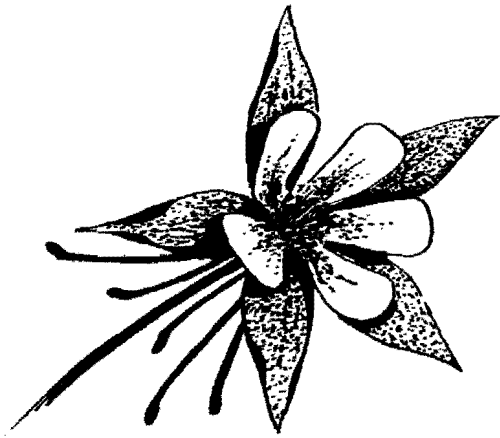


Aquilegia

Newsletter of the Colorado Native Plant Society



"... dedicated to the appreciation and conservation of the Colorado native flora"

Volume 11, Number 5

September 1987

CALENDAR

- October 17 - ANNUAL MEETING
Arapahoe Community College
Littleton
Theme: Our Public Lands
- November 14 - Seed Dispersal
Mechanisms
Workshop: Dr. Boyce Drummond
- February 20 - Native Deciduous
Trees
Workshop: Gill Fechner
- April 23 - Wildflower Photography
Workshop: Bill Jennings and
Lorraine Yeatts

DENVER CHAPTER

The Denver Chapter meets on the 4th Wednesday of each month from September through May (except December) at 7:30 pm at the Denver Botanic Gardens House, 909 York Street, Denver. The following programs are scheduled for fall:

September 23rd
Rocky Mountain Ferns
Peter Root

October 28th
Penstemon - A Review of the Genus
Panayoti Kelaidis

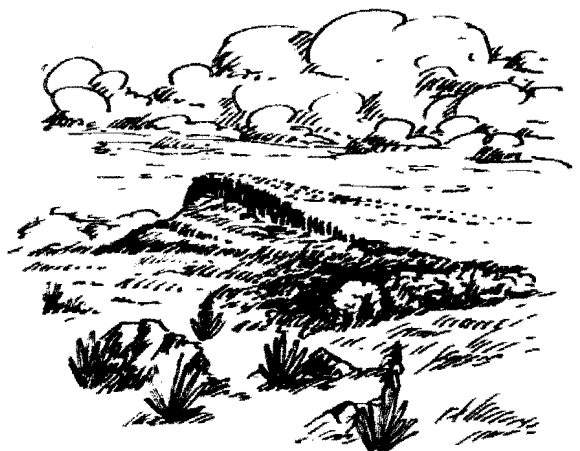
(See the insert for the Boulder Chapter program schedule)

ANNUAL MEETING

Plan to attend the CONPS ANNUAL MEETING at Arapahoe Community College on Saturday, October 17. Our topic will be "Our Public Lands - Managing and Preserving Them".

Morning field trips will offer a chance to visit a nursery, emphasizing native plants or a visit to wetland mitigation and vegetation management sites at Chatfield Arboretum and Chatfield State Recreation Area.

Our afternoon session will include the annual business meeting of the Society and a variety of speakers on topics relating to public land management and the plants found on public lands.



RUTH ASHTON NELSON

Colorado lost an eminent botanist and Denver Botanic Gardens a loyal friend in the death of Ruth Ashton Nelson in Colorado Springs on July 4, 1987. Mrs. Nelson, who was born in Massachusetts, celebrated her 90th birthday last November 29.

Ruth Nelson lived and worked in Colorado and the Rocky Mountains for more than 60 years, leaving a rich legacy of writings on the plants of this area. She was an avid field botanist and had the gift of writing about plants with unusual understanding and clarity.

Early in her life she manifested a remarkable interest in botany while living on a farm in Massachusetts. She recalled that her mother helped her identify the plants she brought in from the field using Asa Gray's Lessons in Botany and Field, Forest, and Garden Botany (published in 1878). As a young girl she visited the Rockies with her parents during summer vacations. The impressions of the mountains and their colorful wildflowers were so inspirational that she later returned to spend her life among them.

