Aquilegia coerulea

# COLORADO NATIVE PLANT SOCIETY

"DEDICATED TO THE APPRECIATION AND CONSERVATION
OF THE COLORADO NATIVE FLORA"

# NEWSLETTER

Volume I Number 3
May--June
1977

---

MAILING ADDRESS

c/o Dr. Dieter H. Wilken
Department of Botany and Plant Pathology
Colorado State University
Fort Collins, Colorado 80523

OFFICERS

| | |
|---|---|
| President: | William A. Weber |
| Vice President: | Hugo A. Ferchau |
| Secretary: | Dieter H. Wilken |
| Treasurer: | Kimery C. Vories |

BOARD OF DIRECTORS

| | |
|---|---|
| Steven Bissell | William Harmon |
| Genevieve Bryant | John Marr |
| Gail Evans | J. Scott Peterson |
| Charles Feddema | Kimery Vories |
| Hugo Ferchau | William Weber |
| William G. Gambill, Jr. | Dieter Wilken |
| Jon Halverson | |

SOCIETY COMMITTEES

| | |
|---|---|
| Endangered Species | Barry Johnston |
| Education | Bill Harmon |
| Environmental Documents | Hugo Ferchau |
| Field Trips | Dexter Hess |
| Funding | Kimery Vories |
| Horticulture & Rehabilitation | Karen Hollweg |
| Legislative | Lois Webster |
| Membership | Sue Martin |
| Publications | J. Scott Peterson |
| Publicity | Steven Bissell |

SCHEDULE OF MEMBERSHIP DUES

| | |
|---|---|
| Life | $250.00 |
| Supporting | 50.00 |
| Society | 25.00 |
| Family | 12.00 |
| Individual | 8.00 |
| Student & Retired | 4.00 |

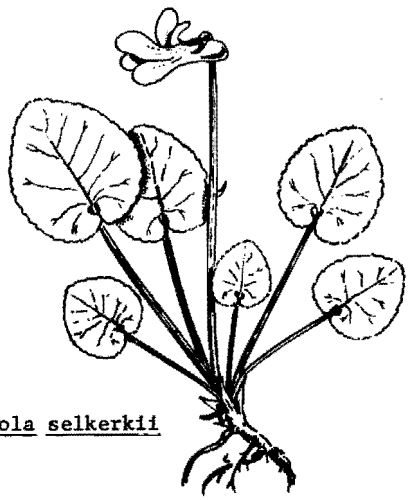
---

## ELUSIVE AND UNUSUAL COLORADO RESIDENT

by Charles Feddema

### Viola selkerkii

The great-spurred violet is one of the "stemless" violets because the leaves and flower stalks arise from the base of the plant at the apex of a slender rootstalk. It is a small violet, with leaves and flowers reaching a height of about 3 inches. The leaves are broadly heart-shaped, with the basal lobes nearly touching or overlapping. The flowers are purplish and beardless with a thick blunt spur more than ¼ inch long. It is found occasionally in moist, shaded, cool or mountainous areas from Labrador to Alaska and ranges southward into New England, Pennsylvania, the upper Great Lakes region and the Black Hills. It has been observed in Rocky Mountain National Park and in the Rampart Range at Devil's Head and can be expected elsewhere in Colorado. It would afford great satisfaction to be the discoverer of a new patch of this woodland jewel.



Viola selkerkii

THE NEWSLETTER

The Colorado Native Plant Society Newsletter is published bimonthly. The deadline for material to be included in the July-August issue will be one month prior to its release, or May 25, 1977. Any articles of interest to the informed lay-person or comments concerning the content of this newsletter would be greatly appreciated. Copy should be typed and double spaced. All items should be sent to J. Scott Peterson, BLM, Bldg. 50, Denver Federal Center, Denver, CO 80225 (234-2394).

An attempt has been made on the part of the editor to use standardized common names and most current valid nomenclature.

---

BOARD OF DIRECTORS MEETING

The next Board of Directors meeting will be at 7:00 PM, Monday, May 16, at the University of Colorado Museum, Boulder. All chairpersons of active Society committees are being asked to attend or to designate representatives for the purpose of reporting activities and plans for the summer. The agenda will include reports by committees and actions to be taken by the Board in support of committee proposals. Since this will be the last planned meeting of the Board before the annual fall meeting of the Society, members are urged to contact Board members with regard to items of interest to the Society. As usual, members are invited to the Board of Directors Meeting.

