

CALENDAR 2006 - 2007

WORKSHOPS

October 13&14 Potentillas of Colorado
 November 10&11 Tour of Flowering Plants
 December 1&2 Plants of the Four Corners
 January 12&13 Intro to Asteraceae
 February 9&10 Mints of Colorado
 April 12&13 Pestemons
 May 3&4 Plant Terminology
 June 27, 28,29 Carex

CHAPTER PROGRAMS

BOULDER CHAPTER

October 11 Fens and Fen Plants of the Rocky Mountains
 November 8 Medicines of Colorado Plants
 December 13 America's Lost Landscape
 January 10 Adapting Native Plants for the Garden Home
 February 14 No meeting
 March 13 Ten Years of Restoring Boulder's Wildlands
 April 10 TBA
 May 8 Native Plant Hike and Picnic

NORTHERN COLOARO CHAPTER

October 3 Celastraceae and Friends from Madagascar
 November 7 Fens and Fen Plants of the Rocky Mountains

METRO-DENVER CHAPTER

September 25 DBG tour
 October 30 *Colorado's Best Wildflower Hikes* author
 December 11 TBA
 January 22 TBA
 February 26 TBA
 March 25 TBA
 April 22 TBA
 May 27 TBA

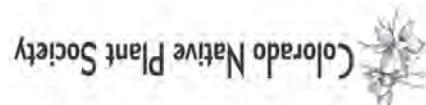
FIELDTRIPS

January 12 Winter Botany

See <http://www.conps.org/conps.html> for details.

TIME SENSITIVE MATERIAL

http://www.conps.org
 Fort Collins, Colorado 80522
 P.O. Box 200



Aquilegia

Newsletter of the Colorado Native Plant Society



“. . . dedicated to the appreciation and conservation of the Colorado native flora”

2007/2008 WORKSHOPS

The Colorado Native Plant Society workshops are designed for plant enthusiasts of all levels, from novice to expert. During these sessions there is usually plenty of time for learning and fun! Choose either session I or II, as they are more or less the same. Plan on learning, discussing, socializing, eating and more learning.

Registration Information

Registration is mail-in only and requires payment at the time of registration. The fee for attending a workshop is \$20/session for members only. Nonmembers must join CONPS in order to be able to register for a workshop. The registration fee is non-refundable.

Participation is often limited and registration is processed in the order received. If the workshop has already been filled, you will be notified, your check will not be deposited, and you will be added to the waiting list if that is what you desire.

To register, please mail your check payable to CONPS for \$20 per workshop along with the following information: title and date of the workshop(s) you would like to attend, your name, address, telephone number, and email address. Registration can only be processed with all of this information. Please use the registration order form provided in the newsletter and on our website. Registration applications will not be accepted until September 17, 2007.

Mail to: Mary Ellen Ford, 2133 13th Street, Boulder, CO 80302
 For those who need to cancel at the last minute, we appreciate your \$20 contribution to CONPS and ask that you call or email Mary Ellen (303-449-7334 or Fordmaryel@aol.com) so she has the opportunity to fill your spot.

Future Workshop Planning

So many of our members are very knowledgeable and could provide wonderful learning experiences for other members wishing to expand their plant horizons. Please consider leading a CONPS workshop in the 2008-2009 season. Contact Mary Ellen Ford if you are interested (Fordmaryel@aol.com or 303-449-7334).

Microscope Fund

Our purchase of new microscopes for CONPS workshops was successful, with Keith Anderson facilitating our purchase. We collected approximately 25% of the total purchase price during the 2006-2007 workshop season and hope to continue to do so each year until the microscopes are fully paid. You can contribute directly to the Microscope Fund by mailing contributions made payable to CONPS to Mary Ellen Ford (2133 13th Street, Boulder, CO 80302). Additionally, \$8 of the \$20 registration fee for the workshops goes directly to the Microscope Fund.

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POTENTILLAS OF COLORADO

Leader: Rich Scully
 Location: Foothills Nature Center, Boulder
 First Session: Saturday, October 13, 2007
 Second Session: Sunday, October 14, 2007
 Time: 9 a.m. to 3 p.m.

All of the *Potentilla* species that are native or naturalized in Colorado will be covered. Tips will be provided on which species are most commonly confused, and how best to separate them. An annotated key listing all of the distinguishing characteristics will be provided. Photographs of the distinguishing characteristics, from macroscopic to microscopic, will be shown. Pressed specimens will be available to practice your identification skills. Participants are encouraged to bring pressed or live examples of their own troublesome specimens for the group to work on.

This workshop was provided in the 2006-2007 workshop season and filled immediately after it was announced. We are offering it again to provide everyone with another opportunity to benefit from Rich's amazing knowledge of *Potentilla*.



Potentilla plattensis
 William & Wilma Follette @ USDA-NRCS PLANTS Database /
 USDA NRCS. 1992. Western wetland flora: Field office guide to
 plant species. West Region, Sacramento, CA.

TOUR OF FLOWERING PLANTS

Leader: Priscilla Spears
 Location: Foothills Nature Center, Boulder
 First Session: Saturday, November 10, 2007
 Second Session: Sunday, November 11, 2007
 Time: 9 a.m. to noon

Participants will be provided with an overview of plant families and evolutionary relationships using the modern system of angiosperm classification. This classification system is based on the work of a group of scientists organized as the Angiosperm Phylogeny Group. It considers relationships among plants in light

of molecular, morphological, and other scientific evidence. Using her book, *A Tour of the Flowering Plants*, Dr. Spears will make this classification system accessible to all participants.

