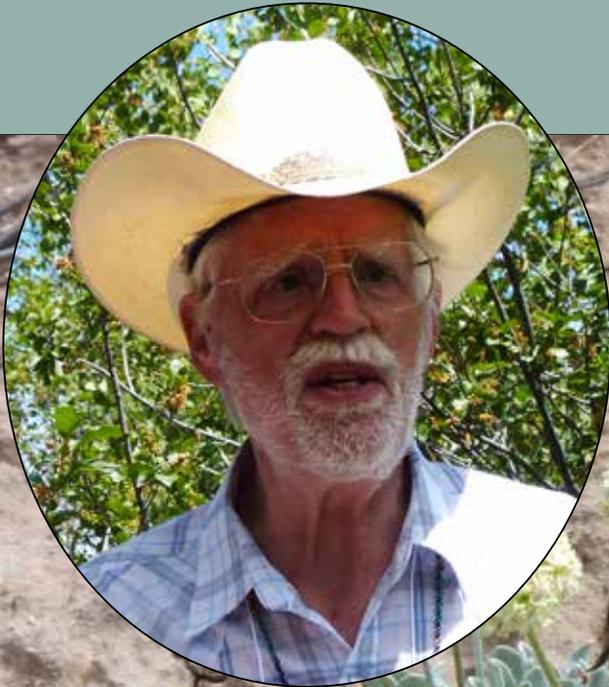


Aquilegia

Newsletter of the Colorado Native Plant Society



Farewell to Jim Reveal

Field Trip Issue - Over 60 field trips!

Volume 39 No. 1 Spring 2015

Aquilegia: Newsletter of the Colorado Native Plant Society

Dedicated to furthering the knowledge, appreciation, and conservation of native plants and habitats of Colorado through education, stewardship, and advocacy

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Eriogonum bicolor
Photo © Loraine Yeatts.



Jim Reveal 2011, Oregon © Loraine Yeatts

This issue is filled with so many field trips, events, and news that the articles and columns originally scheduled for this issue will be printed in the Summer 2015 issue of *Aquilegia*. The exception is Conservation Corner because of the time-sensitive nature of the column. The chapters have outdone themselves with over 60 field trips this year! A number of the field trips offered by the Boulder, Metro Denver, and Northern Chapter take place in the high country.

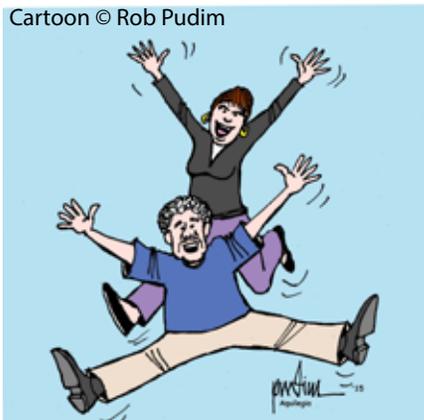


Jim Reveal 2011 CA © Loraine Yeatts

The one scheduled article that we are retaining in this issue is the tribute to Jim Reveal by his friend, Noel Holmgren. The botanical community is greatly saddened by the death of botanist Jim Reveal. Thank you to Noel Holmgren and the *Nevada Native Plant Society Newsletter* for granting their permission to reprint Holmgren's tribute to Reveal. Thanks also to Steve Popovich for contacting the Holmgrens and the *NNPS Newsletter* about reprinting the article and Loraine Yeatts for her photos of Reveal.

And last but not least, thank you to Rob Pudim for his wonderful cartoons. We are not aware of any other native plant society publication containing cartoons by a professional cartoonist. Rob's donation of his time and talent makes *Aquilegia* unique.

Cartoon © Rob Pudim



Something Exciting has Happened! See page 17!

Why is Jennifer Ackerfield excited?



Why is Charlie Turner excited?



Cover Photos: Jim Reveal at 2014 Eriogonum Society Meeting in Idaho © Loraine Yeatts
Cover photo of *Eriogonum ovalifolium* ©Al Schneider, www.swcoloradowildflowers.com

James Lauritz Reveal (1941-2015)

A tribute to my field companion, colleague, and friend

by Noel H. Holmgren

This article first appeared in the Nevada Native Plant Society Newsletter (vol. 41, no. 1, Jan/Feb 2015, pp. 3-7) and is printed with permission from the Nevada Native Plant Society and Noel Holmgren.

Jim was born 29 March 1941 in the Washoe County Hospital near Reno, Nevada, the first of two children to Jack Liburn Reveal (1912-1988) and Arlene Hadfield Reveal (1916-2005). Prior to Jim's birth, Jack was working summers in the Elko County range survey with my father, Arthur Holmgren, while both were students at Utah State Agricultural College (now Utah State University). By 1941 Jack had graduated, and the Reveals were living in Yerrington, Nevada. Soon after Jim was born, they moved to California where Jack, as part of the war effort, worked in the management of tree harvest in the coastal redwood forests.

Jim grew up in California. He attended kindergarten and first grade in Dunsmuir, then, in 1948, the family moved to the small Sierra Nevada resort town of Pinecrest, where his father served as a district ranger on the Stanislaus National Forest. While living in Pinecrest, Jim completed his schooling from grades two through twelve. His second and third grades were in a two-room school house in Long Barn, a ten-mile ride from home. In 1950, a one-room school house was established in Pinecrest, from which he and one other student graduated in 1955. From Pinecrest he rode the bus 30 miles to a high school in Sonora.

In 1951, at the age of ten, he began working summers for a high Sierra packer, working around horses and guiding pack trips into the Emigrant Wilderness Area of the high Sierra Nevada of Tuolumne County, developing skills that have served him well on several occasions later in life. These early years in Jim's life are possibly fairly accurately reflected in the fictitious character of Jerrit Trover in the novel by Jim and his childhood friend, Joanne Knowles, whose nom de plume is Jo DeEds (DeEds & Reveal, 2013).

After graduating from high school in 1959 and a summer working on the Toiyabe National Forest, he entered Utah State University, majoring in forestry, and in Jim's own words:

I arrived in Logan in the fall of 1959, majoring in forestry; my mother drove me there from California and took me around to meet all of her old professors. My father drove me to Logan in the fall of 1960, and one of his stops was the herbarium atop the botany building where we visited Art Holmgren; I was scheduled to take his plant taxonomy class in the spring of 1961 so meeting the professor was a nice touch. I listened to tales of the old days and looked around the fourth floor seeing all the tall cases filled with

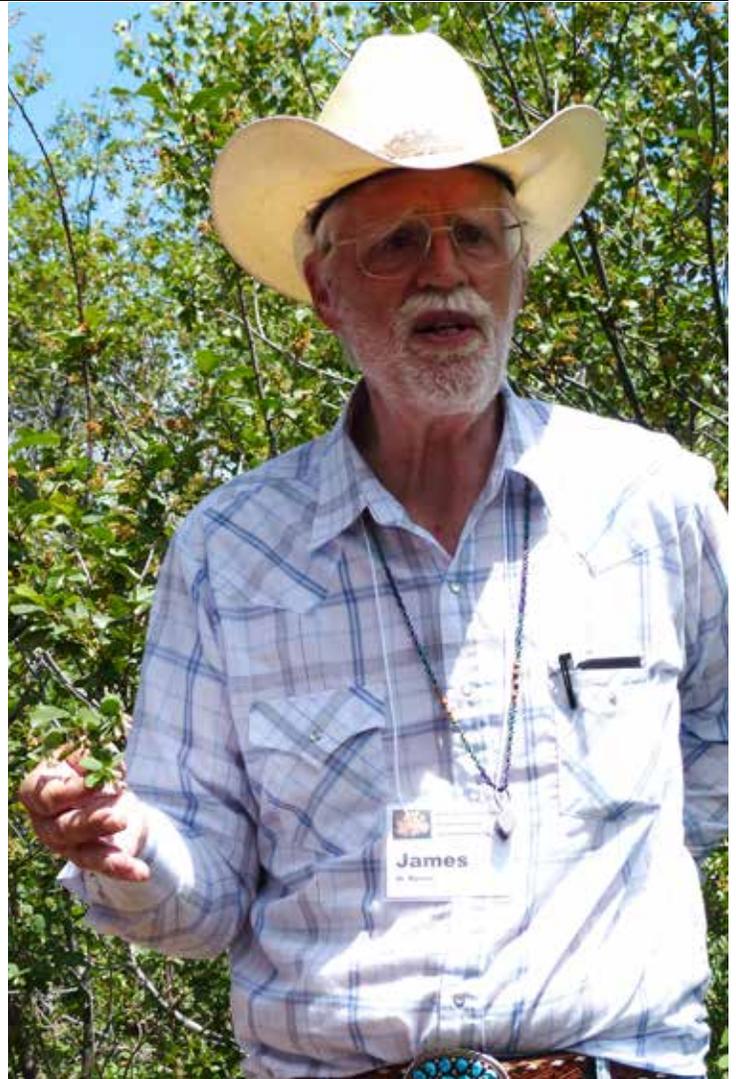


Photo: Jim Reveal 2014 Eriogonum Society Mtg. in Idaho © Loraine Yeatts

specimens. I had collected plants for my high school advanced biology class, and in anticipation of taking taxonomy I had spent the summer of 1960 collecting on the east side of the Sierra Nevada.

