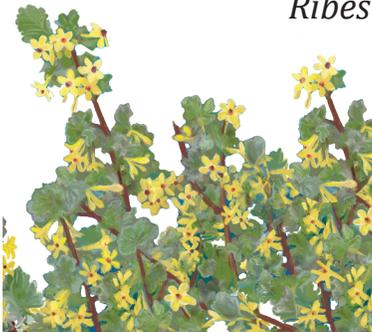
*Thermopsis rhombifolia**Spring*

An early spring bloomer, I have many photos of this plant's cheery yellow flowers blossoming in the midst of a heavy spring snowstorm in the front range. It is a great source of pollen and nectar for bumblebees in spring. In the wild, I associate golden banner with forests and meadows above 7,000 feet, but *Thermopsis rhombifolia* is a lower elevation species that occurs on the prairies and in the foothills. Golden Banner spreads by underground rhizomes so it tends to spread if it finds favorable growing conditions.

## Grossulariaceae: Gooseberry Family

**27**

## Crandall Clove Gooseberry

**(Shrub)***Ribes aureum**Spring Summer Autumn Winter*

This plant is a good replacement for the exotic forsythia bush, (an introduced plant from Asia) which many people plant for its bright yellow spring flowers. This gooseberry produces a plethora of bright yellow flowers that emit a sweet clove-like aroma. Bumblebees are attracted by the early flowers when few other sources of nectar and pollen are available. This shrub's edible berries also attract grosbeaks, robins and other birds in late summer and fall. Its leaves turn brilliant red in fall.

## Lamiaceae: Mint Family

**28**

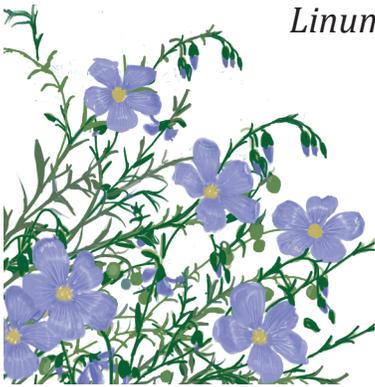
## Bee Balm, Wild Bergamot

*Monarda fistulosa**Spring Summer Autumn Winter*

Bee Balm or wild bergamot is a fun plant in my yard. I am not sure if I got different varieties of it, or it just behaves differently in slightly different conditions. In any case, it grows in patches and most of the flowers in each patch bloom around the same time. However, some patches start blooming in late June, while other patches don't start blooming until August. Whenever and wherever the flowers are blooming, they attract bumblebees, honeybees, and butterflies. In my yard, it only grows to about two feet tall in most years, but one very rainy summer, the stalks of some bee balm patches grew well over three feet tall.

## Linaceae or Flax Family

### 29 Blue Flax



*Linum lewisii*

Spring Summer Autumn Winter

Native blue flax is one of my favorites flowers because I love its beautiful flowers which start blooming in early spring. I also like its tendency, once established, to spread itself around without over-crowding anything else. In most years, these native flax plants continue to produce at least a few blossoms most of the summer and into fall. (Be careful not to plant the exotic *Linum perenne* which looks quite similar but was introduced from Europe. Several other non-native flax species are also offered by green-houses.)

## Malvaceae: Mallow or Hollyhock Family

### 30 Poppy Mallow, Wine Cups



*Callirhoe involucrata*

Summer Autumn

This drought-tolerant native plant offers brilliant reddish-purple flowers with white centers and uniquely shaped leaves on sprawling stems that trail across the ground. I placed this species on the left side of my art because I have had better success getting it established in locations that receive a bit more water or shade, but it requires well-drained soil. Once established it seems to do well in sunny, dry locations too. It produces a large tuberous root that enables it to overwinter and come back stronger each season. Deer seem to love eating the leaves and flowers, but established plants usually recover quickly from being browsed and soon offer new leaves and blooms.

## Orobanchaceae: Broomrape Family

### 31 Prairie Fire aka Wholeleaf Paintbrush



*Castilleja integra*

Spring Summer Autumn

Though a challenge to get established with a tendency to disappear, I still love this plant. When it is established, it begins blooming in late spring, often drawing in the first hummingbirds of the season. What looks like the plant's flowers are actually colorful modified leaves, called bracts, that enclose the small flowers. These bracts remain colorful throughout the entire summer into fall so hummingbirds are attracted throughout this same period. Paintbrushes are hemiparasitic plants. This means they can photosynthesize, but also tap into the roots of certain other plants to steal sugars. The general consensus is that paintbrush need to grow close to either blue grama or fringed sage plants. Seeds that I purchased and planted one spring did not yield any plants until about five years later. All the paintbrushes that finally sprouted up are close to either sage or blue

grama. However, some gardeners report success growing paintbrush from seed without either of their known symbiotic partners. I have not yet tried planting seedling paintbrush plants which, to my knowledge, have only recently become available.

## Plantaginaceae: Plantain Family

(includes the former Scrophulariaceae or Snapdragon Family)

### 32 Firecracker Penstemon

*Penstemon eatonii*



The brilliant red flowers of this penstemon are a late spring delight just for their own beauty, but also because they attract broad-tailed hummingbirds. I have had some firecracker penstemons come up and bloom for several years in a row. Unfortunately however, other plants just grew for just a season or two before disappearing. I happily buy replacements for these each year as I continue to try to discern what specific growing conditions allow the longterm survivors to thrive.

### 33 Shell-leaf Penstemon



*Penstemon grandiflorus*

*Summer Autumn Winter*

This beautiful plant grows flowering stalks over three feet tall. Their large pink blossoms open in late spring to early summer. Their flowers turn heads and attract a variety of bumblebees and other bees of various species. They survive well in dry, sunny locations. In Colorado, they are native to northeastern Colorado plains, but will readily grow in gardens along the Front Range.

### 34 Sidebells Penstemon



*Penstemon secundiflorus*

*Spring*

A delightful spring penstemon, the pretty lavender flowers of sidebells penstemon attract a variety of bees, including bumblebees. This plant does well in dry, sunny locations and is a common native wildflower along the entire Front Range. Flower color varies from pink or lavender to deep blue.