PLANTS OF THE FOUR CORNERS:
 CANYON DE CHELLY AND MESA VERDE

Leader: Jan and Charlie Turner
 Location: Foothills Nature Center, Boulder
 First Session: Saturday, December 1, 2007
 Second Session: Sunday, December 2, 2007
 Time: 9 a.m. to 11 a.m.

Escape to the warm and sunny Four Corners region for the morning. Come enjoy a slide presentation on the plants of Canyon de Chelly and Mesa Verde. Learn about the parks and the plants that grow there. Forget about the cold and think sun! Jan and Charlie Turner are the authors/ photographers of *Wildflowers of Canyon de Chelly* and *Wildflowers of Mesa Verde*.

INTRODUCTION TO ASTERACEAE
 WITH EMPHASIS ON THE SUNFLOWER TRIBE
 (HELIANTHEAE)

Leader: David Buckner
 Location: Foothills Nature Center, Boulder
 First Session: Saturday, January 12, 2008
 Second Session: Sunday, January 13, 2008
 Time: 9 a.m. to 3 p.m.

This basic introduction to the sunflower family will explain and illustrate nomenclature and structures. The emphasis will be to help participants past the initial family confusion and to become more familiar with this ubiquitous group of plants. Participants will have available mounted specimens for review, as well as collected materials for dissection.

MINTS OF COLORADO

Leader: Rich Scully
 Location: Foothills Nature Center, Boulder
 First Session: Saturday, February 9, 2008
 Second Session: Sunday, February 10, 2008
 Time: 9 a.m. to 3 p.m.

The various genera of mints (Lamiaceae) that are native or naturalized in Colorado will be covered. Photographs will illustrate the plants and their distinguishing characteristics, both large and small. Pressed specimens will be available to examine and sniff.



Aquilegia

The Colorado Native Plant Society is a non-profit organization dedicated to the appreciation and conservation of the Colorado native flora. Membership is open to all with an interest in our native plants, and is composed of plant enthusiasts both professional and non-professional.

Please join us in helping to encourage interest in enjoying and protecting Colorado's native plants. The Society sponsors field trips, workshops, and other activities through local chapters and statewide. Contact the Society, a chapter representative, or committee chair for more information.

Schedule of Membership Fees

Life	\$250
Supporting	\$50
Organization or Corporate	\$30
Family or Dual	\$20
Individual	\$15
Student or Senior	\$8

Membership Renewal/Information

Please direct all membership applications, renewals and address changes to Eric Lane, Chair of Membership, Colorado Native Plant Society, P.O. Box 200, Fort Collins, CO 80522. Please direct all other inquiries regarding the Society to the Secretary at the same address.

Aquilegia is published four or more times per year by the Colorado Native Plant Society. This newsletter is available to members of the Society and to others with an interest in native plants. Articles for *Aquilegia* may be used by other native plant societies or non-profit groups, if fully cited to author and attributed to *Aquilegia*.

Articles from 500 to 1500 words in length, such as unusual information about a plant, are welcome. Previously published articles submitted for reprinting require permission. Digital photographs or line drawings are also solicited. Please include author's name and address, although anonymity may be requested. Articles must be submitted electronically.

Please direct all contributions to the newsletter to:
Kim Regier
 E-Mail: kimberly.regier@cudenver.edu

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MEMBERSHIP APPLICATION AND RENEWAL FORM

Name(s) _____
 Address _____
 (Address) _____
 City _____ State _____ Zip _____
 Phone _____ E-mail _____

MEMBERSHIP CLASS:
 Dues cover a 12-month period.
 ___ Individual, \$15.00
 ___ Family/dual, \$20.00
 ___ Senior, \$8.00
 ___ Student, \$8.00
 ___ Corporate, \$30.00
 ___ Supporting, \$50.00
 ___ Lifetime, \$250.00

Chapter (Circle one): Boulder Northern CO Metro Denver Plateau Southeast Southwest

In addition to my membership, I have included \$_____ as a contribution to the John Marr Fund (endowment in support of small grants-in-aid of research), \$_____ as a contribution to the Myrna P. Steinkamp Memorial Fund (endowment in support of small grants-in-aid of research), or \$_____ as a general contribution to the Society.

CONPS IS A NON-PROFIT ORGANIZATION – DUES AND CONTRIBUTIONS ARE TAX-DEDUCTIBLE



Welcome New Members

Thomas Bates	Matthew Lopez
Rich Stafford & Meg Bernens	Wendy & Steve Osterman
Sharon Bokan	Liam Hurlburt & Dana Price
Kathy Brown	Mike & Mona Price
Thomas & Anne Butler	Herb & Elaine Probasco
Susan Carr	Polly Reetz
Sven Ceelen	Liz Rodgers
High Plains Environmental Center	D. Jacobe Rogers
Gary Conover	James Schnelle Jr Donna Searle
Jacqueline Dearborn	Melissa Smith
Raymond & Marlene Feldt	Jim & Wilda Swift
Rhonda Foley	Chris Trammel & Justine Wilson
Dwight & Deborah Hall	Stu Wilson
Bruce & Olga Howard	Nancy Mead & David Wright
Melissa Islam	
Chad Yost & Carrie Jackson	
Bob Stallard & Micki Kaplan	

Tamarisk
Drawing: USDA-
NRCS PLANTS
Database



Tammy-Whacking Opportunity

Walk in the footsteps of Kit Carson, Clay Allison, Chief Black Kettle, and Wild Bill Hickock along the old Santa Fe Trail. Pioneer life of the Old West comes alive at the Boggsville National Historic District south of Las Animas, Colorado. Founded in 1862 by Thomas O. Boggs, Boggsville is now preserved as an archeological site by the Pioneer Historical Society.

