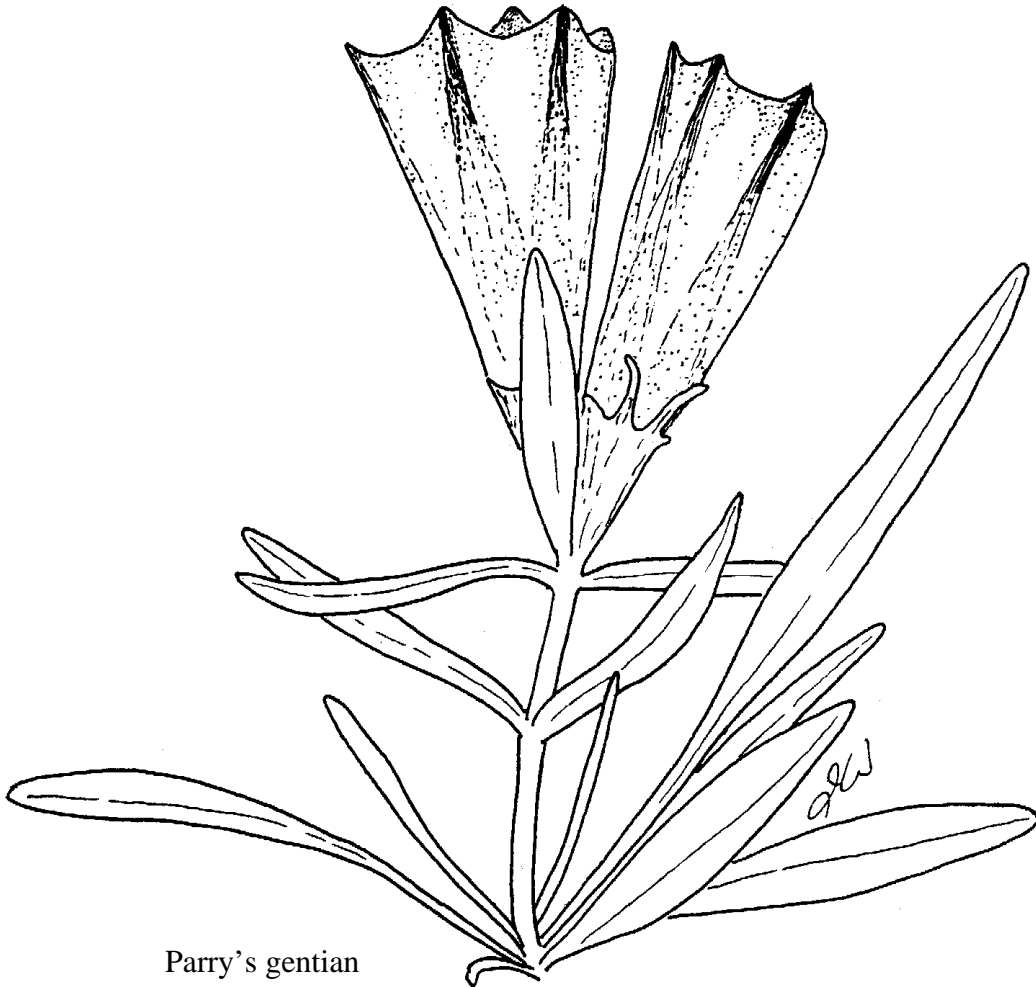


Wildflowers of the Colorado Mountain Tops



Parry's gentian

Coloring Book



Mountain Tops of Colorado

The Rocky Mountains are a large mountain range that reach from Canada all the way to Texas. At the top of these enormous mountains is the alpine tundra, a cold and windy environment. Remarkably, many colorful wildflowers are found in the alpine tundra during the summer. This coloring book displays some of the wildflowers that are found in Colorado's alpine tundra and the subalpine forests below.

Colorado has many peaks that extend into the alpine, including over fifty mountains that are above 14,000 feet. The alpine tundra begins between 11,200 and 12,000 feet above sea level. "Tundra" is a Russian word meaning "land with no trees." The harsh environment at the top of our mountain peaks is so cold and windy that most trees cannot survive. During the winter, the winds can reach speeds up to 100 mph and temperatures are usually far below freezing. The upper limit of where trees can survive is called "tree line". It is also the transition between the subalpine forests and the alpine tundra.

The subalpine forests are made up of coniferous trees, mostly Engelmann Spruce and Subalpine Fir. Most conifers do not lose all of their leaves during the winter. The leaves slowly fall off throughout the year and are replaced by fresh leaves. The leaves are usually dark green and in the shape of a needle. The trees found in the transition between the subalpine forests and alpine tundra are often small and deformed due to the high winds that blow over mountain tops. Occasionally, one can find a tree that looks like a flag pole. The branches only grow on one side of the tree because the winds are incredibly strong and usually blow from the same direction. When the trees are no longer present we are in the alpine tundra.

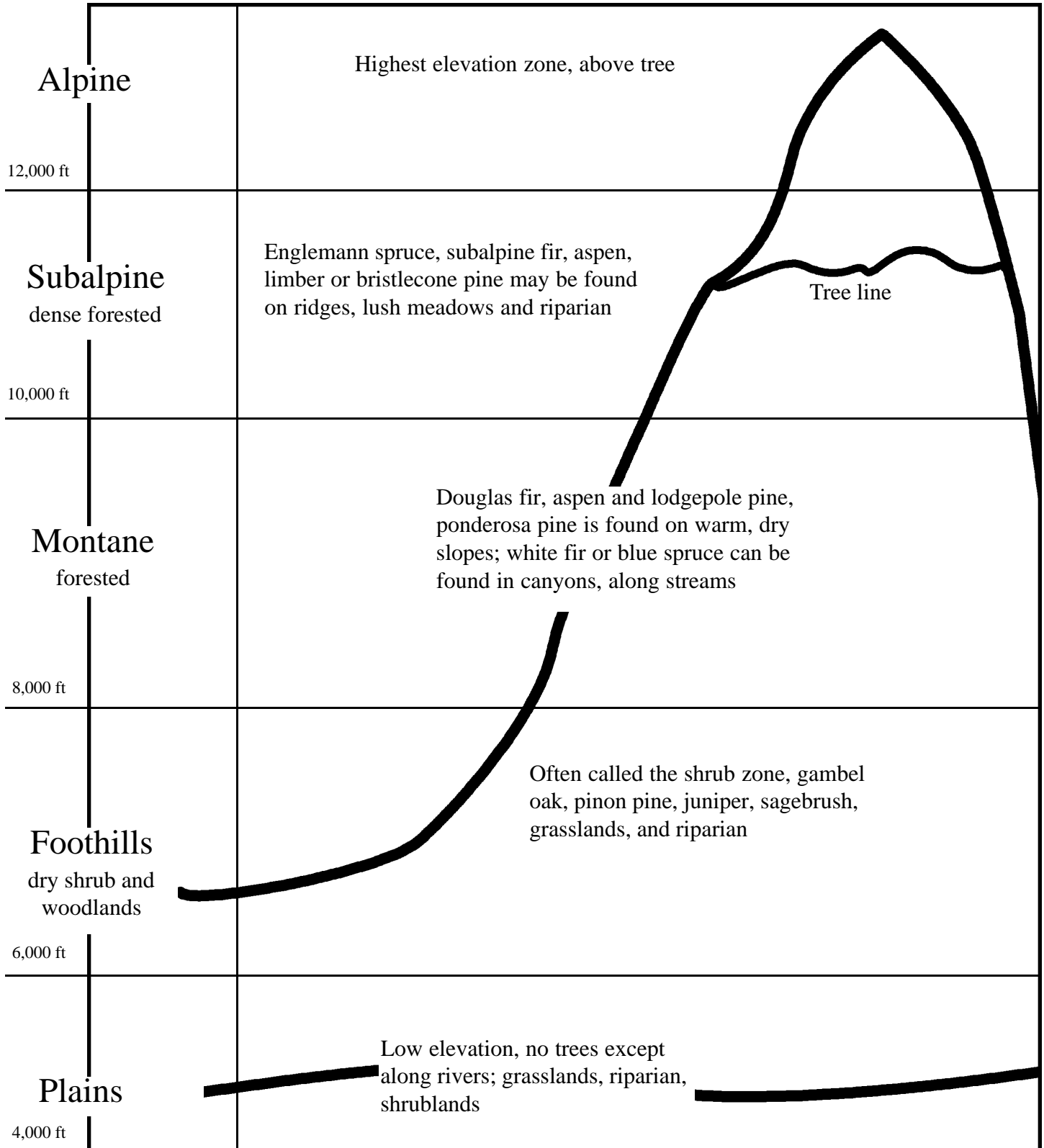
The only time when the temperature is warm enough for plants to flower in the tundra is during the summer months. Most alpine plants are perennials. This means that they live for more than one year. Some alpine plants live for many years and could be older than you! Due to the high winds and harsh climate most plants that grow at high elevations are short and stout. The small size helps to protect the plants from the wind. Often alpine plants will grow in the cracks and crevices of rock outcrops in order to stay out of the wind and intense sunlight. Most alpine environments are very dry during the summer and winter. This additional stress has forced the alpine plants to adapt dry conditions. During the winter the water is locked up as snow and therefore unavailable to the plants. The summer is often dry due to the intense sunlight and lack of summer rain.