---

**35** Rocky Mountain Penstemon

---

*Penstemon strictus**Spring*

Stalks of this deep blue to purple penstemon brighten up my garden in spring. Few of them bloom much into summer. The flowers attract a variety of pollinators, but are actually pollinated by pollen wasps. These interesting wasps do not sting at all, contrary to the message sent by their black and yellow warning coloration.

---

**Poaceae: Grass Family**

---

**36** Blue Grama*Bouteloua gracilis**Spring Summer Autumn Winter*

This grass is inconspicuous most of the year as its leaf blades are narrow and very light green. It stands out in fall when its distinctive seed heads wave above surrounding plants. In winter, its pretty seedheads add variety to snowy landscapes. Blue grama is a known partner of paintbrush wildflower plants whose root hairs penetrate the blue grass roots to steal sugars.

---

**Polygonaceae: Buckwheat Family**

---

**37** Wild Buckwheat, Sulfur Flower*Eriogonum umbellatum**Spring Summer Autumn Winter*

Sulfur flower tolerates hot dry growing conditions and looks as if it is in flower all through spring, summer, and fall. In late fall, its leaves and floral umbles turn orange brown. Its flowers attract butterflies, including small blue butterflies.

---

**Ranunculaceae: Buttercup Family**

---

**38** Golden Columbine*Aquilegia chrysantha**Spring Summer Autumn Winter*

This columbine is native and uncommon in central Colorado, but is sold for native plant gardening. Beware of this beautiful plant taking over your garden as it spreads wildly. On the bright side, its flowers start blooming in spring. And at least some flowers on various plants are likely to be in bloom throughout spring, summer and fall, unless it is a very dry summer. The flowers attract a variety of bees and butterflies. Their distinctive and attractive seed heads remain attached and stick up through the snow during winter.

---

**39** Pasqueflower

---

*Anemone patens (was Pulsatilla patens)**Spring, Summer*

Pasque flower is a favorite native flower because it is one of the first flowers to bloom in spring. Its large blue blossoms, whirligig seed heads, and hairy foliage are all quite lovely. This plant's early spring blossoms are an important source of pollen and nectar for emerging bumblebee queens, hungry from their over-winter dormancy.

---

**Rosaceae: Rose Family**

---

**40** Chokecherry**(Shrub/Small Tree)***Prunus virginiana**Spring, Summer, Autumn, Winter*

Chokecherry is a native gardening must in my mind. I look forward to its wonderfully scented flowers bursting into bloom in spring and the fun of seeing robins, waxwings, and grosbeaks feast on its berries in late summer. In addition, many kinds of butterflies and moths lay their eggs on chokecherries because their caterpillars need chokecherry leaves for food. Intermediate between a tree and a shrub, native chokecherry will spread by underground roots and send up several stems. This creates great cover for nesting birds. Tent caterpillars often choose to live in chokecherries. They create large silken nests which they spend most of their time inside, marching out to munch on the leaves each day. I am happy to see tent caterpillars when they appear because hummingbirds are known to use tentworm silk when they make their nests. And, despite the tentworms sometimes making large webbed nests, they have never killed any of my chokecherries and I suspect their caterpillars have helped nourish more than a few baby birds.

---

**41** Wood's Rose**(Shrub)***Rosa woodsii**Spring Summer Autumn Winter*

This native rose species can be difficult to find, but its beautiful spring flowers make it worth searching out to add to your garden. Its bright red rosehips add color in fall and winter. This wild rose can spread from underground rhizomes, but it doesn't always do so. To be safe, place it in a location where you won't mind if it does spread. Its prickly stems seem to ward off hungry deer and possibly other mammals. If the plant forms enough of a shrub thicket, it may offer a relatively safe place for songbirds to build their nests.

# Birds

## Hummingbirds

### **A** Broad-tailed Hummingbird

Spring



Broad-tailed Hummingbirds arrive in spring and remain through late fall. In spring, the males, like the one pictured, sport bright green head and back feathers, white undersides and a brilliant, iridescent red throat patch. The females, and juvenile birds, are less brilliantly-colored and lack the red throat feathers. Like most hummingbirds, these birds are particularly attracted to bright red tubular flowers like those of firecracker penstemon and paintbrush. These flowers deposit pollen on the hummingbird's forehead while the bird is reaching deep into the tube to feed on nectar with its long bill and tongue

### **B** Rufous Hummingbird

Summer



In spring, these feisty small hummingbirds migrate north along the Pacific Coast to nesting areas in the northwest Lower 48 states, western Canada and southeast Alaska. In mid-summer they take a different migration route that brings them through Colorado in midsummer en route back to their wintering grounds in Mexico. The males have distinct rufous-brown feathers and an iridescent red to green throat patch. The females and young are less distinctive, but this species' tendency to aggressively chase other hummingbirds away from hummingbird feeders and other nectar sources makes them easy to notice. Most appear along the Front Range only during July and early August.

## Swallows

### **C** Tree Swallow

Spring



Tree Swallows winter in South America, but are among the first birds to return in spring, often arriving in mid-April. Swallows feed entirely on airborne insects and other invertebrates. They are cavity nesters that are readily attracted to nest boxes designed for them and placed in open areas.

## Corvids

### **D** Black-billed Magpie

Winter



Magpies occur along the Front Range all year and visit a variety of habitats. I included them in the winter scene as they are one of the most easily observed winter birds. With flashy, iridescent feathers and a long tail, these large birds stand out year round. Magpies eat carrion of all kinds and also prey on small rodents, insects, and the eggs and young of other birds. In spring, they build large stick nests that include a canopy over the top and an entry hole on one side. Due to their large size, these nests are easy to notice amidst the branches of the trees where they are placed.