---

FORT COLLINS CHAPTER

The Fort Collins Chapter of the CoNPS held its second meeting on February 8, 1977, at the Colorado State University library. The meeting consisted of a short business meeting, followed by the speaker for the evening, Larry Watson, from the Western Evergreen Nursery in Golden. He spoke on "Landscaping with Natives and their Propagation", and did an excellent job discussing many of our native plants that may be used for landscaping purposes. The talk was accompanied by a color slide show, which excellently illustrated the subject species. Some of the species whose characteristics and uses were described included Acer glabrum Torr. (mountain maple), Rhus trilobata Nutt. (skunkbush sumac), Amorpha canescens Pursh (leadplant), Cercocarpus montanus Raf. (mountain mahogany), and Populus tremuloides Michx. (quaking aspen). A question and answer period followed, in which much of the audience participated. At the conclusion of the meeting, many of the people remained to talk to Mr. Watson, and to browse through the display of books on landscaping and native plants. Approximately eighty people were present in the sixty person capacity room. The talk was so interesting, however, that no one minded sitting on the floor. We extend our thanks to Larry Watson for the extremely successful and informative evening.

The next meeting of the Fort Collins chapter will be May 3rd in the Meeting Room of the First National Bank of Fort Collins. Persons attending are asked to use the south parking lot. The meeting will begin at 7 pm with a short business session. The speaker of the evening will be Kim Vories presenting, "The Piceance Basin, Past, Present, and Future--A Floral Perspective". This talk will give good background information for the field trip to the Cathedral Bluffs area in June. Information about the fieldtrip is given elsewhere in this newsletter.

---

BOULDER CHAPTER FORMATION

The second chapter of the Colorado Native Plant Society has been formed in Boulder. Thirty-one CoNPS members have petitioned the Board for chapter recognition. The acting chairman, David Buckner (494-3231) may be contacted by those interested persons in the Boulder area for information regarding chapter activities.

The next meeting of the Boulder Chapter will be on May 19, 1977, at 7:30pm. The location will be in the Public Service Company building at Broadway and Canyon in Boulder. The guest speaker for the evening will be Larry Watson from Western Evergreens, Inc. in Golden. He will give a slide talk on "Landscaping with Natives and their Propagation." Mr. Watson is very informed and interesting, so plan to be with us.

---

HORTICULTURE AND REHABILITATION COMMITTEE

Our next meeting will be Sunday, May 1, beginning at 2:00 p.m. at 2040 5th Avenue, Greeley, CO. Following a business meeting at which we will work on plans for a horticultural field trip and the program for the October meeting. Bill Harmon will show us the garden of native prairie species at UNC, and explain how it was started. For further information, call or write Karen Hollweg, 299-0518, 4440 Greenbriar Blvd., Boulder, CO 80303.

---

FIELD TRIPS

APRIL 24, Saturday, Boulder Area.

The Boulder Chapter will host a botanical excursion for the entire family with a visit to the Enchanted Mesa. Meet at 9:00 a.m. at the Table Mesa branch library across Table Mesa Drive from King's Sooper. Pack a sandwich, and it might be wise to tote a slicker. This is designed for all ages, so share the trip with your children. If you have any specific questions, please call David Buckner at 494-3231.

MAY 6 & 7, Friday & Saturday, Colorado Springs Area.

Additional information has been obtained concerning the joint field trip with the Society for Range Management. The theme will be "Rangeland Use and Planning," though the trip will allow one to view "relict" areas on the Fort Carson and Air Force Academy reservations (See March-April Newsletter).

Friday, the group will tour Fort Carson by bus, departing the Quality Inn at 8:30 A.M. and arriving back at 5:00 p.m. The cost for the day will be five dollars (lunch and transportation). Friday night, a steak fry will be put on by the SRM, and will be available for $4.50 per person.

On Saturday, the group will visit the Air Force Academy, leaving the Quality Inn at 8:00 a.m. and returning at noon. A special luncheon will be served at the Academy NCO Club, but precommitment is required. The Annual Academy Open House occurs from 1:00-5:00 p.m., and you are invited to attend.

Meeting headquarters will be the Quality Inn, 520 N. Murray Blvd., Colorado Springs, CO 80915 (596-7660). A commitment has been made by the Inn to provide an $11.50 rate per room. Your precommitment is required by April 27, 1977, for bus, lunch, steak fry, Academy tour and NCO luncheon. Please notify Jeanne Roberts at the Colorado Springs SCS office at 596-3737.

---

JUNE 4, Saturday, Denver Metro Area.

The Horticulture and Rehabilitation Committee is sponsoring a "Backyard Natural Areas" field trip to native yards and gardens in the Denver Metro Area. Since definite plans were not available at press time, those interested should call Bob Heapes at 841-3978.

---

JUNE 25 & 26, Saturday & Sunday, Meeker Area.

The Fort Collins Chapter is sponsoring a field trip to the Cathedral Bluffs near Meeker, Colorado on June 25 and 26. Kimery Vories will lead the group, describing and identifying the flora of the area. Chuck Reichert, a WCO at Meeker, has graciously consented to help with making travel and camping arrangements, as well as keeping Kim from getting lost.

The group will leave from Meeker city park, located near the center of town, at 8:00 A.M. Saturday morning, June 25. Overnight free camping is available in this park for Friday night. Hotel accomodations are also available to those who would prefer lodging. Everyone is responsible for his own accomodations.

