

LOOK CLOSELY

Wildflowers
of City of Boulder's
Open Space and
Mountain Parks



Welcome to Boulder Open Space and Mountain Parks, home to a wealth of spectacular and surprising wildflowers. In addition to being sources of joy, food, medicine, and materials for humans, wildflowers are extremely important to wildlife and to the land. This guide encourages you to actively experience wildflowers and their roles in Open Space and Mountain Parks. Collecting is prohibited; please take only photos and memories! Plants are listed by beginning bloom time.

 Next to this picture you'll find at least one suggested trail where the featured wildflower may be found. Below the trail name is a description of the plant's typical habitat.

 These activities can help you make your own wildflower discoveries.

F E B R U A R Y



Oregon grape prevents erosion on steep hillsides. Its stems creep along the ground and grow roots along the way, binding the soil together.



Flagstaff Trail
dry open hillsides, rocky slopes, ponderosa pine forests



These tiny flowers can be very fragrant. Stop and sniff. Check for berries later in the season.

Oregon Grape
Mahonia repens

Fuzzy hairs on pasqueflowers keep them warm, allowing them to bloom very early in spring. After blooming, a fluffy ball of seeds with feathery tails will appear.



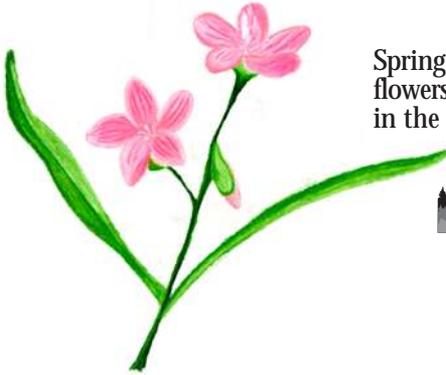
McClintock and Gregory Canyon Trails
open slopes, gravelly soil



Pasqueflower leaves don't grow until after the plant has gone to seed. Try coming back in a few weeks to see what they look like.



Pasqueflower
Pulsatilla patens ssp. *multifida*



Spring Beauty
Claytonia rosea

Spring beauty is one of the earliest-blooming flowers. A similar species also grows in forests in the East.



Bluebell-Baird Trail
streamsides, moist grasslands,
ponderosa pine forests



Take a look at the delicate pink lines on the flower petals. These guide insects to nectar, like runways.

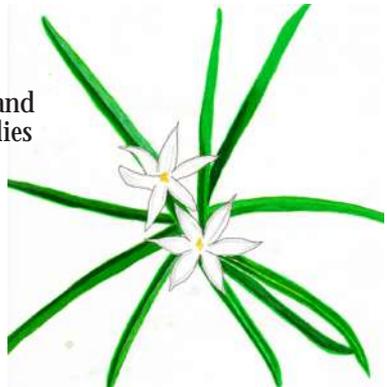
Sand lilies survive the heat of summer by disappearing. They bloom early in spring, and all but the underground part of the plant dies soon after.



Eagle and Red Rocks Trails
open hillsides, disturbed or rocky
prairie



Can you see how the flowers are attached to the rest of the plant?



Sand Lily
Leucocrinum montanum



Blue Flax
Adenolinum lewisii

Flax has been used for fiber since ancient times. Linen is made from flax stems cured in water.



Red Rocks, Marshall Mesa, Bluebell Mesa Trails
meadows



Flax flowers open early in the morning and usually die by midday. Look for petals from past flowers on the ground around a flax plant.



Golden Banner
Thermopsis montana

Golden banner forms pods like its relative, the garden pea. It is toxic to humans and many other animals, but caterpillars feed safely on it.



Chautauqua, Lower Towhee Trails
meadows, roadsides, damp forests



If you find a large patch of golden banner, it could mean that the land has been overgrazed (domestic animals avoid it because it's poisonous, but will eat everything else around it). Take a look around to see if that has happened here.

Lance-leaved chiming bells are survivors. They bloom in early spring, living through snow and freezing temperatures.



Skunk Canyon Trail
meadows, hillsides, open forests



The flowers of chiming bells usually aren't just blue. Look for other colors in the buds.



**Lance-leaved
Chiming Bells**
Mertensia lanceolata



Wild Geranium
Geranium caespitosum
sp. caespitosum

Most potted geraniums come from South Africa. Our native geraniums flower year after year, making wonderful additions to gardens.



Mesa Trail
forests, meadows, hillsides, roadsides



“Geranium” comes from the Greek word “geranos,” or “crane.” This plant is often called cranesbill because of the shape of the seed pods.

Wild iris looks very much like its cultivated cousin. The Paiute and Shoshone Indians found it to be a cure for toothache. However, like many other medicinal plants, wild iris can be poisonous.