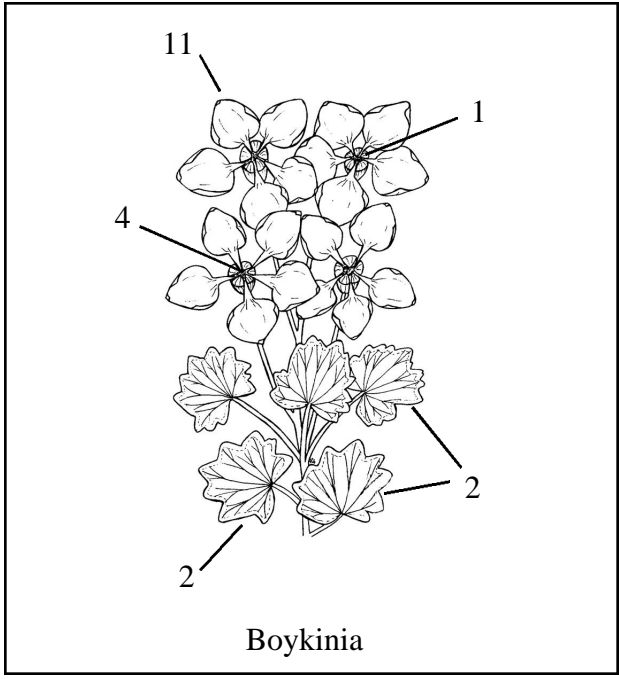
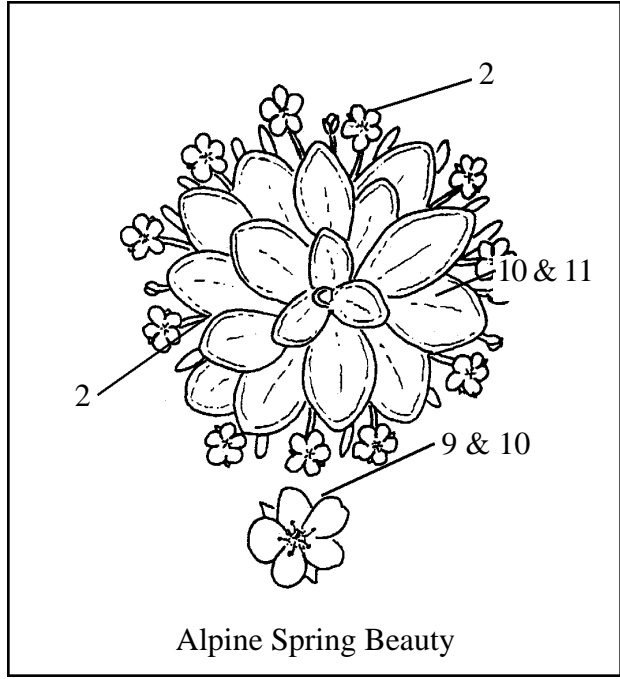
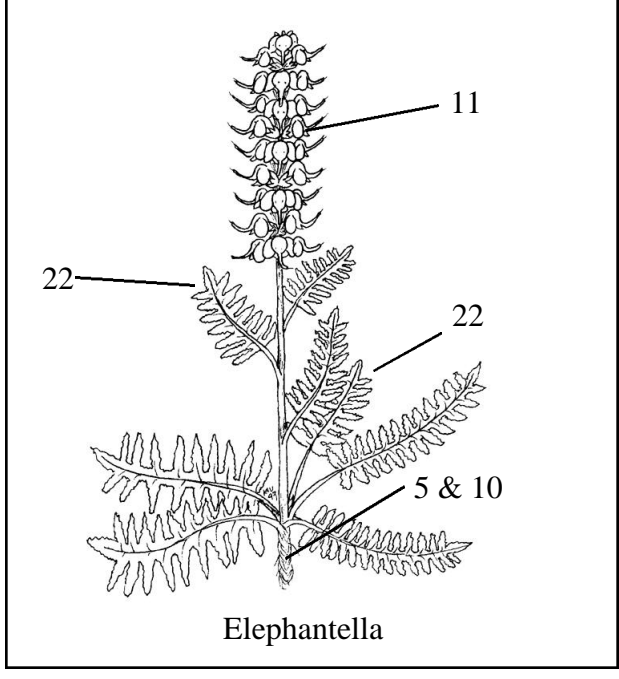
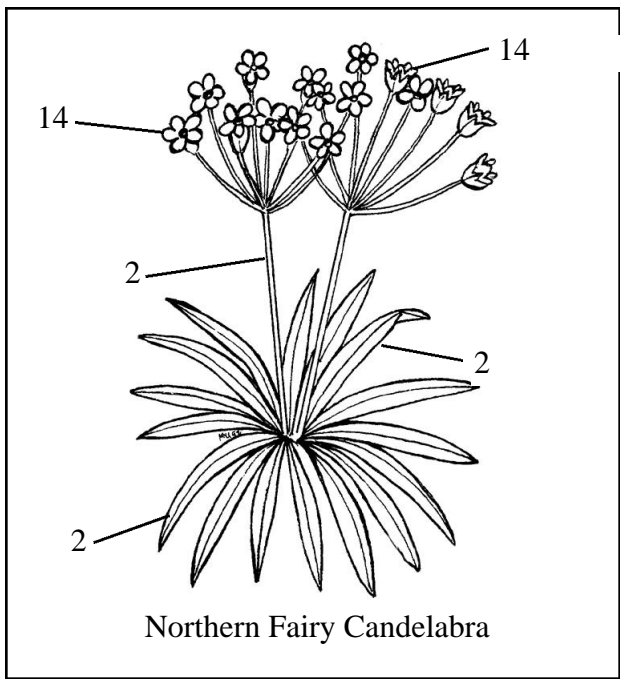
The alpine environment has a few year-round animal residents, including: pocket gophers, voles, shrews, pikas, marmots, weasels, and white-tailed ptarmigans. Most of these species are small, very furry, and hibernate during the winter. These adaptations help them to survive the harsh winters. During the warmer months elk, big-horned sheep and many birds visit the alpine tundra. Most alpine areas have avoided human disturbance, such as logging or mining due to their inaccessibility. Currently, more and more people are begin to use the alpine for recreation including: hiking, camping, and skiing. Please enjoy and respect the alpine environment.

Life Zones

An important clue in wildflower identification is where the plant grows. As you travel along the roads of Colorado, you have probably noticed that certain kinds of wildflowers and trees belong at certain altitude and are not found much above or below these limits. Therefore, you expect to find different plants on top of Mt. Evans (above tree line) than you would at Red Rocks amphitheater (foothills).

These changes are called **life zones**. In Colorado there are 5 life zones, based on the changes scientists see in plant and animal life with increasing elevation.





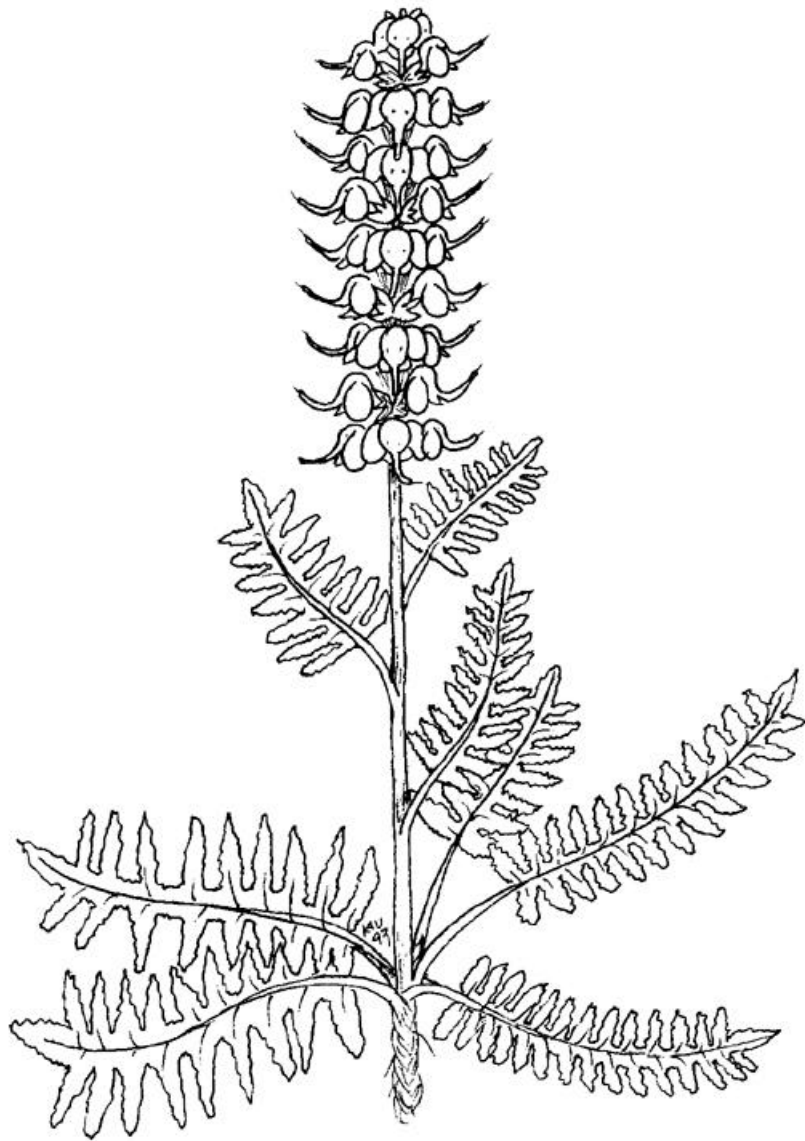
1 Red	7 Violet/Purple	13 Violet-Red	19 Cerulean
2 Green	8 Orange	14 Carnation	20 Blue Violet
3 Blue	9 Gray	15 Red Orange	21 Blue Green
4 Yellow	10 White	16 Vivid	22 Jungle Green
5 Brown	11 Fuchsia	17 Yellow Orange	23 Yellow Green
6 Black	12 Red-Violet	18 Peach	24 Green Yellow



Northern Fairy Candelabra

Androsace septentrionalis Primulaceae the Primrose Family

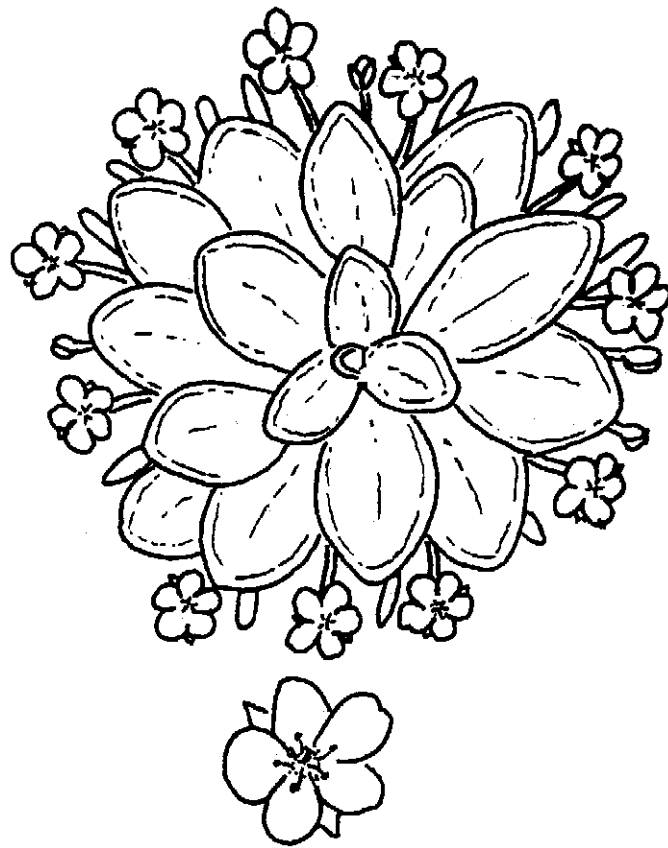
Sometimes this plant is also called Rock Jasmine. It is widespread in forested or open sites on rocky soils from the foothills up to alpine tundra. “Septentrionalis” is Latin for “plant of the north”. This plant is an annual, which means that it lives for only one growing season, and new plants come up from seed each year.



Elephantella

Pedicularis groenlandica Scrophulariaceae the Snapdragon Family

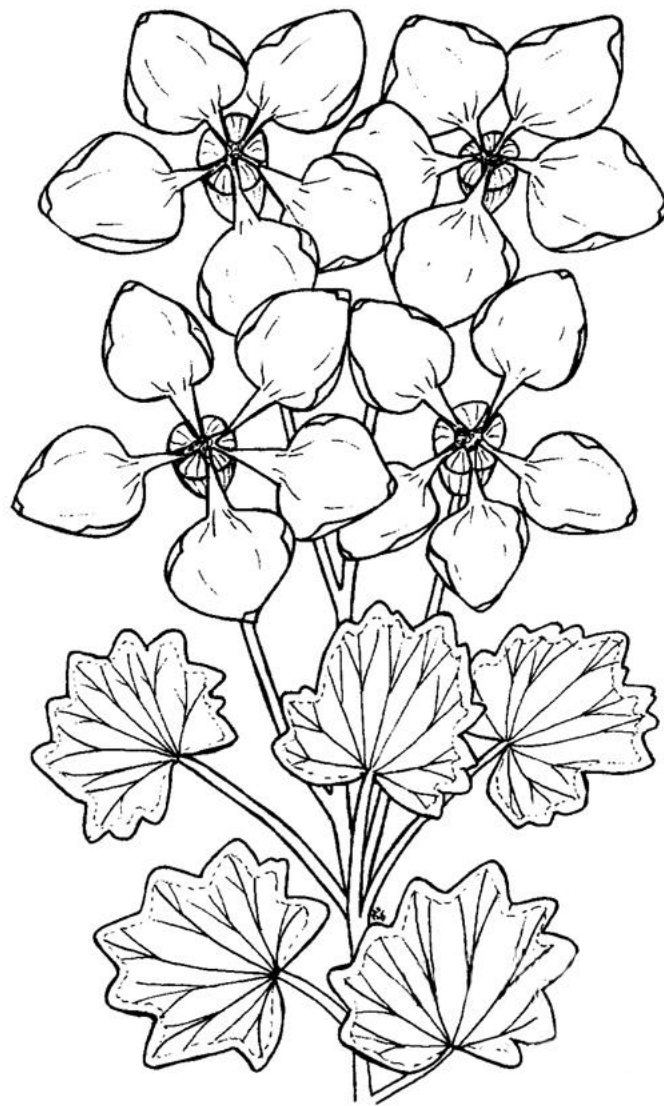
Wet mountain meadows and along streambanks, often in large masses. Each flower resembles an elephant's head. Elk eat this plant in the early summer. It can be found from Alaska to Labrador, south to Saskatchewan, New Mexico, and California.