Saturday night will be spent either at Little Hills Research Station or in a Fish and Wildlife Service cabin. Water will be available, but bring your own containers. We should be back in Meeker around noon Sunday, June 26. Everyone must supply his own food for all meals and his own bedding. Anybody having a four wheel drive vehicle or a pickup is encouraged to bring it as there is rough terrain to cover. The more vehicles of this type, the less crowded we will be and the more comfortable the trip. It would also be advisable to bring easily prepared food for Saturday noon and night and Sunday morning. A brown bag lunch would be excellent for Saturday noon.

Carpooling to Meeker is advised. Please contact Gail Evans, 2221 N. Whitcomb, Ft. Collins, CO 80521 (493-7430) if you want to go, need a ride, have room for riders, will have a pickup or four wheel drive available, or for more information. Everyone is welcome, and we hope to see you all in Meeker!

---

JULY 16, Saturday, North Park Area.

A field trip to one of the few known localities of Rhododendron albiflorum Hook. (Cascade Azalea) in Colorado is planned for Saturday, July 16, 1977, under the leadership of Dieter Wilken.

Participants will meet at the junction of Jackson County Roads 314 and 315 at 7:30 A.M. This junction is about 6 miles west of Walden; road 314 joins Colorado Highway 14 about 0.5 mile south of Walden. Since parking is limited at the trailhead, participants will be asked to carpool from the meeting site. The field trip will consist of a 6 mile, roundtrip hike with an elevational gain of ca. 900 feet, beginning at about 9000 ft. Although the Rhododendron population is the principal goal, the field trip will pass from Lodgepole-Douglas Fir forest through several wet meadows into a Spruce-Fir Forest at the higher elevations. Participants should expect to bring along a sack lunch and clothing appropriate to cool mornings, warm days and the possibility of rain. Since the entire walking portion of the field trip will be in the Mt. Zirkle Wilderness Area, plant collecting will not be permitted.

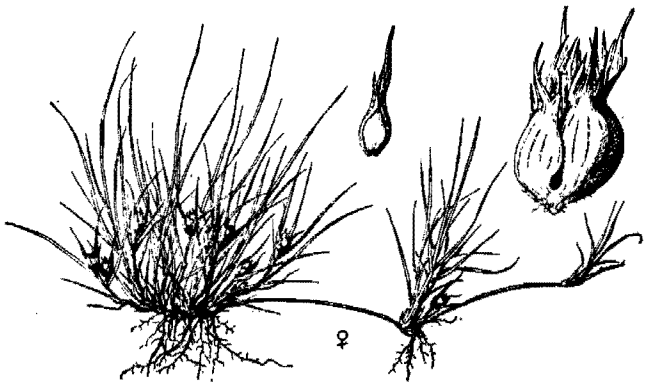
Camping is severely limited in much of North Park. The nearest forest service campgrounds are: Trail Creek and Denver Creek, along Highway 125, south of Willow Creek Pass (Arapahoe N.F.), Walton Creek along Highway 40, west of Rabbit Ears Pass (Routt N.F.) and Aspen and Teller City, south of Gould (Routt N.F.). A KOA campground is located along Highway 14 near Gould and several motels are to be found in Walden. A relatively primitive campground, primarily for RV campers, is located at South Delaney Buttes Reservoir, west of Walden on Road 314. Potential participants should notify Dieter Wilken, Dept. of Botany & Plant Pathology, CSU, Ft. Collins 80523 of their interest and will be sent further, more detailed directions several weeks prior to the field trip.

TRY A NATIVE LAWN

by Karen Hollweg, Charlie Grant, and Mark Phillips

To greatly reduce or eliminate lawn watering and mowing, plant Buchloë dactyloides (Nutt.) Engelm. (buffalo grass). This fine-leaved grass is native to the semi-arid, short-grass prairie that extends from the Front Range eastward. High quality buffalo grass seed is now commercially available, and cultivation techniques are printed below.

Buchloe dactyloides
from Hitchcock Manual of the Grasses of the U.S.




Advantages and Disadvantages

Since the grass is adapted to this area, you only need to water it once a month during dry spells. This not only saves you time and effort, but saves a tremendous amount of water! The Broomfield, Colo, Public Works Director estimates that more than 1/3 of that town's water consumption in 1975 was used for lawn irrigation.

The maximum height of buffalo grass is about 6 inches. This makes a nice turf, but if you want a shorter lawn, you will need to mow it occasionally.

A buffalo grass lawn obviously has many advantages over a lawn of Poa pratensis L. (Kentucky bluegrass). But, what about disadvantages? Buffalo grass is a warm season grass; thus it usually doesn't turn completely green in the spring until several weeks after bluegrass, and it turns a light straw color after the first frost in the fall. During the winter, the two kinds of grass are indistinguishable. In the summer, buffalo grass may appear slightly more grey-green.

Bluegrass recovers more rapidly under intensive use, so is better for football fields and heavily used play areas. But in areas where there is occasional traffic (like front lawns and picnic areas) buffalo grass stands up as well as bluegrass.

