

COLORADO NATIVE PLANT SOCIETY NEWSLETTER

Volume 10, Number 3

May 1986

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



ACTIONS FROM THE BOARD!

What's new from your Board of Directors? CONPS is to have a display at the Alpine 86 conference in Boulder, June 28 - July 2. Anna Thurston is coordinator, so if you would like to help, please call Anna at 433-3705.

Planning goes forward on the Rare Plant Publication. Anyone interested in joining the working group will be most welcome. Please call Eleanor Von Barga, 756-1400. The first effort will be in assembling photographs and technical data on the species selected for inclusion. This is one of the larger enterprises that CONPS has undertaken, and the board solicits your active involvement!

After a highly successful first year of workshops, with excellent speakers and challenging topics, the board decided to institute modest fees for workshops in the future, to cover expenses. Registration procedures will be streamlined, so that more members will be able to take advantage of the workshops.

Questions or comments about what your Society is doing (or NOT doing)? THEN CALL A BOARD MEMBER.

Ann Cooper, Secretary



TALLGRASS PRAIRIE RESEARCH

A management plan for the Colorado Tallgrass Prairie Natural Area is nearly complete. The Colorado Natural Areas Program, City of Boulder and other pertinent agencies and organizations, including the Colorado Native Plant Society, have developed grazing and burning prescriptions for the 270 acre natural area. Intensive monitoring will determine if the types of management are suitable for these relict tallgrass communities. Contact Virginia Crosby, 666-5303, if you are interested in working on the floristic survey. Permanent vegetation transects will be established and sampled. If you would like to assist with vegetation sampling, contact Sue Galatowitsch, 459-3243. Work on the floristic survey will be conducted throughout the growing season. Vegetation sampling will occur in mid-August. No experience necessary!



CLLOUD RIDGE NATURALISTS
FIELD DISCOVERY SEMINARS 1986

Once again the Cloud Ridge Naturalists are offering a series of educational field seminars. They will be taking interested participants from the Colorado High Country to the islands of Hawaii. We would like to draw your attention to two seminars on Colorado flora taught by Dr. William Weber:

Flora of the Plateau Country:
Dinosaur National Monument
June 8-11, 1986

Dinosaur National Monument sprawls across northwestern Colorado and northeastern Utah, encompassing the deeply cut canyons of the Green and Yampa Rivers. Though the mountain forests and meadows are missing from this high-desert landscape, flowering plants are everywhere: from the near-vertical cracks in canyon walls to the piñon-juniper woodlands. Highlights will include visits to Irish Canyon, Echo Park, the Gates of Lodore, and Blue Mountain. Price: \$150 (\$50 deposit)

Lichens and Bryophytes
September 13-14, 1986

This seminar provides an introduction to the identification of the lichens and bryophytes associated with Colorado's subalpine forests and wetlands. We will concentrate activities in the Winter Park-Tabernash area and the Fraser Experimental Forest. In addition to learning how to recognize many of the most common lichens, mosses, and liverworts, we will also study the ecological distribution and life histories of these fascinating plants. Price: \$100 (\$50 deposit).

For more information, contact Audrey D. Benedict, Director, Cloud Ridge Naturalists, Overland Star Route, Ward, Colorado 80481, 459-3248.



PHOTOS NEEDED

Dr. Robert H. Mohlenbrock is preparing a wildflower guide for the MacMillan Publishing Company. If you have high quality close-up wildflower photos, contact Dr. Mohlenbrock at the Department of Botany, Southern Illinois University at Carbondale, Carbondale, IL 62901.

CRESTED BUTTE WILDFLOWER FESTIVAL

The Crested Butte Chamber of Commerce is sponsoring a Wildflower Festival on July 18-20. The festival will include workshops on wildflower natural history, photography, landscaping/planting, and tours in the Crested Butte area. For further information, contact the Festival at P.O. Box 1288, Crested Butte, CO 81224.



FIELD TRIPS 1986

Location: Second Creek Trail, Berthoud Pass.
Date: Sunday, July 20
Leader: Bob Heapes
Meet: In the Point of Geological Interest north parking lot (I-70 exit near Morrison). 6:30 am

Second Creek originates in a beautiful subalpine bowl that is perched 1500 feet above the Berthoud Pass Road. Popular with wilderness skiers in winter, this area is a lush meadow filled with over seventy varieties of blooming plants in July. We will see many moisture-loving plants including mertensia, Caltha, gentians, Parry primrose, Mimulus and Penstemon whippleanus. Bob will provide an extensive plant list for this area.

