Colorado Native Plant Society



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

NEWSLETTER

Volume II Number 4

July-August 1978

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All correspondence and inquiries regarding activities of the Society should be addressed to Panayoti Peter Callas, Secretary, CONPS, 922 12th Street, Boulder, CO 80302.

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MEMBERSHIP RENEWALS AND INFORMATION

Sue Martin (Membership Chairman)
Colorado Native Plant Society
4700 Venturi Lane
Fort Collins, CO 80521

SCHEDULE OF MEMBERSHIP DUES

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

The CONPS Newsletter is sent to all other Native Plant Societies in exchange for theirs. Nonmembers may subscribe to the Newsletter for $4.00.

NEWSLETTER

EDITOR: Dieter H. Wilken, Dept. of Botany and Plant Pathology, Colorado State University, Ft. Collins, CO 80523.

The editor seeks articles of general interest to all aspects of Society activities. Such articles should not generally exceed 4 typewritten, double-spaced pages, although consideration will be given to longer articles if space permits.

Deadlines for the 6 bimonthly newsletters are the last day of January, March, May, July, September and November.

The editor welcomes comments, recent news items and the open discussion of controversial issues regarding the native plants and vegetation of Colorado.

GROWING A COLORADO NATIVE SHRUB, THE SASKATOON SERVICEBERRY (AMELANCHIER ALNIFOLIA NUTTALL)

GROWING A COLORADO NATIVE SHRUB,
THE SASKATOON SERVICEBERRY
(AMELANCHIER ALNIFOLIA NUTTALL)

Saskatoon Serviceberry is an erect, deciduous shrub from 1 - 4.5 meters (3-15 feet). It is a native shrub, well adapted to domestication and can be easily used in either native or contemporary landscaping. It produces edible, bluish or purplish fruits after blooming with white flowers during May and June. The seeds are small and vary considerably in size, ranging from 36,300 to 113,800 seeds per lb. Seeds and potted plants are available locally from:

Western Evergreen
14201 West 44th Avenue
Golden, Colorado

and

Mountain Meadow Nursery
5050 Coal Mine Road
Littleton, Colorado

Bare root seedlings are available from:

Plumfield Nurseries
2105 North Nye Avenue
P.O. Box 410
Fremont, Nebraska 68025

More distant sources of potted plants and seeds are:

Native Plants (potted plants)
P.O. Box 15526
Salt Lake City, Utah 84115

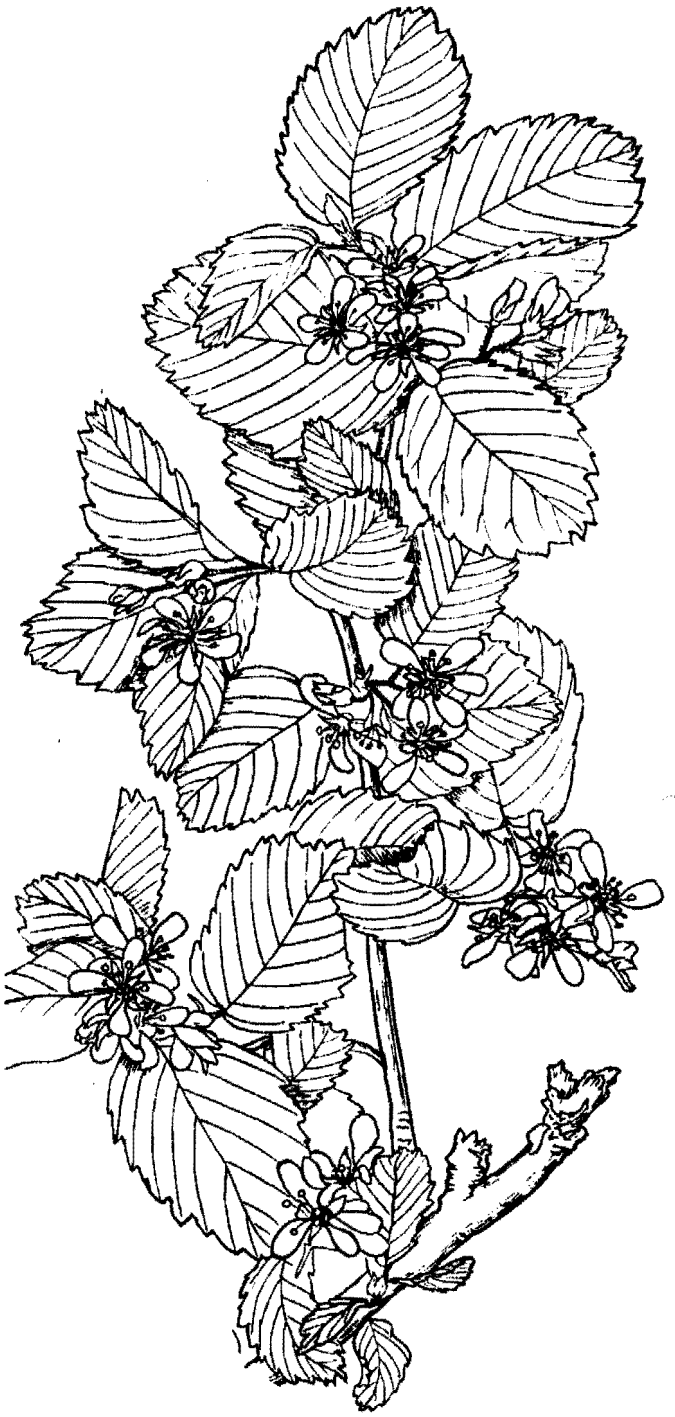
and

North Plain Seed Producers (seeds)
P.O. Box 9107
Moscow, Idaho 83843

For those inclined to collect their own seeds, fruits usually mature between July and August but may be gathered well into the fall because the fruits usually persist on the plants. The fruits may be hand-picked or knocked from branches onto a convas or into a container. It is best to remove the seed from the fruit before storage or planting by maceration in water and floating the pulp in a bucket. Even the best techniques may reveal considerable infertile seeds and fruits which have been infested with insect larvae.

If it is desirable to store seeds, the best results are obtained when they are stored dried in sealed containers at normal refrigerator temperatures. Seeds stored in this manner may remain viable for as long as 5 years.

The seeds of Saskatoon Serviceberry are dormant because the embryos are immature. Maturation of embryos can be hastened by chilling the seeds under moist conditions at 33° - 43° F. between 4 and 6 months.

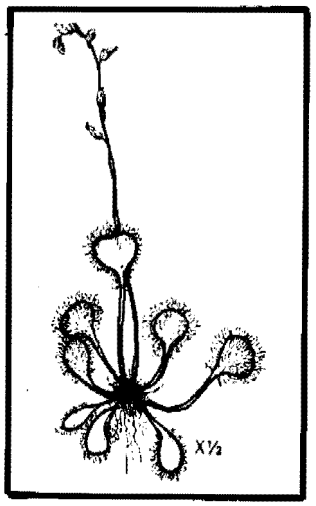


Scarification of the seed is not required and may not be beneficial to high rates of germination. Germination is best accomplished by planting in a sandy potting mixture under uniformly moist conditions at room temperature (ca. 70° F).

If outdoor planting of seeds is desired, this should be done in the fall to insure natural stratification. Best results are achieved by planting seeds ½ inch deep in a medium textured or sandy soil with a mulch over the soil surface. The soil should be moist, well-drained and from neutral to slightly acid. It is important to provide about 50% shade for young seedlings until they are well-established. Germination usually is initiated soon after snow has melted. Saskatoon Serviceberry can also be successfully propagated from softwood and root cuttings. The above information has been extracted from a number of articles listed below. Specific information may be obtained by contacting Kim Vories, Range Science Dept., CSU, Ft. Collins, 80523.