## Chickadees and Tits

### **E** Black-capped Chickadee

Winter



Who doesn't love chickadees? These sweet little birds always cheer me up, even on the coldest, darkest winter days I experienced when living in central Alaska. Their ability to survive extreme cold and long winter nights is remarkable. Chickadees use a variety of wooded habitats. During winter, a birdfeeder stocked with high oil, black sunflower seeds will draw them in as long as your garden includes a few trees and shrubs that provide cover. Chickadees use old woodpecker nest holes for their own nests, but will also use nest boxes. Though chickadee adults feed mainly on seeds, their young can only survive if fed a nutrient-rich diet of caterpillars and other insect larvae or adults. Once their brood of 3 to 5 chicks hatch, each nesting pair must gather over 400 caterpillars per day to feed their young. In areas with few native plants, most insects can't survive, which also means chickadees and other songbirds are unable to find enough insects to feed their young and keep them alive.

## Wrens

### **F** House Wren

Spring



House Wrens arrive here in late April through May from their wintering grounds in the southernmost U.S. and throughout Mexico. Initially, these wrens are quite conspicuous as they sing incessantly and gather sticks for nest material. House wrens nest in natural cavities, but are also easily attracted to nest boxes designed for them. These feisty birds often attempt to take over several nest boxes in their territories, stuffing them all with sticks and grasses. Sometimes house wrens will remove the eggs of other cavity-nesting birds, like swallows, to drive them away. Wrens eat a variety of insects, spiders, and other invertebrates and feed the same to their young. Some wrens remain here through late summer, but they become more secretive and difficult to observe as summer progresses.

## Thrushes

### **G** American Robin



Though some American Robins remain in Colorado through the winter, many more arrive in spring. Like nearly all songbirds, robins must find caterpillars and other nutrient-rich invertebrates to feed their young. Since most introduced plants from distant continents are poisonous or indigestible for most North American insects, robins and other songbirds need habitats that include many native plants where their insect prey can thrive. In late summer through winter, robins also feed on all kinds of berries, so planting chokecherry, barberry, gooseberry and other berry-producing plants will attract these birds to your garden..

## Waxwings

### **H** Cedar Waxwing

Autumn



Cedar Waxwings live along the Front Range year-round. Their distinctive silky plumage is accented by the waxy orange tips on some of their wing feathers. Waxwings are unusual in their ability to eat fruit year-round and in feeding their young fruit. In summer, waxwings also catch airborne insects and also feed insects to their chicks when they are small. Waxwings usually build their stick nests in trees near streams or lakes. In fall and winter, waxwings congregate to feast in berry-laden trees, including chokecherry, service berry, hawthorn, juniper and many other species. Berries remain their main food during winter.

## Grosbeaks

### **I** Black-headed Grosbeak

Summer



These large-billed birds arrive in early to mid-May and remain here through August. Both the male and female birds sing and participate in incubating the eggs and raising the chicks. Black-headed grosbeaks feed mainly on insects during summer, but also eat a variety of berries and seeds throughout the year. They build fairly flimsy stick nests in the branches of tall trees. These grosbeaks migrate south to wintering areas in Mexico.

Planting native plants is just one of several steps you can take to make your yard more bird-friendly. This guide from Audubon suggests several yard modifications to consider.

<https://www.audubon.org/magazine/seven-ways-make-your-home-more-bird-friendly>

## Sparrows

---

### **J** Spotted Towhee

---

Autumn



These large, dashing sparrows reportedly occur in Colorado year round, but they are easiest to notice in early spring through late autumn. These towhees live in shrub lands throughout Colorado. Towhees have a distinctive habit of hopping forward, then scraping their feet on the ground as they hop backwards. This technique helps them uncover their prey, a variety of insects and other invertebrates that live in the leaf litter. Towhees also feed on berries in late summer and fall. They place their woven stick nests a few feet above the ground on the branches of shrubs or small trees with dense foliage.

---

### **K** Chipping Sparrow

---

Autumn



This dashing little sparrow nests in shrub and forestlands throughout much of North America, but winters mainly in Mexico. Chipping sparrows are primarily seed eaters but they eat a variety of insects in summer and occasionally eat berries. While some nest in shrubs in this area, I added this species in the fall garden, as many migrant chipping sparrows that nested in Canada pass through in fall as they head south to their wintering areas in Mexico. They often visit bird feeders stocked with millet and sunflower seeds.

---

### **L** Dark-eyed Junco

---

Winter



Dark-eyed juncos occur year-round in Colorado, but most of them nest in areas north of here then migrate back to spend winter here. Their numbers have been declining, but small flocks of them are still common in winter. Several subspecies with slightly different coloration patterns occur here in the winter. The foreground junco in the winter scene shows the coloration of the Oregon Junco subspecies, so named because juncos with this color pattern nest mainly in Oregon, Washington, and British Columbia. The other two juncos shown have the coloration pattern of the slate-colored (left) and gray-headed (right) subspecies. The latter subspecies nests in Colorado. Juncos of all subspecies are easily attracted to winter bird feeders stocked with millet and other seeds.

---

### **M** White-crowned Sparrow

---

Autumn



White-crowned Sparrows are most common along the Front Range during spring and fall when those that nest farther north are migrating through, but some also overwinter here. In Colorado, these sparrows nest up in the mountains, mainly in the subalpine. They are seed-eaters during most of the year, but feed their young insects..

## Orioles



### Bullock's Oriole

Summer



Returning from its wintering grounds in Mexico and northern Central America Bullock's Orioles add flashes of brilliant orange to our gardens from late May through mid-August. They eat a variety of foods including insects, flower nectar, berries and other fruit. They weave hanging nests of grass and sticks which they suspend from the branches of tall trees. They are attracted to bird feeders stocked with orange-halves or hummingbird nectar in an oriole accessible feeder. (The holes in oriole feeders are larger than the holes in a hummingbird nectar feeder.) During the nesting season, orioles feed mainly on a wide variety of insects.