Participants must be in good physical condition due to the high altitude and elevation gains of Second Creek. To avoid missing the trailhead, we will reconvene at the summit of Berthoud Pass and caravan back to the starting point. Bring a fortifying lunch, water, rain-gear, and good trail boots. Bob is a longtime Society member, and is also an experienced naturalist and photographer (bring your cameras!). Register by calling Nevin BeBee, 733-1038 (leave message on recorder).

LOOK FOR MOONWORTS

Colorado's mountains are the home of several species of moonworts, small ferns of the genus Botrychium. We still know very little about their distribution because they are seldom seen. They are most often found in clearings or disturbed roadside areas in the subalpine zone, usually associated with shrub willows or small conifers. Moonworts are usually about two inches tall or smaller. The part we see is the leaf which is divided into a lobed sterile portion and fertile segment bearing clusters of spore cases resembling

Location: Chautaugua Park, Boulder
Date: Saturday, August 30
Leader: Tina Jones, 722-8514
Meet: In front of Kinko's in Boulder. Take the Baseline-University of Colorado exit off the Boulder Turnpike. Kinko's is in the shopping center at the corner of Baseline and Broadway. 9:00 am.

This trip will offer participants an opportunity to learn human and animal uses of Colorado foothill plants. Find out how some birds and animals can feast on poison ivy berries, and on some of the toxic mushrooms which would make us humans ill. The day will also cover edible, medicinal, folklore, and American Indian uses of wild plants. This is the time of year to learn and observe the seed-heads, plus berries of certain species. Bring lunch, water, and expect to spend 3/4 of a day.

miniature bunches of grapes. As the spore cases mature, they turn brown and eventually open. They are usually the first part of the plant to be seen because they stand above the surrounding small plants. Unfortunately, in late summer there are other plants, particularly small goldenrod and dock that look very much like moonworts. Searching for moonworts can be tedious and often unrewarding, but when you do find them, you may be surprised at their abundance in limited areas. If you locate any, contact Peter Root at 4915 W. 31st Avenue, Denver 80212.



Colorado Native Plant Society Field Inventories

The Society has undertaken a variety of field inventory projects over the past several years. The very successful Florissant National Monument inventory project, now in its 4th year, has compiled a list of nearly 400 species. A Society effort to extend our knowledge of the range of the tiny annual, Phacelia submutica resulted in the discovery of several additional populations beyond the single known locality near DeBeque, Mesa County. Because of the membership's continued interest, we plan to extend our efforts to new projects. We support the Colorado Natural Areas Inventory Program which is the central repository for native plant and plant association data for the state. We also offer our skills for conducting inventories for state parks, state natural areas, and national parks and monuments.

The following discussion outlines some specific goals for inventory projects, and a process for coordinating the information needed to conduct, and then report, inventory results.

1. The Colorado Natural Areas Program (CNAP) and CONPS issue a priority list of species, plant associations, natural areas, and other inventory sites that need investigation. The species and plant association list (Table 1) was compiled by Steve O'Kane of CNAP. This list represents species of primary current interest to CNAP. The list consists of species selected from each of the nine major regions shown in Harrington's Manual of the Plants of Colorado (Figure 1). The State Parks on the list represent the results of preliminary discussions with Regional State Park Directors. Additional sites will be added later. Members are strongly encouraged to suggest other species and sites that need work.

2. Each CONPS chapter is assigned

primary responsibility for species and sites in one or more of the nine regions shown in Figure 1. This approach provides an opportunity for local projects, and reduces the amount of travel required to visit study locations. Initial responsibilities are as follows:

Boulder and Fort Collins: 1. Northwestern; 2. Northcentral; 3. Northeastern.

Denver Metro: 5. Central; 6. East Central.

Colorado Springs: 8. Southcentral; 9. Southeastern.

Four Corners: 4. West Central; 7. Southwestern.