*I was in Art's taxonomy course that spring, and about halfway through his class, and under the intense prodding of Arthur Cronquist who was in the West collecting plants for the Intermountain Flora project, I changed majors and was now a botany student and Art Holmgren's newest protégé. . . . In September of 1961 Noel and I were in the field gathering plants in Dinosaur National Park for his dad. Later, in late September, we were sent to southern Utah to search for *Asclepias tuberosa* so that Robert Woodson of the Missouri Botanical Garden could drive West and gather specific populations without having to actually search them out.*



Jim (with white cowboy hat) leading a field trip for the 2011 Eriogonum Society meeting in California Photo © Loraine Yeatts

Thinking back on the events of early 1964, I do not now remember when I learned that Noel and I would be collecting plants for the Intermountain Flora project. (Reveal, 2013)

I also don't remember the details that led up to this pairing, except for the fact that Dr. Cronquist and my father made the arrangements for Jim and me to use of the Intermountain Herbarium pickup and plant collecting equipment, and Cronquist had the funds on his *Intermountain Flora* NSF grant to pay mileage and \$7.00 per diem for each of us. We were thrilled.

In June of 1964, as soon as school was out, Jim and I loaded the truck and headed out for an adventurous summer of field work, not realizing then that we would have those same opportunities for the following two summers as well.

The first two summers, Jim was a masters student at Utah State, and the third season he had moved to Brigham Young University for his doctorate. That third season (1966), we were allowed to stray beyond the region boundaries to collect *Eriogonum* and *Castilleja* for our thesis studies.

The three years are described in more detail by Jim in *Memoirs of the New York Botanical Garden* (Reveal, 2013).

I was the designated leader of the expeditions, so the collection numbers were mine. I did all the driving, but we both had equal say in where we were to collect. It turned out to be the best division of labor, taking advantage of Jim's uncanny ability to spot interesting plants at highway speeds and my ability to negotiate the slower, but sometimes tricky, unmaintained, back roads.

We gathered 2,164 collections during the three years, 1,031 of them from Nevada. Among the 891 collections made in 1964, four from Nevada became types for names new to science. The numbers in parentheses are my collection numbers: two

buckwheats, *Eriogonum nutans* var. *glabratum* Reveal (1037) from west of Deeth and *E. holmgrenii* Reveal (1576) from the ridge above Johnson Lake in the Snake Range, *Geranium toquimense* N. H. & A. H. Holmgren (1518) from a cirque just below Jefferson Peak in the Toquimas, and *Cirsium eatonii* var. *viperinum* D. J. Keil (1588), not far from the Holmgren buckwheat locality in the Snake Range.

In 1965, our collections included the types for *Primula nevadensis* N. H. Holmgren (2216) from Mount Washington in the Snake Range and *P. capillaris* N. H. & A. H. Holmgren (2154) from the Ruby Mountains.

In 1966, most of our collections were from out of state, but in Nevada our collections included types for *Castilleja salsuginosa* N. H. Holmgren (2764) from Monte Neva Hot Springs, *C. dissitiflora* N. H. Holmgren (2772) from the White Pine Range, *Eriogonum heermannii* var. *clokeyi* Reveal (2990) from the Spring Mountains, *Draba oreibata* var. *serpentina* Tiehm & P. K. Holmgren (2761) from the Snake Range, and *Potentilla holmgrenii* D. F. Murray & Elven (2818) from the Snake Range.

In 1967, while I remained in New York working on my dissertation, Jim spent eight days in early June collecting in southeastern Utah with Johnnie Gentry (Cronquist's new graduate student) and Gerrit Davidse (a master's student of my father). Beyond that, Jim was taking short trips collecting eriogonums, often assisted by his first wife (Caroline Grace Powell Reveal). The summer concluded with a September trip into New Mexico and Texas with Gerrit Davidse.

Most of Jim's summer of 1968 was spent collecting on the Nevada Test Site for Dr. Janice C. Beatley (1919-1987), an ecologist working on the flora of that area. For eleven days in August 1968, I joined him, collecting in and around the Test Site. This time he did the driving and was owner of the collection numbers.

Eight of his collections became types, six of which he described himself: *Eriogonum umbellatum* var. *vernum* Reveal, near Yucca

Flat (Reveal 1139); *Townsendia jonesii* var. *tumulosa* Reveal, Las Vegas Valley (Reveal 1326); *Eriogonum cernuum* Reveal, Timber Mountain (Reveal 1501); *Machaeranthera ammophila* Reveal, Ash Meadows (Reveal & N. H. Holmgren 1882); *Grindelia fraxinopratis* Reveal, Ash Meadows (Reveal & N. H. Holmgren 1887), and *Eriogonum microthecum* var. *lapidicola* Reveal, South Belted Range (Reveal & N. H. Holmgren 1926); and two by other authors: *Astragalus beatleyae* Barneby, South Gold Flat (Reveal 1071); *Penstemon pahutensis* N. H. Holmgren, on Rainier Mesa (Reveal 1206).

Jim finished all the requirements for a Ph.D. in the spring of 1969. His thesis was a revision of the genus *Eriogonum*, consisting of 546 double-spaced pages, which represented a condensed version of an 1800-page manuscript. Dr. Reveal had a job waiting for him as Assistant Professor at the University of Maryland, but before heading east he made a quick trip to southern Nye County to collect the type of *Eriogonum inflatum* var. *contiguum* Reveal (Reveal & M. E. Matthews 2157).

Promotions during his career at UM included Associate Professor in 1974 and full Professor in 1981. During his first few years, he was able to concentrate his research on the first two volumes of *Intermountain Flora* and on his beloved *Eriogonum*. During a sabbatical in 1975-76, he spent six months working with his former major professor, Stanley L. Welsh (b. 1928), on the Utah Cruciferae (Brassicaceae).

Fieldwork during his University of Maryland years included *Eriogonum* hunting trips throughout the western United States and Mexico. Trips further afield include Panama (1979), the People's Republic of China (1981), and Nicaragua (1994), and, in retirement, a brief respite from *Eriogonum* collecting in the Eurasian country of Georgia (2005), where there are no eriogonums.

During the 1980s and early 1990s, his research focus changed to studying the colonial flora of Maryland (1680-1725), which involved travel to England, including a year and a half (1990-1992) residence in London as Visiting Research Fellow at the Natural History Museum, studying specimens of American plants named by Carl Linnaeus.

During the 1990s, he was doing research and writing about history of botanical explorations in the west and on validating supra-generic nomenclature. The latter work earned him the name "The Great Validator."

He retired in 1999 from the University of Maryland with the title Professor Emeritus and moved to a country home near Montrose, Colorado, where he and second wife, C. Rose Broome (b. 1939), had a couple horses and a truck that would pull a horse trailer and sometimes a large fifth-wheel trailer. The two of them traveled widely throughout the west collecting *Eriogonum* species and camping in style with the comforts of their fifth-wheel trailer. Back in the 1960s, Jim and I would dream about such comforts when for two summers we camped with a rickety, somewhat reinforced, plywood box, built to resemble a camper, anchored to the bed of the Intermountain

Herbarium pickup truck. The trailer came in handy for one of his projects, which was following the path of the Lewis and Clark Expedition and collecting the plants observed by them. This resulted in the book *Lewis and Clark's Green World: The Expedition and Its Plants*, co-authored with Earle A. Scott (Scott & Reveal, 2003).