Following her graduation from Mount Holyoke College Ruth Ashton moved to Estes Park where she took a position with the National Park Service spending several summers in field studies of the plants of the Rocky Mountain National Park. She also bought a small ranch northeast of Estes Park where she spent many happy years. Her research resulted in the publication of her first book, Plants of Rocky Mountain National Park in 1933. This was the first comprehensive publication on the plants of the park, and it was so well received that Mrs. Nelson published revisions in 1953, 1970, 1976, and 1982. The work also led to a Master's degree in botany from Colorado State University.

In 1931 she married the late Dr. Aven Nelson, one of the great Rocky Mountain botanists, then pro-

fessor of botany at the University of Wyoming and Curator of the Rocky Mountain Herbarium that he established on the campus at Laramie. For 20 years the Nelsons collected and worked with the plants of the Rocky Mountains, preparing thousands of specimens and publishing numerous papers. They spent one summer surveying and collecting the plants of Mount McKinley National Park under the sponsorship of the National Park Service. The collaboration of this remarkable team ended with the death of Dr. Aven Nelson in 1952.

But Mrs. Nelson continued her botanical activities unabated, carrying out the revisions of her first book and publishing in 1969 a new book, Handbook of Rocky Mountain Plants. This book treated plants found in the national parks and national monuments in seven western states from Canada to Mexico. A second edition of this very successful work was published in 1977. In the meantime Mrs. Nelson had published another book, Plants of Zion National Park, in 1976 under the auspices of the Zion National History Association.

Before her health began to fail Ruth Nelson had started work on a book on the wildflowers of Arizona. She had long dreamed of doing this publication to fill what she recognized as a need. She regretted greatly that she was not able to carry out this project. But she had long since realized her goal of writing books on wildflowers that could be used and understood by beginners and others who had little or no botanical background. Unquestionably, her books opened the door to the recognition and enjoyment of the mountain wildflowers for countless numbers of students, visitors and residents of the area. The botanical heritage of Colorado and the Rocky Mountains has been greatly enriched as a result of her life and work.

Dr. William G. Gambill, Jr.
(reprinted with permission from Green Thumb News, newsletter of the Denver Botanic Gardens)

A VISIT TO WHITE ROCKS

On June 27th a group of CONPS members led by Bill Jennings of the Boulder Chapter visited the White Rocks preserve east of Boulder. These sandstone bluffs along Boulder Creek have long been of interest to naturalists and are now fortunately protected as part of the Boulder city open space system. We parked over a mile from the bluffs and approached them on trails which are part of the open space system. Most of the plants we saw along the way were unremarkable and already showing the effects of hot, dry weather. As we moved along the base of the rocks some of us flushed out a family of great horned owls which were spending the day in a small canyon. We saw the horned owls several times during the day but did not see the barn owls said to live in the area.

We stopped for lunch under an overhanging area of the cliff which provided a fine view of Boulder Creek and the plains and hills to the south. This site was probably used by pre-European people long ago. Here we saw the two most unusual plants of the area. One, the groundnut, Apios americana, was familiar to me from the eastern United States. It is a vine legume resembling a small, creeping Wisteria. This is another of the plants that has been used as evidence of a past western extension of the eastern deciduous forest. The plants we saw did not have their clusters of brownish-purple flowers.

Across the face of the cliff above us was a thin layer in the rock which forms the habitat of the black spleenwort, Asplenium adian-

tum-nigrum, which is one of Colorado's most unusual plants. This fern was discovered by Darwin Andrews, a Boulder nurseryman, and named Asplenium andrewsii after him by Aven Nelson. Later taxonomists have regarded it as a disjunct population of the old world Asplenium adiantum-nigrum which is known from only a few places in the western hemisphere. Whether this is a relict of a formerly widespread distribution or another of the widely dispersed populations which ferns can produce with their airborne spores will always be a mystery. The ferns appear to be thriving in their restricted habitat on the formation. What special conditions are they finding here? Why aren't they growing in the many other sandstone habitats in the United States? Perhaps we should look more closely at foothills sandstone areas before quarrying them.