## Finches



### American Goldfinch

Spring, Winter



Two species of goldfinches frequent my yard, but of the two, American Goldfinches are the most common and widespread. While in their bright yellow summer plumage, most everyone recognizes them. They molt into winter plumage in late fall and have rather drab yellow feathers until late March or April when they molt again into their bright breeding plumage. These little finches feed year round on a variety of seeds, including those from most composite flowers. Sunflowers, black-eyed susans, chocolate flowers, and thistles are among their favorites in my yard. Goldfinches build their stick nests in tall shrubs in June and July. In contrast to many songbirds, goldfinches feed seeds to their young.

## Other Creatures



### Woodhouse Toad

Summer



This remarkable amphibian occurs along the Front Range in Colorado below 7000 feet, as well as throughout the mid-west from Mexico north. These toads burrow underground for winter, then emerge in spring to gobble up any insects they can catch. The adults breed in early spring. The female lays her eggs in water where the tadpoles hatch and develop for 7 to 8 weeks, then emerge as small toads, usually in late May or June. Though they need ephemeral and standing wetlands to breed, the adults move long distances into surprisingly dry locations that seem unlikely habitat for an amphibian. An adult toad may live for 20 years or more and grow to more than 5 inches in length. Females are larger than males.

# Insect Pollinators

One of the joys of native plant gardening is it can awaken one's awareness to the wonderful diversity of our native insects, especially pollinators. I included only a tiny fraction of the pollinators of Colorado wildflowers to convey their beauty and diversity, and possibly inspire others to observe carefully and learn more about pollinators.

Honeybees are probably the best known pollinating insects, so I did include one in two of the seasons. However, honeybees are native to Europe, not North America. We love them for the honey they produce and the crops they help pollinate. Unfortunately, they also compete with native pollinators for pollen and nectar, and are vectors for some viruses and bacteria that kill native bees.

Over 946 species of native bees occur in Colorado, some of which are now threatened or endangered due to loss of habitat, climate change, pesticide use and other factors. Our native wildflower gardens could help more of these species survive.

Other native pollinators in Colorado include about 250 species of butterflies and an estimated 5,000 moth species. You might be surprised to learn that several other kinds of insects, including certain flies, wasps, and various beetles are wildflower pollinators too. Most of our native insect pollinators visit and pollinate a variety of flowers, but many require the presence of specific native species, or families, of plants to complete their life cycles. This is a critical reason to plant native species of trees, shrubs and wildflowers instead of species introduced from other parts of the world.

## Wasps and Bees (Hymenoptera)

### Bumblebees and Honey Bees (Apidae)

#### Bumblebees (Genus *Bombus*)

Several different kinds of bumblebees occur along the Front Range. They all have fairly similar life histories. Male and female bumblebees mate in late summer. Impregnated females of most species dig underground nests where they overwinter. When the ground warms up in spring, the queens awaken from hibernation and must immediately begin foraging for nectar and pollen. Planting native flowers that bloom in early spring can help to ensure the over-wintering queens survive to lay eggs and are able to provide nectar and pollen for the larvae that will hatch from those eggs. The initial brood of bees in a nest are worker bees that join the queen in gathering food to feed the larvae that emerge from her next clutch of eggs. Together the queen and her offspring workers build up a small colony of bumblebees during the summer. The last clutch of eggs in late summer develop into fertile males and females. After mating the males die, while the fertilized females start over the annual cycle but digging nest holes in which to overwinter.

Identifying bumblebees is a challenge. Individuals of the same species vary significantly in size and coloration. *The Bumblebees of Colorado* is a great source of information and help with bumblebee identification. See page 43 to locate this and other resources.

---

## Hunt's Bumblebee

---

*Bombus huntii*

Spring, Summer



Hunt's bumblebee is a fairly common medium-sized bumblebee (up to about 3/4 inches in length). It occurs along the Front Range from about 4,000 to 9,500 feet elevation. These bumblebees may be observed from early April through October. Hunt's Bumblebee populations have declined in recent years, likely due to habitat loss and its vulnerability to certain diseases carried by honeybees. This species is known to visit a wide variety of flowers, including black-eyed susan, aster, rabbitbrush, spotted gay feather, goldenrod, thistle, sunflower, Rocky Mountain beeplant, lupine, penstemon, currants, chokecherry and rose, among others. It nests underground.

---

2

## Southern Plains Bumblebee

*Bombus fraternus*

Spring, Summer



This large bumblebee occurs from 3,500 to 7,000 feet and can be up to one inch in length. Active from early May through September. It is associated with milkweeds, rabbit brush, sunflower, Rocky Mountain beeplant, various legumes, chokecherry, rose, and nightshades. This bumblebee nests underground.

---

3

## Morrison's Bumble Bee

*Bombus morrisoni*

Spring, Summer



This large bumblebee occurs from 4,000 to 9,000 feet and is reported to have declined in abundance in Colorado. Active from late April through late September. These bumblebees are associated with a wide variety of wildflowers including milkweeds, asters, sunflowers, Prince's plume, Rocky Mountain beeplant, lupine and other legumes, bee balm, penstemons, chokecherry and roses. Morrison's bumblebees nest underground.

---

4

## Golden Northern Bumble Bee

*Bombus fervidus*

Spring, Summer



A widespread bumblebee that occurs from 3500 to 10,000 feet elevation in Colorado. It is light yellow with a black stripe on the back that varies widely in size. In addition to the purple bee clover in my illustration, this bumblebee visits a wide array of flowers, including bee balm, many penstemons, Rocky Mountain beeplant, dotted blazing star, rabbitbrush, lupine and others. These bumblebees are active from late April through September. These bumblebees nest both underground and above ground.

---

**5**

## Great Basin Bumblebee

---

*Bombus centralis*

*Spring, Summer*



Great Basin Bumblebees are found in the foothills above 5000 feet, so you might not see this one if you live at a lower elevation. They may be up to 3/4 inches in length. They nest underground with females emerging in May. These bumblebees have been recorded visiting a wide variety of native wildflowers and shrubs, including among many others: lupine, rose, gooseberry, rabbitbrush, golden banner, Rocky Mountain bee plant, and bee balm.