Jim was a Research Associate at the Philadelphia Academy of Natural Science from 2001 to 2006, during which time he studied the collections of the Lewis and Clark expedition. Since 2003 he has been an Honorary Curator at the New York Botanical Garden, where he spent time doing library research and working on the Eriogonoideae for *Flora of North America* and Polygonaceae for *Intermountain Flora*.

In 2007, he and Rose opened yet another chapter in their lives, selling the Colorado farm and moving to Ithaca, New York, where he was an Adjunct Professor in Cornell University's Department of Plant Sciences and where he continued to work on *Eriogonum* and various other genera. He was a popular speaker. His CV lists more than 80 invited talks on a host of subjects in addition to *Eriogonum*, including biogeography, ecology, the Endangered Species Act, pre-Linnaean collectors in North America, and botany of the Lewis and Clark expedition.

One of the many remarkable things about Jim is his voluminous list of publications, which exceeds 530 titles of scientific papers and books. Even before completing his Doctoral degree, he had 36 publications in print or in press, the first ten of them in print before he had finished his Masters degree.

Awards received include: Washington Academy of Sciences Outstanding Biologist for 1972 and again for 1978; the Edger T. Wherry Award from the North American Rock Garden Society in 2009; the Merritt Lyndon Fernald Award by the New England Botanical Club in 2009; the Outstanding Academic Book Award from the Association of College and Research Libraries for his 1992 book *Gentle Conquest: The Botanical Discovery of North America with Illustrations from the Library of Congress* (Reveal 1992).

Jim was the mentor, leader, and inspiration of the Eriogonum Society. He was still actively working on various research projects in his office at Cornell University only two days before his sudden and untimely death on 9 January 2015. He was taken far too young. Rest in peace, Jim. We miss you.

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FIELD TRIPS & OTHER CHAPTER EVENTS

BOULDER CHAPTER

Assessing post-flood riparian conditions through Boulder County's small grant program (Chapter Program)

Speakers: Laura Backus and Susan Sherrod

April 9, Thurs. 6:30 p.m.

Last chapter meeting of the season. West Boulder Senior Center, 909 Arapahoe Ave., Boulder, CO 80303 at 6:30 p.m

Join our spring community service project to Purge Your Spurge on Saturday, May 2!

It's an annual tradition, and there's no weed more satisfying to pull than the spurge! Join CoNPS members, Wildlands Restoration Volunteers and other community members and help us purge the spurge from numerous locations in the Boulder foothills. Myrtle spurge (*Tithymalus myrsinites* syn. *Euphorbia myrsinites*) is a "List A" noxious weed that has escaped ornamental gardens and is now designated for statewide eradication by the Colorado Department of Agriculture.

Sign up here: <https://www.wlrv.net/index.php?section=events&action=list&type=projects> Scroll down to "Myrtle Spurge 2 – Olde Stage Road (BoCo)" on May 2. Don't forget to select CoNPS as your group!

FIELD TRIPS

For more information or to register: Megan Bowes, bowesm@bouldercolorado.gov or call 303-561-4883.

Early Spring Hike in Northern Jefferson County

April 29, Wed. 5:30 pm to dusk

Leader: John Vickery

Come join us on the outwash mesa slopes of Patridge Open Space in Arvada to find common spring flowers. Prairie dog colonies, shrub dominated north facing slopes, a creek and tributaries, and mesic prairie areas add to the variety. Let's see if we can identify two dozen plants in bloom in this relatively little known open space. Entry to the area is via a paved bike trail, but expect to be off-trail much of the time.

Meet: This event will take place at the eastern end of the park, near the hamlet of Leyden. The park is along the south side of W 82nd Ave between state highway 93 and county road 72. However, we will park near the trailhead along a wide street in a subdivision on the mesa top to the south side of the park. Access to the subdivision is from CR 72 to the east or from CR 172 to the south. From 72, go W on 72nd Ave to Quaker St. Go north (right) to 77th Dr., then go west (L) four blocks to a traffic circle, continuing west on 78th Dr. Go to the next traffic circle with 77th Pl and park in that vicinity. The bike trail entrance is to the N just off the traffic circle.

For more information, directions or to register: Megan Bowes, bowesm@bouldercolorado.gov or call 303-561-4883.

John Vickery is a Native Plant Master Instructor and member of the CoNPS Education & Outreach Committee.

Early Spring Gems of Six Mile Fold

May 14, Thurs. 5:30 pm to dusk

Leader: Carrie Cimo

Join Carrie Cimo, BCPOS Plant Ecologist/Volunteer Coordinator, for our annual May hike! The Boulder chapter will kick off the summer field trip season with a trip to explore a landscape created by folding and faulting as the Rocky Mountains uplifted 65 million years ago. You will see fossilized evidence of the Cretaceous seas that once inundated this area, as well as some of the earliest blooming wildflowers in Boulder County including the Front Range endemic Bell's twinpod (*Physaria bellii*). Bring your dinner and/or snacks to share with the group.

Meet: Boulder County Parks and Open Space Six Mile Fold Property – located ~4.5 miles north of Boulder near the junction of US 36/ Highway 7 and Neva Rd; please park along the Neva frontage road.

For more information, directions or to register: Megan Bowes, bowesm@bouldercolorado.gov or call 303-561-4883. Megan also has copies of the BCPOS wildflower checklist and geology diagrams available upon request.

Carrie Cimo is a member of the Colorado Native Plant Society and a Plant Ecologist and Volunteer Coordinator with Boulder County Parks and Open Space

The Drunken Botanists—Hike and Dinner

June 11, Thurs. 5:30 pm to dusk (followed by dinner at a nearby restaurant)

Leader: Megan Bowes

In her recently published book *The Drunken Botanist*, Amy Stewart explores the dizzying array of herbs, flowers, trees, fruits, and fungi that humans have, through ingenuity, inspiration, and sheer desperation, contrived to transform into alcohol. Megan Bowes will take us on a hike to find the botanical relatives of these fermented favorites. Afterwards, we'll convene at a nearby eatery.

Meet: OSMP South Mesa Trailhead—1.7 miles west of Highway 93 on Eldorado Springs Drive (Highway 170). Bring water and your favorite key or field guide.

For more information or to register: Megan Bowes, bowesm@bouldercolorado.gov or call 303-561-4883.

Megan Bowes is a member and volunteer of the Colorado Native Plant Society. She is a plant ecologist with Boulder's Open Space and Mountain Parks department.

Willow Identification

June 20, Sat. OR June 21, Sun. 9am – 5pm

Leader: Gwen Kittel

Come learn to identify up to twelve of Colorado's most common willows in Golden Gate Canyon State Park. We'll stop at 3 locations within the park: 2 road-side streams and a one-mile hike into a wetland. Key to willows, park map will be provided.

Meet: Golden Gate Canyon State Park. Park entrance fee or current pass is required and the responsibility of the participants. Carpool location: please meet at the North Table Mountain Park Trailhead located north of Golden on State Highway 93, just north of Pine Ridge Road at 8:15 AM. Bring plenty of water, bag lunch, hat, sunscreen, rain gear, and waterproof shoes.

To register: www.metrodenverconps.eventbrite.com; maximum number of participants- 15 per day.

Gwen Kittel has over 20 years of experience working with willows, and has written a vegetative key to the willows of Colorado.

Caribou Ranch—Conifers and Colorful Wildflowers Galore

July 7, Tues. 5:30 pm to twilight

Leader: Linda Boley

Join Linda Boley for an evening posey mosey to see amazing wildflower and conifer diversity and possibly a moose at one of Boulder County Parks and Open Space's montane parcels. Bring snacks, water, and your favorite key or field guide.

Meet: Caribou Ranch Open Space, located 1.5 miles north of the Town of Nederland off of the Peak to Peak Highway. Carpool will leave the SW corner of Justice Center parking lot (6th and Canyon) at 5 pm sharp.

For more information or to register: Megan Bowes, bowesm@bouldercolorado.gov or call 303-561-4883.

Linda Boley is a CoNPS member and Volunteer Naturalist with Boulder County Parks and Open Space and has led a number of public hikes at Caribou Ranch.