At the top of the bluff we found some rainwater pools on the sandstone which had fairy shrimp in them. These interesting crustaceans have resistant eggs which survive the drying of their habitat. With the coming of rain a new generation hatches, mates, lays eggs and dies in a period of several days. In this area we also found a shrub which we at first thought to be a strange willow but it turned out to be the sand cherry, Prunus bessevi.

This was a very enjoyable trip. Bill Jennings knew the areas and its plants very well. Access to the White Rocks is quite limited and I urge members who have a chance to participate in authorized visits to the area to do so.

Peter Root

CEC Fall Outings Schedule for BIM Wilderness Study Areas

- Oct. 4 A day hike into Bull Gulch. This is one of the most inspiring areas along the upper Colorado River. It is noted for its beautifully sculpted canyons. The area is located near Eagle, Colorado.
- contact: Chris Hanna
468-0694 (H) or
453-2561 x304 (W)
- Oct. 3 & 4 An overnight hike to the Palisades WSA near Gateway, Colorado. Palisades contains some of the most impressive rock formations in Colorado. The area contains fascinating hoodoos and Canyons.
- contact: Sharyl Kinnear
245-9829 or
Jane Schleimer
443-9311
- Oct. 3 & 4 A backpack trip up Tabeguache Creek. Tabeguache is a spectacular canyon which contains Indian ruins as well as unusual vegetation.
- contact: Hank Wright
259-3202 (w)
- Oct. 3 & 4 This trip will go to Windy Gulch and Black Mountain WSAs. The areas contain impressive canyons and lush vegetation. Wildlife in the areas is abundant and include such animals as deer and mountain lion.
- contact: Kirk Cunningham
494-6407
- Oct. 16-18 A backpack trip to Cross Canyon WSA. Cross Canyon contains ruins, petroglyphs, and beautiful cottonwood groves. The area is located 30 miles northwest of Cortez, Colorado.
- contact: Tamara Wiggins
247-1142
- Nov. 14-15 A trip to Beaver Creek WSA. Beaver Creek is located just 30 miles south of Colorado Springs. Beaver Creek is one of the most wild and scenic canyons along the Front Range of the Rocky Mountains.
- contact: Lee Baker
322-1288

CONPS WORKSHOPS

Sat., November 14, 1987
Seed Dispersal Mechanisms
Leader: Dr. Boyce Drummond

To be held at the Pike Peak
Research Station in Florissant.

Sat., February 20, 1988
Native Deciduous Trees
Leader: Gill Fechner

Sat., April 23, 1988
Wildflower Photography
Leaders: Bill Jennings and
Lorraine Yeatts

Enrollment in workshops is always limited, usually due to room constraints, so you must register in advance. To register and for more information about these workshops, contact CONPS workshop coordinator, Bill Jennings, 360 Martin Drive, Boulder, 80303, 494-5159. Be sure to include your mailing address and phone number if you mail in your registration. Registrants will be notified by mail



Cercocarpus montanus

about two (2) weeks prior to the workshop regarding final location, time, lunch, suggested references, etc. Please register promptly as workshops tend to fill up fast. However, cancellations sometimes create openings, so you might check with Bill up to the night before the workshop if you want to try to register at the last minute.

The fee for each workshop is \$8 for members. For non-members, the fee is \$16. If you plan to attend more than one workshop per year, it is cheaper to join CONPS as an individual (\$8/year) and come to workshops as a member. You may pay in advance or at the workshop, whichever you wish.

BOOK REVIEW

High Color: Spectacular Wildflowers of the Rockies
Western EYE Press, Box 917, Telluride, CO 81435 \$22.50

While books of color photographs of wildflowers are already available in great abundance, this one may be interesting to CONPS members. Skillful photography has produced quite a few plates which show both foreground and background in sharp focus and good attention has been paid to plant detail. A striking example of this is a plate of Castilleja occidentalis which clearly shows the hairiness of the inflorescence.