Unfortunately, history is not the only thing alive and well at Boggsville. Tamarisk is a water robbing and habitat threatening invasive species that is especially prevalent along the waterways in south eastern Colorado. In fact, Bent County, where Boggsville is located, has the highest infestation of tamarisk in the state. Spend the weekend working with local conservation groups to protect the water quality and the health of this riparian habitat in historic Bent County.

What: Habitat restoration project in SE Colorado

When: September 29th and 30th, 2007

Where: Boggsville National Historic District

Who: Families, friends, and outdoor enthusiasts

Sign up or get more information at www.voc.org, by calling 303-715-1010 (800-925-2220 outside of metro Denver) or by emailing voc@voc.org. Projects fill up so sign up today.

Book Announcement

Weber, W. A., & R. C. Wittmann. July, 2007. *Bryophytes of Colorado. Mosses, Liverworts, and Hornworts*. 238 pp., 8 plates. *Pilgrims Process, Inc., Santa Fe, New Mexico*.

This is the first comprehensive work on Colorado bryophytes, 401 mosses and 106 liverworts and hornworts, compared to 292 (mosses only) reported in Weber (1973), *Guide to the Mosses of Colorado*. This is the result of a decade of concentrated field and herbarium work, not to mention over 75 years preparatory studies by the senior author and 20 by the junior.

Colorado has been a blind spot in the map of North American bryophytes and, while it has no known endemic species, there are a significant number that are disjunct from the Holarctic region, Middle Asia including western China, the Russian Altai, Turkestan, and Central and South America.

The book contains an introduction outlining the history of bryological collecting, explanation of the scientific names, notes on the people who described the species, keys to the genera and species, citations of significant collections, a glossary, index by specific epithets, bibliography, and an alphabetical catalog with lists of synonyms that have been applied in earlier papers.

Since this is a fairly technical book, we now are beginning to refine our electronic Bryophyte Primer to help beginners to become acquainted with the easily recognizable common species of Colorado.

2007/2008 WORKSHOPS (continued from page 2)

PENSTEMONS

Leaders: Andi Wolfe and Carol English

Location: UCDHSC Downtown Denver Campus

First Session: Saturday, April 12, 2008

Second Session: Sunday, April 13, 2008

Time: 9 a.m. to 3 p.m.

Penstemon, which is restricted in distribution to the new world, comprises approximately 270 species, most of which occur in western North America. The flora of Colorado comprises over 55 species alone, many of which are endemic to the state. Dr. Andi Wolfe (Ohio State University) will lead the Saturday workshop during which she will provide an overview of the beardtongues and discuss the recent break-up of the Scrophulariaceae. On Sunday, Carol English will lead a workshop covering the more commonly encountered Front Range *Penstemon* species.

PLANT TERMINOLOGY

Leader: Mary Ellen Ford

Location: CU Greenhouses, 1380 30th Street, Boulder

First Session: Saturday, May 3, 2008

Second Session: Sunday, May 4, 2008

Time: 9 a.m. to noon

In this workshop participants will gain a working knowledge of the terminology used in plant identification. Using the text, *Plant Identification Terminology*, by James G. Harris and Melinda Wolf Harris, 2nd edition (2001), and the amazing plant collection at the 30th Street greenhouses, we will learn the terminology by category. The focus will be stems, surfaces, and leaves (particularly leaf shapes, leaf bases, leaf apices, leaf division, leaf margins, leaf attachment, leaf arrangement, etc.). Participants will not identify plants – just plant parts!



Penstemon cobaea

Clarence A. Rechenthin @
USDA-NRCS PLANTS
Database

CAREX

Leaders: Tony Reznicek

Location: UCDHSC Downtown Denver Campus

First Session: Friday, June 27, 2008

Tentative Time: 10 a.m. to 4 p.m.

Second Session: Saturday, June 28, 2008

Tentative Time: 10 a.m. to 4 p.m.

Field Trip: Sunday, June 29, 2008

With nearly 2000 species worldwide, Carex is one of the more complex genera taxonomically. Tony Reznicek, an expert on the genus, has been invited to lead a workshop and accompanying field trip emphasizing sedge identification. Participants will be given the opportunity to develop skills in the identification of sedges through a combination of short presentations and use of keys. Participants are encouraged to bring their own specimens for identification; for those unable to do so, specimens will be provided. Although the field trip requires a separate registration, concurrent registration for one of the two workshop sessions is required.



WINTER BOTANY AT BRAINARD LAKE RECREATION AREA

January 12, 2008, 11:00 am

Leader: Leo P. Bruederle

Leo Bruederle will once again attempt to lead a trip emphasizing identification of plants in their winter condition (NOTE: a similar trip was cancelled in 2007 due to low temperatures). Brainard Lake Recreation Area is in the Roosevelt National Forest west of Ward, CO (Boulder County). As such, we will be snowshoeing through subalpine meadows, forests, and woodlands, while identifying the prominent shrubs and trees dominating the gently sloping landscape. However, we will also take advantage of our understanding of basic botany to identify weeds and other herbaceous plants using characteristics of their growth form, inflorescence, and fruit. Why put our hand lenses and field keys away in September with winter botany still ahead. To register for this field trip co-sponsored by the UCDHSC Department of Biology, please contact Leo at leo.bruederle@cudenver.edu or 303-556-3419.

BOULDER CHAPTER

Boulder Chapter meetings are on the second Thursday of each month (Autumn to early Spring) at 7 p.m. Meet at the City of Boulder Open Space and Mountain Parks offices in the north building conference room, 66 South Cherryvale Road. Contact Deby Stabler (debystabler@yahoo.com or 303-902-4679) for more information.