Rocky Mountain National Park— Cub Lake/The Pool Loop

July 10, Fri. 8:15 am to mid-afternoon

Leader: Marlene Borneman

Variety defines this wildflower loop hike with Marlene Borneman. Throughout early mid-summer blooming season many species are represented. In December 2012 a wildfire spread through the meadows and forest in Cub Canyon. Floras now thrive in the revitalized soil and open canopies. Bonuses are possibilities of lilies, including yellow pond lilies, several orchids and moose as we hike through meadows, aspen forest, ponds and creek drainages. The trail is easy-moderate, mostly level with a few uphill gains to Cub Lake, then downhill to the Pool and then an easy trail along the Big Thompson River to finish. The Pool is a natural feature of deep carved granite bowls swirling with turbulent water in the fast moving Big Thompson

River, an excellent setting for lunch. Round trip distance: 6.2 miles; elevation gain: 540 feet; rating: moderate.

Meet: Beaver Meadows entrance station (meet at west end) to carpool to trailhead; be prepared to pay/share entrance fee. Those wishing to carpool from Boulder should plan to leave the north end of the covered parking garage next to the Twenty-Ninth St's Macy's department store south entrance (same parking level as the theater parking but opposite end of the garage) at 7 am sharp.

For more information or to register: Marlene Borneman, 970-218-4533.

Marlene is an avid mountaineer and the co-author of the Colorado Mountain Club's "Rocky Mountain Wildflowers" field guide.

Rocky Mountain Alpine Plants – Ute Trail

July 18, Sat. 8:15 am to early afternoon (time will depend partly on timing of afternoon thunderstorms)

Leaders: Teal Potter and Amy Churchill

Join Teal Potter and Amy Churchill on a botany and ecology hike along the scenic Ute Trail off Trail Ridge Road in Rocky Mountain National Park. If you like botanizing in the alpine and want to learn about the different alpine plant communities, plant strategies for living in the alpine, and the threats to biodiversity in this ecosystem, please join us for this mellow morning hike. These gals will happily adapt the discussion to address your alpine interests. The Ute Trail is a moderately easy 4.2 miles.

Meet: Outside the Alpine Visitor Center, be prepared to pay/share the park entrance fee More trail info: <http://www.rocky-mountainhikingtrails.com/ute-trail.htm>.

For more information or to register: Teal Potter, 406-253-7351.

Teal Potter and Amy Churchill are CoNPS members and PhD students at the University of Colorado, studying alpine plant community ecology.

Boulder Open Space Mountain Parks South Boulder Creek Floodplain

Aug. 27, Thurs. 5:30 pm until dusk

Leader: Lynn Riedel

OSMP Plant Ecologist Lynn Riedel and Colorado Department of Transportation biologists will take us on a trip to the newly purchased Granite property to explore the recent wetland creation.

Meet: East Boulder Recreational Center parking lot (5660 Sioux Dr.), NE corner.

For more information or to register: Megan Bowes, bowesm@bouldercolorado.gov or call 303-561-4883

GORE RANGE CHAPTER

The Gore Range Chapter is planning 3 CSU Cooperative Extension Eagle County Native Plant Master classes:

Native Plant Master classes:

Montane Plants Mondays, June 15, 22, 29 - Vail Nature Center

Alpine Plants - Tuesdays - July 7, 14, 21 - Betty Ford Alpine Gardens and Loveland Pass

Trees and Shrubs - Fridays - August 7, 14, 21 - No Name Creek, Glenwood Canyon

The Native Plant Master classes are from 9 a.m. - 1 p.m. Please contact Jeff Pieffer to register at jeff.pieffer@eaglecounty.us

Hoosier Ridge West Field Trip

Thursday, July 30, 9 am - 4:30 pm

Leaders: Klaus and Jane Hendrix



No Name Creek © Nanette Kuich

This is a moderate hike, starting in the subalpine forest of Hoosier Pass. The hike reaches the alpine at an elevation of 12,900'. Total distance is about 3 miles. The species that we are likely to encounter may be found at Klaus and Jane's website: <http://www.picturetrail.com/hendrix>.

Trip will be limited to 15 participants.

To sign up or request further information, please contact Nanette Kuich at kix@vail.net.

METRO-DENVER CHAPTER

Phacelia (Chapter Program)

Luke Tembrock

May 5, Tues. 7 pm

Englewood Public Library, 1000 Englewood Parkway, Perrin Rm

Hikes

Register for Denver Chapter Hikes online:

www.metrodenverconps.eventbrite.com to receive updates in case hike is cancelled or reschedule.

Staunton State Park

April 25, Sat. 9 am to noon

Leader: Lenore Mitchell

Join us for monthly 2 mile nearly level hikes on wide trails to observe plants as spring progresses into high summer. Initial blooms such as *Pulsatilla patens* (Pasque flower) give way to delights such as *Dodecatheon pulchellum* (shooting stars) and various shrubs and trees. Additional dates: May 31st; June



Monarda at Staunton State Park Photo © Mo Ewing

28th and Aug 2nd The hike is limited to 15 people (no drop ins). Organized by Lenore Mitchell, Native Plant Master Trainer for 10 yrs who lived near Staunton for years before it was a park.

MEET: 9 a.m. each date; meet at the main parking lot just after the entrance (annual Park Pass or daily \$7/car fee). Follow US 285 west of Denver approx 20 miles from junction 285 & C470; exit ramp at Shaeffer's Crossing to right-hand turn; follow Elk Creek Rd approx 2 miles to well-marked State Park Entrance. Look for silver Volvo XC70 station wagon. BRING: weather-appropriate clothing; sunscreen; water; snacks; lunch optional. Weber and/or Wingate books, hand lens and camera optional. Plant lists will be provided.

William F. Hayden Park on Green Mountain

May 15, Fri. 4:30 – 5:30 pm and 5:30 – 7:30 pm

Leader: Judy King

4:30 – 5:30 pm we will hike the trail close to the parking lot and see interesting plants.

5:30 – 7:30 pm we will hike the Green Mountain Trail to the radio tower and return on the Hayden Trail. We should see Easter Daisies and other spring plants. Moderate hiking level.

Judy King lives near Green Mountain and regularly hikes this route and monitors flower bloom times. She is a Native Plant Master and regularly leads native plant hikes for the Colorado Mountain Club.

Meet at the Florida Parking Lot off of Alameda Avenue. BRING: weather-appropriate clothing; sunscreen; water; snacks. A plant book, hand lens, and camera are optional. Plant list will be provided.

Roxborough State Park

May 20, Wed. 8:30 am to noon

Leaders: Kathy Brown and Jannette Wesley

We'll hike along the South Rim Trail, and see a variety of wildflowers, great scenery, and wildlife.

Various herbivorous and woody plants, including some unusual varieties. If you don't know poison ivy, there's lots to see (and learn to avoid). Leisurely hike. Kathy Brown is a Native

Plant Master instructor. Jannette Wesley is a Native Plant Master and Co-President of the Colorado Native Plant Society, Metro Denver Chapter.

Meet at the visitors center. Park entrance fee is \$7 per car. Bring snacks and water.

From northeast Denver: follow Santa Fe Drive south, exit onto Titan Road and follow west, then curve south onto Roxborough Road. Remain on Roxborough past Safeway shopping center until it ends (do not follow into residential Roxborough Park gated area) turn right onto dirt road instead, then take first right turn into the Roxborough Fire Station, located just before the park entrance. Visitor Center is 2 miles farther on same road.

From southwest Denver: follow C470, exit onto CO 121 (Wadsworth) and follow to left hand turn onto Waterton Rd (instead of entrance to Lockheed Martin). Waterton Rd curves to the left and leads to traffic light by Roxborough Road (area with Safeway shopping center). Turn right at light and follow Roxborough to park entrance as stated above.

Staunton State Park

May 31, Sun. 9 am to noon

Leader: Lenore Mitchell

See description for April 25th date

Red Rocks Park

June 7, Sun. 8:30 am to noon

Leaders: Jan & Charlie Turner

The 1.3 mile Trading Post Trail loop at Red Rocks Park is a great place to hike and view native plants while also enjoying the beautiful rock formations that first attracted people to the area. At Red Rocks Park, the plains meet the foothills and an interesting variety of plants can be found along the trails. Plants we may encounter include *Lomatium orientale*, *Mertensia lanceolata*, *Delphinium geyeri*, *Physaria vitulifera*, *Physocarpus monogynus*, and *Asclepias viridifloras*. We will try to avoid unpleasant encounters with *Tragia ramosa*, a nasty little Euphorb that can turn your skin red and make it sting. Red Rocks Park is located near Morrison and is part of the Denver Mountain Park system and the site of numerous concerts.