The only negative comment I have about this book is that either because of the type of film used or some aspect of the printing process, some of the plates have unrealistically vivid colors. Otherwise it is an attractive book which even has included the latest nomenclature for the plants it shows.

The publishers have offered to donate \$5.00 to CONPS for each copy ordered direct by Society members who identify themselves. Be sure to do so when ordering this book.

Peter Root

COLORADO NATIONAL MONUMENT
AND GRAND MESA FIELD TRIP

The trip on June 12 - 14 to Colorado National Monument and the Grand Mesa gave me a chance to see an area I have been curious about for several years. Located close to the western edge of the state, the Monument is an easy place to visit. It was established to protect geologic treasures but also shelters interesting plants, animals, and traces of ancient human inhabitants. We met at the Monument headquarters where we were given an orientation by Claudia Rector of the Monument staff. Dr. Robert Young gave us a geologic overview of the region and our CONPS trip leaders, Jim Borland and Joann Young, previewed a few plants for us.

The next day our first stop was in a disturbed riparian area where some ponds have been formed by gravel dredging. The plants here weren't very exciting but we were led up the road by a pair of Gambel's quail. The next stop along US Rt. 50 had more interesting plants. We photographed the rare Ipomopsis pumila, Atriplex corrugata (a Mancos shale endemic), and Machaeranthera pinnatifida - interesting for its yellow flowers. Other stops revealed further plant highlights such as the endemic Stanleya albescens in full flower and an array of cacti including the rare Sclerocactus glaucus.

After lunch at the appropriately named Wild Rose picnic area, we headed up to Land's End at an elevation of about 10,000 ft. The ten mile curving road climbing nearly 6000 feet was quite a challenge to drivers. I was glad that our driver, Harlan Richards, had had many years of mountain driving experience.

The flowers on top made the ride up worth taking. We found a different species of Mertensia, M. brevistyla, lovely lavender Townsendia glabella, yellow Mahonia repens, deep purple Delphinium nel-

sonii, and tiny, pink Lewisia pygmaea. We also enjoyed magnificent views of distant mountains - the La Sals, the San Juans, and even the Sangre de Cristo range.

Grand Mesa, one of the largest flat-topped mountains in the world, was once a lake bottom. About twenty million years ago molten volcanic rock oozed from beneath the lake in several eruptions depositing erosion resistant layers that are now the cap rock. In the floors of the canyons are some of the oldest known rocks, while the canyon walls and bluffs expose formations produced during a vast geological history.

Early morning found us up and exploring the areas close to our campsite before the day's trip began. Joann and Jim led us down Serpentine Trail through a pinyon-juniper ecosystem. Interesting elements we saw included Rocky Mountain maple, Amelanchier, and Holodiscus. A real novelty was Fraxinus anomala, the world's only single leaved ash. Only a couple of bends down the trail a handsome, green collared lizard posed on a rock for the cameras. Moving along we saw the rare Lomatium latilobum and Rhus simplicifolia. We also saw some interesting hybrids such as Cercocarpus intricatus x ledifolius and Quercus gambelii x hayardii.

This trip was a wonderful introduction to a little-known region of the state. Our leaders are to be commended for their careful planning and thorough knowledge that allowed us to see so many interesting plants and spectacular scenery in a limited time. If a similar trip is offered in the future I recommend that you consider going on it.

Lee Barzee

FLORISSANT FOSSIL BEDS FIELD TRIP

This year's field trip to Florissant Fossil Beds National Monument on Saturday, June 27, was cause for celebration. Begun in 1981, the herbarium which the Colorado Native Plant Society has been forming for the National Park Service was complete enough to be useful to naturalists from the Monument as well as all other interested individuals. The Pikes Peak Research Station, 5 miles from the Monument, offered to house our collection in its new laboratory until such time when the Monument has adequate facilities of its own. The new herbarium now has nearly 900 mounted plants representing some 425 species. A large share in