Cultivation Techniques

If the advantages of buffalo grass seem to you to outweigh the disadvantages, here's how to proceed:

Soil Preparation--The soil should be prepared in the same manner that you would do it if you were to plant bluegrass. Rototill organic matter (2-3 cu. yds. of peat moss, manure, etc./1,000 sq. ft.) about 4-6 inches into the soil. This will enhance the soil's ability to absorb and hold moisture. Treat soil with a super phosphate and nitrogen fertilizer as recommended on the label for new seedings.

Seeding--Because buffalo grass is a warm season grass, do not seed before mid-May or early June. It is best to wait until the air temperature has been 70°F or above for several days. If the temperature dips after you have seeded, germination will be temporarily inhibited and will consequently take longer. (Because of these temperature considerations, it is best not to seed after mid-August.)

Sharp's Improved Variety of buffalo grass seed is recommended. This hybrid from Kansas is 93% viable and 80% pure, and has been treated with potassium nitrate and chilled. This treatment is said to speed up germination.

How heavy should you seed: Opinions differ. Gary Powell (landscape architect in Broomfield, Colo.) recommends using at least 7 lbs/100 sq. ft. because it produces a dense sod 6-8 weeks after seeding, withstands traffic better, and doesn't leave bare spots that allow weeds to invade. (A buffalo grass seed is much larger than a bluegrass seed. There are about 56,000 buffalo grass seeds/lb. and approximately 20 times as many or 1.2 million bluegrass seeds/lb. So 7 lbs. of buffalo grass seed have about the same number of seeds as 1/3 lb. of bluegrass seed.)*

Because of the expense involved in such heavy seedings, two members of the Horticulture and Rehabilitation Committee recommend lighter seedings (4 lb./1000 sq. ft.) which require 1 to 2 growing seasons to fill in and form a solid turf.

Seed should be burried only 1/2 inch deep.

Keep the soil moist until seeds germinate (about 10-14 days). A light green color will signify emergence.

Care After Emergence--Water only one time (1 inch of water) per week for the next 2 weeks or until the buffalo grass is about 2 inches tall. Then water only once each month or not at all, depending on natural precipitation. The biggest killer of buffalo grass is over-watering!

You may get quite a good crop of weeds before emergence. Weeds at any time will shade out the buffalo grass. To prevent this competition, after the buffalo grass is 3" tall, mow at about a 1 1/2 - 2 inch height. After the grass sod has formed, weed competition should no longer be a problem. No fertilizer is needed after the initial soil preparation.

WHERE CAN I SEE IT?

If you would like to see a buffalo grass lawn, look at these:

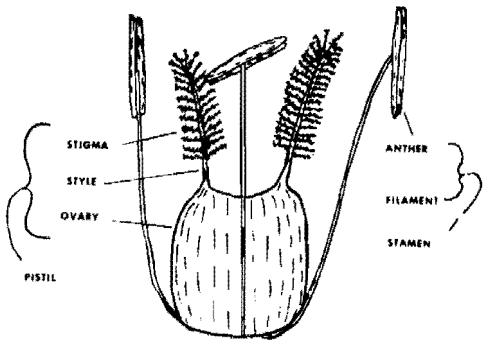
13175 Grove Way, Broomfield, Colo. (Gary Powell's residence)

6805 So. Pontiac Court, Littleton, Colo. (a lawn that Powell will be seeding in May--so you could watch its progress.)

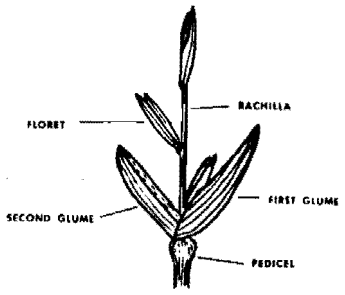
The slopes around the tennis courts at Marston Meadows--located southwest of Denver and west of Littleton, 1 block east of the So. Sheridan and Bow Mar Dr. intersection.

* Ed--The "seed" unit for buffalo grass is the bur (see illustration) which may contain more than one seed.

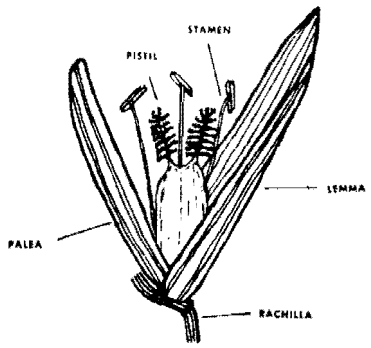
## *Grass Parts*



GRASS FLOWER



SPIKELET



FLORET

# COMMON NATIVE PLANT SPECIES COMMERCIALLY AVAILABLE IN THE DENVER, BOULDER AND GREELEY AREAS

by Gayle Ebel, Pete Callas, Charlie Grant, Sherry Hamann, Mary Harmon, and Ann Morrison