Wild Iris
Iris missouriensis



Big Bluestem, Mesa Trails
wet meadows, streamsides



Drink in that gorgeous color for a minute.

Spring Marches up the Mountain

Flowers bloom later at higher elevations, where snow melts reluctantly and temperatures take longer to rise. When a flower stops blooming in Boulder, it is often just reaching its peak in the high country. That means you can follow your favorite flowers up the mountainside and enjoy their presence even longer.

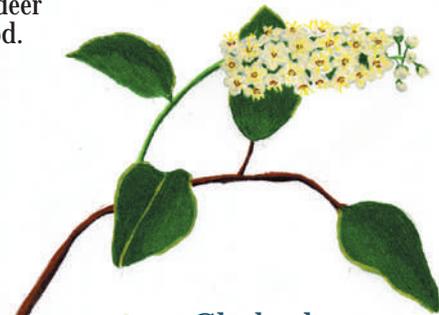
Chokecherry feeds the foothills. Bears, coyotes, foxes, birds, butterflies, bees, chipmunks, squirrels, rabbits, and deer all depend on chokecherries for food.



South Mesa Trailhead area
shrublands, canyons,
hillsides, streambanks



Take a close look at the cherries. Chokecherry pits may often be found inside scat (animal droppings). Look for tent caterpillars in the branches.



Chokecherry
Padus virginiana ssp. *melanocarpa*



Heart-leaved Arnica
Arnica cordifolia



E.M. Greenman Trail
Douglas fir forests, meadows



Feel the fuzzy stems and leaves. Do the leaves look heart-shaped to you?

Friend or Foe? Your Actions Decide

You can help protect wildflowers. Take home pictures instead of bouquets so that park wildflowers will produce seeds for the future, and park wildlife will have access to the food and habitat they need. Stay on designated trails to preserve areas with sensitive species. Also, consider joining the Open Space and Mountain Parks Native Plant Conservation Volunteer Program to help us maintain our native plant gardens, battle invasive plants, and educate the public.



Yarrow
Achillea lanulosa



widespread
dry meadows, grasslands



The leaves are very aromatic. Smell your fingers after rubbing the leaves.

Beautiful larkspur flowers have been used to kill lice. Native Americans and white settlers made a louse-killing shampoo by mixing the seeds and flowers with soap.



Towhee, Homestead Trails
hillsides, roadsides, forests



Some have thought that the flowers resemble the spur on a lark's foot. "Delphinium" in the scientific name comes from the observation that the buds look like tiny dolphins. If you were to name this plant after its flower's appearance, what would you call it?



Larkspur

Delphinium nuttallianum



Lupine

Lupinus argenteus

Lupines enrich the soil. Bacteria living on the roots change nitrogen from the air into a form that other plants can use, then release it into the soil.



Bluebell Mesa, Eagle, Chautauqua Trails
open woods, fields, roadsides



Caterpillars and butterflies feed on lupines. Look closely for these visitors. After rain, look for a droplet of water cradled in the center of each leaf.

Native Americans discovered many uses for yucca. The leaves can be woven into sandals, mats, and baskets; fibers in the leaves can be used as thread or twisted into rope; and the roots and stems make a soapy lather when pounded in water.



Hogback Ridge, Red Rocks Trails
dry meadows, hillsides



A yucca seed pod means that the plant was visited by a yucca moth. Yucca moths only lay their eggs in yucca flowers, and yucca flowers only make seed after being pollinated by yucca moths.



Yucca

Yucca glauca



Gardeners have discovered that penstemon seeds grow better if they are stored for a few years before planting. Exposing the seeds to cold and moisture helps, too.



Mesa Trail
ponderosa pine forests, hillsides



Look closely at the stem to see why this penstemon is called “one-sided.”

One-sided Penstemon

Penstemon secundiflorus

Eating this plant can poison people and livestock. All parts of the plant, including the bulb, contain the poison. It is easily confused with wild onion, with devastating results.



Big Bluestem, Gregory Canyon Trails
meadows, forests



Each petal bears a small green spot.



Death Camas

Toxicoscordion venenosum



Prickly Pear

Opuntia macrorhiza



Red Rocks, Hogback Ridge Trails
mesas, plains



Carefully avoiding the spines, touch the center of a prickly pear flower (bees do this all the time). Watch closely - what happens?

These roselike flowers attract caterpillars and butterflies.



Mesa Trail
rocky slopes, roadsides, meadows



“Cinquefoil” means “five leaves,” although the leaves are not always divided into five leaflets. The leaves usually have a pleasantly fuzzy feel.



Leafy Cinquefoil
Dryocallis fissa

Invasive Plants: A Wildflower’s Nightmare

Non-native, introduced plants are taking over wildflower habitat all over the West. Some of these plants like dame’s rocket, butter and eggs, and myrtle spurge escape from gardens, while others like knapweed, downy brome, and bindweed have made their way to Boulder accidentally. You can help by pulling invasive plants that live on your land and by assisting at weedpulls organized by Open Space and Mountain Parks.