October 11: Fens and Fen Plants of the Rocky Mountains. Joanna Lemly, Wetland Ecologist, Colorado Natural Heritage Program, Colorado State University.

Nestled in subalpine basins and sloping valleys, the Rocky Mountains contain thousands of permanently saturated wetlands known as fens. These sites are groundwater fed and have water tables so stable that undecomposed organic matter accumulates over thousands of years to form thick layers of organic soil, commonly referred to as peat. The saturated, organic soils of mountain fens support extremely high plant diversity compared to the surrounding forested landscape, including many species considered rare in our region. Come learn about how and where fens form in the Rocky

Mountain landscape and which environmental factors influence species distribution. There will be a particular focus on rare fen sedges and the wide variety of moss species found in these wet and squishy environments. The presentation will draw on four years of research in fens in Yellowstone National Park, the San Juan Mountains of Colorado, and Boulder County. Take a tour of Rocky Mountain fens, without needing to put on your boots!

November 8: Medicines of Colorado Plants. Paul Bergner, Medical Herbalist, Clinical Nutritionist, and Director of the North American Institute of Medical Herbalism

Paul Bergner will talk about various Colorado medicinal plants. The emphasis will be on plants that are used in contemporary medical herbalism in North America, and the focus will be on plant conservation. Plants to be discussed include Pines, willows and poplars; Prunus, Osha, Baneberry, Aralia nudicaulis, Eupatorium maculatum, Pulsatilla patens, Valerian, Oregon grape, Evening primrose, Scullcap, Uva ursi, Pipsissewa, Anemopsis, Arnica, anemopsis, and arnicas.

Carex scirpoidea
USDA-NRCS PLANTS Database / USDA NRCS. Wetland flora: Field office illustrated guide to plant species. USDA Natural Resources Conservation Service.



December 13: America's Lost Landscape: The Tallgrass Prairie, FILM

This award winning film tells the rich and complex story of one of the most astonishing alterations of nature in human history. Prior to Euro-American settlement in the 1820s, one of the major landscape features of North America was 240 million acres of tallgrass prairie. But between 1830 and 1900 -- in the span of a single lifetime -- the prairie was steadily transformed to

farmland. This drastic change in the landscape brought about an enormous social change for Native Americans. In an equally short time their cultural imprint was reduced in essence to a handful of place-names appearing on maps. The extraordinary cinematography of prairie remnants, original score and archival images are all delicately interwoven to create a powerful and moving viewing experience about the natural and cultural history of America. Amongst those interviewed are writer Dayton Duncan, Wes Jackson of The Land Institute, biologist Laura Jackson, linguist Jerome Kills Small, historian Anton Treuer, landscape historian Lance Foster, writer Richard Manning, and Nina Leopold Bailey and Carol Leopold -- two of Aldo Leopold's children.

January 10: Adapting Native Plants for the Home Garden. Julie Artz, Native Plant Master Apprentice.

February 14: No meeting

March 13: Ten Years of Restoring Boulder's Wildlands: Volunteers Make it Happen. John Giordanengo, Projects Director, Wildlands

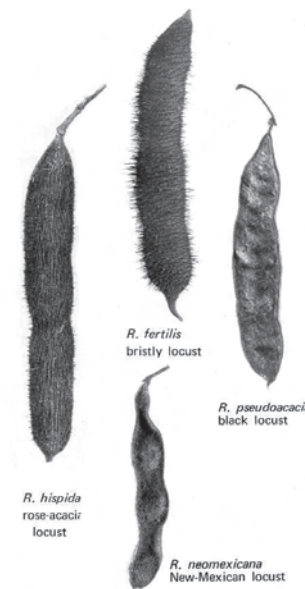
Restoration Volunteers

A blend of restoration ecology, stewardship, partnerships with local agencies, and the future of restoration in the Front Range.

April 10: TBA

May 8: Native Plant Hike and Picnic

"Chapter Program" continued on page 7



USDA-NRCS PLANTS Database (*neomexicana*), a common flowering shrub from the Southern Mountains Region of south-central Colorado, the Utah High Plateaus, and northern New Mexico, is adapted to the high summer precipitation of this region, and thus may not thrive in otherwise similar mountainous areas that lack a monsoon unless supplemental moisture is provided. This kind of Rocky Mountain-specific gardening information is often lacking in other guides that are geared for more general, widespread audiences, or assume everyone has great loamy soil, adequate water, and plenty of frost free days (okay for California maybe, but not perhaps for Laramie, or Rock Springs, or where you actually live).

The introductory chapters describe specific environmental factors affecting plant distribution and survival (such as soils, moisture availability, topography, light, temperature, and snow cover), how these factors affect how a garden should be laid out to mimic natural habitats; how to treat weeds; plant pests; and how to attract birds. Scattered among these chapters are

seven "principles" that pithily summarize the take-home lessons of gardening with native plants in the Rockies. These principles all seem straight-forward (e.g., principle 5: "the major enemies of plant seedlings are not enough water, too much water, molds, animal consumers, and competition from other plants"), but all provide a succinct summary of the typical errors novice gardeners make when trying to grow new plants. There are books that go into greater detail on all of these topics, but the Dorns have done a nice job of condensing these concepts into one easy to comprehend reference appropriate to our local conditions.