Brinkman, K. 1974. Amelanchier Med. Serviceberry. Blaver, A., A. Plummer, E. McArthur, R. Stevens and B. Giumpta. 1975. Characteristics and hybridization of important intermountain shrubs. Harris, R. 1961. The vegetative propagation of Amelanchier alnifolia. Heit, C. 1968. Thirty-five years testing of tree and shrub seed. Hervey, D. 1955. Factors which influence the reseeding of certain browse species in Colorado. Hervey, D. and R. Boyd. 1953. Improving germination of browse seed. King, J. 1947. The effects of various treatments to induce germination of seeds of some plants valuable for soil conservation and wildlife. McKeever, D. 1938. The effects of various methods of treatment on the germination of seeds of some plants valuable for game and erosion purposes. McLean, A. 1967. Germination of forest range species from southern British Columbia. Momsen, S. and D. Christensen. 1975. Woody plants for rehabilitating rangelands in the intermountain region. Plummer, A., D. Christenson and S. Momsen. 1968. Restoring big game range in Utah. Sutton, R. and C. Johnson. 1974. Landscape plants from Utah's mountains. Swingle, C. 1939. Seed propagation of trees, shrubs and forbs for conservation planting. Waitman, J. 1961. A study of the presence of shrubs in Teton County, Wyoming and germination tests of some Rosa and Amelanchier species. White, M. 1968. Ecology of Amelanchier in western Wyoming.

--Kim Vories



COLORADO NATURAL AREAS PROGRAM CONFERENCE

The Colorado Natural Areas Program Conference, held August 1-3 at Western State College in Gunnison, was highly successful in demonstrating the significant progress made during the past year. A number of workshops were conducted, including those on Plant Communities and Species, Aquatic Communities, and Animal Communities and Species. Members of the Colorado Native Plant Society participating in the Conference included Libby Goodwin, Frank Hawksworth, Janet Hohn, Barry Johnston, and Ivo Lindauer among others. The Conference was well attended by individuals representing a broad base of government agencies, academic institutions and private groups, which demonstrates the wide interest generated in the Natural Areas Program throughout Colorado. The activities of the Conference also included a number of field trips planned and led by faculty at the Rocky Mountain Biological Laboratory in Gothic. The highlighted field trip of the Conference was a visit to Mexican Cut/Galena Mountain, a glacial cirque above Gothic, owned by the Nature Conservancy and leased by the RMBL. On the evening of August 2, conference participants attended the designation of Mexican Cut/Galena Mountain as Colorado's first Natural Area. This new Natural Area represents an excellent example of alpine tundra and meadow vegetation and high elevation aquatic communities.

A number of newsworthy items were revealed at the conference. Both the Owl Canyon Pinyon Grove near Livermore (Larimer Co.) and the White Rocks Area east of Boulder are currently under serious consideration for status as Natural Areas.

The Owl Canyon Pinyon Grove is best known for its disjunct population of Pinus edulis (TWO NEEDLE PINYON) but the site also supports several populations of uncommon xerophytic ferns, including Pellaea atropurpurea. The White Rocks site represents the only known locality for Asplenium andrewsii (ANDREW'S SPLEENWORT).

Janet Hohn, staff botanist for the Office of Endangered Species in Denver, reported that 2 Colorado plant species will soon be listed for final status consideration as threatened species. These are Pediocactus glaucus (=Sclerocactus glaucus) and Echinocereus triglochidiatus var. inermis, both members of the Cactus Family and both with narrowly restricted populations on the western slope of Colorado.

Demonstrating that much still remains to be learned of the Colorado flora, Harriet Barclay of the RMBL and Hugo Ferchau of Western State College revealed the discovery of a population of Drosera (SUNDEW) in an acidic bog near Crested Butte. This discovery not only adds a new vascular plant family to the Colorado flora but represents a significant range extension from northwestern Wyoming.

The Natural Areas Council and Program staff are to be congratulated on their efforts in expanding public awareness and participation in the program.