Alpine Spring Beauty

Claytonia megarhiza Portulacaceae the Purslane Family

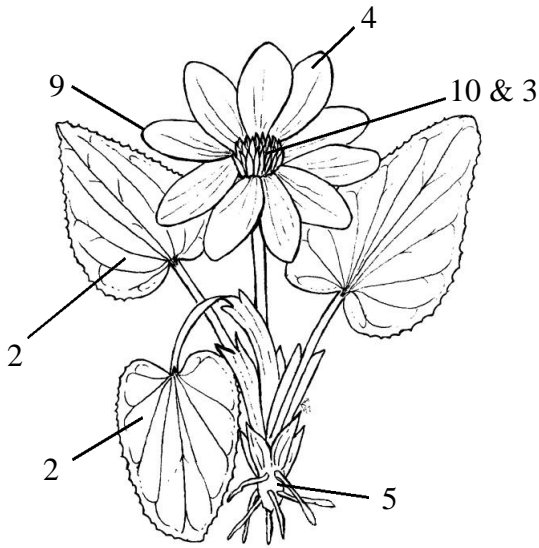
Among the rocks or in rock crevices in tundra on the higher peaks. They start blooming very early in the season, just after the snow melts. “Megarhiza” means “big root”, and indeed, it can grow up to six feet long! This flower can be seen on Mount Evans along the Mt. Goliath Trail. The leaves are often eaten by marmots, pikas, and ground squirrels.



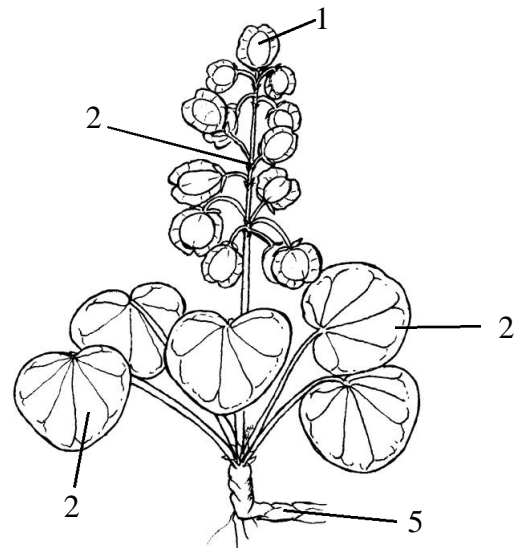
Boykinia

Telesonix jamesii Saxifragaceae the Saxifrage Family

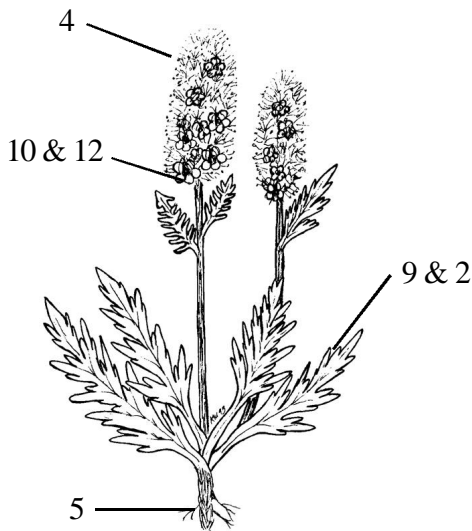
Scattered on granite or limestone outcrops along the Front Range from Pike's Peak to Rocky Mountain National Park. This plant prefers rocky soils, talus and vertical cracks. It is one of our most beautiful native plants, named for Edward James, an 1800's American Naturalist.



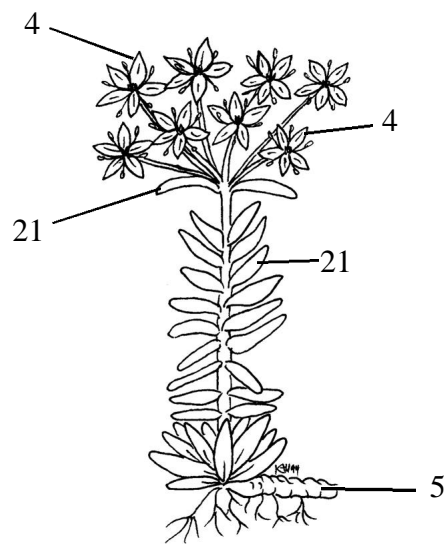
Marsh Marigold



Alpine Sorrel

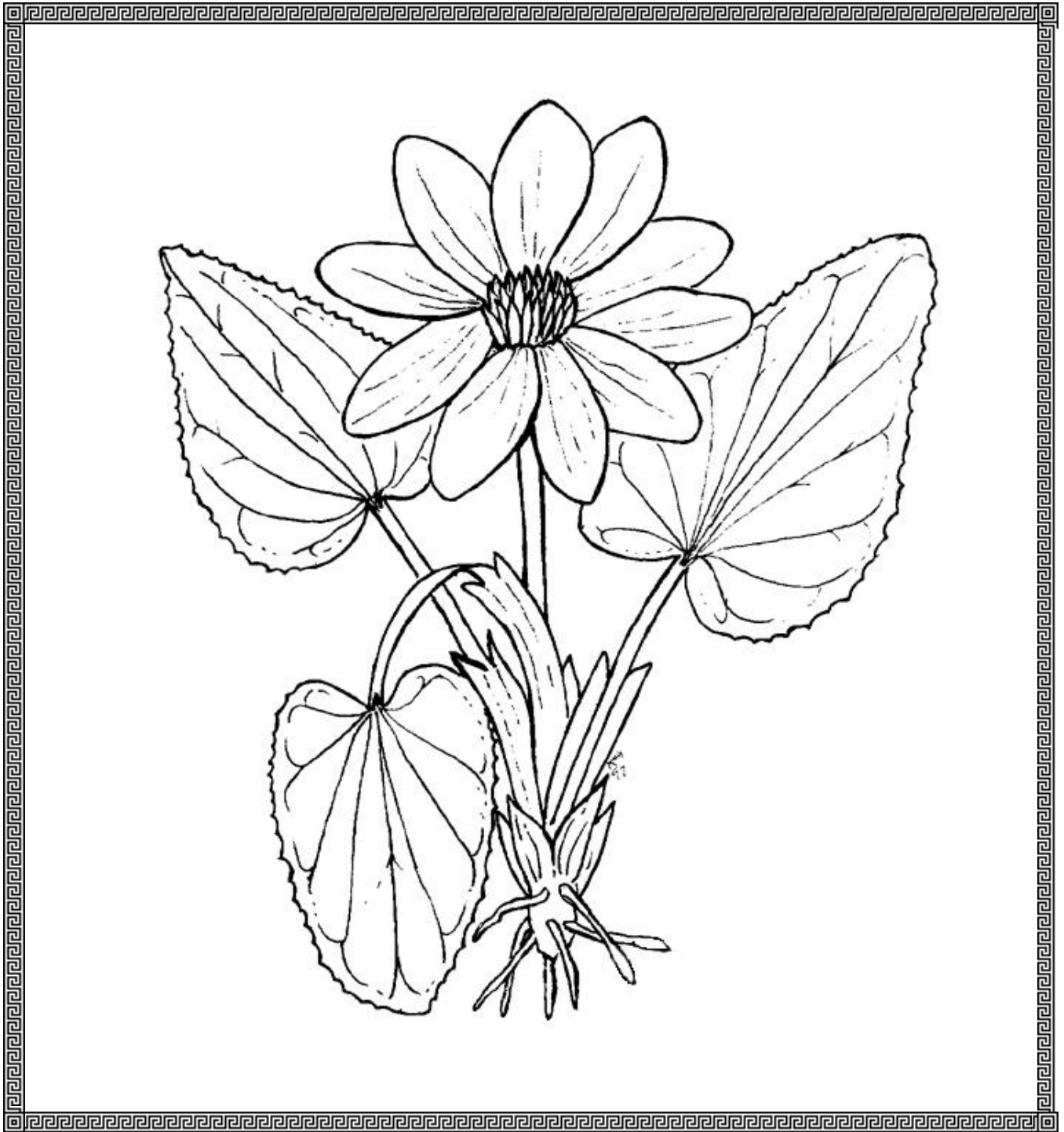


Silky Phacelia



Yellow stonecrop

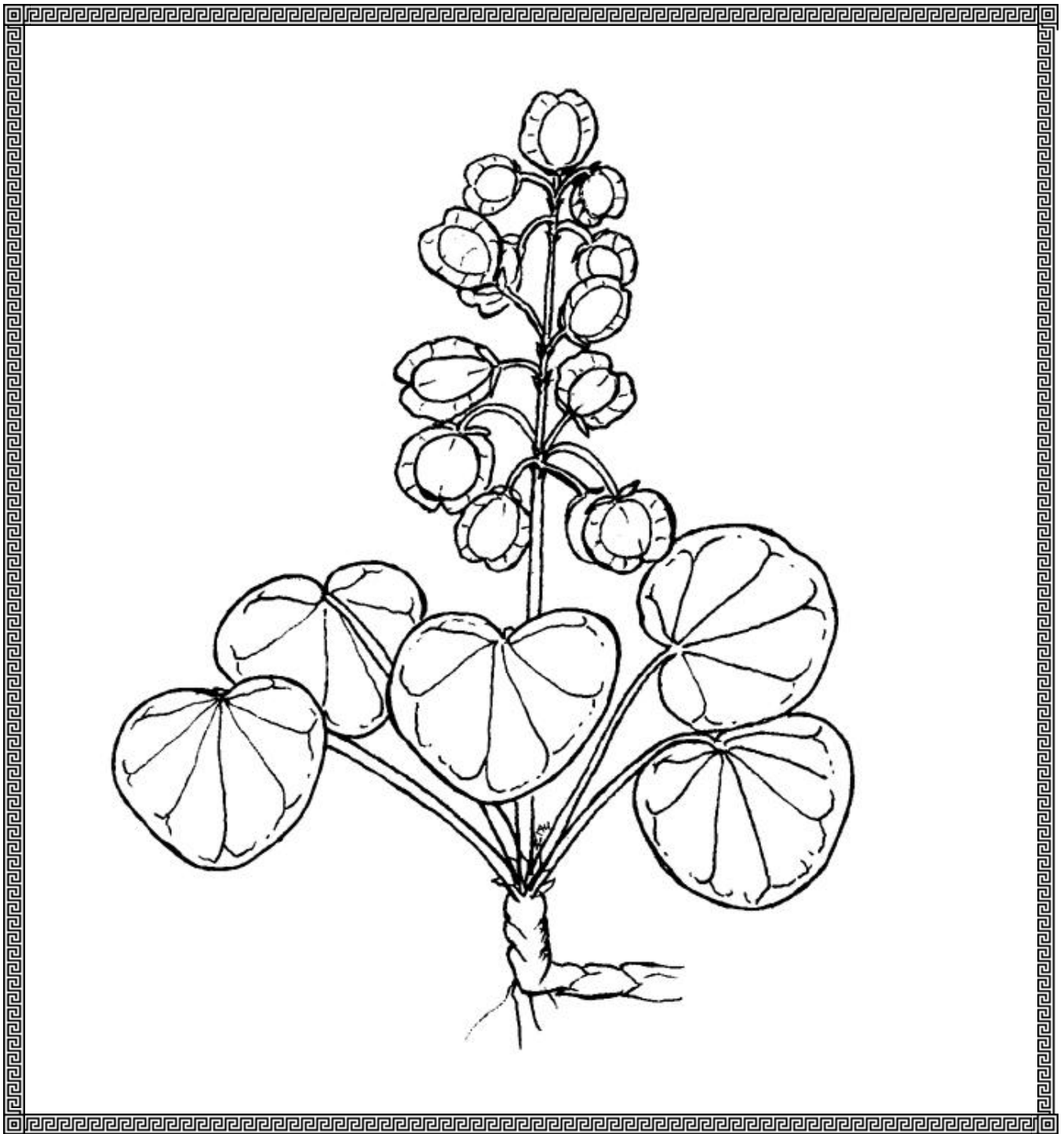
1	Red	7	Violet/Purple	13	Violet-Red	19	Cerulean
2	Green	8	Orange	14	Carnation	20	Blue Violet
3	Blue	9	Gray	15	Red Orange	21	Blue Green
4	Yellow	10	White	16	Vivid	22	Jungle Green
5	Brown	11	Fuchsia	17	Yellow Orange	23	Yellow Green
6	Black	12	Red-Violet	18	Peach	24	Green Yellow



Marsh Marigold

Caltha leptosepala Asteraceae the Sunflower Family

Found on wet ground along streams, in mountain meadows, and in tundra. Flowers very early, often in large patches while snow is still on the ground nearby. “Leptosepala” means slender “sepals” or petals. A related species in the eastern United States was eaten by American Indians, but this species is reported to be much too bitter.