## Honey Bees (Genus Apis)

---

**6**

### Honey Bee

---

*Apis mellifera*

*Spring, Summer*



Honey bees are one of the most widespread and easily recognized bees in Colorado. But they are native to Europe, not North America. They were brought to this continent due to their honey-making habits and their value as a pollinator for agricultural crops. Great concern has arisen over recent nationwide declines in honey bees raised for the production of honey and their pollination services. Far less attention has been paid to coinciding declines in many native North American bee species. Though our native bees do not produce honey, native bees are also extremely important as pollinators of both wild and agricultural plants. Honey bees compete with native bees for nectar and pollen and are also recognized as a vector for diseases that can infect and decimate other bee species.

## Sweat Bees (Halictidae)

---

**7**

### Sweat bee

---

*Augochlorella sp.*

*Spring, Summer*



Three species of small, brilliant metallic green sweat bees occur along the front range. These little bees visit a wide variety of flowers to gather pollen. Only impregnated females overwinter. In spring, these females build an underground nest and begin laying eggs and raising worker bees. In late summer they produce a brood that includes male and female bees that will mate to produce new queens to overwinter the next year.

## Leafcutter Bees (Megachilidae)

8

### Leafcutter Bee

*Megachile sp.*

*Spring, Summer*



Many species of leafcutter bees occur along the Front range. They are excellent pollinators of a variety of flowers. As a group, these solitary bees are fairly easy to recognize since they collect pollen on the underside of their abdomens, rather than in pollen sacs on their legs like many other pollen-collecting bees. There are many different species with quite varied appearances, however. Leaf-cutter bees get their name from their habit of neatly cutting pieces out of leaves and petals. The females use these pieces to line their nests, which they place inside hollow plant stems or underground. Females lay a single egg inside each nest, adding pollen to provide sustenance for the larvae when they hatch out. The larvae remain in the nest and molt several times before spinning a cocoon to overwinter. They emerge as adult bees the next spring.

## Wasps (Vespidae)

### Pollen Wasps (Masarinae)

9

### Pollen wasp

*Pseudomasaris vespoides*

*Spring*



Pollen wasps are non-stinging wasps that feed on nectar and pollen. While my illustration doesn't show this wasp's head, pollen wasps can be differentiated from other wasps by their clearly defined clubs at the tips of their antennae. This species of pollen wasp visits only a few genera of flowers and are important pollinators of many penstemons. Other pollinators can not easily access the nectar or pollen of their deeply tubular flowers. Some of the flowers' stamens are placed tightly against the upper petals and deposit pollen on the backs of visiting pollen wasps when they enter the flower tube. The wasps then carry this pollen to other penstemon flowers as they search for additional pollen and nectar to feed their young. Pollen wasps have nesting habits similar to many bees. The females build mud nests and provision their eggs with both nectar and pollen to feed the larvae that eventually hatch out.

# Butterflies and Moths (Lepidoptera)

The order Lepidoptera includes both butterflies and moths. These large winged insects are important pollinators and their caterpillar larvae are an extremely important food source for nesting songbirds. Butterflies are far more widely known and appreciated because they are active during the day and many are brightly colored. Butterflies diverged from their moth ancestors approximately 50 million years ago. About 18,500 butterfly species have been identified worldwide. Approximately 150 species occur regularly along the Front Range.

Many people only think of pests like miller moths or flour moths when the word moth is mentioned. However, moths include a huge, diverse group of over 160,000 species worldwide, of which an estimated 5000 species occur in Colorado. Moths have a geologic history dating back 190 million years. Most moth caterpillars feed only on plants. As a group, moths are extremely important pollinators, though they are often overlooked because most of them are active only at night. In general moths can be differentiated from butterflies by their nocturnal habits and by their antennae, which are either feather-like or lack a club-like tip. Most butterflies have clubbed antennae. In contrast, all moths lack the club-like antennae tips and many have feather-like antennae. Many beautiful and fascinating moths live along the front range, but to see most of them you need to be outside in late evening or at night.

Some useful references to learn more about Colorado's lepidopterans are listed on page 43.

## Parnassians and Swallowtails (Papilionidae)

10

### Western Tiger Swallowtail

*Papilio rutulus*

*Spring, Summer*



The tiger swallowtail is one of six swallowtail species that occur along the front range. These butterflies are most numerous in late spring to mid-summer. The adults visit a wide variety of flowers for nectar, but they only lay their eggs on shrubs and trees which provide foliage that is edible for their caterpillars. Among the shrubs and trees that can host tiger swallowtail caterpillars are cottonwood, willow, aspen, plum, chokecherry, maple and alder. Other local swallowtail species require members of the carrot family as host plants.

## Whites and Sulphurs (Pieridae)

### Whites (Pierinae)

#### 11 Checkered White (or possibly Western White)

*Pontia sp.*

Autumn



The checkered white is one of several whites that occur along the front range. Differentiating the species is based mainly on the pattern of black markings on their wings. The Western White and Checkered White are difficult to separate so I am hesitant to specify the species of the one I illustrated. Members of the mustard family are host plants for most of the whites along the front range, though caterpillars of Pine Whites feed on conifers as their name suggests. Adult whites of all species visit a wide variety of flowers.

### Sulphurs (Coliadinae)

#### 12 Clouded Sulfur

*Colias eriphyle* (formerly *Colias philodice*)

Autumn



This is one of several very similar looking sulphur butterfly species that occur along the Front Range. All these are yellow to yellow-green in color, but vary in the number and placement of the spots on their wings. Golden banner is one of this species' known native host plants. Other native host plants for other Colorado sulphurs include lupine and vetches. Non-native clovers and alfalfa are also known host plants for these butterflies.

## Brush-footed Butterflies (Nymphalidae)

### Heliconia Butterflies (Heliconiinae)

#### 13 Coronis Fritillary

*Argynnis coronis*

Spring



A whole host of fritillary butterflies occur along the front range. All of them are orange with a variety of black markings on their wings. I often find it difficult to identify those I see down to species without taking a photograph and using the help of iNaturalist and other resources to arrive at an id. Fritillaries visit my wildflower gardens throughout spring and summer. Known native host plants for Colorado's fritillary species include violets and flax. Fritillary caterpillars need these wildflowers to survive, so these are the plants that fritillaries lay their eggs upon. In search of nectar, adult fritillaries visit a large variety of flowers.