3. CONPS will assign a liason with the CNAP to disseminate information to the Chapters, and to insure that information collected by CONPS members is reported. The specific responsibilities of the liason are as follows:

a. The liason will compile descriptive information and collection location information from the CNAP and other sources, and ~~distribute this information to the Chapter presidents.~~

b. The liason will publish short articles in the CONPS newsletter that describe the appearance, habitat, and range of target species and communities.

c. The liason will respond to requests by members for additional information on particular species or sites. The purpose of directing requests to the liason is to reduce the amount of time required by CNAP staff to respond to requests. Location information on commercially threatened species will be provided only by CNAP on a need-to-know basis.

d. The liason will coordinate with the field trips chairman to schedule one or more field trips for inventory work.

e. The liason will coordinate with the Chapter presidents to schedule field trips, and to insure that field inventory results are reported to the CNAP, and published in the newsletter.

The first liason will be Scott

Ellis, 1011 West Mountain Ave.,
 Fort Collins 80521, 493-8878 (w),
 493-6069 (h). A volunteer is
 needed from the Denver area to
 assist compilation of background
 information.

Plant species need efforts to docu-

ment status, existing populations
 and to locate additional popula-
 tions; plant associations need ef-
 forts to locate high quality exam-
 ples; parks need general invento-
 ries of all plant groups, and habi-
 tat summaries.

=====

Table 1.

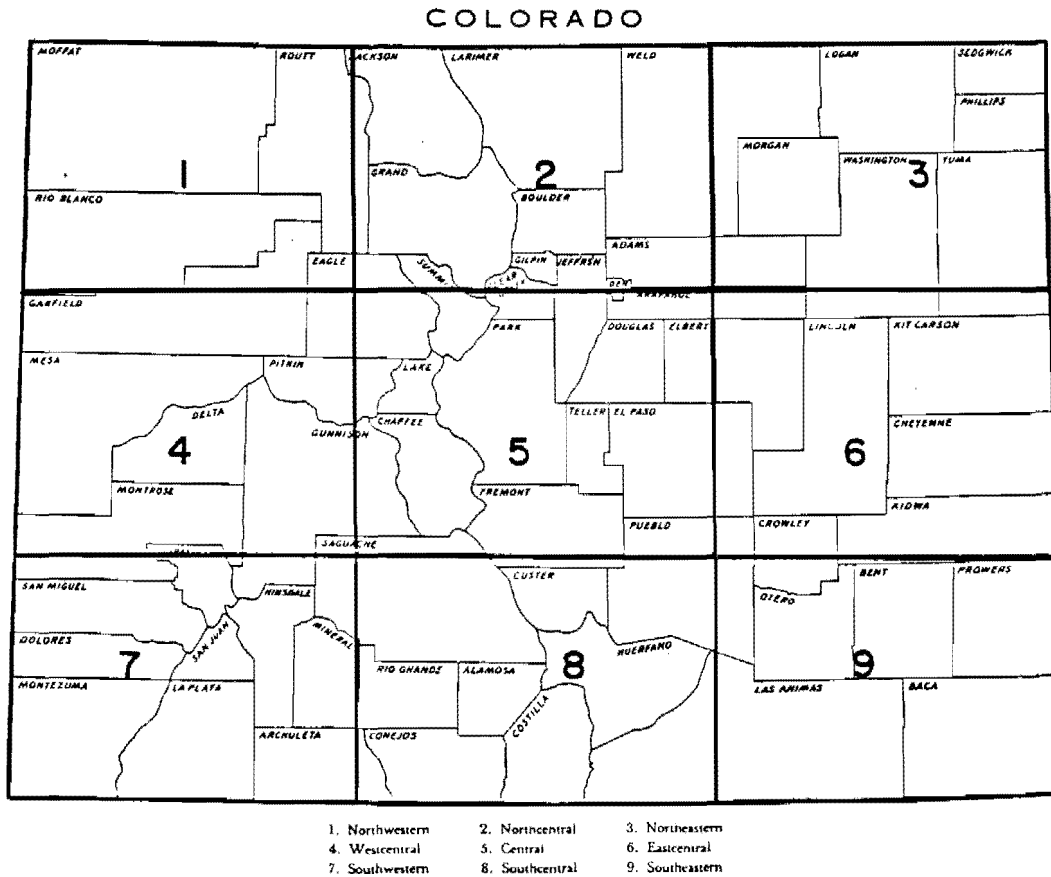
List of Priority Species, Plant
 Communities, and Parks for CONPS
 Field Inventories