Alpine Sorrel

Oxyria dygina Polygonaceae the Buckwheat Family

Grows in the tundra in shady or moist places, such as rock crevices or ledges. “Oxyria” comes from the Greek word “oxys”, which means sour. The leaves are sour tasting, but people should not eat them since they are mildly toxic. This plant is distributed around the world in the northern countries of Europe, Asia, and North America. It is wind pollinated, rather than relying on insects such as bees.



Silky Phacelia

Phacelia sericea Hydrophyllaceae the Waterleaf Family

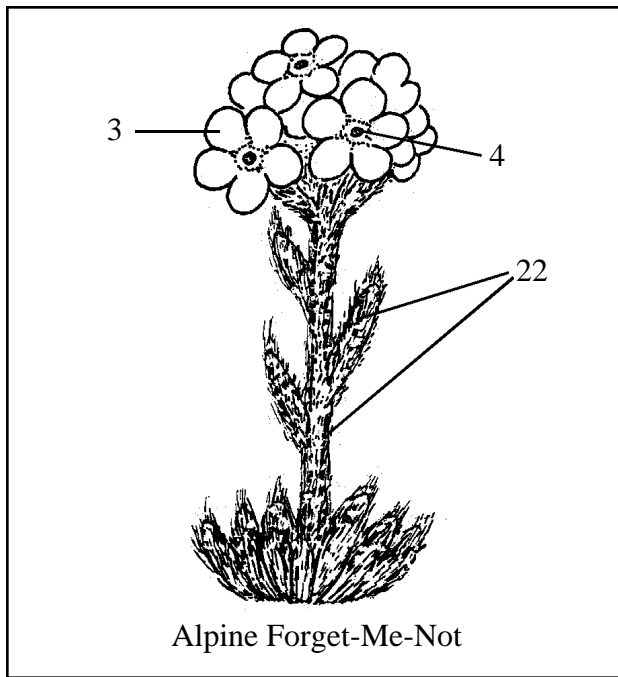
Common on gravelly open slopes, and along roadsides or in other areas of disturbed soil, usually above 10,000 feet. “Sericea” means “silky”. Elk and other big game graze it during spring and summer.



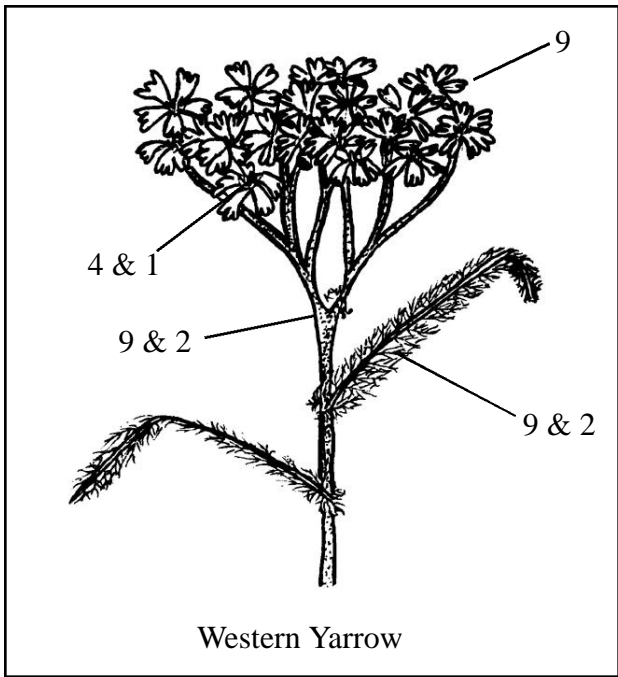
Yellow stonecrop

Sedum lanceolatum Crassulaceae the Stonecrop family

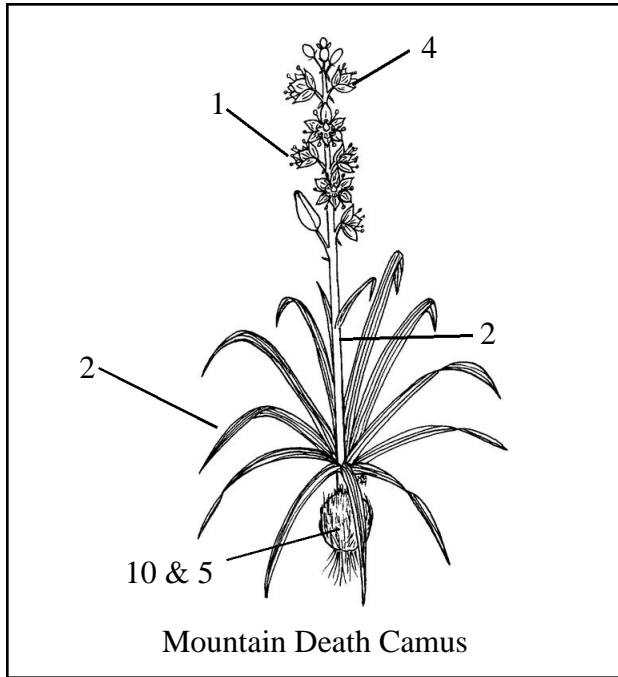
Common on dry, rocky soils on ridges, slopes, and rocky outcrops from the plains up to the tundra. “Sedum” is Latin for “to sit”, probably referring to the fact that these very short plants “sit” on the ground. It has yellow star-shaped flowers and fleshy leaves. This is a close relative of the *Sedum* species grown in rock gardens.



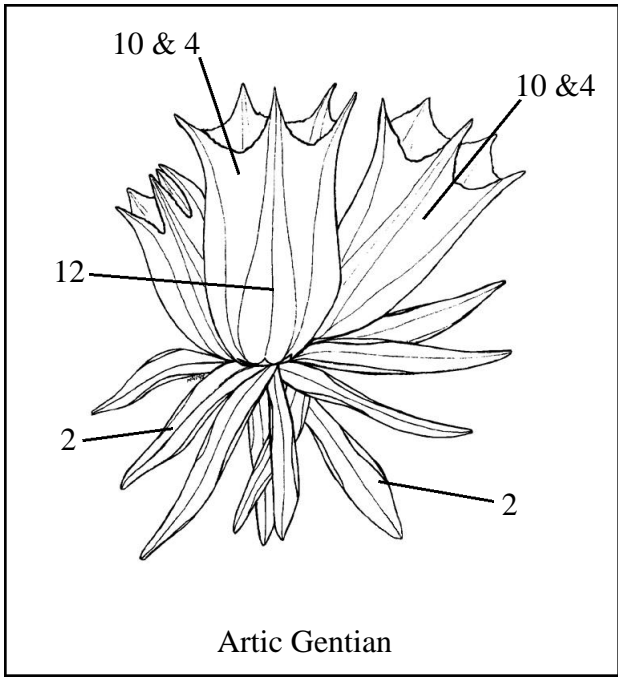
Alpine Forget-Me-Not



Western Yarrow



Mountain Death Camus



Artic Gentian

1 Red	7 Violet/Purple	13 Violet-Red	19 Cerulean
2 Green	8 Orange	14 Carnation	20 Blue Violet
3 Blue	9 Gray	15 Red Orange	21 Blue Green
4 Yellow	10 White	16 Vivid	22 Jungle Green
5 Brown	11 Fuchsia	17 Yellow Orange	23 Yellow Green
6 Black	12 Red-Violet	18 Peach	24 Green Yellow

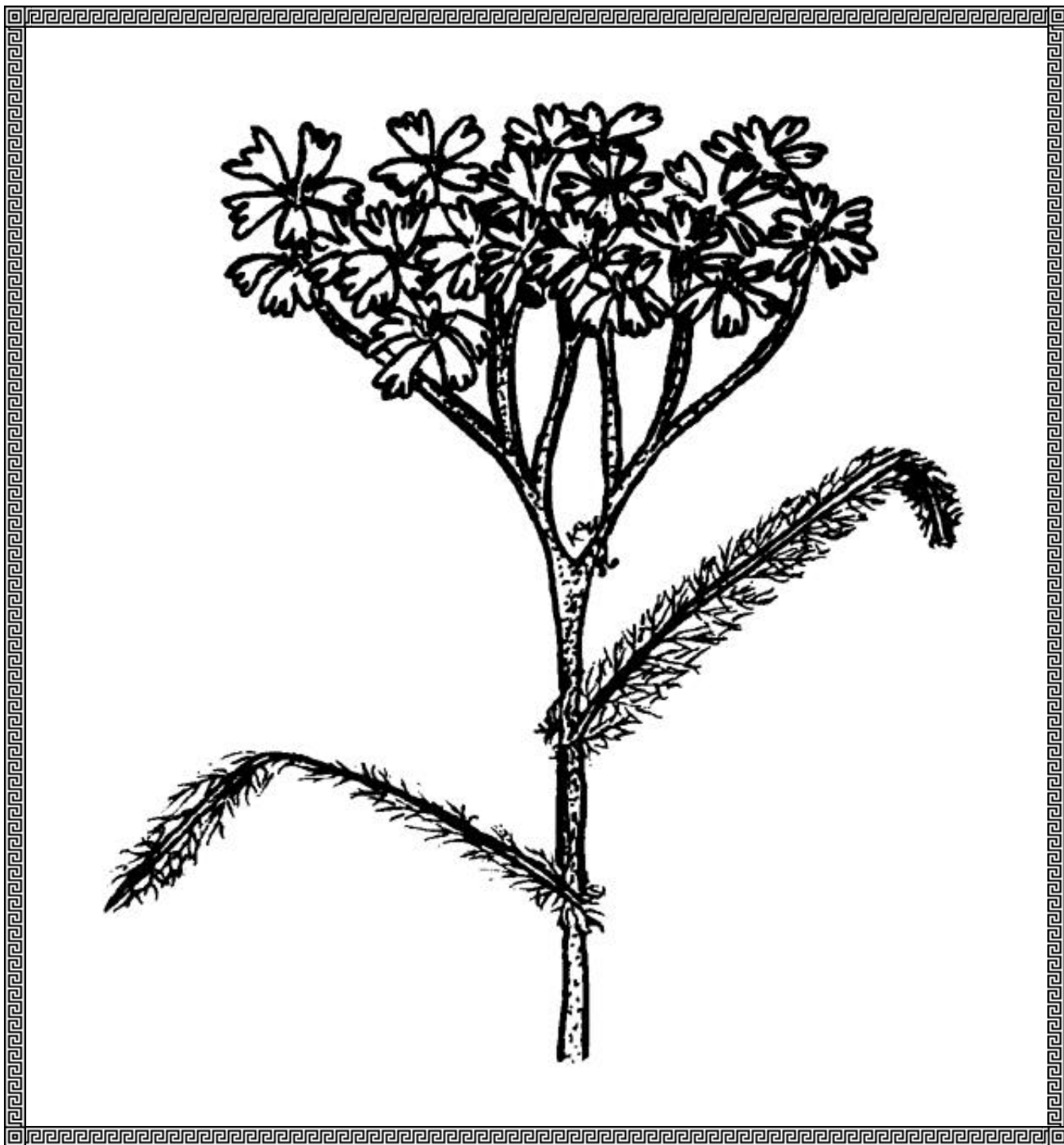


Alpine Forget-Me-Not

Eritrichium aetoides Boraginaceae the Borage Family

Tiny bright blue flowers arise from a dense mat of small, hairy, silver-white leaves. Look closely at the flowers and you will see that they have five petals and a yellow center or “eye”. Sometimes you can find alpine forget-me-nots with white flowers.

Remember the Alpine!