Jan Loechell Turner is the editor of *Aquilegia: Newsletter of the Colorado Native Plant Society* and a member of the CoNPS Board. She is professor emerita at Regis University and a former Native Plant Master Trainer. Charlie Turner is the President of CoNPS and is an advisory scientist involved in environmental cleanup. Jan and Charlie are the authors/photographers of *Wildflowers of Red Rocks Park*. Meet at the Trading Post Parking Lot in Red Rocks Park at 8:15 am.

Willow Identification Field Trip, Golden Gate Canyon State Park

June 20, Sat. OR June 21 Sun. 8:15 am – 5 pm

Leader: Gwen Kittel

Come learn to identify up to twelve of Colorado's most common willows in Golden Gate Canyon State Park. We'll

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stop at 3 locations within the park: 2 road-side streams and a one-mile hike into a wetland. Key to willows, park map will be provided. Park entrance fee or current pass is required and the responsibility of the participants. Carpool location: please meet at the North Table Mountain Park Trailhead located north of Golden on State Highway 93, just north of Pine Ridge Road at 8:15 am.

Trip Leader: Gwen Kittel. Gwen has over 20 years' experience working with willows, and has written a vegetative key to the willows of Colorado. An all day trip, bring plenty of water, bag lunch, hat, sunscreen, rain gear, and waterproof shoes. Maximum number of Participants - 15 Per Day

Mount Goliath and Summit Lake

June 24, Wed. 7:30 am – 3 pm

Leader: Lenore Mitchell

Come join us for a delightful and relatively easy 1.5 mile downhill hike beginning near 12,000 ft to admire early alpine plants such as tiny blue *Eritrichum aretoides* (alpine forget-me-nots) and large yellow *Rydbergia grandiflora* (Old Man of the Mountain); then descend down into the Bristlecones and subalpine forest and on to the Nature Center (restrooms here).

MEET: 7:30 am at the parking lot to the east of the Echo Lake Lodge (follow I-70 west from Denver to Idaho Springs exit #240 onto Mt Evans Rd (Colorado 103), follow past Echo Lake to Lodge. Allow at least an hour from Denver. Look for silver Volvo XC 70. Early start necessary to avoid frequent afternoon thunderstorms. National Park Pass or daily fee (\$10/car) required. If you're late, proceed up Mt Evans Rd, look for us at the Nature Center or farther on at the higher Mt Goliath trail head parking lot. BRING: warm clothing including rain gear, sturdy shoes, sunscreen, water, snacks and lunch. Weber and/or Wingate books, hand lens, hiking pole and camera optional. Plant lists and area info provided.

LIMIT: 15 people. Organized by Lenore Mitchell, a Native Plant Master trainer for 10 yrs who has lead many groups on this trail. Kathy Brown will assist.

Golden Gate Canyon State Park

June 27, Sat. 8:30 am to noon

Leader: Judy King

Begin at the Nott Creek parking lot and hike a little used trail following the creek. See Leafy Blue Jacobs' Ladder and other interesting plants.



Photo by Erin Tripp

Meet at the North Golden Parking Garage at 8 am to carpool and share park entrance fee. Judy King is a Native Plant Master and leads flower walks for the Colorado Mountain Club. Additional information is available by contacting Judy King, 303-984-2987.

Staunton State Park

June 28, Sun. 9 am to noon

Leader: Lenore Mitchell

See description for April 25th date.

Alpine Superheroes, Rocky Mountain National Park, Forest Canyon Pass

July 2, Thurs. 9 am to 3 pm

Leader: Leanne Benton

This hike will look at the alpine wildflowers and ecology of Rocky Mountain National Park. These tiny floral gems are true superheroes with amazing adaptations and strategies for survival in a harsh climate! Our hike will begin at the Alpine Visitor Center and descend gradually through a variety of alpine habitats where we should see a great variety of flowers such as moss campion, alpine forget-me-not, alplily, and the alpine clovers as well as less common species such as alpine lousewort, snowlover, goldbloom saxifrage and whiplash saxifrage. Snow levels permitting, we will continue downward into the upper subalpine to a trailhead where we can drive back up to our starting point. If snowdrifts are still too deep, we will backtrack back up to the visitor center. Hike is approx 4 miles with either option. We will meet at 9:00 a.m. at the Alpine Visitor Center parking lot (approximately 25 miles west of Estes Park - allow 1 hour drive time), we will shuttle some cars down to the endpoint of the hike prior to starting our hike.

Leanne Benton is a recently retired park ranger-naturalist with the National Park Service. For 23 years she led wildflower walks and alpine ecology walks in Rocky Mountain National Park and served as a park botanist on archaeology projects and Ute tribal visits. Her passion is the alpine tundra and she continues to teach seminars and present programs for the Rocky Mountain Conservancy (formerly Rocky Mountain Nature Association) and CoNPS.

The hike is limited to 15 people. Bring 1-2 quarts of water, lunch, sunblock, sunglasses, layered clothing, and rain gear. We will be hiking at 12,000' and will need to watch for lightning. Carpool information will be shared with registered hiking participants.

Hoosier Ridge – East

July 9, Thurs. 9 am to 4 pm

Leaders: Jane & Klaus Hendrix

Take I-70 West to Exit 203 (Breckenridge/Frisco). Go south on Colo. Hwy. 9, through Breckenridge, to Hoosier Pass. Park in the large parking area on the west (right) side of the road. To avoid the possibility of a thunderstorm while we're above timberline, we will meet at 9 a.m. From the parking area, we'll cross Highway 9 and enter a subalpine forest of spruce and fir. Small meadows of alpine species will reveal themselves as we follow a dirt road to a foot path that straddles the Continental Divide, affording us with magnificent views of 14,265-foot Quandary Peak. Depending on the weather and the desires of the group, we may ascend to Unnamed Peak 12,814' to search for certain rare species. The return trip will be through a moist

drainage on the north side of the Continental Divide where we'll find spring-flowering species in late snowbeds just waking up and many wetland species.

Moderate. Some of the route will be cross-country, including small rock fields and grassy hummocks. Wear sturdy hiking boots. The maximum round trip distance is 3.2 miles with a maximum elevation gain of 1,275 feet. Bring rain gear, a windbreaker, warm clothing, lunch and water. Return to the parking area by 4 p.m.

Note: There is no restroom facility at Hoosier Pass. There is a public restroom at Breckenridge City Market (from Colo. Hwy. 9, bear right at the Park Avenue roundabout.)

Carpool from Morrison, meet 7am at the Woolly Mammoth parking lot at Lamppost LL: heading west on I-70, take Morrison Exit to the right, parking lot is on west (Left) side of road.

Jane will have a self-published wildflower guide specific to this area available for purchase at \$3. This is totally optional. Anyone who would like to tour Klaus & Jane's Mountain View Experimental Gardens after the hike is most welcome. Leaders: Klaus & Jane Hendrix, 970-453-4174, email: k-jhendrix@juno.com, websites: <http://www.picturetrail.com/hendrix>, <http://www.picturetrail.com/snowtrekker7>

Pulling for Colorado Event

July 11, Sat.– The Colorado Weed Management Association

<http://www.cwma.org/>

Lower McCullough Gulch Near Breckenridge

July 22, Wed. 9 am to 4:30 pm

Leaders: Jane & Klaus Hendrix

Located 6½ miles south of Breckenridge at 10,300 feet is the parking area for this wildflower paradise. Klaus & Jane found 130 blooming species on last year's scouting trip! The route trails through a small meadow replete with flowering species. It then enters a spruce-fir forest, revealing the shade-lovers in the understory. A short side trail leads down to McCullough Creek where riparian species thrive. Returning to the main trail, the route continues up a gentle grade to vast meadows of sunflowers, delphiniums and mariposa lilies. Maximum round-trip distance: 4 miles. Maximum elevation gain: 750 feet.

Bring lunch, warm clothing, rain gear, camera, notepad and guide books. Jane will have a self-published wildflower guide specific to this area available for purchase at \$4. However, there is no obligation to buy the booklet.

Meet at the far west end (near the trees) of the Breckenridge City Market parking lot at 9 a.m. There is a public restroom in the store. City Market is located at the north end of Breckenridge at North Park Avenue and Colo. Hwy. 9. There is a traffic roundabout at that intersection. We will plan to return to the trailhead by 4:30 p.m.

Carpool from Morrison, meet 7 am at the Woolly Mammoth parking lot, at Lamppost LL: heading west on I-70, take

Morrison Exit to the right, parking lot is on west (Left) side of road.