Most of *Growing Native Plants* is devoted to a full color section describing over 400 native tree, shrub, grass, and wildflower species suited for garden use in the Rocky Mountain region. The species accounts include information on which of the nine regions of the Rockies the plant is best suited for, along with a brief description of its growth habit and appearance, habitat, cultivation, and means for propagation. The photos accompanying the descriptions are of high quality and large size (one of my pet peeves with many horticulture books is how tiny and grainy the photos are) and show just how beautiful our native plants can be. For those who are not swayed by appeals to reduce global homogenization, save water, or reduce demands for fertilizer, the photos alone are perhaps the best promotion for going native.

Plant descriptions are arranged alphabetically by scientific name. This may prove a challenge for those who are squeamish about taxonomic names (especially since the nomenclature follows more recent treatments and use some unfamiliar names

for asters, ricegrass, and others). Fortunately the index is cross-referenced by widely used common names and taxonomic synonyms. Besides, if a gardener can learn to recognize "common" names like Chrysanthemum, Forsythia, and Geranium (all Latin genus names too), they can expand their vocabulary with a few more native scientific names! The book concludes with several appendices depicting sample precipitation tables, examples of designing plant beds, and tables comparing various attributes of the species described previously.

Growing Native Plants of the Rocky Mountain Area is currently available in printed form for conventional bibliophiles, or as a cd-rom using Microsoft Word for the techno-savvy or bargain-hunter, requiring Adobe Acrobat to read. Me, I'll stick with the printed version and read it in the comfort of a hammock and enjoy the solitude of being away from the computer while I'm planning for my native garden-in-progress.

Note: For a limited time, individuals interested in purchasing the book version of *Growing Natives* can do so directly from the Dorns for \$50 (postage included) through Mountain West Environmental Services (contact Bob Dorn at linglebird@yahoo.com for details).

Thanks to the Wyoming NPS for allowing the re-printing of this article.



by Walter Fertig

Growing Native Plants of the Rocky Mountain Area. By Robert D. Dorn and Jane L. Dorn. 2007. 252 pages. Book version: \$82.94 plus postage, available at www.lulu.com/content/768231. CD-rom version: \$7.50 plus postage, available at www.lulu.com/content/787924.

Perhaps unique among all animals, humans have an innate need to garden. The earliest gardeners (dating back 14,000 years) were driven primarily by a need for food and fiber. Besides cereal grains, some of the earliest edible crops grown by people included showy flowers such as dahlias, sacred lotus, violets, and primroses. These latter species eventually fell out of favor as new edible species were brought into cultivation, yet they continued to be grown into modern times. Though we may never know if our Neolithic ancestors had an aesthetic sense, is it so far-fetched to assume that they did not also enjoy the beauty of the crop flowers that they grew?

Nearly as ingrained as the need to garden is the desire to grow new and unusual plant species. Since the 15th Century, European explorers and traders have scoured the Earth for previously unknown plants to name, categorize, and introduce into horticulture. While many introduced species have been beneficial, others have escaped to become serious pests, disrupting natural habitats, displacing vulnerable native plants, and competing with more desirable crop species for space and nutrients.

The invasive species crisis has contributed to a renewed interest in native plants as an alternative for use in gardens and public landscaping. Natives are increasing in popularity due to their adapt-

ability to local soils and climates, and because they usually require less water and less care once established. Gardeners are also increasingly learning that native species are just as attractive as introduced species. With rising demand, natives are becoming more readily available commercially.

The surge in popularity of native plants is reflected in the growing number of books devoted to native plant cultivation and garden design. A new entry into this field is *Growing Native Plants of the Rocky Mountain Area*, self-published by Robert and Jane Dorn. The Dorns are no strangers to members of the Wyoming Native Plant Society - Bob is author of *Vascular Plants of Wyoming* (the state's most current and comprehensive plant identification manual), and Jane and Bob have written a guide to Wyoming birds and birding areas. This foray into horticulture may seem like a new direction, but actually the Dorns have been long-time amateur native plant gardeners in eastern Wyoming. Their 30 plus years of experience growing Rocky Mountain native plants, coupled with their intimate



Ratibida tagetes
USDA-NRCS PLANTS Database / Britton, N.L., and A. Brown. 1913. Illustrated flora of the northern states and Canada. Vol. 3: 475.

knowledge of the regional flora, is captured in this new book.

Unlike many other native gardening books on the market, *Growing Native Plants of the Rocky Mountain Area* is geared specifically for the demanding growing conditions of the Rocky Mountain states (defined by the Dorns as all of Montana, Idaho, Wyoming, Utah, and Colorado, the NE corner of Nevada, northern New Mexico, and the western quarter of the Dakotas and Nebraska). Dorn and Dorn have recognized that the conventional USDA hardiness zone criteria (based on the average lowest winter temperature of an area) are inadequate in predicting how well many native and non-native plants will adjust to the Rocky Mountain climate where temperature extremes (as great as 140 degrees F between summer highs to winter lows) truly dictate which plants will persist. In place of the familiar USDA system, the Dorns have developed a more appropriate, ecologically-based system for classifying the nine major plant regions of the Rocky Mountains. Each plant region has a characteristic flora shaped by differences in soils, topography, and the timing and quantity of precipitation. By recognizing the needs of a particular species according to its plant region preferences, the home gardener has a better chance of identifying plants that will be suited for their particular garden. Homeowners can also make better decisions about what specific microsites are best suited for a particular plant (such as warm, south-facing slopes for drought-hardy species), or whether they will need to ameliorate their growing conditions through seasonal irrigation or soil treatments. For example, New Mexico locust (*Robinia*

“Book Review” continued on page 13

Augustus Fendler

by Al Schneider

Augustus Fendler's name is well known to Colorado plant lovers; dozens of Colorado plant species and two genera bear his name. Surprisingly, Fendler collected in the West for only two years.