Western Yarrow

Achillea lanulosa Asteraceae the Sunflower Family

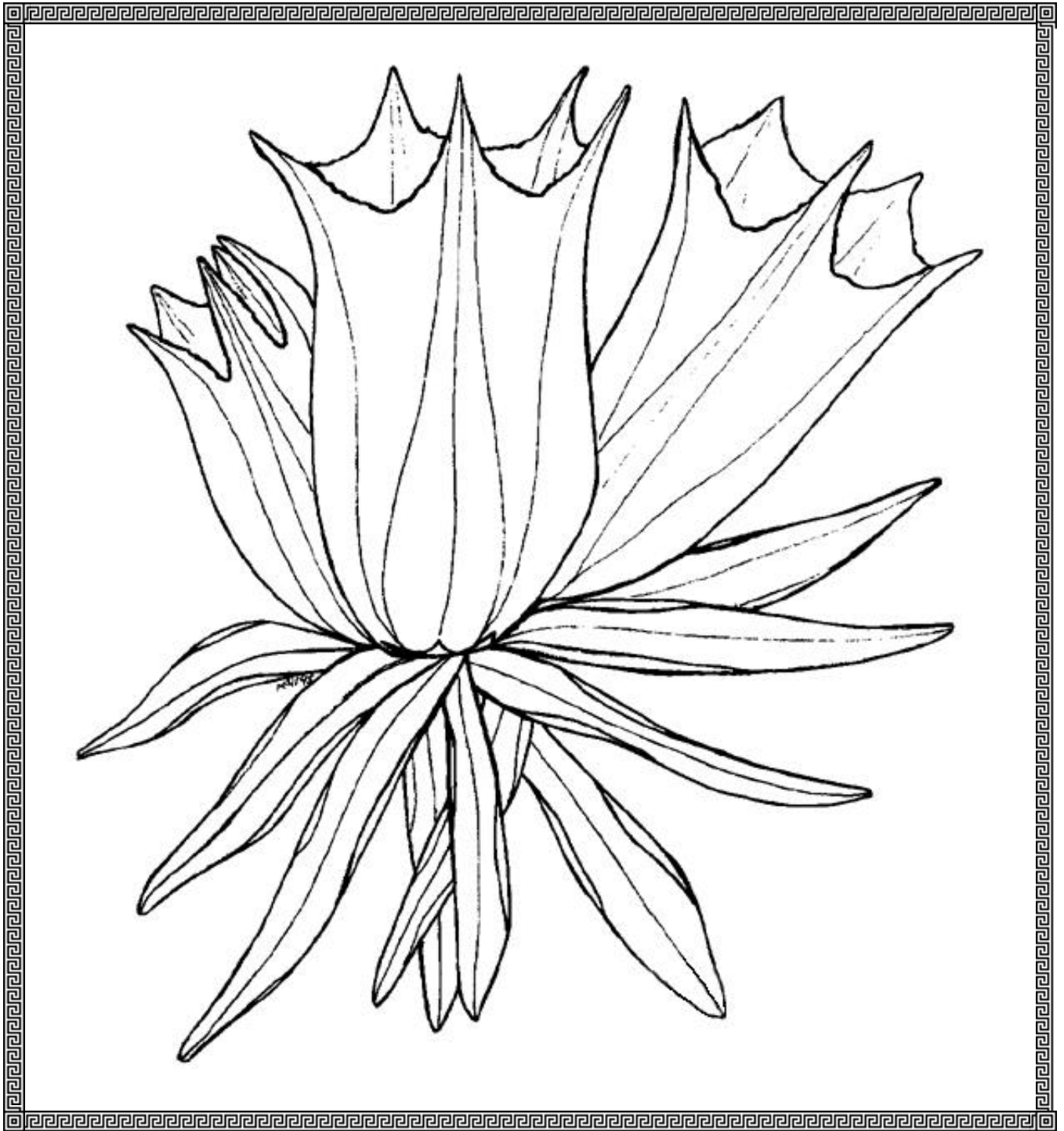
This flat-topped white flowered species is common in meadows and along roads from the sagebrush to the alpine. It has a long history of medicinal use. It is easy to grow in a flower garden, but can take over if watered too much.



Mountain Death Camus

Zigadenus elegans Melanthiaceae the False Hellebore Family

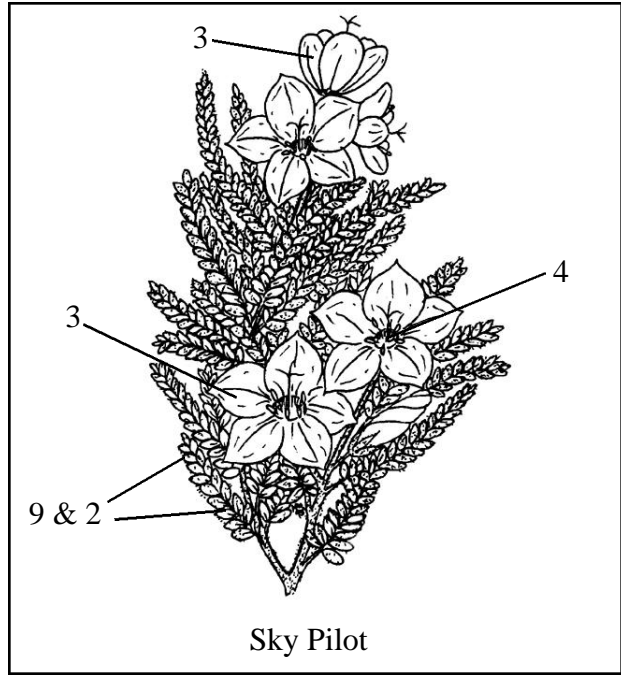
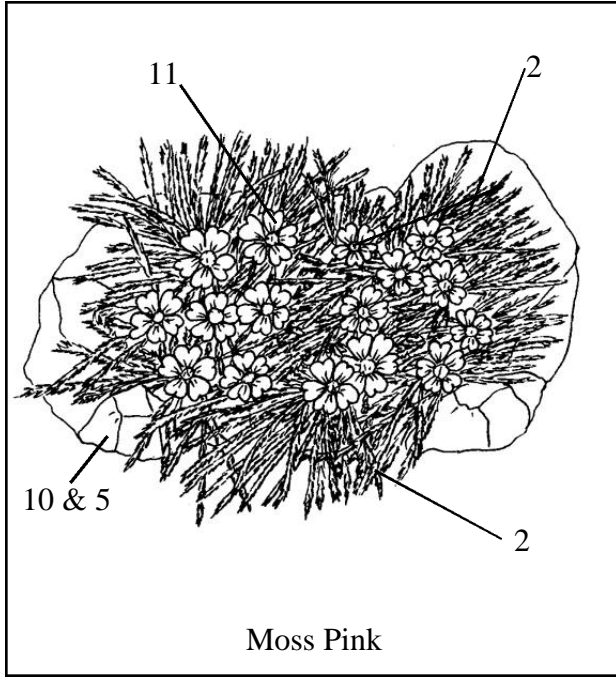
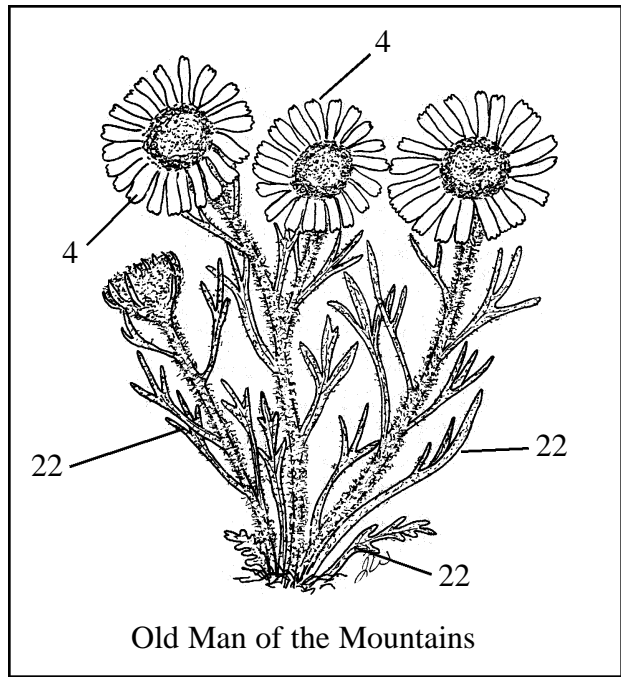
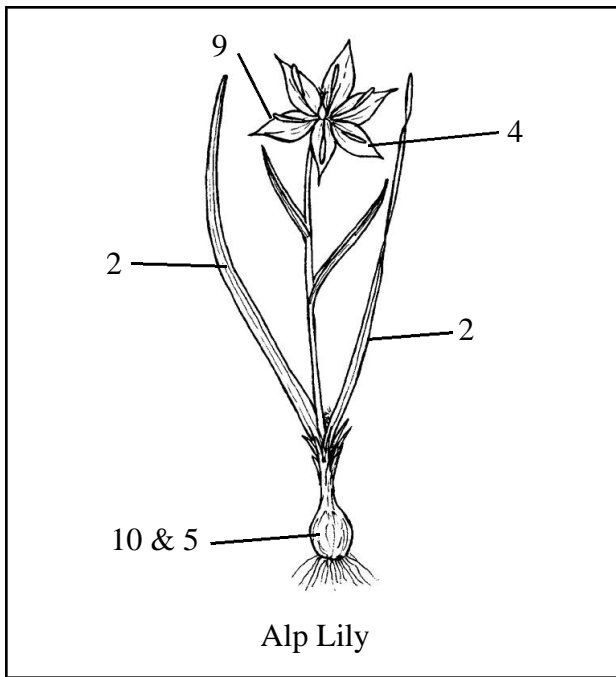
This is a mildly poisonous plant found in subalpine meadows and bogs. *Zigadenus* species in the Eastern United States are much more toxic, even deadly. Sometimes our Mountain death camus grows along the edges of moist, bog-like aspen groves.



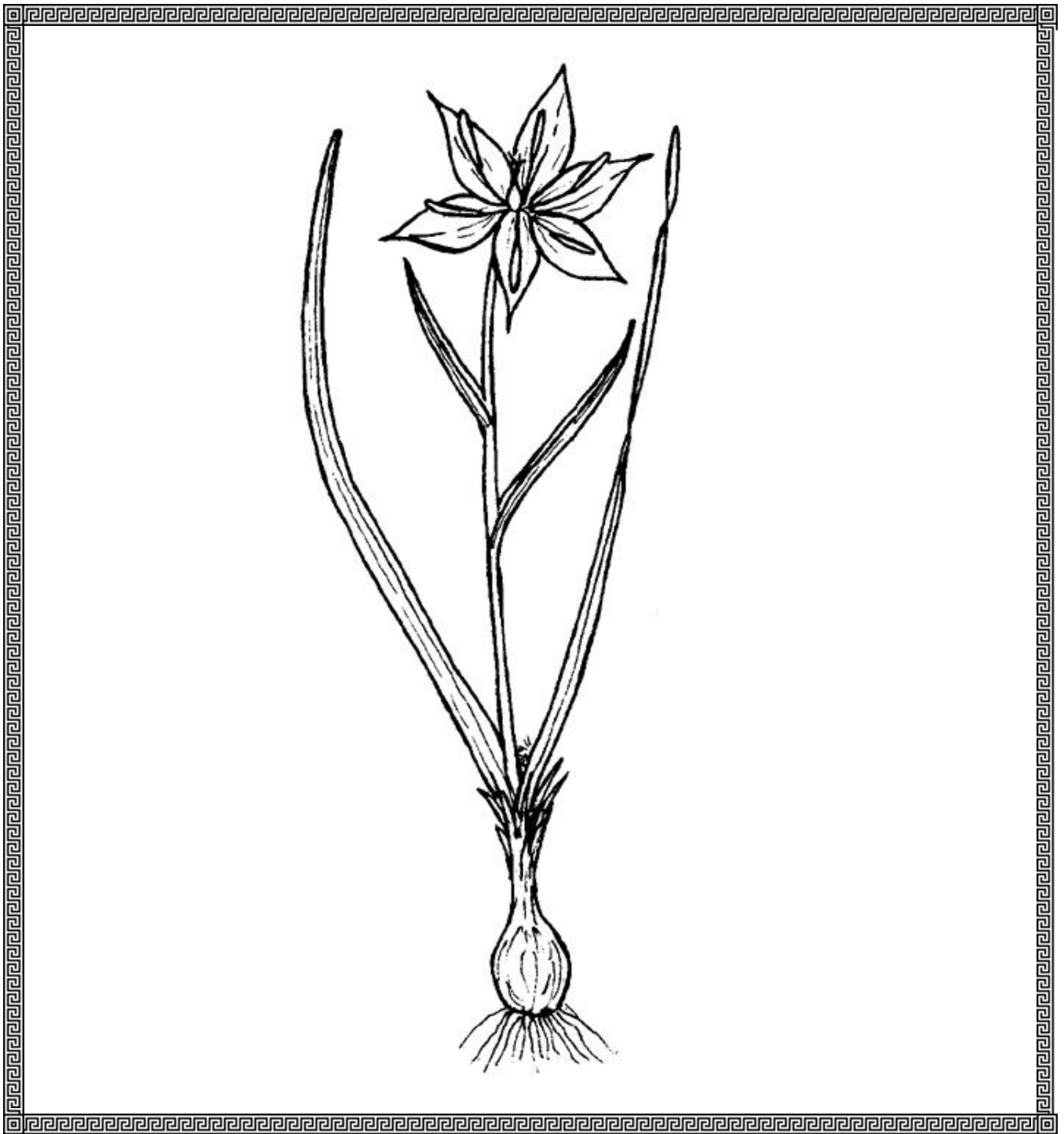
Arctic Gentian

Gentiana algida Gentianaceae the Gentian Family

This very attractive flower blooms late in the summer in the alpine and sub-alpine zones. *Algida* means cold, a reminder of the cold arctic climate. These gentians can be found from Alaska south through the Rockies to New Mexico in alpine bogs and meadows.