Anyone who would like to tour Klaus & Jane's Mountain View Experimental Gardens after the hike is most welcome. Leaders: Klaus & Jane Hendrix, 970-453-4174, email: k-jhendrix@juno.om, websites: <http://www.picturetrail.com/hendrix> , <http://www.picturetrail.com/snowtrekker7>

Register online: www.metrodenverconps.eventbrite.com to receive updates in case hike is cancelled or rescheduled:

Shelf Lake Area Field Trip with Optional Camp Out

July 24 – 26, 6 pm Fri. to 5 pm Sun.

Leader: Jeanne Willson

This trip is designed to let participants attend either or both day trips in the Geneva Basin and camp if they wish. Hike the beautiful Shelf Lake hike on Sunday up into a rich and wet alpine valley with great biodiversity including gorgeous, healthy bristlecone pines, several species of gentians, and thousands upon thousands of flowers including: larkspurs, bistort, and paintbrush. This will be my 6th trip to Shelf Lake in as many years; we will continue to expand the plant list.

Or, explore (but do not enter) the old mining structures or just wander in the Geneva Basin, taking your own time to look things up in Weber. But wait! Two great day trip options on one weekend, plus time to hang out ... what to do? Let's go camping! I have reserved 3 sites (to be shared as needed) in the Burning Bear campground. I will reserve more as the requests roll in, space permitting. Tent or small campers are appropriate. I will go up to Geneva Basin Friday morning. Given interest, we can go on a short hike such as Silver Dollar Lake on Friday. For Saturday/Sunday, people can choose to carpool to the fen (Saturday) or Shelf Lake (Sunday) as day trips, or come up and spend the weekend. Everyone should plan to be on their own for all meals or plan on your own to cook jointly. Campers are invited to bring either a dessert or appetizer to share. Would-be campers who need encouragement or who need to borrow a tent, a camp chair, or a camp stove, etc. are welcome, and are encouraged to ask camping questions before the trip. Note that the camping is at about 9800' and it can be wet and cold. I will bring 2 rain shelters, more as needed.

Carpooling will be arranged from the Mammoth parking lot at I-70 for those who want day trips.

The Shelf Lake portion will be run through Colorado Mountain Club for members, and guests will sign a CMC waiver. Other participants will sign a CoNPS waiver. Hikers should follow CMC guidelines for hiking preparedness. Shelf Lake is considered a "B-difficult" hike under CMC rules, which means it has substantial distance and/or elevation gain and requires reasonable fitness, good hiking boots, rain gear and warm clothes, food and water, personal first aid kit, map and GPS, etc. The elevation gain is roughly 2,000 feet depending on our route. Please call the trip leader if you have questions about hike preparedness. We hope that the weekend format encourages people from Boulder, Longmont, Colorado Springs, Pueblo and anywhere else to come together for some serious

botany or serious hanging out. Both day trips will have trip limits of 15 participants each, so please sign up soon on the Eventbrite website.

Jeanne Willson, PhD, leads many natural history hikes and loves botany, paleontology, canoeing, and playing guitar, ukulele, and fiddle.

Meeting Time: Campers should plan on meeting to share appetizers at 6 pm on Friday, July 25th. Saturday. The Sunday meeting time will be at 8:00 am at the campground entrance on Geneva Creek Road; Anyone wanting to carpool should meet with other hikers at 6:45am at the Mammoth lot at Lamppost LL.

Approximate Ending Time: 5:00 pm Sunday plus the drive home.

Please express your interest or commitment soon! Call/write Jeanne Willson, riversong@centurylink.net, 720-581-2052.

Register online: www.metrodenverconps.eventbrite.com to receive updates in case hike is cancelled or rescheduled:

Rocky Mountain National Park, Wild Basin Area

Aug. 1, Sat. 6:30 am to 5 pm

Leader: Christine Taraskiewicz

The field trip starts at the Wild Basin side of Rocky Mountain National Park and we'll hike up to Calypso Cascades or up to Ouzel Falls (depending upon the group) where we'll look for the fauna that blooms along the Creek and in the damp crevices of the Cascade. There are plenty of rocky crags across from the creek to search for different blooms. Wildflowers along the St. Vrain Creek and Rocky Crags: Wild Basin Area, Rocky Mountain National Park.

Christine Taraskiewicz is a lover of Colorado summers, she has been leading wildflower hikes for over 20 years for small groups and in recent years for the Colorado Mountain Club.

Meet Sat., Aug. 1 at the Sheridan and 88th Outdoor RTD Park & Ride at 6:30 a.m.

Register online: www.metrodenverconps.eventbrite.com to receive updates in case hike is cancelled or rescheduled:

Staunton State Park

Aug. 2, Sun. 9 am to noon

Leader: Lenore Mitchell

See description for April 25th date.

James Peak Wilderness Crater Lakes Trail

Aug. 5, Wed. 7:30 am to 4 pm

Leader: Cheryl Ames

The trail starts near the Moffat Tunnel and climbs 1500 ft to the lower Crater Lakes. There are intervals of aspen, spruce and meadow, with some rugged and steep terrain. We will hike through a meadow about a mile from the trailhead and find wild raspberries ripe for us to taste, remnants of old cabins and

NORTHERN CHAPTER

Programs

Butterfly Use and Pollination of Colorado *Eriogonum* Species

May 7, Thurs., Potluck Dinner 5:15 pm, Presentation 7 pm

Dr. Paul Opler and Evi Buckner-Opler

Renowned Lepidoptera expert, Paul Opler, PhD, along with his adventure partner and wife, Evi Buckner-Opler, will share knowledge of butterfly use and pollination of Colorado *Eriogonum* species!

Location: High Plains Environmental Center, 1854 Piney River Drive, Loveland, CO 80538

Potluck dinner 5:15-6:45 pm followed by presentation at 7 pm

The focus of Dr. Opler's research for much of his life has been the members of the insect order Lepidoptera. His work involves a number of separate projects that relate to the systematics, biological diversity, distribution, and ecology of several groups of Lepidoptera. This includes surveys of the diversity of public lands, notably national parks and military lands. Dr. Opler is involved with the systematics of Lycaenid butterflies and several moths families, including Notodontidae, Arctiidae, Geometridae, and Tortricidae. He is also quite passionate about conservation efforts that benefit butterflies and moths.

Learn more at: <http://bspm.agsci.colostate.edu/people-button/faculty-new/paul-opler>



Butterfly on *Eriogonum flavum* var. *piperi* photo © Loraine Yeatts

Field Trips

Demonstration Gardens, Northern Water Conservancy District, 220 Water Ave., Berthoud, CO

May 13, Wed. after work

Rabbit Mountain Open Space, Longmont/Lyons area, CO

May 23, Sat., carpool TBA

Watering Holes, Pawnee Grasslands, northeast of Ault, CO

May 31, Sun. carpool TBA

Phantom Canyon, north of Livermore, CO

June 7, Sun. carpool TBA, limit 15

wonderful views of the continental divide. This trip will only go to the lower lakes and will keep everyone very busy visiting all the wildflowers. This will be an all day outing. We should be starting the hike at 8:45 am. Depending on our hiking progress, we should be at the Lakes by 1:00 pm and back to the trail head by 4:00 pm. This is all weather and participate dependent. Trail Distance: 6 miles round trip Limit:12 participants

Cheryl Ames is an avid hiker and outdoors person who can't get enough of the great outdoors and sharing all the treasures nature has to offer. Retired from IT work at the State of Colorado, member of CoNPS for 8 years and has taken a number of classes from CoNPS and CSU Extension Center.

For carpooling from the Denver area, meet at the Golden Garage, 3rd Level, Garage is on Jackson between 12th & 13th Streets at 7:30 AM. The trail head is at the East Portal "Directions: From Nederland, travel south for 4.5 miles on Colorado Highway 119 to Rollinsville. Turn west onto the gravel Gilpin County Road 16 and continue eight miles to the Moffat Tunnel. A large parking area is available at the East Portal Trailhead". For people meeting should be there at 8:30.

Bring a pack with lunch, water, rain gear, plant books, cameras, etc. Contact Cheryl with questions and concerns via e-mail chery_e_ames@msn.com or phone 303-940-2043.