1. Northwestern
 Plant Species:
 Lesquerella congesta
 Lesquerella parviflora
 Physaria obcordata
 Oenothera acutissima
 Thalictrum heliophilum
2. North Central
 Plant Species:
 Aletes humilis
 Gaura neomexicana ssp.
 coloradensis
 Phacelia formosula
 Plant Associations:
 Artemisia tridentata spp.
 vaseyana/Leucopoa kingii
 Parks:
 State Forest near Walden
 Golden Gate Canyon State
 Park
3. Northeastern
 Plant Species:
 Eustoma grandiflora
 Spiranthes magnicamporum
 Plant Associations:
 Populus deltoides/Panicum
 virgatum
4. West Central
 Plant Species:
 Astragalus microcymbus
 Thalictrum heliophilum
 Lomatium concinnum
 Lygodesmia doloresensis
5. Central
 Plant Species:
 Eutrema penlandii
 Braya humilis ssp.
 ventosa
 Parthenium tetraeuris
 Mentzelia densa (relocate
 historical sites and
 new locations)

- Plant Associations:
 Festuca arizonica/
 Muhlenbergia montana
 (montane grassland)
 Pinus ponderosa/Leucopoa
 kingii
6. East Central
 Plant species:
 Ambrosia linearis
 Plant Associations:
 Andropogon scoparius
 (loess prairie)
 7. Southwestern
 Plant species:
 Lesquerella pruinosa*
 Sclerocactus mesae-verdae
 (pollinators)*
 Atriplex pleiantha
 Plant Associations:
 Hilaria jamesii (Grand
 Basin grassland)
 Parks:
 Hovenweep National
 Monument
 8. South Central
 Plant Species:
 Neoparrya lithophila
 Parthenium tetraeuris
 Cleome multicaulis
 Rorippa coloradensis (one
 historical location,
 possibly extinct)
 Plant Associations:
 Juniperus monosperma-
 Pinus edulis/Stipa
 scibneri
 9. Southeastern
 Plant Species:
 Pellaea glabella
 Pellaea atropurpurea
 Notholaena standleyi
 Plant Associations:
 Juniperus scopulorum/
 Rhus trilobata

see Figure 1. on page 6

Figure 1.



JUNCUS GALLS

Every season someone brings in a specimen of *Juncus*, usually *Juncus torreyi* or *J. nodosus*, in which the inflorescence is transformed into a mass of leaf-sheaths, usually forming a bunch of tight cylinders. These are very striking, but hardly anyone knows just what they are or what causes them. These are galls caused by a Hemipteran bug, called the Sedge Psyllid, *Livia maculipennis* Fitch.

Galls are very interesting things to study and collect. They are called zoocecidea. The "Bible" for them is Ephraim Porter Felt, *Key to American Insect Galls*. New York State Museum Bulletin No. 200: 5-310. 1917. Although an old work, it has not been superseded, and is a very useful if rare book. It not only contains illustrations of most common galls, but has a host index that makes identification easy. To collect galls, make

a complete herbarium specimen of the plant on which it occurs. The CU Herbarium will be glad to receive them and perhaps make identifications.

- William Weber
Prof., Curator CU Herbarium

Most of our paper today is made from wood, but for most of history it was made of other fibers. Papyrus, the "paper" of the ancient Egyptians, was made from the pith of a sedge, *Cyperus papyrus*. There are at least 3000 (and perhaps even 4000) species of sedges, but this is the only one found useful for paper-making.

The term "catkin" literally has the meaning "kitten". The term was first used in 1578 to describe the inflorescence of the pussy willow.

CONPS Workshops

The next CONPS workshops in plant identification, taxonomy, and ecology are:

Sat., Aug. 23

Field Identification of Grasses
Leader: Dr. Janet Wingate

This workshop will be held entirely in the field at Roxborough State Park where participants can study live, fruiting grass plants. Registration fee: \$8 (members) \$16 (non-members).

Sat., Sept. 27

The Indian Paintbrushes
Leader: Dr. Miriam Denham

There are a dozen or more species of Indian paintbrushes (genus Castilleja) in Colorado. These plants with their brightly-colored bracts and small flowers look distressingly alike. Registration fee: \$8 (members) \$16 (non-members).

To register, contact CONPS workshop coordinator Bill Jennings, 360 Martin Drive, Boulder, 80303, 494-5159. Please register promptly. The workshops fill up fast. Future workshops on the Gentians and parasitic and saprophytic flowering plants are planned.