The Horticulture and Rehabilitation Committee has surveyed various nurseries (and some individuals) to determine which species of common native plants could be purchased and where. Some species were found to be so widely available that their sources are not specifically listed. These are:

Cornus stolonifera
(red-osier dogwood)
Juniperus scopulorum
(Rocky Mountain Juniper)
Picea pungens
(blue spruce)
Pinus aristata
(bristlecone pine)
Pinus edulis
(pinyon pine)
Pinus ponderosa
(ponderosa pine)
Populus tremuloides
(quaking aspen)
Potentilla fruticosa
(shrubby cinquefoil)
(Pentaphylloides floribunda)
Yucca glauca
(small soapweed)

For the remainder of the available common native native plants in the Denver, Boulder and Greeley areas, a chart has been compiled listing the scientific and common names and the commercial sources. The sources are listed first in alphabetical order, and assigned a number. The plants are then listed alphabetically, and the numbers which follow them indicate which sources have seed or plant material available.

Gardeners interested in cultivating native species should be careful not to encourage irresponsible depeletion of wild plant populations. Sources for all of the native plant species listed here have not been verified, so gardeners should be cautious when purchasing such plant materials.

NATIVE PLANT SOURCES

1. Anderson Seed Company
   714 10th St., Greeley, CO
2. Applewood Seed Company
   833 Parfet St., Lakewood, CO
3. Arborland Nursery
   22465 Colorado State Hw, Milliken, CO
4. Bruce Barnes
   #19 Inverness Way E., Englewood, CO
5. Columbine Nursery
   3601 W. Caley Lane, Littleton, CO
6. Ecology Lawns
   Southwest of Ault, CO
7. Flowerland Garden
   4181 W. 120 Avenue, Broomfield, CO
8. Frank's Seed and Hatchery
   Greeley, CO
9. Hardi Gardens
   6506 S. Broadway, Littleton, CO
10. Highland Nursery
    5002 W. 20th St., Greeley, CO
11. Lee's Nursery
    3040 S. Wadsworth Blvd, Denver, CO
12. Marshall Nurseries
    5825 W. 16th Ave., Denver, CO
13. McCoy & Jensen, Inc.
    9800 Morrison Road, Denver, CO
14. Morgan Nursery
    2200 Reservoir Road, Greeley, CO
15. Mountain Meadows Nursery
    5050 Coal Mine Road, Littleton, CO
16. Nuzum Nurseries
    96 Arapahoe Ave., Boulder, CO
17. Pete Callas
    922 12th Ave., Boulder, CO 442-7610
18. Ponderosa Nursery
    5561 Baseline Road, Boulder, CO
19. South Denver Evergreen Nursery
    1534 S. Broadway, Denver, CO
20. Tower Nursery
    17050 Smith Road, Denver, CO
21. Western Evergreens
    14201 W. 44th Ave., Golden, CO
22. Woodman Brothers
    1801 W. Belleview, Littleton, CO

Ed- The CoNPS is presently considering the implications of commercial exploitation of native plants, especially as it applies to the less common species. The Society has not, as yet, stated a position.