LEGISLATIVE COMMITTEE REPORTS RESEARCH ON STATE POLICY REGARDING PROTECTION OF NATIVE PLANTS

The Legislative Committee has completed research on the various statutes pertaining to native plant protection in Colorado. The following represents a summary of their efforts. Article XVIII, Section 6, of the Colorado Constitution directs the General Assembly to enact laws to prevent destruction of and to keep in good preservation, the forests on state lands or on public domain lands conferred by the U.S. Congress to Colorado.

To this end the General Assembly has (1) included protection of forest resources from fires, insects and diseases among the powers and duties of the State Board of Agriculture, (2) has stated a public policy to prevent and control forest fires and (3) has established the Colorado State Forest Service to carry out the forestry function of the State Board of Agriculture.

"Agriculture" is defined in the statutes as the "science and art of production of plants and animals useful to man". The General Assembly has also declared it is state policy to protect, preserve, enhance and manage wildlife and their environment. In the Nongame and Endangered Species Conservation Act of 1973, the General Assembly has declared it is state policy to manage nongame wildlife to insure their perpetuation as members of ecosystems. "Ecosystems" are defined as systems of living organisms and their environment; "management" is defined as the collection and application of biological information for the purposes of increasing the numbers of individuals within species and populations of wildlife up to the optimum carrying capacity of their habitat; "optimum carrying capacity" is defined as the point at which a given habitat can support healthy populations of wildlife species.

In the Colorado Natural Areas Act of 1977, the General Assembly has included vegetation and habitat for rare and endangered plant species among the factors which are to be considered in establishing natural areas.

The General Assembly has given the Wildlife Commission the power, on lands acquired by the Commission, to adopt rules and regulations for the preservation of vegetation.

The General Assembly has given the Board of Parks and Outdoor Recreation the power, on State Parks and Recreation Areas, to adopt rules and regulations for the preservation of vegetation.

A review of the above legislation indicates that protection of native plants appears inadequate. Non-forest and non-crop plants are not protected. Plants not specifically understood to be part of a wildlife habitat are not protected nor are plants distributed outside of natural areas or plants found to be threatened or endangered and outside of natural areas or other protected areas.

Furthermore, there is no specific statutory assignment of responsibility of plants and no authority for appropriation of funds for study and protection.

The Legislative Committee suggests the following actions:

1. Colorado should state as a matter of public policy that the native plants of the State are to be protected. This could be accomplished by amending Title 33, Wildlife and Parks and Outdoor Recreation, so that Section 33-1-101 would read "It is the policy of the state of Colorado that the wildlife AND NATIVE PLANTS and their environment and the natural, scenic, scientific, and outdoor recreation areas of this state are to be protected, preserved, enhanced, and managed for the use, benefit, and enjoyment of the people of this state and visitors to this state."

Implementation could be accomplished through addition of botanists to the staff of the Division of Wildlife, inclusion of threatened and endangered species within the responsibilities of the nongame and endangered species section of the Division, and funding through cooperative agreements under the Federal Endangered Species Act.

In addition, this could also include an amendment of the definition of wildlife to include native plants as well as such presently unprotected animal species as butterflies.

2. A less comprehensive approach would be to protect only threatened and endangered species through amendment of Title 33, Article 8 (The Nongame and Endangered Species Conservation Act) to include plants as well as wildlife.

3. A more comprehensive approach would be to create a Colorado Biological Survey, which would have both botanical and zoological sections to carry out research and operations. This would appropriately be a division of the Department of Natural Resources and would facilitate consideration of plant and animal species as part of the state's ecosystems.

4. The minimum level of protection for native plants would be their recognition and preservation on all lands owned by the state. Similar protective measures for native plants on federal lands could be achieved by cooperative agreements. Protection on private land can only be achieved through land use legislation and should be considered as part of a complicated problem of land use controls continually being addressed by the state of Colorado.