Olive oil, derived from the fruit of Olea europea, is the most important plant-produced oil in the world, but is little used in the U.S. The plant, a medium-sized tree, apparently was domesticated about 7000 years ago on the Persian desert border. Because they are adapted to a Mediterranean climate with dry summers, olive trees now are being grown successfully in some parts of California as well as many other parts of the world. Why not try some Californian olive oil, now available in Colorado specialty shops, as a cooking substitute for butter or in a vinaigrette for your spring salads?

ACID RAIN IN COLORADO FROM A MEXICAN SMELTER?

A draft agreement between the U.S. Environmental Protection Agency and Mexico would allow a huge smelter in northern Mexico to begin operations without control of sulfur dioxide emissions which are estimated at 500,000 tons per year. As a result, total sulfur dioxide emissions in the Rocky Mountains and Intermountain West are projected to increase by 25%. Some protesting environmental groups and governors of southwestern states suggest that this additional pollution load will create acid lakes in the Rockies within 10 to 20 years. They call for controls on sulfur dioxide emissions before start-up of the smelter is permitted.

Cereals, generally thought of as large-flowered grasses suitable for human consumption, are named for Ceres, the Greek goddess of the corn and one of the supreme dieties of the earth. She is usually portrayed accompanied by heads of wheat.



OFFICERS		
President	Eleanor Von Barga	756-1400
Vice-President	Steve O'Kane	744-2479
Secretary	Ann Cooper	447-9169
Treasurer	Myrna P. Steinkamp	226-3371

BOARD OF DIRECTORS		
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Les Shader (87)	Ft. Collins	484-0107
Anna Thurston (86)	Denver	433-3705
Eleanor Von Barga (87)	Denver	756-1400

Chapter Presidents (Members of Board)		
Boulder	Sue Galatowitsch	459-3243
Colo. Springs	-----	
Denver Metro	Nevin BeBee	733-1038
Ft. Collins	Carol Brandt	484-9251

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

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

COMMITTEES		
Conservation	Sue Martin	226-3371
Editorial	Peter Root	433-9340
Education	Miriam Denham	442-1020
Field Trips	Nevin BeBee	733-1038
Florissant	Mary Edwards	233-8133
Horticulture & Rehabilitation	Anna Thurston	433-3705
Membership	Myrna Steinkamp	226-3371
Publicity	-----	
Workshops	Bill Jennings	494-5159

NEWSLETTER CONTRIBUTIONS
Please direct all contributions to the newsletter to
Peter Root
4915 West 31st Avenue
Denver, CO 80212

Deadlines for newsletter materials are one month prior to publication dates, which are January 15, March 15, May 15, August 15, and November 15. There is a special need for short filler 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.

RETURN AND MAILING ADDRESS
Colorado Native Plant Society
P.O. Box 200
Fort Collins, Colorado 80522

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ENDANGERED FLORA PUBLICATION

OVERVIEW

The State of Colorado needs a comprehensive, readable, well-illustrated publication on Colorado's endangered flora. Colorado has never had a complete description of the state's endangered flora which is useable in the field and of interest to the general public. Almost 100 plant species are endangered in Colorado. A publication on Colorado's endangered flora will enable the citizens of Colorado to understand where the plants are found, what the plants need to live, and what threatens their existence. A publication on Colorado's endangered flora will lay the groundwork for enactment of legislation by the Colorado General Assembly to protect rare plant species in Colorado.

The endangered flora publication will contain an overview of the conservation of rare plants in Colorado and descriptions and illustrations of each species.

Work on the endangered flora publication began in April 1986. Publication is scheduled for May 1987.

Research and Photography

The Colorado Native Plant Society and Colorado Natural Areas Program will compile information on the biology, geography, and history of each species. Photographs will be contributed from the Colorado Native Plant Society and other botanists.

A research committee has been formed to coordinate the gathering of information. One person is needed to co-chair the committee with Myrna Steinkamp. Committee members are also needed.

Help is also needed on the photograph committee. This group will review photos from existing collections and coordinate work on photographs that need to be taken. A co-chair is being sought to assist Jim Borland. Committee members are also being sought.

Call Eleanor Von Bargaen, 756-1400, to offer assistance.