1 Red	7 Violet/Purple	13 Violet-Red	19 Cerulean
2 Green	8 Orange	14 Carnation	20 Blue Violet
3 Blue	9 Gray	15 Red Orange	21 Blue Green
4 Yellow	10 White	16 Vivid	22 Jungle Green
5 Brown	11 Fuchsia	17 Yellow Orange	23 Yellow Green
6 Black	12 Red-Violet	18 Peach	24 Green Yellow



Alp Lily

Lloydia serotina Liliaceae the Lily Family

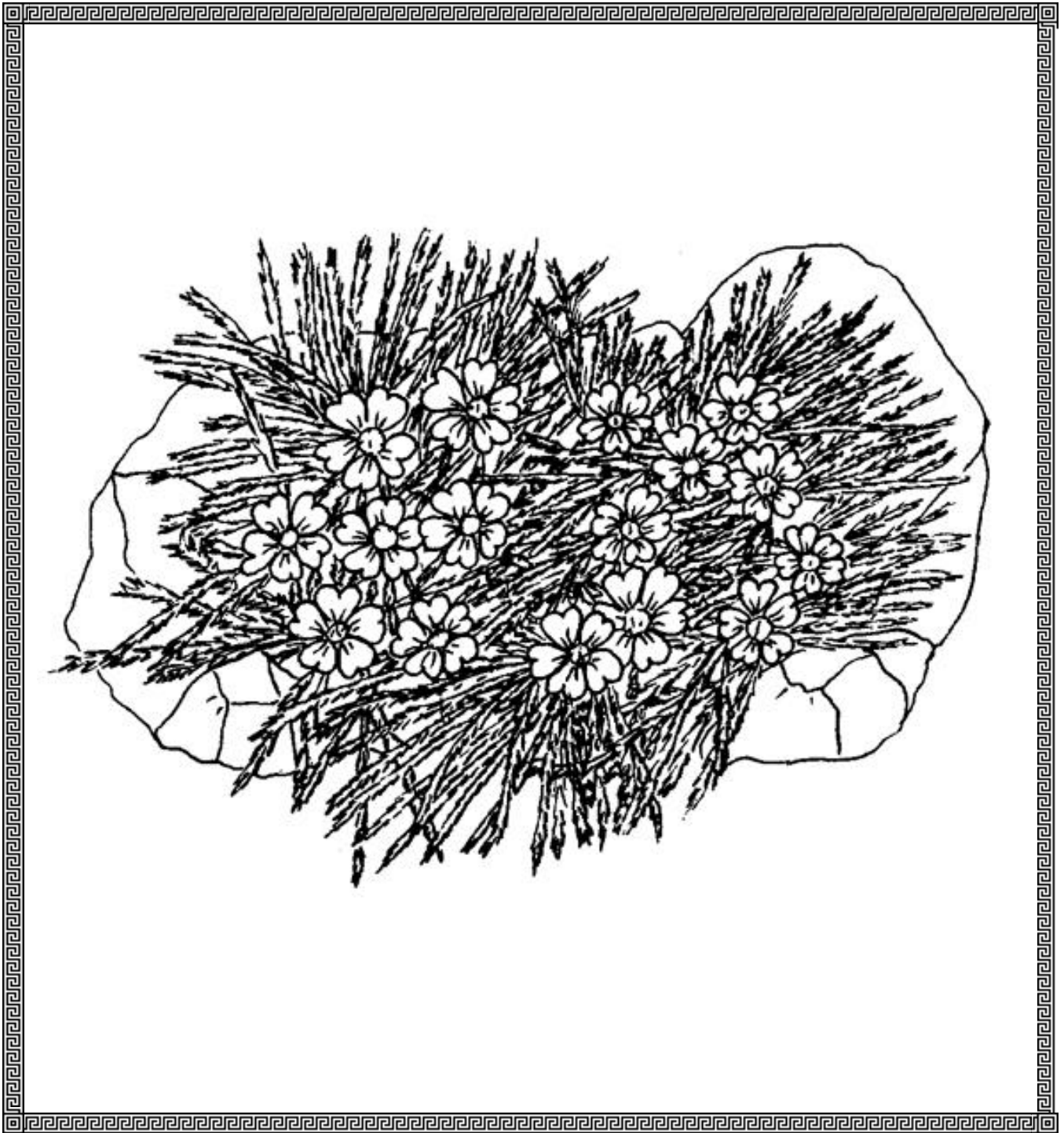
This delightful little alpine lily grows only two to six inches tall in gravelly ridges, cliffs, rock crevices and alpine meadows in the higher mountains. It is common on the tundra when blooming in June and July.



Old Man of the Mountains

Hymenoxys grandiflora Asteraceae the Sunflower Family

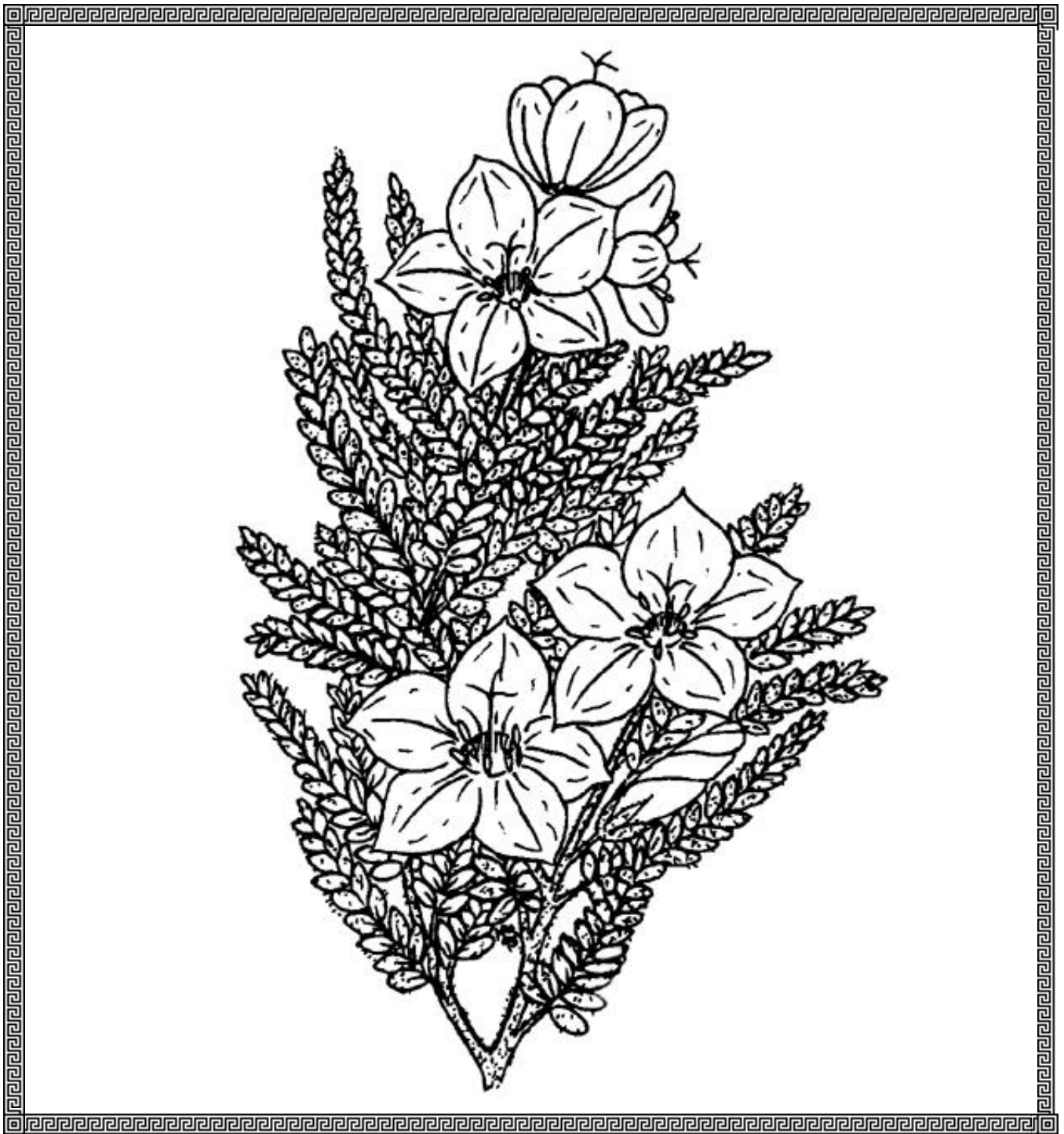
A grand flower indeed!! This is one of the showiest and most easily recognized alpine plants. Stout woolly stems are topped by bright yellow heads two to four inches across with 3-notched ray flowers. It blooms late in the summer and is very common on high peaks and alpine meadows. The heads of these flowers usually face away from the prevailing winds.



Moss Pink

Silene acaulis Caryophyllaceae the Pink Family

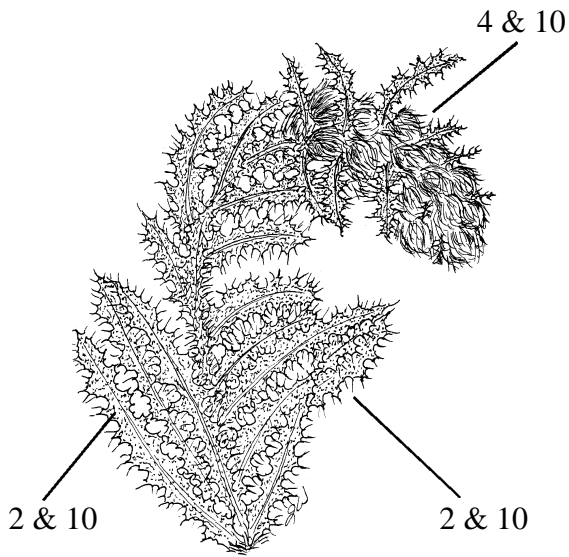
The base of this plant is low and matted, like moss, with little pink flowers barely taller than the mat. This slow growing species blooms in early July. This species is sometimes used as a rock garden plant.