Register online: www.metrodenverconps.eventbrite.com to receive updates in case hike is cancelled or rescheduled:

Castlewood Canyon State Park

Oct. 4, Sun. Time TBA

Leader: Jeanne Willson

Four to five hour hike, 30 minutes from the Arapahoe Park and Ride

This charming state park southeast of Parker is a geological gem full of human history, with plants normally living from the prairie to the high foothills crowded on top of each other. Our 7 mile loop hike will take us through two intimate canyons, past a 100 year old homestead and a spectacular FAIL of a dam. We'll also hike on top of a riverbed and past fossils of prehistoric forests.

Jeanne Willson, holds a PhD in Botany from Cornell. She currently is Co-President of the Metro Denver Chapter of CoNPS and volunteers teaching natural history including geology, paleontology, and evolution with the Colorado Mountain Club and the Denver Museum of Nature and Science.

Please be prepared to walk 7 miles over a good but rocky trail with about 700 feet of elevation gain; wear good walking shoes or hiking boots with long pants and bring water, lunch, raingear, sharp eyes, and field guides. Binoculars and camera optional. The park has rattlesnakes and poison ivy, hence the long pants and sharp eyes recommendation.

Register online: www.metrodenverconps.eventbrite.com to receive updates in case hike is cancelled or rescheduled.

Owl Canyon Pinon Pines, northwest of Ft. Collins, CO

June 10, Wed. after work, carpool TBA

Vedauwoo Campground/Rec trails, east of Laramie, WY

June 14, Sun. carpool TBA

Middle Cherokee Park, west of Livermore, CO

June 27, Sat. carpool TBA

Well Gulch, Lory State Park, south of Bellvue, CO

July 08, Wed. after work. Details TBA.

Lost Lake, off Little Laramie River Road, Laramie, WY

July 12, Sun. carpool TBA (limit 15)

Shelf Lake Trail, near Grant, CO (joint venture with Denver chapter) **Fri-Sun, July 24-26**, Register online: www.metrodenverconps.eventbrite.com to receive updates in case hike is cancelled or rescheduled. Northern Chapter details TBA.

Lower McCullough Gulch, south of Breckenridge, CO

Aug 01, Sat. carpool TBA

Trail Ridge Road, RMNP, west of Estes Park, CO

Aug 09, Sun. carpool TBA

Dan & Anne Clark's Native Plant Garden, 5106 Farrier Ct., Loveland CO, Wed, Aug 12, after work

Intriguing Vegetation of Middle Bald Mountain

Aug. 15, Sat. 8:30 am -3:30 pm

Join Steve Popovich, Botanist for the Arapaho-Roosevelt National Forests, and Trevor Roberts, CoNPS member and former botany technician for Steve, on a visit to the curious Middle Bald Mountain, about 35 miles NW of Fort Collins and 6 miles SW of Red Feathers Lakes. At 11,000 ft., it is the highest peak in the Laramie Mtns and contains an interesting mix of alpine and subalpine plants, uncommon for its location so far east of the continental divide.

See rare alpine vagrant lichens (i.e., rolling loose along the ground) and discuss why the community is so special, being neither alpine nor subalpine, but something in between. Learn how 1000's of years ago today's surrounding subalpine forest may have actually been montane in its vegetation, even at this high elevation – prompting study by the Rocky Mtn Research Station and changing the way we think about Front Range life zones. Steve will also discuss how a communications tower and associated development was recently proposed at the summit, and how the Forest Service recommended an alternate site, in part to protect the summit's special vegetation. And... enjoy the incredible views west towards the Rawahs and east towards Ft Collins and the plains!

Where: meet at Vern's Place restaurant at 830 am in LaPorte. From there we will carpool to a gravel road and parking lot ½ mile from the summit of Bald Mt and will walk (easy-moderate hike) to the summit for lunch. Total elevation gain from parking

area to summit is 350 feet. Bring lunch, water, warm clothes, and rain, wind, and sun protection.

Contact: Ronda Koski, conpsworkshops@gmail.com, or Steve Popovich, 970-295-6641.

Signal Mountain Trail, Larimer County, CO

Aug 22, Sat. carpool TBA

Cathy Fromme Prairie (West), Ft. Collins, CO

Sept 9, Wed. after work, details TBA.

Hugh's Cabin Barbecue and Hike, Poudre Canyon, CO

Sept. 26, Sat. carpool TBA

Wednesday after-work hikes will normally meet at 6 pm, while weekend trips will typically meet at designated car-pool locations at 7 am. Watch for specifics on the CoNPS website, but questions can also be directed to Ronda Koski, Northern Chapter President, at: ronda.koski@colostate.edu, 970-568-9745 (home) or 970-217-5286 (cell).

PLATEAU CHAPTER

Tabeguache Trail near Grand Junction

May 2, Sat. 9:00 am

Amie Wilsey and Van Graham

We would like to do a field visit to look at Jones bluestar (*Amsonia jonesii*) on May 2nd, 2015. Participants should meet at the Tabeguache Trailhead in Grand Junction at 9 am. The field trip will likely take half a day.

Participants should pack a snack/lunch, water, notebooks, cameras, sunscreen, field books and any other field items they may need.

Amie Wilsey is an Environmental Scientist/Biologist at WestWater Engineering

Email Amie to register: amw@westwaterco.com

Log Hill Mesa, North of Ridgway

May 31, Sun. 9:00 am

Dickson Pratt

Enjoy a walk through a walk through the piñon-juniper-oak-serviceberry forest to look at spring wildflowers. We will make a brief stop at Inspiration Point for the views and then go to the trailhead on neighborhood open space. The flower walk should take about one and a half to two hours, not counting the driving, but will involve less than a mile of distance at an elevation of 7600 feet.

Meet at Log Hill Mesa, just north of Ridgway. Meet at Ridgway Library at 9:30 AM, 300 Charles Street, corner of Railroad and Charles Streets, one block north of SH 62 (Sherman Street) at the Town Park. There is a large parking lot just north of the library building. We can carpool or caravan up to the mesa from



View from Inspiration Point in Ridgeway Photo © Dickson Pratt

there; the distance is about nine miles. Parking is plentiful, both at the library and on the mesa.

Wear comfortable shoes and bring water. If you would like to bring a picnic lunch, Inspiration Point is a good place for it and there are other trails in the area if people are interested in exploring them.

Contact: Dickson Pratt, dgp_colorado@yahoo.com 970-497-0579 (text messages welcome)

SOUTHEAST CHAPTER

Class

Essential Botany: What You Need to Know to Successfully Identify Colorado's Native Plants

May 9, Sat. 9 am- 2 pm

Dr. Neal Osborne with Linda McMulkin & Ed Roland

Southeast Colorado Water Conservation District Meeting Room (near Pueblo Airport)

Special discounted cost of \$5 for Colorado Master Gardeners, Native Plant Masters, and Colorado Native Plant Society members. All others, \$15.

You will leave this class with the essential botany you need to know to key out a plant. Class followed by hands on experience. Bring a sack lunch to class.

Advance registration required by Fri., May 1, 4 pm

To register, call the CSU Extension Office at 719-583-6566.

Field Trips

IMPORTANT:

1. If you want to join one of our trips, please register directly with the trip leader at least 5 days before the trip date.
2. Your trip leader should respond with all necessary details on meeting times, locations, carpooling options, etc. Most trips take most or all of one day, so a snack or bag lunch is suggested.
3. If you must cancel after registering, please email the trip leader at the registration email address. Notification of any trip cancellation (due to inclement weather, etc.) will be sent to the email account you used for registration.
4. All trips are free of cost except for the option of shared transportation expense.

Birds and Botany in Cheesman Canyon

May 16, Sat.

Leaders: Doris Drisgill (primarily native plants) and Jeff Jones (primarily bird sightings)

Register at: leaderdoris@gmail.com (include date of this trip in subject line)

Trip rating: Moderate

Location: Carpool to Gill Trail along S. Platte River near Deckers.

To see: Spring flowers, spectacular rock formations, ouzels, ospreys and other birds.

Timpas Creek

May 31, Sun.

Leader: Steve Olson, USFS Botanist

Register at: leadersteve01@gmail.com (include date of this trip in the subject line)

Trip rating: Moderate

Location: Carpool to Comanche Grasslands near Bloom, Co, just across the Otero County line

To see: Both short grass prairie and riparian native species plus interesting geology.

Greenhorn Mountain

June 13, Sat.