## Milkweed Butterflies (Danainae)

14

### Monarch

*Danaus plexippus*

Summer



Monarchs are among the best known butterflies in North America due to their wide distribution and remarkable multi-generational migrations. Each year the population moves from northern breeding areas as far north as southern Canada to wintering areas as far south as central Mexico. Their populations have been declining for several years mainly due to habitat loss and pesticides. Their primary host plants are milkweeds, which were once abundant on roadsides and farmlands as well as native prairies. While they are more common east of Colorado, monarchs appear here mainly on migration during August and September. The adults obtain nectar from a variety of flowers, but only lay eggs on native milkweed plants. Both milkweed species pictured in my art are valuable monarch host plants, but other native milkweeds also occur in Colorado. Planting native milkweeds and a wide variety of native wildflowers to provide nectar will improve the chances that monarchs can survive.

## True Brushfoots (Nymphalinae)

15

### Mourning Cloak

*Nymphalis antiopa*

Spring



Easy to recognize Mourning Cloak butterflies are unusual in their ability to overwinter as adults. This trait allows them to emerge early in spring. I have observed them flitting about on warm days as early as February. While I associate them mainly with spring, I see them occasionally all summer long and well into September. Willow, aspen, birch, cottonwood and hackberrys are among their known host plants. Fallen logs and brush piles offer sites for the adults to overwinter.

16

### Painted Lady

*Vanessa cardui*

Autumn



Painted Lady butterflies are the most widespread butterfly in the world. They occur on every continent except South America and Antarctica. Although painted ladies lay eggs and caterpillars develop into adults in Colorado, none survive winter here. The species recolonizes our area by dispersing or migrating here from population that survive over winter in the deserts of the southwestern U.S. Their known host plants include over 300 species worldwide, including mallows, thistles, sage and many members of the sunflower and pea plant families.

## Satyrns and Wood-Nymphs (Satyrinae)

### 17 Common Wood-Nymph

*Cercyonis pegala*

Summer



This aptly-named brownish butterfly visits wild bergamot, butterfly milkweed, black-eyed susans and other wildflowers for nectar. Its' known host plants are various grass species. These butterflies only produce one brood per year and adults may be observed in late spring, summer and fall.

## Skippers (Hesperiidae)

### Grass Skippers (Hesperiinae)

### 18 Taxiles Skipper

*Lon taxiles*

Autumn



Skippers are a large group of cute little butterflies recognizable by their small size, large eyes and short wings. Several different species occur along the front range. The adults visit a variety of native flowers for nectar. Their known host plants are mainly native grasses.

## Hawk Moths (Sphingidae)

### 19 White-lined Sphinx Moth or Hummingbird Moth

*Hyles lineata*

Summer



This rather large-bodied moth is sometimes active during the day though it is most commonly seen at dusk and is active at night. This species of sphinx moth is sometimes mistaken for a hummingbird because of its large size and hovering behavior. Adult sphinx moths have large eyes and good color vision. They visit a wide variety of flowers to feed on nectar. During the day, they visit many colorful species including columbines, larkspur, bee balm, and rabbitbrush as well as many non-native flowers like fuschias and petunias. In late evening and at night, these sphinx moths visit mostly white or light-colored flowers. The caterpillars of this species vary in color but can be identified by the sharp horn-like structure near their rear end. The caterpillars feed on a wide variety of native wildflowers, including Rocky Mountain bee plant, fireweed, and evening primroses. Several other kinds of sphinx moths occur in Colorado, but are smaller, less colorful, and less likely to be active in the day.

# Adding native plants to your yard

## Where to begin...

### What is a *native* plant?

What is a “native” plant anyway? Unfortunately, this is a question for which there is no single definitive answer that everyone agrees upon.

Some experts and purists consider the term “native” as strictly applicable to plants which are genetically related to plants growing in natural areas close to the vicinity of the area to be planted. Under this definition, some of the plants included in my art, and my gardens, do not qualify as native on my property.

Others define native plants to include all species that are native to a similar habitat in the western United States. Some use an even broader definition, including any species that grows in a similar (or sometimes even different) habitat type anywhere in North America.

Another consideration is that several locally native plant species have been brought into the horticultural trade by cross-breeding individual native plants to select for specific traits, such as different flower or foliage colors, or larger or longer-lasting flowers. Such cultivars differ genetically from wild native flowers. Little research has been completed to determine whether these plants differ in their values for pollinating insects. Do pollinators visit cultivars as often as unmodified native plants? Can native pollinators successfully reproduce on cultivar varieties? The limited research so far suggests that the answers to these questions vary by plant species and cultivar variations, as well as by pollinator species. As a general rule, cultivars of native plants are likely better adapted to Colorado climates and likely more beneficial to insect pollinators than non-native plants, while true native Front Range plants are probably the best choices to maximize the benefits of your native plant garden.

All that said, you are in charge of your own garden, so you get to decide how you want to define “native plants” as you select species to bring in. Some native plant gardeners decide to continue planting certain non-native species along with native species in their gardens for sentimental reasons. And that is okay.

When I first started planting native plants in my gardens, sources for Colorado native plants were far more limited than is the case in 2025. So I chose to plant various cultivars and semi-native species that I purchased from local greenhouses. These plants were all quite pretty and most survived a year or two. Over time, however, I found that the plants that survived the longest, flourished the best, and required the least care were the same species that grow in wild areas close to my home. So while I am not yet a complete purist in my selection of native plants for my gardens, I am leaning towards maintaining a much stricter definition of native plants for my garden than I originally used.

As you consider exactly what plants you wish to grow in your own gardens, you may wish to consider the definition of *native* provided by the Colorado Native Plant Society. See:

<https://conps.org/new-to-natives/>

## Planting Seeds

Lots of native wildflower seeds may be easily obtained from organized native seed swaps. Several annual seed swaps are organized by the organizations listed on page 41 -42. Many wildflower seeds can also be purchased from certain vendors (see below).