NATIVE PLANT SPECIES LIST

Abies concolor
(white fir) 11,12,13,16,18
Acer glabrum
(Rocky Mountain maple) seed & plants 15, 19, 21
Acer grandidentatum
(bigtooth maple) 15
Amorpha canescens
(leadplant amorpha) seed & plants 15, 21
Amelanchier alnifolia
(saskatoon serviceberry) seed & plants 15,21
Antennaria spp.
(pussytoes 19,21
Aquilegia caerules
(Colorado columbine) seed 2 plants 19,20,21
Arctostaphylos uva-ursi
(kinnikinnick) 9,19
Artemisia filifolia
(sand sagebrush) 21
Artemisia frigida
(fringed sage) 15
Artemisia tridentata
(big sagebrush) 21
Betula fontinalis
(Rocky Mountain birch) seed & plants 21
Betula papyrifera
(paper bark birch) 16
Buchloe dactyloides
(buffalograss) seed 1,3,6,8,10,14
Bouteloua gracilis
(blue grama grass) seed 1,3,6,8,10,14
Calochortus nuttallii
(segolily mariposa) seed 2
Campanula spp.
(bellflower) 21
Campanula rotundifolia
(common harebell) 19
Castilleja spp.
(paint-brush) seed 2
Celtis occidentalis
(hackberry) 12,16,18
Cercocarpus ledifolius
(curlleaf mountain mahogany) 15
Cercocarpus montanus
(mountain mahogany) seeds & plants 7,9,15,21
Chamaenerion angustifolium
(fireweed) seed 2 (Epilobium a.)
Erigeron speciosus
(Oregon fleabane or Aspen daisy) seed 2
plant 19,21
Eriogonum spp.
(eriogonum) 19
Fallugia paradoxa
(Apache plume) seed & plants 15,21
Forestiera neomexicana
(New Mexican forestiera) seed & plant 21
Gaillardia spp.
(blanketflower) 20,22
Gentiana calycosa
(Ranier pleated gentian seed 2
(Pneumonanthe c.)
Ipomopsis aggregata
(skyrocket gilia) seed 2 (Gilia a.)
Iris missouriensis
(Rocky Mountain iris) seed 2
Juniperus monosperma
(one-seed juniper) 19
Linum lewisii
(Lewis flax) seed 2 (L. pratense)
Mahonia repens
(Oregon grape or creeping mahonia)
7,9,15,16,21
Mertensia lanceolata
(lanceleaf chiming bells) 17
Oenothera hookeri
(Hooker evening primrose) seed 2
Penstemon virens
(green or low penstemon) 17
Physocarpus monogynus
(mountain ninebark) 15
Physocarpus spp.
(ninebark) 21
Pinus contorta var. latifolia
(lodgepole pine) 16,19,20
Pinus flexilis
(limber pine) 21
Populus acuminata
(lanceleaf cottonwood) 4,13,16,21
Populus angustifolia
(narrowleaf cottonwood) 4,21
Populus sargentii
(plains cottonwood) 7,21
Prunus americana
(american plum) 21
Prunus besseyi
(Bessey plum or western sand cherry)
3,10,14,21
Prunus virginiana var. melanocarpa
(chokecherry) 15,21
Pulsatilla patens
(pasqueflower) seed 2 (Anemone p.)
Purshia tridentata
(antelope bitterbrush) seed & plant 21
Quercus gambelii
(Gambel oak) 7,15,16,21
Rhus glabra var. cismontana
(Rocky Mtn smooth sumac) 15,21
Rhus trilobata
(skunkbush sumac) seed & plant 15,19,21
Ribes aureum
(golden current) 15
Ribes inerme
(whitestem gooseberry) seed & plant 22
(Grossularia inermis)
Ribes leptanthus
(NCN) seed & plant 22
Robinia neo-mexicana
(New Mexico locust) seed & plant 21
Rubus deliciosus
(thimbleberry or boulder raspberry)
seed & plant 21
Rumex crispus
(curly dock) seed 2
Sambucus racemosa ssp. pubens
(scarlet elder) seed & plant 21
Shepherdia argentea
(silver buffaloberry) 3,10,14,21,22
Symphoricarpos albus
(common snowberry) 21

Ed-The nomenclature in the above listing was standardized using the following publications: a) Nickerson, Mona F., Glen E. Brink, and Charles Feddema, 1976. Principal range plants of the central and southern Rocky Mountains: Names and symbols. USDA For. Serv. Gen. Tech. Rep. RM-20, 121 p. and b) Weber, William, 1976. Rocky Mountain flora. 479 p. Colo. Assoc. Univ. Press. Boulder.

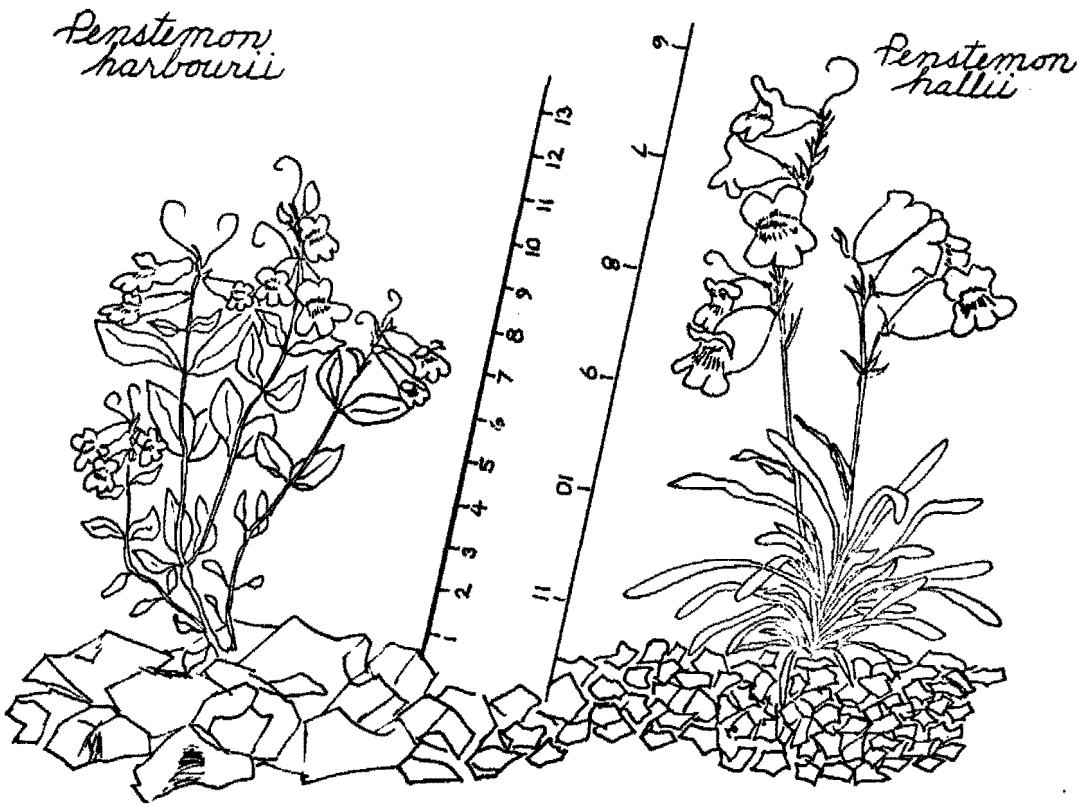
NCN=no common name

COLORADO'S ENDEMIC ALPINE PENSTEMONS
by Jim Ratzloff, Illustration by Janet Ratzloff