RESTORING THE EARTH - 1988

The first national gathering to consider the restoration of all natural resource types and the redesign of urban areas will be held on January 13 - 16 at the University of California, Berkeley. The conference is organized by the Restoring the Earth project of The Tides Foundation, San Francisco, and cosponsored both by the College of Natural Resources and the Center for Environmental Design Research of the University of California, Berkeley. Proceedings will be published and distributed by the Center. The conference will bring experts in natural resource restoration and management together with a broad selection of academic, government, industry, foundation, labor, public health, and environmental representatives; further the exchange of scientific information on restoration; and present the accomplishments and capabilities of restoration techniques in resource management and planning. Participants will help create new solutions to the nation's environmental problems through restoration of damaged resources.

this effort has been due to Dr. William A. Weber, who has identified or verified the plants in this collection, as well as printing computerized labels and helping with advice and problem solving.

Our first stop on the field trip was a tour of the new laboratory of the Pikes Peak Research Station and an inspection of the CONPS collection. Following our visit, we spent the rest of the day searching for species that may have been missed, or recollecting certain ones we still need.

In our trek from the "Potato barn" to the Twin Rocks area, more than 100 blooming species were recorded and two new species for the herbarium were collected.

Topics to be covered include restoration of coastal ecosystems and estuaries; rivers and lakes; streams and fisheries; rangelands, prairies, mined lands, forests and wildlife; atmosphere and climate; dry lands and agricultural lands; urban environmental planning; and control of toxic wastes. Formal refereed papers will be presented at scientific and technical sessions. Non-technical sessions will include accounts of restoration successes and discussions of policy issues, legislation, litigation, trends, and resource conflict resolution. The program also includes keynote panels, plenary sessions, workshops, films and exhibits.

Deadline for call for papers is October 15, 1987. Submit 4 copies of abstract (title and 200-400 work descriptions of proposed 20-minute presentations). Final text of accepted papers will be due November 30, 1987. Information is available from: Restoring the Earth Conference, 1713 C Martin Luther King Jr. Way, Berkeley, CA 94709, 415-843-2645.

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Life	\$250.00	Family or Dual	\$12.00
Supporting	50.00	Individual	8.00
Organization	25.00	Student or Senior	4.00

NEWSLETTER CONTRIBUTIONS

Please direct all contributions to the newsletter to

Peter Root
4915 West 31st Avenue
Denver, CO 80212

Deadlines for newsletter materials are February 15, April 15, June 15, August 15, October 15 and December 15.

There is a special need for short items such as some unusual information about a plant, a little known botanical term, etc. Please include author's name and address, but items will be printed anonymously if requested.

MEMBERSHIP RENEWALS AND INFORMATION

Please direct all membership applications, renewals and address changes to the MEMBERSHIP chairperson, in care of the Society's mailing address.

Please direct all other inquiries regarding the Society to the SECRETARY in care of the Society's mailing address.

Colorado Native Plant Society
P.O. Box 200
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COLORADO NATIVE PLANT SOCIETY
BOULDER CHAPTER

CALENDER

September 8 Colorado Life Zones

Take a pictorial hike with Dr. Miriam Denham, Boulder botanist, from the plains and prairies of Colorado through the mountain forests to the alpine tundra.

This slide-talk will explore the abundance and variety of plant (and animal) life associated with the different elevational zones in the state.

October 13 Willow Carrs of Boulder County

What are willow carrs?

Why are they of interest to the members of the Native Plant Society and the citizens of Boulder County?

Join Boulder County planner Dave Hallock for a slide show describing these mountain wetland areas that are critically important to the preservation of county populations of elk as well as a variety of fish and birds.

November 10 Wildflowers of the Arapahoe Pass Trail

Frank Beck, professional geologist and one of the county's most knowledgeable amateur botanists, will present a slide show of the wildflowers along one of the most beautiful and most popular trails in Boulder County.

December 8 Restoring the Green

David Buckner, ecological consultant, will discuss the legal requirements for revegetation and the success of revegetation programs in this "before and after" look at mining sites.

Meetings are free and open to the public. Monthly meetings are held on the second Tuesday of the month at 7:30 pm at the Foothills Nature Center, 4201 North Broadway, Boulder. Call 449-3041 or 666-5303 (eve) for further information.