I suggest avoiding seed packets that claim to contain seeds for a wildflower meadow as most, if not all, of those I have seen for sale contain a wide variety of seeds, including several non-native plants. Also, tending a wildflower garden with sprouts from many different seeds may be quite difficult as determining which sprouts are of plants you want versus sprouts of weeds will be a challenge. Different species of plants in the packet may prefer different amounts of sunlight or water too, so you never know what you are going to get to survive and flower when you spread a seed mix.

Once you have native plants growing in your yard, you have the opportunity to collect and plant, or share, your seeds from the most successful species. Many native flowers will spread their seeds around your yard on their own too, so once you have established several species you will find new seedlings in new places every year. For me, that is one of the delights of native plant gardening.

Unlike annual, non-native flower gardens that a person can carefully design and re-plant each season to keep the same arrangement, native flower gardens will offer surprises and changes each year. Be prepared for the tendency of some native flowers to not remain exactly where you plant them. Some may not survive, while others will spread their seeds to new locations in your yard which the plants find more habitable for whatever reason. I am continually surprised by wildflower seeds sprouting up in poor soil or heavily compacted dirt where I am certain that a seedling plant would never have survived if I had tried to plant one there.

---

## Sources for Native Plant Seeds

---

Several of the organizations listed on page 41-42 arrange local seed swaps every fall. Sign up for their newsletters to learn about these events in your area.

Many garden stores carry packets of wildflower seeds. Look carefully, and double-check that the Latin or scientific name of the wildflower you are seeking matches the scientific name on the packet. Many plants have several common names and certain common names are used to describe very different species.

One of the best sources for wildflower seeds that I have used is Western Native Seed Company

### [Western Native Seed Company](#)

CSU Extension published a list of Colorado seed suppliers in 2018 that offers many sources, but some of them may be out of date.

<https://extension.colostate.edu/docs/pubs/natres/sources-native-plants.pdf>

A recommended video for more information about planting native plant seeds:

[People and Pollinators: Propagation in Practice webinar](#)

## Planting Starts and Seedlings

The greenhouses crowded with plant buyers in spring indicates to me that many, if not most, people like to buy plants that are already growing so their garden starts blooming as soon as possible in spring and summer. But if you are new to native plant gardening and want to do this, the first problem you will face is trying to find a trustworthy source for native plants.

Most garden centers don't stock any. Some claim to stock native plants, but have few varieties, or many plants labeled as native, when the plants are native to other parts of North America, rather than Colorado or the Front Range. Many are also cultivars, not strictly native wildflowers.

Below are the sources for native plants that I have used and can personally recommend as good sources to acquire seedlings and starts for native shrubs and wildflowers. However, it is always important to check the preferred habitat of any plant you select. Native plants that occur in wetlands are not good choices for a dry prairie or foothills garden site.

---

### Sources for Native Plant Seedlings

---

#### High Plains Environmental Center (Loveland)

<https://high-plains-environmental-center.square.site>

High Plains Environmental Center raises a wide variety of native plants in their greenhouses and offers them for sale mainly via their website store. Order the plants online, then pick up your order from their site after they notify you that it has been prepared, usually a day to few days later. I have gotten a good variety of locally native plants from them.

#### Harlequin Gardens (Boulder)

<https://harlequingardens.com>

The owners of Harlequin Gardens in Boulder work hard to offer and correctly label the native plants they sell. They offer both wildflowers as well as native trees and shrubs. I appreciate the opportunity to select the plants personally from their clearly marked Native Plant section.

#### Other Sources Statewide

The Colorado Native Plant Society (CONPS) offers a list of plant vendors in Colorado that offer at least some native species for sale.

<https://conps.org/wp-content/uploads/2021/06/CoNPS-Native-Plant-Vendors-12.pdf>

# Sources for additional information about Native Plants and Native Plant Gardening

Listed in alphabetical order. Many water districts support native plant gardening as a water conservation technique, so check your local water district for additional resources.

## Colorado Native Plant Society (CONPS)

[conps.org](https://conps.org)

Lots of great resources on the CONPS website. Regional chapters are a good place to meet others involved in native plant landscaping, join field trips to enjoy native plants, and find out about native plant seed swaps. In cooperation with several other organizations listed here, CONPS hosts an annual conference about native plant gardening. They offer a free booklet about growing native plants along the Front Range:

<https://conps.org/wp-content/uploads/2022/03/FrontRange.pdf>

(Booklets about native plant gardening in other Colorado regions are also available from CONPS)

## Denver Botanic Gardens

<https://www.botanicgardens.org>

The Denver Botanic Gardens has two beautiful facilities, one in downtown Denver and the other at Chatfield Farm in Littleton where they have a native wildflower demonstration garden and a butterfly enclosure. They hold spring plant sales that include some native species. Find several of their resources for native plant gardening at this link:

<https://www.botanicgardens.org/search?keyword=native+plant+garden>

## High Plains Environmental Center

<https://suburbitat.org>

High Plains Environmental Center in Loveland has been a leader in the native plant gardening movement in Colorado. In addition to a demonstration garden at their nature center, they raise a good variety of native plants which they offer through their online store: order online, pick up in person a few days later.

## The Butterfly Pavillion

<https://butterflies.org>

A fun place to visit to learn more about invertebrates in Colorado and around the world. Their blog <https://butterflies.org/blog/> offers several interesting articles about a variety of topics related to butterflies, other invertebrates, and native plant gardening.

## The Gardens on Spring Creek

<https://www.fcgov.com/gardens/>

Located in Fort Collins, this organization offers a native plant demonstration garden and a spring plant sale that includes some native plants. They also have a butterfly house which they operate in cooperation with The Butterfly Pavillion.