Penstemon harbourii Gray, Harbour's penstemon and Penstemon hallii Gray, Hall's penstemon are rare Colorado plants which are recognized as sensitive on the CoNPS May 1976 provisional list of endangered, threatened, and sensitive plants. Both are endemic to high elevations in the Colorado Rockies, near and above timberline. Although the two species exhibit the common elements of the genus Penstemon (opposite leaves, two-lipped tubular flowers, a fifth sterile stamen), they are different in almost every other aspect of their morphology. P. hallii's stems are stiffly upright, from 10 to 20 cm. tall. Those of P. harbourii are dwarfed, usually 5 to 10 cm. tall, slender and somewhat trailing. The leaves of P. hallii are long and narrow (2-5 cm. long, 3-8 mm. wide); clustered near the base of the stem. P. harbourii's leaves are shorter, wider (1-2 cm. long, 5 mm. wide), and above the base of the stem. The flowers of P. hallii are strongly inflated, of a beautiful translucent violet, tinged with blue. P. harbourii's flowers are lilac-purple, not at all inflated, and much smaller than P. hallii's. Both species grow in rocky areas, either in coarse talus or gravel. They are occasionally seen growing side by side in the southern Colorado Rockies.

The range of P. harbourii extends from the Medicine Bow Mountains near the Wyoming border south to the San Juan and La Plata Mountains in southwestern Colorado, covering most of the mountainous part of the state. P. hallii's range is more limited, from Gray's Peak (near Georgetown) to Pike's Peak and southwestward to the San Juan and La Plata Mountains. The north-south difference in the ranges of P. hallii and P. harbourii is described by Joseph Barrell in his Flora of the Gunnison Basin. He reports that although P. harbourii occurs in the mountain ranges on both the north and south rims of the Gunnison Basin, P. hallii occurs only in the mountains of the south rim. The reasons for the more southern distribution of P. hallii in the mountains of Colorado, and in the Gunnison Basin are not known, and discovering them clearly presents a challenge to plant geographers.

The threats to P. harbourii and P. hallii are low, due to the relatively large range of the two species and the inaccessible nature of their habitat. Possible dangers to local populations would be overcollecting and picking of the plants and flowers. Domestic sheep, which graze the alpine in Colorado, are not likely to disturb these plants because of the low palatability of Penstemons to grazing animals.



LANGUID LADIES IN THE GARDEN
by Panayoti Callas, Illustration by Diane Colcord

If Colorado were to select a second floral emblem, surely chiming bells should merit consideration. I can think of no other genus that forms a more prominent and widespread component of the state's flora than the members of the genus Mertensia. The genus is named for a German botanist, Franz Mertens (1964-1831) and one species, Mertensia maritima (L.) S.F., does indeed occur along the coastline of Europe, while many more species can be found on the screes of the Himalayas. But nowhere do Mertensias assume such variety of habit and habitat as they do in the southern Rockies. Members of the genus are instantly recognizable: most have a leafy stem in the form of an inverted 'J' with clusters of intensely blue, pendulous campanulate flowers at the tip of the stalk. In Colorado, the variations on this simple theme are nearly endless.

It would be difficult to imagine any stretch of virgin plains not punctuated with the innumerable question-marks of Mertensia lanceolata (Pursh) A. DC. (languid ladies or lanceleaf mertensia)--all the bluer for growing alongside the common yellow puccoons. Or try to conjure up a subalpine freshet not overhung with the myriad flowers of Mertensia ciliata (James) G. Don (tall or mountain mertensia). This often exceeds a meter in height, forming dense thickets in swamps and wet woods up to timberline. Few flower-lovers make it to the plateau country of the Western Slope in late May, for if they did, the felty, heart-leaved Mertensia fusiformis Greene (spindleroot mertensia), growing among piñons and cactus would undoubtedly be better known. Can you conceive of a meadow from the mountain parks up to the highest tundra without one or another species of dwarf Mertensia? These seem to have been especially created to delight botanical splitters and alpinists alike, for they vary in stature, color and form from plant to plant. Even on the summits of the highest peaks, broad patches of Mertensia viridis Nelson (greenleaf mertensia) and M. alpina (Torrey) G. Don (alpine mertensia), seem to compete with Eritrichium, the alpine forget-me-not, in distilling the bluest blues.