Fendler began his botanical collecting life with lessons from George Engelmann in St. Louis in 1844. Fendler then practiced collecting in the St. Louis area for a time and his success encouraged Engelmann to lend him \$100 and to join with Asa Gray in sponsoring Fendler for a collecting expedition in the Southwest. In 1845 Gray arranged for Fendler to travel to Santa Fe in the company of federal troops on their way to the Mexican-American War. In 1846, after botanizing on the way to Santa Fe, Fendler began a year of avid collecting in Santa Fe and quickly became a highly respected collector.

Fendler returned to St. Louis after this two year Santa Fe trip and received high praise from Gray for the quality of his collection: Fendler was, said Gray, a "quick and keen observer and an admirable collector" (Gray's words in the American Journal



Berberis fendleri

of Science and Arts, 1885).

Fendler began a second western collecting expedition to the Great Basin in 1849 but early in the trip west he lost all of his gear, notebooks, specimens -- everything, in a flood. When he returned to St. Louis he found his possessions there had been destroyed in a major fire on the Mississippi River waterfront. Dejected and disgusted, he left the United States for a number of years and never returned to collecting in the Southwest. Thus we know the name Fendler because of just two years that he collected on his trip to Santa Fe.

Fendler was not always an avid botanist; his enthusiasm and knowledge of botany began on an 1844 visit to Prussia, the country he had been born in but had left for the United States in 1836. In his 1844 visit he spent time with Ernst Meyer, Professor of Botany at the University at Konigsberg, and learned of the economic possibilities in botanical collecting. In his previous eight years in the United States, Fendler had wandered through various jobs from New York, to Philadelphia, to New Orleans, to St. Louis, to homesteading in Texas, to the life of a hermit on an island in the Missouri (where he was washed out by a flood), to school teaching in Illinois. He was always shy and a loner in the form of Thoreau, but by 1844 he was hungry for a productive and steady job. He found his niche as a botanical collector.

The disastrous occurrences at the



Fendlera rupicola

beginning of his second western collecting trip ended his western U.S. collecting, but he remained a traveler and collector for the rest of his life. He spent over four years in Venezuela where he amassed a collection of over 2,600 plants, 223 of which were type specimens. While in Venezuela his "principle companions" were, according to Asa Gray, his thermometer and barometer, and with these he recorded detailed meteorological data for the Smithsonian.

Al Schneider is CONPS webmaster and has generously taken the time to write our 'Who's in that Name?' Column. He can be reached at webmaster@conps.org.



Common Name	Scientific Name	Flower Color	Blooming												
			Early Apr	Mid Apr	Early May	Mid May	Early June	Mid June	Early July	Mid July	Early Aug	Mid Aug	Early Sept	Mid Sept	
Squirreltail	Elymus longifolius	G													
Griffiths wheatgrass	Elymus lanceolatus	G													
Western wheatgrass	Pascopyrum smithii	G													
Canada bluegrass	Poa compressa	G													
Indiangrass	Sorghastrum nutans	G													
Buffalograss	Buchloe dactyloides	G													
Green milkweed	Asclepias viridiflora	G													
Blue grama	Chondrosium gracilis	G													
Thickspike wheatgrass	Elymus lanceolatus	G													
Wolftail	Lycurus phleoides	G													
Sideoats grama	Bouteloua curtipendula	G													
Big bluestem	Andropogon gerardii	G													
Canada wildrye	Elymus canadensis	G													
Switchgrass	Panicum virgatum	G													
Little bluestem	Schizachyrium scoparium	G													
Tall dropseed	Sporobolus asper	G													
Sand dropseed	Sporobolus cryptandrus	G													
Wild tarragon	Oligosporus dracunculoides ssp. glaucus	G													
Field sagewort- gray	Oligosporus campestris ssp. pacificus	G													
Field sagewort- green	Oligosporus campestris ssp. caudatus	G													
Orange arnica	Arnica fulgens	O													
Copper mallow	Sphaeralcea coccinea	O													
Lanceleaf spring beauty	Claytonia rosea	PI													
Storksbill	Erodium cicutarium	PI													
Wax currant	Ribes cereum	PI													
Fremont geranium	Geranium caespitosum	PI													
Mountain mahogany	Cercocarpus montanus	PI													
Sidebells penstemon	Penstemon secundiflorus	PI													
Scarlet gaura	Gaura coccinea	PI													
Tall gaura	Gaura parviflora	PI													
Say's rose	Rosa sayi	PI													
Wavyleaf thistle	Cirsium undulatum	PI													
Hairy four o'clock	Oxybaphus hirsutus	PI													
Fogfruit	Phyla cuneifolia	PI													
Blue mustard	Chorispora tenella	PU													
Lambert locoweed	Oxytropis lambertii	PU													
Showy verbena	Glandularia bipinnatifida	PU													
Vervain	Verbena bracteata	PU													
Purple three awn	Aristida purpurea	PU													
Chinese lantern	Quincula lobata	PU													
Purple prairie clover	Dalea purpurea	PU													
Gayfeather	Liatris punctata	PU													
Plains Cottonwood	Populus deltoides	R													
Salt & pepper	Lomatium orientale	W													
Sand lily	Leucocrinum montanum	W													
Whiplash erigonum	Erigeron colo-mexicanus	W-PI													
Mouse-eared chickweed	Cerastium strictum	W													
Wild plum	Prunus americana	W													
Chokecherry	Padus virginiana ssp. melanocarpa	W													
Death camas	Toxicoscordion venenosum	W													
Easter daisy	Townsendia exscapa	W													
White onion	Allium textile	W													
Scorpionweed	Phacelia heterophylla	W													
Bindweed	Convolvulus arvensis	W-PI													

NORTHERN COLORADO CHAPTER

Contact Denise Culver (970-491-2998 or dculver@lamar.colostate.edu) for more information.