This is Colorado’s state flower. The long spurs in the back are filled with nectar.



Upper Chautauqua Trail
aspen forests, moist rocky slopes



The blue found in a columbine changes depending on where you are. The farther north, west, or higher in elevation you travel, the lighter the blue is supposed to become. Do your observations follow these trends?



Colorado Columbine
Aquilegia coerulea



Harebells bloom for a long time and provide food for deer, bears, pikas, elk, woodchucks, and butterflies.



Mesa Trail

aspen forests, mountain meadows, dry mountainsides



The harebell grows all over the Northern Hemisphere, and is the “bluebell of Scotland.” Look carefully at what is inside the bell.

Harebell

Campanula rotundifolia

With Native Plant Gardens, Everybody Wins

Native plants can be beautiful additions to your garden, and to the environment. These plants evolved to live in Colorado, so they're easy to grow, and easy on your water bill. Plus, they provide important food and shelter for local wildlife. Many of the wildflowers in this brochure are available at local nurseries.



The red heads and yellow bodies of gairdardia moths allow them to blend in while feeding on blanketflower nectar, protecting them from predators.



Big Bluestem, Marshall Mesa Trails
dry meadows, slopes



These flowers vary considerably. Try comparing flowers from two different blanketflower plants.

Blanketflower

Gaillardia aristata

In 1848 white settlers in Utah faced starvation after crickets, drought, and frost destroyed their crops. The Ute Indians came to their aid by teaching them how to use this plant for food, and today it is Utah's state flower.



Mariposa Lily
Calochortus gunnisonii



Chautauqua Meadow
aspen forests, mountain meadows,
mesa hillsides



These flowers are even more beautiful on the inside. Take a close look at all of the colors hidden there.



You may have tasted bergamot before - the leaves of European bergamot give Earl Gray tea its special flavor. Butterflies and hummingbirds like how its flowers taste.



Mesa Trail
ponderosa pine forests, roadsides, meadows



Rub a leaf with your fingers, then smell them. Do you smell oregano, Earl Gray tea, or something different?

Bergamot

Monarda fistulosa var. *menthaefolia*

Penstemon is also called “beardtongue” because of the yellow hairs inside the flower. Pollen brushes off of visiting butterflies and bees and becomes trapped on these hairs, allowing the flower to produce seed.



Flagstaff Road
gravely slopes, roadsides



Look inside the flower to find the hairs that help in pollination.



Alpine Penstemon
Penstemon glaber



Monument Plant
Fraseria speciosa

A monument plant in bloom is cause for celebration. These plants grow for up to 60 years, bloom once, and then die.



Enchanted Mesa Trail
moist hillsides, meadow edges, pine forests



Take a look around this place. What did this monument plant experience over the course of a lifetime? What will life be like for one of its seeds?

Stoncrop can live in very dry places where other plants can't. Its succulent stems and leaves store water, and in times of drought stoncrop becomes dormant until rain returns.



Rangeview, Hogback Ridge Trails
dry, rocky hillsides from the plains to alpine



Feel the waxy leaves, and take a close look at the tiny, star-shaped flowers.



Stoncrop
Amerosedum lanceolatum



Western Wallflower
Erysimum asperum

Mustard comes from the crushed seeds of plants closely related to wallflowers.



Tenderfoot Trail
ponderosa pine forests, meadows



Wallflowers are often very fragrant. Look at all of the variety in petal color on a single plant!

Asters are important food sources for caterpillars and butterflies. Asters are a sure sign that fall, and the end of the wildflower season, is on its way.



Green Mountain West Ridge Trail
rocky slopes, meadows



Look closely. Each “flower” is actually made up of many tiny flowers. The yellow flowers in the center are called disk flowers. Each one of the purple petals represents a different ray flower.



Aster
Aster spp.

Prescribed Burns for Wildflower Health

For thousands of years, frequent fires on the plains shaped Colorado’s plant communities and became essential to their health. Prescribed burns are conducted on Open Space and Mountain Parks land to produce some of the positive effects of wildfire. Fire increases plant diversity, adds nutrients to the soil, and serves as a tool in the control of invasive plants. These burns are planned and monitored very carefully to make sure that they are as safe and effective as possible.

The Blackfoot Indians named this plant “crow-root” because they saw ravens and crows eating it in the fall. Butterflies feast on its nectar, too.



Marshall Mesa, Skunk Canyon Trails
dry prairie, meadows



The scientific name contains the word “punctata,” meaning “dotted.” Look for tiny dots on the leaves.