## The Xerces Society for Invertebrate Conservation

[www.xerces.org](http://www.xerces.org)

The Xerces Society offers an extensive website that includes access to many free publications about conservation of pollinators and other insects and native plant gardening. Of particular interest relating to native plant gardening along the Front Range is this page::

<https://xerces.org/pollinator-resource-center/mountain-region>

## People and Pollinators Action Network

<https://www.peopleandpollinators.org>

This organization offers webinars and other resources to help people learn more about native plant landscaping and pollinator conservation. Check their website for free access to webinar presentations about starting and growing native plants and various aspects of native plant conservation. Support the organization to get a special Colorado vehicle license plate that shows your support of pollinators.

## Resource Central

<https://resourcecentral.org/>

*The Garden in a Box* program through Resource Central offers a simplified way to begin native plant gardening. Plant orders need to be placed in March of each year. This is supported by several water suppliers in recognition of the need for water conservation in Colorado. While I have not personally used their services, I have spoken to others who reported great success using the *Garden in a Box* program to start their own native plant gardens.

## Audubon Rockies

<https://www.audubon.org/rockies/projects/habitat-hero>

Audubon Rockies Habitat Hero program aims to help people create habitat for birds through bird-friendly gardening in Colorado, Utah, and Wyoming. Enter your zip code and your email to view a list of native plants that benefit birds specially selected for your area. See photos and descriptions of the plants and what birds each might attract, select the ones that most interest you and their website will send you a native plant list tailored just for you! Once your garden is complete, get your yard certified as Audubon certified and they will give you a sign to post to let your neighbors know you are gardening for the birds.

## Wild Ones

<https://frontrange.wildones.org>

Wild Ones aims to “empower Front Range residents to plant & promote native Coloradoscapes for a climate-resilient future.” With several local chapters along the Front Range, they sponsor local workshops, garden visits, and seed swaps.

# References and Resources to Learn More

If you start native plant gardening, you might be surprised that it stimulates your curiosity about all of nature and the world around you. Many wonderful resources exist that can help you identify and learn more about native plants, birds and pollinators. Here, I am listing just a few books, apps, organizations, and websites that I think many people are not aware of, but which offer great information and methods that can help anyone accurately identify organisms and learn more about their life histories.

---

## *iNaturalist*

---

<https://inaturalist.org>

Use this incredible website and app to help identify any plant, bird, mammal, insect or other organism you have photographed. Upload a photo and the site will almost instantly provide an identification of whatever you have photographed to family level or better, if your photo is clear. Sign up and submit your photos to contribute to science and share with other naturalists. Invaluable.

---

## *Plants*

---

The following two books are useful for anyone interested in cultivating a native plant garden with locally native plant species as the books both provides a way of determining which plant species occur naturally in the area where you are gardening. Use the indexes of scientific names to find the species description and a map of that species known distribution in Colorado. The descriptions also indicate if a certain plant species is introduced rather than native.

**Flora of Colorado** by Jennifer Ackerfield. Colorado State University Herbarium Press. BRIT Press. This large volume contains a dichotomous key to the Flora of Colorado that botanists and naturalists will find extremely useful.

**Wildflowers of the Rocky Mountain Region.** Denver Botanic Gardens. Timber Press Field Guide.

This full color volume contains a useful introduction to the flora of Colorado and photos of over a thousand Colorado wildflower species. The plants are arranged by flower color but there is also an index that includes both scientific and common names. Each plant photo includes a description of the plant, some interesting information, and a map showing the plant's distribution in Colorado.

---

## *Birds*

---

Many bird guides exist for the U.S. and the western U.S, Check your local library or bookstore if you need a field guide to birds. Audubon Rockies and associated local chapters, and the Rocky Mountain Bird Conservancy are organizations that offer field trips, programs, and volunteer opportunities that can help you learn more about birds.

**Cornell Laboratory of Ornithology**

<https://www.birds.cornell.edu/home/>

This online site provides great natural history information, identification tips, and photos of all North American birds.

**Merlin Bird App** This free and amazing bird app can help anyone discover more birds in their yard and identify them. Download to your phone, then use the **Identify** button to have the app listen to the bird songs around you and tell you the names of the singing or calling birds. (It does make some mistakes, but I find it to be 95% accurate.)

---

## *Bees*

---

***A Color Guide to Colorado Bees*** Photos by Diane Wilson. Applewood Seed Company. Free pdf download from:

<https://www.applewoodseed.com/wp-content/uploads/Guide-to-Colorado-Bees.pdf>

***The Bumble Bees of Colorado; A Pictorial Identification and Information Guide*** By Abigail Wright, Crystal L. Boyd, M. Deane Bowers, and Virginia L. Scott February 1, 2017 Free pdf download from:

<https://www.colorado.edu/cumuseum/sites/default/files/attached-files/thebumblebeesofcolorado-2017.pdf>

**Bee Machine** is a new app developed by Kansas State University to help non-experts identify bees and contribute to science and bee conservation. Learn more at:

<https://beemachine.ai>

---

## *Butterflies and Moths*

---

***Butterflies of the Colorado Front Range*** by Janet R. Chu and Stephen R. Jones. Published by the Boulder County Nature Association. 2011. This photographic guide to 80 species with information about each species' appearance, habitat, host plants, life cycle.

***Western Butterflies*** by Paul A. Opler and Amy Bartlett Wright. Peterson Field Guide Series. Houghton Mifflin Company. 1999.

Introductory information about butterfly biology, life histories, identification, butterfly watching, and conservation. Illustrations, photos, distribution maps and lots of information about western butterflies.

***Attracting Moths to Your Backyard*** is an archived webpage from the CU Museum that provides information not only about attracting moths, but has links to several other pages with useful information and references on the moths of Colorado.

<https://cumuseum-archive.colorado.edu/Exhibits/MothMatters/attracting.html>

---

## *Native Plant Gardening*

---

**Bringing Nature Home : How You Can Sustain Wildlife With Native Plants** by Douglas W. Tallamy. Timber Press.

If you only have time to read one book about gardening with native plants, choose this one. The scientific information Tallamy provides in an interesting and convincing text combined with beautiful photographs will open your eyes to a new way of looking at your gardens and landscaping in general.