October 3: Celastraceae and Friends from Madagascar. Dr. Mark Simmons, Curator.

Mark will present a general-interest (i.e., little scientific content) 50-minute presentation on his two-month plant collecting trip to Madagascar in December 2006 - January 2007. The talk is divided into eight parts: geological history of Madagascar, human history of Madagascar, Madagascar today, overview of flora and fauna, the capital - Antananarivo, collecting overview, vegetation in regions visited, and conclusions. For those who would like to stay after the question session, Mark will give a quick tour of just what it means to be stuck in the mud in Madagascar during the rainy season.

Nov 7: Fens and Fen Plants of the Rocky Mountains. Joanna Lemly, Wetland Ecologist, Colorado Natural Heritage Program Colorado State University.

See description under Boulder Chapter.

METRO-DENVER CHAPTER

Megan Bowes and Vickey Trammell have agreed to be co-presidents of the Denver Chapter. Megan will be our contact with the state organization and Vickey will preside over the meetings and take care of things at the local end. Megan works for Boulder Open space and is CONPS chairperson for Education and Outreach. Vickey is retired from Arapahoe Community College biology department (but is still teaching). She is a long time volunteer naturalist at Roxborough State Park and is a forensic botanist. Both Vickey and Megan are lining up speakers for

the year. The meetings will be held on Tuesdays at 7pm. Contact Vickey Trammell at jrtrambo@aol.com or 303-795-5843 for more information.

September 25: Dan Johnson, Horticulturist at Denver Botanic Gardens will lead the group through the Gardens to visit the areas where native plants grow. Meet in the Waring House.

October 30: Pam Irwin, author of the *Colorado's Best Wildflower Hikes* series will give us an inside look at what went into the creation of such a wonderful series. Waring House.

- December 11** TBA, Gates Hall, DBG.
- January 22** Topic and location TBA
- February 26** Topic and location TBA
- March 25** Topic and location TBA
- April 22** Topic and location TBA
- May 27** Topic and location TBA

PLATEAU CHAPTER

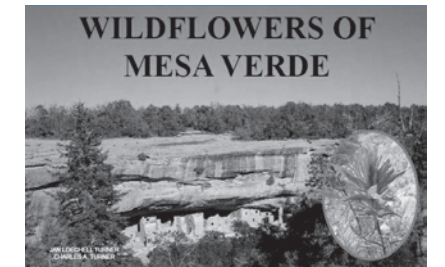
Contact Jeanne Wenger (970-256-9227 or stweandjaw@acsol.com) or see our website for information on chapter activities.

SOUTHWEST CHAPTER

Contact Al Schneider (970-882-4647 or webmaster@conps.org) or see our website for information on chapter activities.

Celastrus scandens
USDA-NRCS PLANTS Database / Britton, N.L., and A. Brown. 1913. Illustrated flora of the northern states and Canada. Vol. 2: 493.

Book Announcement



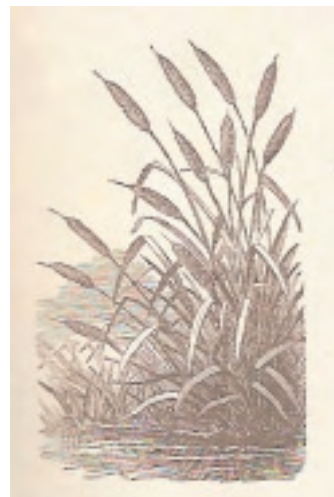
Wildflowers of Mesa Verde by CoNPS members Jan Loechell Turner and Charles Turner was published in July. Book Two of the Rabbitbrush Wildflower Series, it is a full color guide to some of the most common plants found along the roads and trails of Mesa Verde National Park. A close up and distant photo of each plant allow for easy identification. Descriptive, ecological, and ethnobotanical information is included. Each page has a place to enter the date and location where the plant was seen, and the sturdy spiral binding enables the user to fold the book flat to write notes. The book is available through CoNPS or directly from Rabbitbrush Publishing (www.rabbitbrushpublishing.com). In the spring of 2008, Book Three of the series, *Wildflowers of Red Rocks Park*, will be published.



by Jan Loechell Turner

Botany in a Day: The Patterns Method of Plant Identification by Thomas J. Elpel Hops Press, 5th ed., 2006. \$25.

Founder of the Hollowtop Outdoor Primitive School and the 3Rivers Park organization, author Thomas Elpel has produced a book designed to accelerate the mastery of plant identification and herbology. Elpel uses the patterns method, highlighting key plant family features to enable the reader to more easily identify related plants. There are no color photos in this 8.5 x 11" book but, interestingly, it contains black and white illustrations that the author adopted from public domain sources published in the 1800s and early 1900s. Entries consist of a description of distinguishing characteristics, medicinal properties, and a number of genera in the family. These are accompanied by line drawings illustrating typical family members. Elpel has created a website (<http://www.wildflowers-and-weeds.com>) containing hundreds of color photos that supplement the book. *Botany in a Day* is a useful guide for anyone interested in becoming acquainted with the key features of plant families.



Wild about Wildflowers; Extreme Botany in Crested Butte, Wildflower Capital of Colorado by Katherine, Darrow, 2nd ed. Glendale, AZ: WildKat Publishing, 2006. 224 p. \$26.95 pb. First published by Heel and Toe publisher, Fort Collins, CO 1998.