Blazing Star
Liatris punctata

R E S O U R C E S

- Benedict, Audrey DeLella. 1991. *A Sierra Club Naturalist's Guide to the Southern Rockies: The Rocky Mountain Regions of Southern Wyoming, Colorado, and Northern New Mexico*. San Francisco: Sierra Club Books.
- Boulder Mountain Parks - Natural and Cultural History. Available online at www.ci.boulder.co.us/bmp/history.htm
- Celebrating Wildflowers Coloring Book. Available online at www.nps.gov/plants/color
- Celebrating Wildflowers: The National Wildflower Hotline. Available by phone April-August at 1-800-354-4595.
- Coffey, Timothy. 1993. *The History and Folklore of North American Wildflowers*. Boston: Houghton Mifflin Company.
- Colorado Native Plant Society, P.O. Box 200, Ft. Collins, CO 80522.
- Cushman, Ruth Carol, Stephen R. Jones, and Jim Knopf. 1993. *Boulder County Nature Almanac: What to See, Where, and When*. Boulder: Pruett Publishing Company.
- Cutts, Gretchen S. 1976. *Potions, Portions, Poisons: How Indians and Pioneers Used Wild Plants for Food and Medicine – an Introduction*. Greeley: Potions, Portions, Poisons.
- The Lady Bird Johnson Wildflower Center. Available online at www.wildflower.org
- Lanham, Url. 1974. *The Enchanted Mesa: An Introduction to Its Natural History*. Boulder: Pruett Publishing Company.
- Miller, Millie. 1980. *Kinnikinnick: The Mountain Flower Book*. Boulder: Johnson Publishing Company.
- Pesman, M. Walter. 1992. *Meet the Natives: The Amateur's Field Guide to Rocky Mountain Wildflowers, Trees & Shrubs*. 9th ed. Denver: Denver Botanic Gardens, Roberts Rinehart Publishers.
- Weber, William A., and Ronald C. Wittmann. 1996. *Colorado Flora: Eastern Slope*. Revised edition. Niwot: University Press of Colorado.

I N D E X

Common Name (<i>Scientific name</i>)	Family	Page
Alpine Penstemon (<i>Penstemon glaber</i>)	Scrophulariaceae	10
Aster (<i>Aster</i> spp.)	Asteraceae	12
Bergamot (<i>Monarda fistulosa</i> var. <i>menthaefolia</i>)	Lamiaceae	10
Blanketflower (<i>Gaillardia aristata</i>)	Asteraceae	9
Blazing Star (<i>Liatris punctata</i>)	Asteraceae	12
Blue Flax (<i>Adenolinum lewisii</i>)	Linaceae	2
Chokecherry (<i>Padus virginiana</i> ssp. <i>melanocarpa</i>)	Rosaceae	4
Colorado Columbine (<i>Aquilegia coerulea</i>)	Helleboraceae	8
Death Camas (<i>Toxicoscordion venenosum</i>)	Melanthiaceae	7
Golden Banner (<i>Thermopsis montana</i>)	Fabaceae	3
Harebell (<i>Campanula rotundifolia</i>)	Campanulaceae	9
Heart-leaved Arnica (<i>Arnica cordifolia</i>)	Asteraceae	5
Leafy Cinquefoil (<i>Drymocallis fissa</i>)	Rosaceae	8
Lance-leaved Chiming Bells (<i>Mertensia lanceolata</i>)	Boraginaceae	3
Larkspur (<i>Delphinium nuttalianum</i>)	Helleboraceae	6
Lupine (<i>Lupinus argenteus</i>)	Fabaceae	6
Mariposa Lily (<i>Calochortus gunnisonii</i>)	Calochortaceae	10
Monument Plant (<i>Frasera speciosa</i>)	Gentianaceae	11
One-sided Penstemon (<i>Penstemon secundiflorus</i>)	Scrophulariaceae	7
Oregon Grape (<i>Mahonia repens</i>)	Berberidaceae	1
Pasqueflower (<i>Pulsatilla patens</i> ssp. <i>multifida</i>)	Ranunculaceae	1
Prickly Pear (<i>Opuntia macrorhiza</i>)	Cactaceae	7
Sand Lily (<i>Leucocrinum montanum</i>)	Liliaceae	2
Spring Beauty (<i>Claytonia rosea</i>)	Portulacaceae	2
Stonecrop (<i>Amerosedum lanceolatum</i>)	Crassulaceae	11
Western Wallflower (<i>Erysimum asperum</i>)	Brassicaceae	11
Wild Geranium (<i>Geranium caespitosum</i> ssp. <i>caespitosum</i>)	Geraniaceae	3
Wild Iris (<i>Iris missouriensis</i>)	Iridaceae	4
Yarrow (<i>Achillea lanulosa</i>)	Asteraceae	5
Yucca (<i>Yucca glauca</i>)	Agavaceae	6