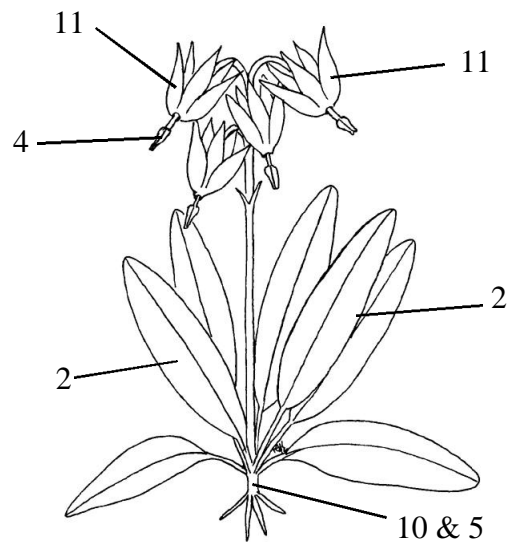
Sky Pilot

Polemonium viscosum Polemoniaceae the Phlox Family

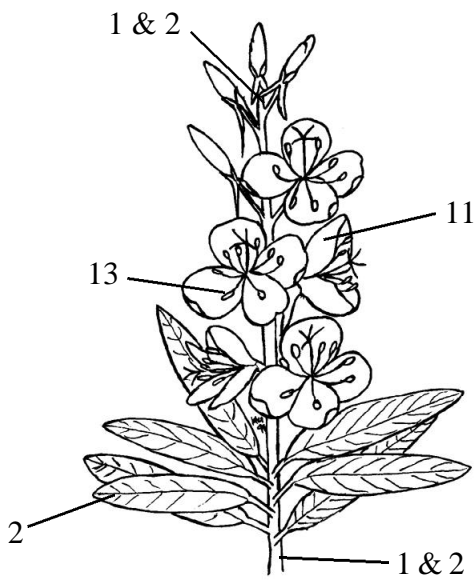
Smell Something? Sky pilots can have a mild skunk like aroma along with their deep blue flowers and sticky glandular leaves. Most often these flowers are found above timberline in open rocky places like boulderfields and alpine meadows. Sometimes you can find a rare white flowered sky pilot in a population of the blue flowered ones.



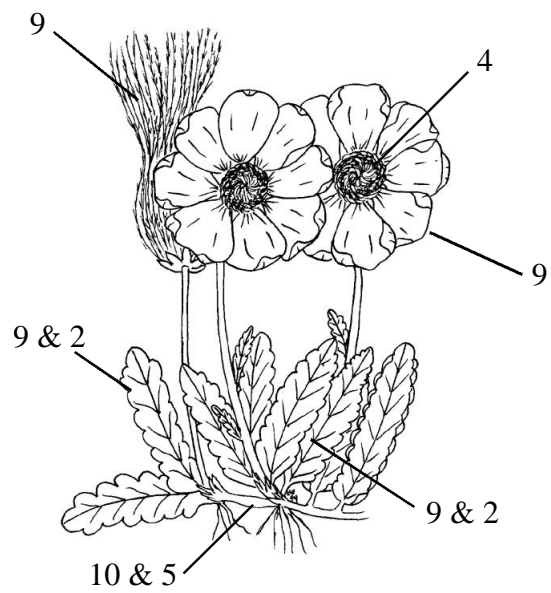
Rocky Mountain Thistle



Shooting Star

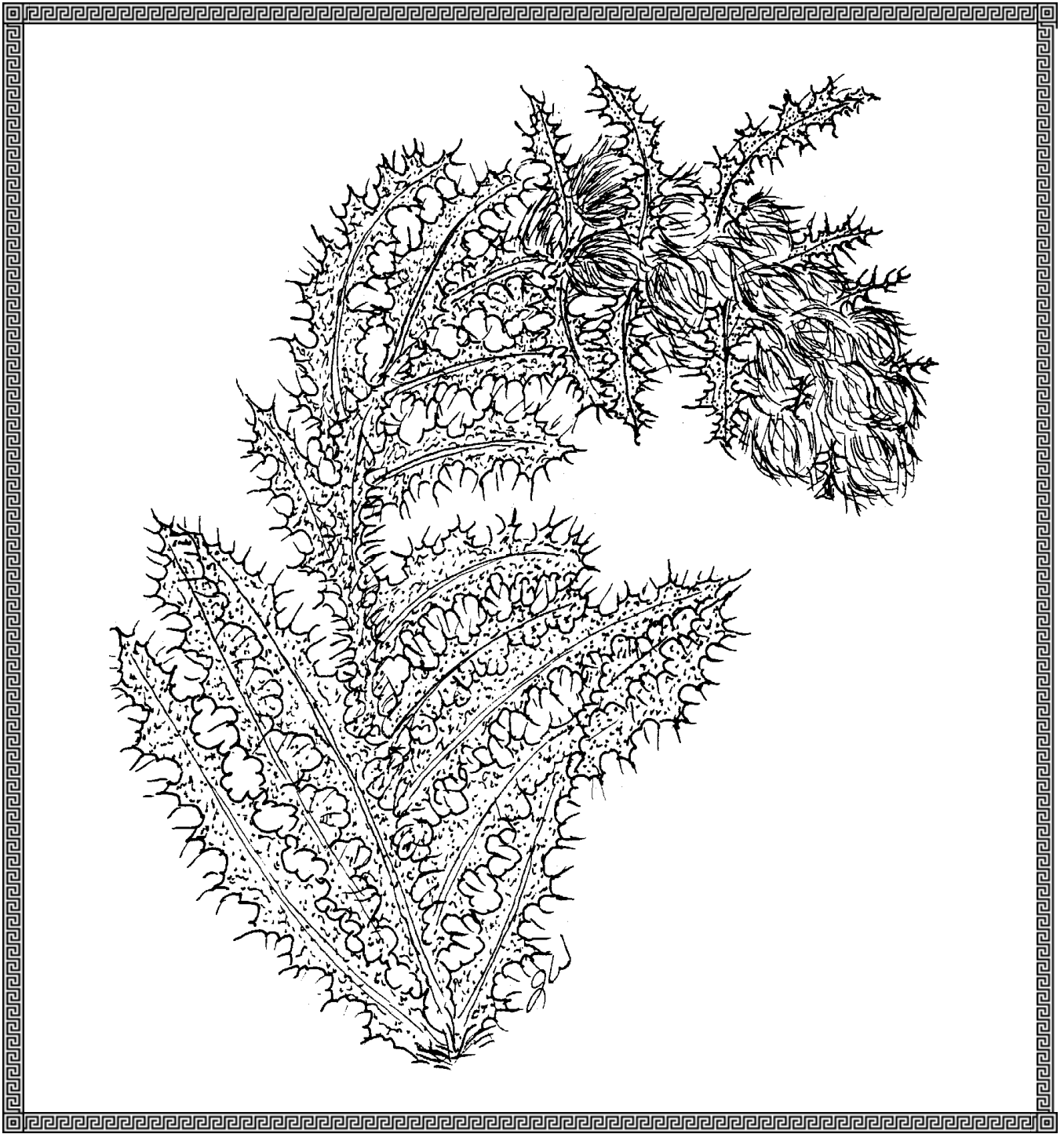


Fireweed



Mountain Dryad

1 Red	7 Violet/Purple	13 Violet-Red	19 Cerulean
2 Green	8 Orange	14 Carnation	20 Blue Violet
3 Blue	9 Gray	15 Red Orange	21 Blue Green
4 Yellow	10 White	16 Vivid	22 Jungle Green
5 Brown	11 Fuchsia	17 Yellow Orange	23 Yellow Green
6 Black	12 Red-Violet	18 Peach	24 Green Yellow



Rocky Mountain thistle

Cirsium scopulorum Asteraceae the Sunflower Family

Not all thistles are weeds!! This woolly native is common along the continental divide. Stout stems hold nodding white or cream colored heads of flowers in dense woolly or cobwebby clusters. The leaves, like many thistles, are spiny. This is a common thistle of alpine and subalpine slopes, flowering in July and August.



Shooting Star

Dodecatheon pulchellum Primulaceae the Primrose Family

These plants have attractive rose-pink flowers arranged in drooping clusters on a leafless flowering stalk. The common name actually describes the flowers: bent back petals with fused yellow anthers forming a beak. The best place to find them are along streams and other wet places.



Fireweed

Epilobium angustifolium Onagraceae the Evening-primrose Family

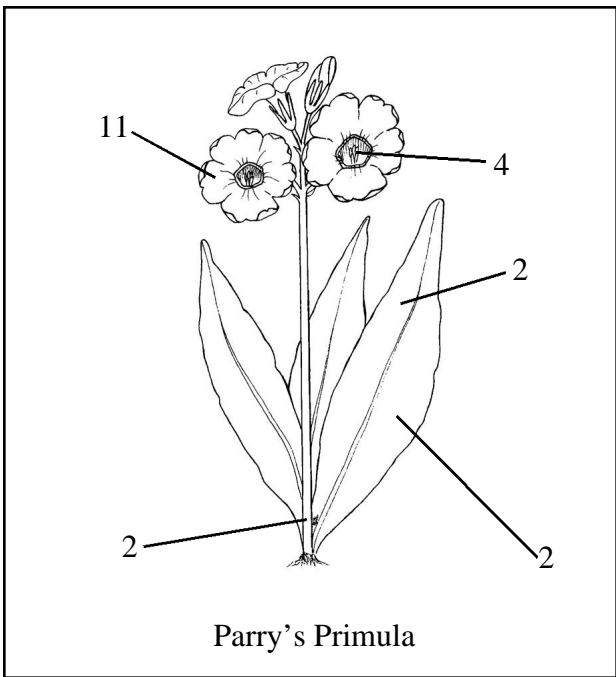
The brilliant rose-purple flowers are bundled closely together near the top of the plant. The leaves are long, narrow, and look similar to a willow leaf. Fireweed is usually found in moist areas, but commonly takes over burned areas and along roadsides.



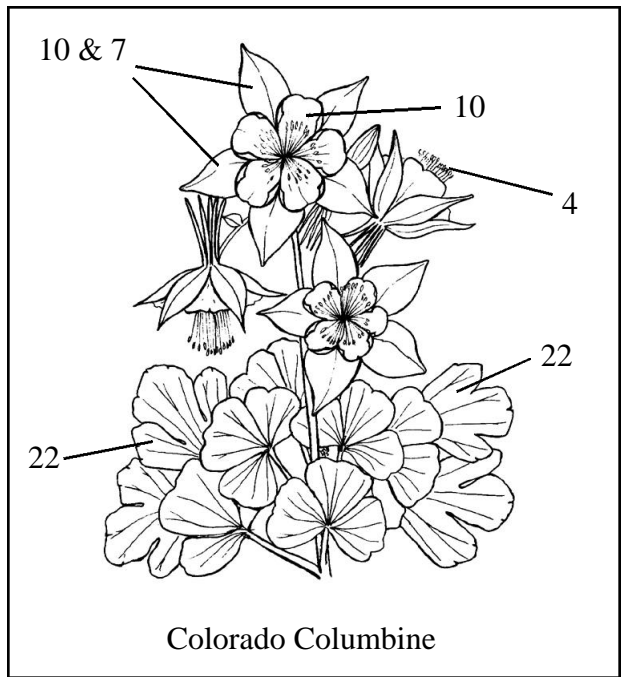
Mountain Dryad

Dryas octapetala Rosaceae the Rose Family

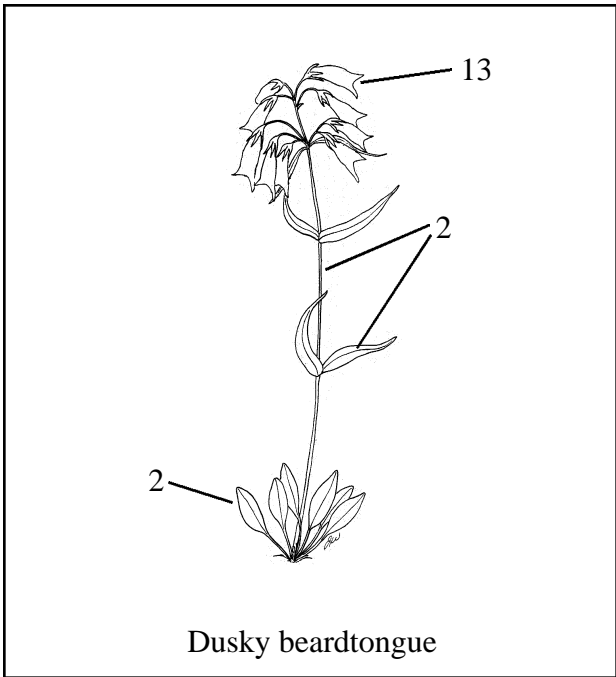
This small shrub has cream colored flowers with 8 petals per flower. The evergreen leaves are thick and shiny on top, but a dull white beneath. It is found in rocky, exposed areas of the alpine tundra.