It's a pitty that the predominantly Eurasian genus Campanula has appropriated the common name bluebells, since virtually the entire Campanula clan seems to have lavender or violet corollas, but never the clear aquamarines and cobalt blues of Mertensia. Moreover, all our native species of Mertensia are far more bell-shaped than such starry, endemic 'bluebells' as Campanula americana l., C. piperi Howell or Colorado's C. parryi Gray. As a result, the mysterious consensus that determines common names has been reduced to groping for such things as Virginia bluebells, chiming bells or worst of all, the hideous "lungwort". I've heard Mertensia lancelata called "languid ladies," which sounds nice. But it seems to me that only the most athletic ballerinas could mimic their pose for very long.

Languid ladies are unquestionably among the most gardenworthy native perennials. Unlike most most dryland plants, they tolerate considerable excess moisture, but do just as well on the hottest, driest banks once established. Some ten years ago I moved a single plant into my yard from a nearby vacant lot. I've been pulling out seedlings ever since. The Eastern American Mertensia virginica (L.) Link, native to mesic woodland and the Western tall or mountain mertensia have created the impression that the entire genus demands constant water. This is far from the truth. My languid ladies grow identically in an unwatered dryland bed and in a well-watered border. They will even grow and bloom in dense shade, but lose their healthy, powdery-blue color of leaf and stem if so situated. Don't grow them near delicate plants. Most languid ladies grow from a deep, fleshy taproot. They will die if this is severed, but it takes some doing to cut the taproot of an established Mertensia. In no time they will seed into the most unlikely and delightful places. My favorite clump developed in the crack of a cement sidewalk.

Mertensia lanceolata

Mertensias are best grown from seed: they resist division or transplanting and will bloom from seed before transplants recover from the shock of being moved. The first year from seed they produce a few basal, paddle-shaped, glaucous leaves while their root plunges downward. At this point they are easy to move. By the second year, they may produce their first, single flowerstalk. Each year thereafter, the root sends up more and more stems, until you have quite a striking vase of blossoms lasting from April well into June. By late June, the seed starts to ripen and by mid-summer the whole plant disappears. I suggest you trim off the seedheads, if you don't want a yard full of languid ladies.

Perhaps someday the CoNPS can supply seed of this and other easy, dryland plants to nurserymen so that plants truly suited to our climate can start growing in our gardens.

WANTED!!!!

The Horticulture and Rehabilitation Committee needs your help in planning the program for the CoNPS October meeting. We hope to have a presentation with several individuals showing slides of natives that they have successfully cultivated and explaining their germination/ cultivation techniques. If you have one or a few favorite species that you have growing in your garden, please take slides of them as they grow and bloom this spring and summer. The next newsletter will contain details of what you should do to add your favorites to our list and apply for a slot on the program.

NEW MEMBERS

The following list is comprised of the new members of CoNPS. You might wish to check this list to see if there are new members in your area. Welcome to CoNPS!

Lawrence Abbott
P.O. Box 2107
Grand Junction, 81501

Mr. & Mrs. William Anderson
1479 South Clayton Street
Denver, 80210

Applewood Seed Company
833 Parfet Street
Lakewood, 80215

Paula Lehr Bill
3898 North 75th Street
Boulder, 80301

Gregory and Cheryle Bird
3063 West 134th Street
Broomfield, 80020

Panayoti Callas
922 12th Street
Boulder, 80302

Doug Dart
2101 Columbine Avenue
Boulder, 80302

Denver Botanic Gardens
909 York Street
Denver, 80206

Dick Evans
2221 No. Whitcomb
Ft. Collins, 80521

James Getter
2916 Sumac
Ft. Collins, 80521

Karl Gilbert
2 Aspen Way
Montrose, 81401

Charles Grant
Columbine Nursery
3601 West Calley Lane
Littleton, 80123

S. K. Jewell
26396 Columbine Glenhoe
Golden, 80401

Robert Kelley
827 So. Vine
Denver, 80209

Raymond Kent
101 North 7th Street
Colorado Springs, 80905

Michael McQueen
Box 13
Winter Park, 80482

T. Paul Maslin
819 14th Street
Boulder, 80302

Deb Severe
113 1/2 So. Taft Hill
Fort Collins, 80521

Deborah G. Steward
2101 Columbine Ave.
Boulder, 80302

Jeff Thatcher
P.O. Box 397
Gunnison, 81230

Scott Ellis
1011 West Mountain Ave.
Ft. Collins, 80521

Lydia Thompson
1011 West Mountain
Ft. Collins, 80521

Mary C. Walters
Pineridge Cabins
Manitou Springs, 80829

Mrs. Margaret Williams
P.O. Box 1530
Sparks, Nevada 89431

Dean Swift
P. O. Box 24
Jaroso, Colorado 81138

---

MEMBERSHIP APPLICATION

Name:_____

Address:_____

City:_____ State:_____ Zip:_____

Chapter Affiliation (Optional):_____