In a recent issue of *Aquilegia* (Vol. 31, No. 1), the Colorado Book Award winner, *Wild at Heart* by Janis Huggins, was reviewed. This month let's go wild again with *Wild about Wildflowers*, another outstanding book. Both books concentrate on specific areas, Huggins' on the Snowmass area and Darrow's on Crested Butte. They are similar in format, though Huggins' book covers both plants and wildlife, whereas Darrow's book focuses on wildflowers. Both have keys to families, a color photo album of flowers, and use the scientific names from Hartman and Nelson's *Checklist of the Vascular Plants of Colorado* (2001) with those from Weber & Wittman's *Colorado Flora: Western Slope* (2001) noted in parentheses, when different. They also contain boxes with fascinating ecological and natural history notes. Examples of side box topics covered by Darrow are albino wildflowers, pollinators, nutcrackers, and circumpolar distribution.

Wild about Wildflowers begins with background information about Crested Butte, which includes geography, geology, climate, plant communities, and a section on plants and the law. The book ends with a dozen wildflower trails, a color guide to flowers (thumbnails arranged by color and family), references, family key, and index. The main part of the book is comprised of beautiful color photos of the wildflowers, grasses, shrubs, and trees of Crested Butte arranged alphabetically by the scientific



name of the family. Entries for the plants consist of the common and scientific names plus descriptive, ecological, and ethnobotanical information. Non-native species are indicated. The book is home to quotations from a variety of authors ranging from John Muir to Kahlil Gibran. The format and accessible style of the book are very pleasing.

Bring this book along when you attend the Crested Butte Wildflower Festival (<http://www.shopcrestedbutte.com/wildflower>) next July. If you get bored, you can flip the pages in the back to create a moving cartoon of a flower being pollinated and going to seed.

Katherine Darrow has an M.S. in botany from CSU and has worked as environmental educator and a botanist. A number of photographers contributed their work to the book, which includes almost twice as many photos as the first edition.

Jan Loechell Turner works at Regis University and is the CONPS Research Grants Committee Chair. Jan is also our source for great book reviews.

Wildflowers of Rabbit Mountain Eagle Wind Trail, Boulder County Open Space

by Ann Henson

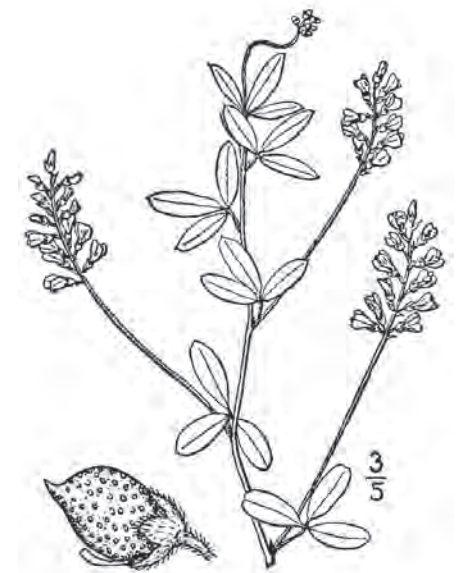
As soon as the soil warms in spring, flowers begin to appear on Rabbit Mountain. The "mountain" is the first hogback west from the prairie located near Lyons, CO. It has a mix of prairie, foothills and montane plants. All kinds of flowers come and go during the season. Only the frost of fall stops the show.

In a five year survey from 1999 to 2004, a total of 186 species were observed with 128 seen most years. Fifty one species are seen only occasionally, or have been seen only once and so are not listed (data is available on request). During these years, rainfall in each year (7-14") was below the previous 10 year average of 15.5". In

spite of this, the most common species grew and bloomed. Their numbers and height may have been less. But, our native flora has evolved in drought as well as better times. So, the wildflowers of Rabbit Mountain continue to bring us joy.

The most common flowering plants on Rabbit Mountain are listed here grouped by color. Within each color, blooms are listed in approximate chronological order.

This project was completed by Ann Henson, 926 Yucca Ct, Longmont CO 80501.



Psoralea tenuiflora
USDA-NRCS PLANTS Database / Britton, N.L., and A. Brown. 1913. Illustrated flora of the northern states and Canada. Vol. 2: 361

		*Color: B=Blue, G=Green, O=Orange, PI=Pink, PU=Purple		** Primary bloom time											
		R=Red, W=White, Y=Yellow		Occasional bloom time		Blooming									
Common Name	Scientific Name	Flower Color	Early Apr	Mid Apr	Early May	Mid May	Early June	Mid June	Early July	Mid July	Early Aug	Mid Aug	Early Sept	Mid Sept	
Chiming bells	Mertensia lanceolata	B													
Blue flax	Adenolinum lewisii	B													
Common stickseed	Lappula redowskii	B													
Skullcap	Scutellaria brittonii	B													
Bluemist penstemon	Penstemon virens	B													
Western spiderwort	Tradescantia occidentalis	B													
Scurf pea	Psoralidium tenuiflorum	B													
Common harebell	Campanula rotundifolia	B													
Sandberg bluegrass	Poa secunda	G													
Cheatgrass	Anisantha tectorum	G													
Rocky mountain bluegrass	Poa agassizensis	G													
Smooth brome	Bromopsis inermis	G													
Annual spurge	Tithymalus spathulatus	G													
Junegrass	Koeleria macrantha	G													
Japanese brome	Bromus japonicus	G													
Orchardgrass	Dactylis glomerata	G													
Needle and thread grass	Hesperostipa comata	G													

"Rabbit Mountain" continues on page 10