Funding

\$30,000 is needed to publish the Endangered Flora book. The Colorado Natural Areas Program is seeking funds from foundations and individuals. The Colorado Native Plant Society has pledged \$1000 from the treasury and hopes to raise an additional \$1000 from concerned members. A donation of \$25.00 or more will entitle an individual to a complimentary copy of the monograph. Please send contributions to:

"Rare Plant Monograph"
Colorado Native Plant Society
P.O. Box 200
Fort Collins, CO 80522

PICTURE THIS!

Work on the monograph of rare Colorado plants is progressing rapidly, but to meet the deadlines we've set for ourselves we need your help. Below is a list of the species to be included in the monograph. Before the manuscript goes to press, several high quality 35mm slides are needed for each species. The Colorado Native Plant Society and the Colorado Natural Areas Program request that you send slides of any of these species to: "Rare Plant Monograph"

Colorado Native Plant Society
P.O. Box 200
Fort Collins, CO 80522

Include your name and the species on each slide. Photographs appearing in the monograph will be credited and all slides will be returned after the monograph goes to press in the spring of 1987. Your original slides will be carefully handled and stored. Photos not included in the monograph will help artists preparing line drawings. Please consider taking photos of species for which you currently have no slides. Kodachrome 25 usually produces the best final product. Information on the locations of species can be obtained by calling the Colorado Natural Areas Inventory (303) 866-3311.

TAXON	FAMILY
ALETES HUMILIS C. et R.	API
AMBROSIA LINEARIS (Rydb.) Payne	AST
ARALIA RACEMOSA L.	ARL
ARMERIA MARITIMA (Miller) Willdenow ssp. SIBERICA (Turcz. ex Boiss.) Hylander	PLB
A. scabra ssp. siberica	
ASCLEPIAS UNCIALIS Greene	ACL
ASPLENIUM ANDREWSII A. Nels.	ASL
ASTRAGALUS DUCHESNENSIS M.E. Jones	FAB
*ASTRAGALUS HUMILLIMUS A. Gray	FAB
ASTRAGALUS LINIFOLIUS Osterh.	FAB
A. rafaensis	
ASTRAGALUS MICROCYMBUS Barneby	FAB
ASTRAGALUS MUSINIENSIS M.E. Jones	FAB
ASTRAGALUS NELSONIANUS Barneby	FAB
ASTRAGALUS OSTERHOUTII M.E. Jones	FAB
ASTRAGALUS PLATTENSIS Nutt. ex T. ex G.	FAB
ASTRAGALUS SCHMOLLAE C.L. Porter	FAB
ASTRAGALUS SESQUIFLORUS S. Wats	FAB
BRAYA HUMILIS (C.A. Meyer) Robinson ssp. VENTOSA Rollins	BRA
CIRSIIUM OWNBEGI Welsh	AST
CIRSIIUM PERPLEXANS (Rydb.) Petrak	AST
CLEOME MULTICAULIS Sesse et Mocino ex DC.	CPP
C. sonorae	
CONIMITELLA WILLIAMSII (D.C. Eaton) Rydb.	SAX
DRABA JUNIPERINA Dorn	BRA
DROSEROTA ROTUNDIFOLIA L.	DRS
DRYOPTERIS EXPANSA (Presl.) Jenkins et Jermy	ASP
ECHINOCEREUS TRIGLOCHIDIATUS Engelm. var. INERMIS (K. Schum.) Arp	CAC
EPIPACTIS GIGANTEA Dougl. ex Hook.	ORC
ERIGERON HUMILIS Graham	AST
ERIGERON KACHINENSIS Welsh et. Moore	AST
ERIGERON LANATUS Hook.	AST
ERIOGONUM ACAULE Nutt.	PLG
ERIOGONUM BRANDEGEI Rydb.	PLG
ERIOGONUM CLAVELLATUM Small	PLG
ERIOGONUM EPHEROIDES Reveal	PLG
ERIOGONUM PAUCIFLORUM Pursh var. PAUCIFLORUM	PLG
ERIOGONUM PELINOPHILUM Reveal	PLG
ERIOGONUM SAURINUM Reveal	PLG
ERIOGONUM VIRIDULUM Reveal	PLG
ERIOGONUM ALTAICUM Meinsh. var. NEOGAEUM Raymond	CYP