--Libby Goodwin

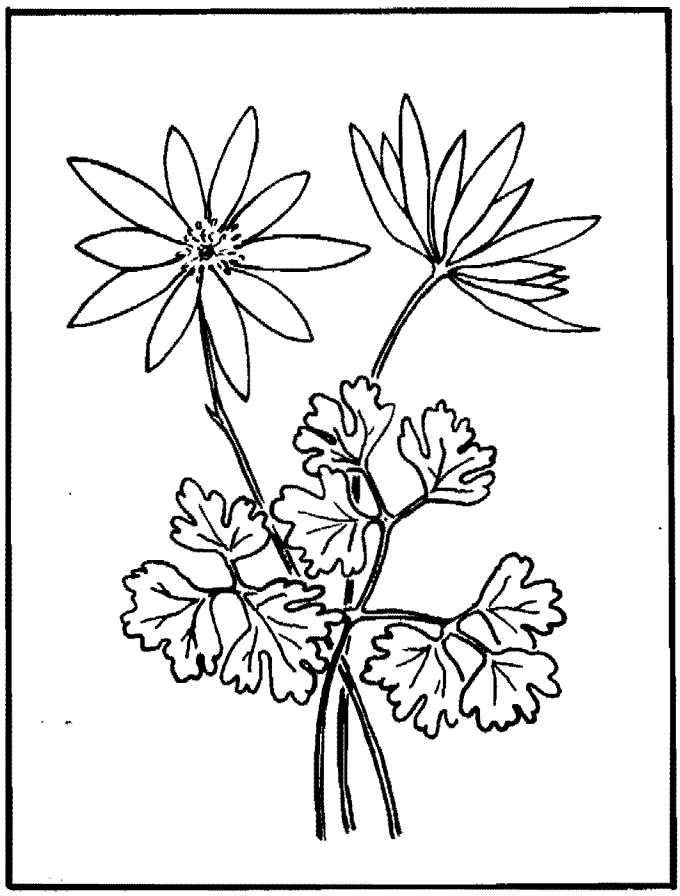
A UNIQUE VARIETY OF THE COLORADO COLUMBINE (AQUILEGIA CAERULEA)

The handsome blue columbine (Aquilegia caerulea) has a number of interesting variations involving one flower. These may vary from about one inch to more than three inches in diameter, in color from deep purple blue to white, and the petals may have spurs from about one half to more than two inches in length.

In the usual flower, the petal has a short white blade that is squared off at the end and a conspicuous blue tubular spur projecting down between the sepals. In one remarkable form, usually called variety daileyae, the petals are of the same shape and deep blue color as the sepals and lack any suggestion of a spur. The flower resembles a large anemone and appears in a photograph as Plate 19 in the most recent edition of Dr. Weber's flora.

It is usually found growing as an individual in stands of the more normal type of plant, and although it is rarely seen, it should be looked for in the Colorado mountains where the more familiar columbine grows. On your hikes this and future summers you could stop for a breath and check the columbines for this beauty. It could be more rewarding than looking for four-leaved clovers. The members of the Endangered Species Committee would appreciate learning of your finds to help them in evaluating the status of this plant.

--Charles Feddema



ANNUAL MEETING

The Annual Meeting of the Colorado Native Plants Society will be held in October. The tentative program includes a presentation of Colorado's Natural Vegetation and Plant Communities, being organized by David Buckner and John Marr.

Members of the Society will be informed in early September of the time and place of the Annual Meeting. In addition, as required by our Bylaws, elections to replace outgoing members of the Board will be held. To accomplish this a Nominations Committee will be appointed at the August 28 Board meeting to present a slate of candidates to members at the October meeting. This ballot can be supplemented by nominations from the membership. The bylaws require that all nominations be accompanied by a petition signed by no less than 15 members of the Society and filed with the Secretary no less than 45 days prior to the Annual Meeting. Tenure of Directors is 2 years and 5 directors are elected each year.

If you desire to make any announcements or make a presentation regarding activities related to Society business, please contact the Secretary, Panayoti Callas, as soon as possible.

BOARD OF DIRECTORS MEETING

A meeting of the BOD is scheduled for Monday, August 28 at 7:30 PM, Denver Botanical Gardens.