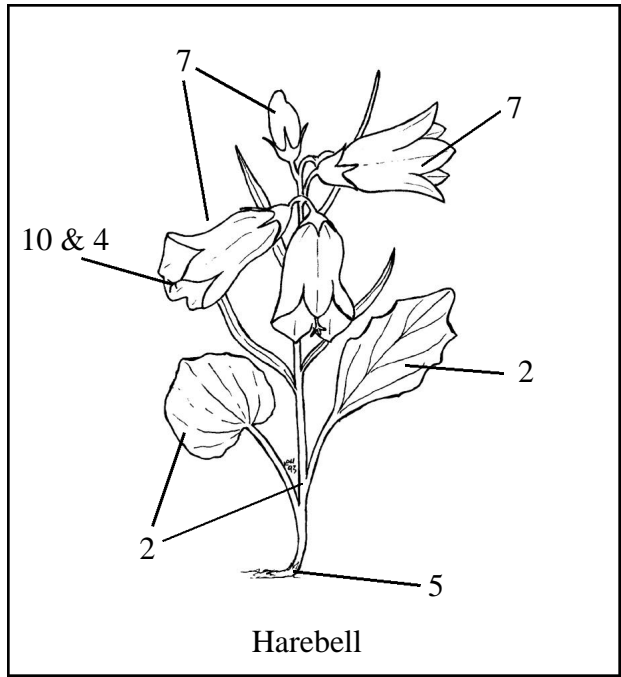
Parry's Primula



Colorado Columbine

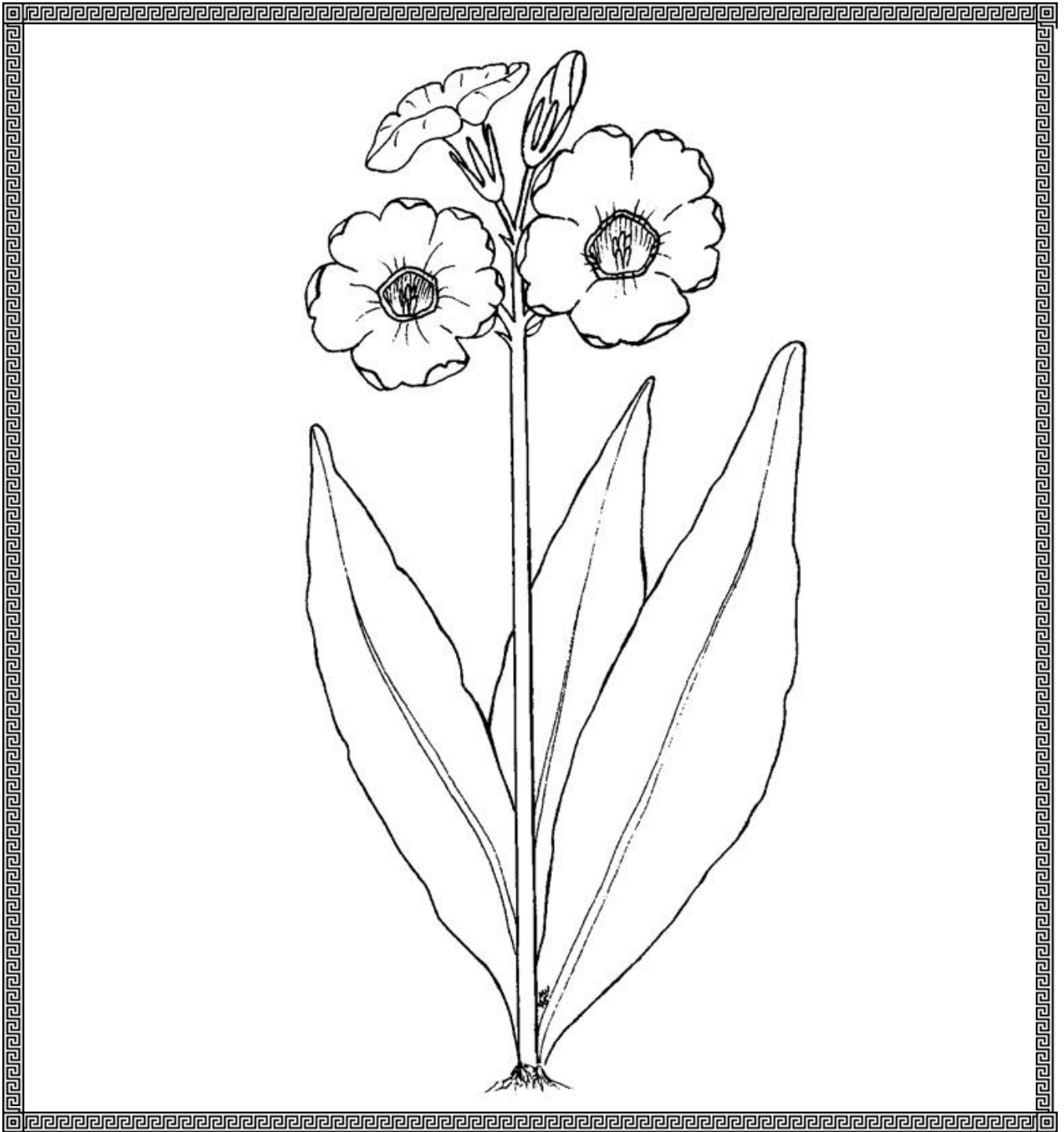


Dusky beardtongue



Harebell

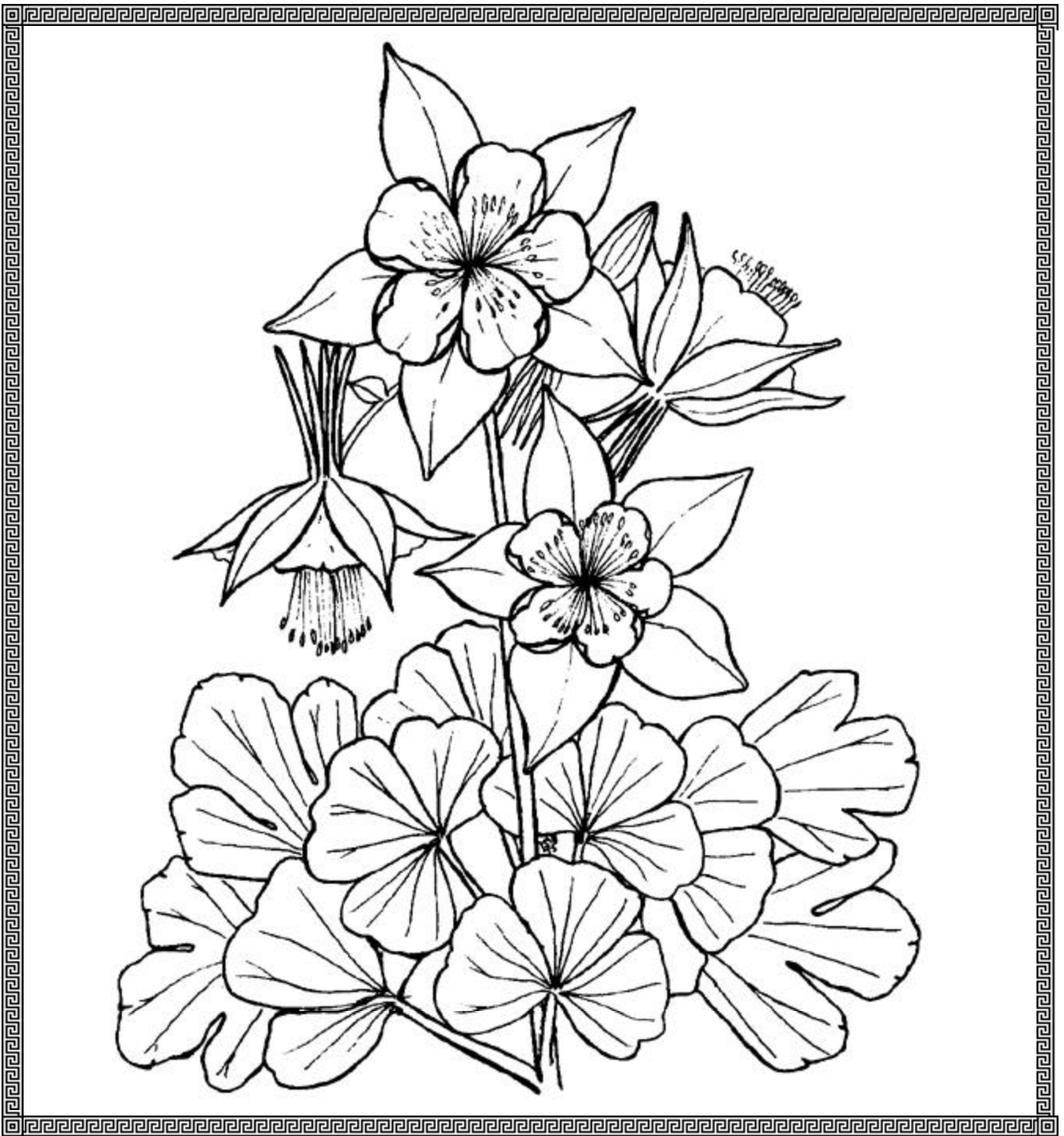
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6 Black	12 Red-Violet	18 Peach	24 Green Yellow



Parry's Primula

Primula parryi Primulaceae the Primrose Family

Amazingly bright purple flowers with brilliant yellow centers make this plant a difficult one to miss. The plant is usually over a foot tall with the flowers clustered near the top. It is found along streams in alpine and subalpine habitats.



Colorado Columbine

Aquilegia coerulea Ranunculaceae the Buttercup Family

The Colorado Columbine is our state flower. The flowers are white and blue with large spurs pointing behind the flower. The unusual shape of the flower make it an easy plant to recognize. It is common in Aspen groves and moist, forested areas. This plant was so heavily collected in the early 1900's that a law was passed limiting the number of flowers one person could pick in one day.



Dusky beardtongue

Penstemon whippleanus Scrophulariaceae the Figwort Family

The tube-shaped flowers are grouped in nodding clusters at the top of the flowering stem. The flowers are usually a dingy purple in color. This is a common wildflower throughout the mountains from ponderosa pine to timberline.



Harebell

Campanula rotundifolia Campanulaceae the Bellflower Family

The purple flowers are bell shaped and hang slightly downward from a slender stem. This plant is very widespread. In the northern hemisphere it can be found from the low elevation foothills all the way to the alpine tundra.

Celebrating Wildflowers

The third week of May each year is National Wildflower Week. It is the kickoff week for a year long season of celebrating wildflowers. National Wildflower Week is an annual event sponsored by many federal agencies and partners in the Native Plant Conservation Initiative. This event promotes the importance of conserving and managing native plants and plant communities in America. More than 630 million acres of public lands managed by the Bureau of Land Management, the U.S. Forest Service, the National Park Service and the U.S. Fish and Wildlife Service are habitat for America's wildflowers. We encourage you to explore these lands, to look for and delight in your beautiful native flora.

To find out more about Celebrating Wildflowers, call the National Wildflower Hotline 1-800-354-4595 from April through August. The hotline is updated weekly with current events and places with spectacular blooming wildflowers. Also, visit Celebrating Wildflowers on the Native Plant Conservation Initiative web page (www.nps.gov/plants/) where you can find many of the drawings and color charts used in this coloringbook and other information about native plants.

**The 1999 Wildflower
Coloring Book is presented by:**

Carol Dawson -- Denver Botanic Gardens
Andy Kratz -- USDA Forest Service
Renee Garfias -- Bureau of Land Management
Tom Grant -- Denver Botanic Gardens
Carol Spurrier -- Bureau of Land Management

Drawings by:

Karl Urban -- USDA Forest Service
Janet Wingate -- Denver Botanic Gardens

KARL URBAN

Karl Urban was a USDA Forest Service botanist on the Umatilla National Forest in northeastern Oregon. Among many other efforts, he devoted countless hours of his personal time at home to creating wildflower drawings for "Celebrating Wildflowers" coloring books. This was a "labor of love" for Karl. Eventually, his drawings were posted on the World Wide Web where they became extremely popular nationwide. This coloring book is dedicated in memory of Karl Urban.

Celebrating Wildflowers in Colorado