EUTREMA PENLANDII Rollins	BRA
E. edwardsii ssp. p.	
FRASERA COLORADENSIS (Rodgers) D.M. Post	GEN
GAURA NEOMEXICANA Woot. ssp. COLORADENSIS (Rydb.) Raven et Gregory	ONA
GENTIANA NUTANS Ledeb.	GEN
Chondrophylla n.	
GENTIANELLA TORTUOSA (M.E. Jones) J.M. Gillett	GEN
GILIA STENOXYRSA A. Gray	PLM
Ipomopsis s.	
HACKELIA GRACILENTA (Eastw.) I.M. Johnst.	BOR
HAPLOPAPPUS FREMONTII A. Gray ssp. MONOCEPHALUS (A. Nels.) H.M. Hall	AST
Donopsis foliosa var. m.	
HYPOXIS HIRSUTA (L.) Coville	LIL
LESQUERELLA CONGESTA Rollins	BRA
LESQUERELLA PARVIFLORA Rollins	BRA
LESQUERELLA PRUINOSA Greene	BRA
LISTERA CONVALLARIOIDES (Sw.) Nutt.	ORC
LOMATIUM CONCINNUM (Osterh.) Mathias et Constance	API
LOMATIUM EASTWOODAE (C. et R.) Macbr.	API
Aletes e.	
LOMATIUM LATILOBUM (Rydb.) Mathias	API
Aletes l.	
LUPINUS CRASSUS Payson	FAB
LYGODESMIA DOLORESENSIS Tomb	AST
MALAXIS BRACHYPODA (A. Gray) Fern.	ORC
M. monophyllum ssp. b.	
MENTZELIA ARGILLOSA J. Darl.	LOA
Nuttallia a.	
MENTZELIA Densa Greene	LOA
MIMULUS EASTWOODIAE Rydb.	SCR
MIRABILIS ROTUNDIFOLIA (Greene) Standl.	NYC
Oxybaphus r.	
NEOPARRYA LITHOPHILA Mathias	API
Aletes l.	
NEOPARRYA MEGARRHIZA (A. Nelson) W.A. Weber	API
Aletes m.	
OENOTHERA ACUTISSIMA W.L. Wagner	ONA
*ONOCLEA SENSIBILIS L.	ASP
PARTHENIUM ALPINUM (Nutt.) T. et G.	AST
Bolophyta a.	
PARTHENIUM TETRANEURIS Barneby	AST
Bolophyta t.	
PEDIOCACTUS KNOWLTONII Benson	CAC
PENSTEMON DEGENERI Crosswhite	SCR
PENSTEMON GIBBINSII Dorn	SCR
PENSTEMON GRAHAMII Keck ex Graham	SCR
*PENSTEMON PARVIFLORUS Pennell	SCR
PENSTEMON SCARIOUSUS Pennell var. ALBIFLUVIS (England) N. Holmgren	SCR
P. albifluvis	
PHACELIA FORMOSULA Osterh.	HYD
PHACELIA SUBMUTICA J.T. Howell	HYD
PHYSARIA BELLII Mulligan	BRA
PHYSARIA OBCORDATA Rollins	BRA
PTILAGROSTIS PORTERI (Rydb.) W.A. Weber	POA
P. mongolica ssp. p./Stipa p.	
*RORIPPA COLORADENSIS Stuckey	BRA
SALIX CANDIDA Flugge	SAL
SALIX LANATA L. ssp. CALCICOLA (Fern. et Weg.) Hulten	SAL
*SCIRPUS CAESPITOSUS L.	CYP
Baeothryon c.	
SCIRPUS PUMILUS Vahl.	CYP
Baeothryon p.	
SCLEROCACTUS GLAUCUS (K. Schum.) Benson	CAC
SCLEROCACTUS MESAE-VERDAE (Boiss. et Davidson) Benson	CAC
SPHAEROMERIA CAPITATA Nutt.	AST
Tanacetum c.	
SPIRANTHES DILUVIALIS Sheviak	ORC
THALICTRUM HELIOPHILUM Wilken et DeMott	RAN
TRIFOLIUM ANDINUM Nutt.	FAB
WOODSIA PLUMMERAE Lemmon	WDS

* Historical in Colorado, believed extinct in the state



FORT COLLINS CHAPTER

(Please note: All CONPS members are welcome to Chapter meetings and trips. CONPS field trip guidelines and carpooling contributions schedule are used for Chapter trips; see Newsletter Vol. 7 Number 2 for details.)

May 21 Wednesday night meeting, 7:30 p.m., Delatour Room of the Fort Collins Public Library (201 Peterson St.). Judy Von Ahlefeldt will present the program, "PLANTS OF THE PLATTE-ARKANSAS DIVIDE."

May 31* (Saturday) Spring Wildflower Walk and Potluck at the home of Robert and Dorothy Udall at Claymore Lake (NW of Ft. Collins). We will meet at the Udalls' at 2 p.m. to hike around the area and enjoy the numerous spring flowers (including many native grasses), then have a potluck picnic. Bring your own dishes & table service, beverage, and a dish to share. [* These arrangements are tentative at press time; final info and directions will be given at the May 21st meeting, or call one of the chapter contact people listed below.]

June 14 (Saturday) Field trip: Late spring wildflowers of the Pawnee National Grassland. Dr. Marvin Shoop of the Agricultural Research Service, U.S. Dept. of Agriculture, will lead this trip to a variety of vegetation communities. Meet for carpooling at 9:00 a.m. at the downtown Safeway parking lot (College and Mulberry). High clearance vehicles are encouraged for the ranch roads to be traveled, although 4WD is not necessary. Bring a sack lunch, water, a hat, and sunscreen.

July 19 (Saturday), and possibly Sunday, July 20:
Rare plant project, North Park. Ecologist Sue Galatowitsch of the Colorado Natural Areas Program will be setting up a monitoring program for the rare North Park Phacelia, Phacelia formosula. The Fort Collins Chapter has promised to assist with monitoring this plant in future years. If you are interested, contact Carol Brandt before July 1st (phones below). Directions, information on the species, and camping information (if desired) will be mailed to you. If enough volunteers are available, two groups (one each day) will be trained separately (to minimize our impact on the population).

August 9 (Saturday) Field trip: Alpine/subalpine wildflowers. Meet 7:30 a.m., Safeway parking lot. The trip destination will be determined from local information on best flowering areas this year. Some possibilities include Cameron Pass, Bald Mountain and Dead Man's Pass, or Rabbit Ears Pass. Call the contact people (below) with suggestions or for information.

For info contact: Sue Anderson (493-8994 evenings)
Carol Brandt (484-9251 home, 491-5817 work)
Lloyd Hayes (226-5365 except when gone fishing!)

Who Will Stop the Rain?

COLORADO ACID RAIN CONFERENCE

A Planning and Strategy Session

Sponsored by
Colorado Environmental Coalition * Environmental Defense Fund *
University of Colorado Environmental Center * Denver Audubon Society

University of Colorado - Boulder
Ramaley C250

9:00 am - 5:00 pm

Saturday, June 14, 1986

This conference is a forum designed to both provide information on acid rain in Colorado and to devise strategies to protect the Rockies from the increasing problem of acid rain. We extend an invitation to all interested individuals, those currently working on acid rain as well as those who would like to become more involved with the issue. The opening address will be given by Bob Yuhnke of the Environmental Defense Fund and a political keynote speaker, followed by a panel discussion and a question and answer period. There will be an optional slide show during lunch. In the afternoon, participants will disperse to one of the four offered workshops (National Legislative Issues, Federal Land Management Policy, State Regulatory and Legislative Issues, and EPA Programs and Regulatory Initiatives). Following reports from workshop leaders, discussion and closing comments will conclude the conference by 5 p.m.

Arrangements for hotel accommodations and carpooling will be available through CEC. For further information please check your newsletters or call the CEC office: (303) 393-0466.

Please join us in combatting the problem of acid rain in Colorado by returning the registration form with an enclosed check by June 6th to: The Colorado Environmental Coalition, 2239 E. Colfax Ave., Denver, Co. 80206-1390.

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Advance Registration:

Name: _____ Check Enclosed: \$ _____
Address: _____ CEC Member ? Yes ___ No ___
City: _____ Zip: _____ Organization: _____
Phone: (h) # _____ (w) # _____ Carpool ? Yes ___ No ___ Hotel ? Yes ___ No ___

Workshop Interested in Attending: _____

Note: Although we would very much appreciate advance registration, participants may also register beginning at 8:00 a.m. the morning of the conference. A limited number of scholarships will be available on a first come first serve basis.

Registration Fee: \$ 7.00