Leader: Neal Osborn, Prof. Emeritus, CSU-Pueblo

Register at: leaderneal@gmail.com (include date of this trip in subject line)

Trip rating: Moderate (with an option for a longer hike)

Location: TH in Rye, Co. (trail parallels Greenhorn Creek)

To see: One of the most diverse habitats for native "woodies" in Colorado, along with many interesting herbaceous species.

Elk Park on Pikes Peak

June 14, Sun.

Leader: Doris Drisgill

Register at: leaderdoris@gmail.com (include date of this trip in the subject line)

Trip rating: Moderate (though a short 2 mile hike, it's at 12,000 ft. elevation)

We'll see typically abundant alpine species such as mountain dryads, bluebells, and many others. Note: Discounted \$7 entry fee at Pike's Peak toll gate

Cottonwood Pass

June 20, Sat.

Leader: Doris Drisgill

Register at: leaderdoris@gmail.com (include date of this trip in the subject line)

Location: Cottonwood Pass is in the Collegiate Range out of Buena Vista, CO

Trip rating: Moderate (though a short 1-2 mile hike, the trail tops out along the Continental Divide at over 12,000 ft. elevation)

To see: Many alpine species such as lavender wallflower, alpine phlox, smelowskia plus some spectacular mountain scenery

East Bear Gulch Trail

June 20, Sat.

Leader: Steve Olson, USFS Botanist

Register at: leadersteve01@gmail.com (include date of this trip in the subject line)

Trip rating: Moderate (with an option for a "strenuous" hike to the top of Curley Peak)

Location: Oak Creek Grade Road, south of Cañon City

To see: A foothills habitat with a diverse range of "woodies" and herbaceous species, plus steep granite walls and overlooks with spectacular views of the Sangres.

BioBlitz in the Wet Mountains

June 26, Fri. - June 28, Sun.

Leader: Steve Olson, USFS Botanist

If you would like to help with the bioblitz, contact Steve Olson at leadersteve01@gmail.com.

Cordova Pass Trail in the Spanish Peaks

July 11, Sat.

Leader: Neal Osborn, Prof. Emeritus, CSU-Pueblo

Register at: leaderneal@gmail.com (include date of this trip in subject line)

Location: Carpool or drive to Cordova Pass TH, which is about 14 miles south of La Veta, CO.

To see: Some exceptional native plants including Bristlecone Pines, Corkbark Firs, and many other interesting alpine "woodies" and herbaceous species. Plus, views of the geological formations radiating from the base of the Spanish Peaks.

Buffalo Canyon above Helen Hunt Falls July 18, Sat.

Leader: Doris Drisgill

Register at: leaderdoris@gmail.com (include date of this trip in the subject line)

Location: North Cheyenne Canyon in Colorado Springs

Trip rating: Moderate

To see: Wood lilies, monkshood and other riparian species below St. Mary's Falls.

Goose Creek Trail

July 25, Sat.

Leader: Steve Olson, USFS Botanist

Register at: leadersteve01@gmail.com (include date of this trip in the subject line)

Trip rating: Moderate

Location: Southeast corner of Lost Creek Wilderness, north of Lake George, Co.

To see: Riparian and "dry land" summer flowers, woodies, birds, and interesting rock formations along Goose Creek.

Additional trips are often added during the growing season. Please check under "Southeast Chapter" at CoNPS.org.

San Juan/4 Corners Native Plant Society

May 2 & 3: Wildflowers of Red Rock Park, Gallup, New Mexico
May 20: Annual Trip to Sand Canyon, Canyons of the Ancients
June 6, June 7: Wildflowers of Southeast Utah
June 21: Wildflowers and Views, Mesa Verde Nat. Park
July 8: Wildflowers of Hermosa Fens & Wetlands, Bolam Pass
August 22: Wild Mushroom Hunting -- and Eating!

For information: <http://www.swcoloradowildflowers.com/San%20Juan%20Four%20Corners%20Native%20Plant%20Society.htm>

Workshops

For complete descriptions and to register, see our website <http://www.conps.org/Activities/workshops.shtml> or contact Ronda Koski at conpsworkshops@gmail.com. If workshops are full, contact Linda Smith (conpsoffice@gmail.com) to be placed on the waiting list.

Grass Identification Workshop

One-day workshop offered on 3 separate dates and locations; Indicate desired date when registering! **9 a.m. - 3 p.m.**

Cost: \$30 (non-member price \$45)

Saturday, April 25, 2015 - Douglas County Extension, 410 Fairgrounds Road, Castle Rock, CO 80104; 9 a.m.-3 p.m.

Workshop will be in the CSU Extension Building - Garden Level Conference Room

Presenter: Rich Rhoades

This workshop is designed to provide a basic knowledge of grass morphology and terminology as it pertains to identifying grasses. Workshop attendees will use "Illustrated Keys to the Grasses of Colorado" by Janet Wingate to learn how to use keys to identify common grass species. Rich will provide a brief presentation about grasses, and the remainder of the workshop will be devoted to keying out a variety of species. At the end of the workshop attendees will have the ability to key out many common grass species. If you wish to be added to the wait list, please contact Linda Smith at conpsoffice@gmail.com.

Winter Willow ID Workshop

Date: Sunday, April 26, 2015, 10 am-2 pm

One day workshop

Co-sponsored by the Central Rockies Chapter of the Society for Ecological Restoration (CeRSER) and the Colorado Native Plant Society (CoNPS)

Location: High Plains Environmental Center
1854 Piney River Dr. Loveland, CO 80538

Presenters: Randy Mandel and John Giordanengo

Cost: \$30 CeRSER or CoNPS Member, \$40 Nonmember

Registration limit: 40 people

If you have a copy, please bring them with you:

Rocky Mountain Willow Identification Field Guide by Robert Dorn
Field Guide to Colorado's Wetland Plants: Identification, Ecology, and Conservation by Denise R. Culver and Joanna M. Lemly

About the Presenters:

Randy Mandel, Restoration Ecologist, Golder Associates, Inc.
M.S. Forest Physiology/Genetics, Colorado State University

Randy Mandel is an internationally recognized restoration ecologist with over 30 years of experience. He currently works for Golder Associates as a Senior Restoration Ecologist. His major accomplishments include (1) Lead propagation specialist for the Suncor Revegetation Pilot Project in Alberta, Canada, (2) Lead revegetation specialist for the Yanacocha Minera Gold Mining Project near Cajamarca, Peru, (3) Professional botany mentor for the US Forest Service, White River National Forest Botany Program, (4) Restoration Ecologist, EnCana Natural Gas, Piceance Basin operation; and Comprehensive ecological services for Pitkin County Open Space. Mr. Mandel has been a key restoration ecologist for numerous restoration, reclamation, and remediation projects including 14 National Parks and National Monuments as well as multiple Justice Department native plant projects such as Telluride Mountain Village, the Beartooth Highway, and the Yellowstone Club.

John Giordanengo, Program Director, Southern Rockies Seed Network, M.S. Range Ecology (Ecological Restoration emphasis), Colorado State University

Few finer days exist beyond those spent keying out willows. Much of John's time doing so has been in association with his work restoring Colorado's riparian areas—from alpine to plains. After 18 years of experience in Ecological Restoration, John pays homage still to the insights his knowledge of native flora provide into the fun little secrets of ecological restoration. Enjoying membership in CoNPS for 16 years, and serving as a board member for two years, John enjoys steering budding restoration ecologists to the society for a lesson or two. Today, somewhere between the botanizing and the restoration work, he is pleasantly busy growing the Southern Rockies Seed Network, a seminal program of Synergy Ecological Restoration.

Special Event

Co-Sponsored by CoNPS

Sedges of Colorado:

Advanced Workshop and Field Trip III

August 28-30, 2015

Presenter: Dr. Anton (Tony) Reznicek

Location: Rocky Mountain Biological Laboratory (RMBL), Gothic, CO

Please note that this is a special event that will be held at Rocky Mountain Biological Station and registration is not at the normal workshop rate. Registration costs do not cover the actual expenses. This workshop/field trip is made possible thanks to extra funding by Denver Botanic Gardens (\$300) and CoNPS (\$300). Thank you to Melissa Islam and Leo Bruederle for making the arrangements.

Cost: \$220 includes two nights of lodging (8/28-8/29) and meals at RMBL. Meals include one breakfast, two lunches and two dinners. There is no discount if you do not stay in the lodge and take the meals.

Eminent botanist, Tony Reznicek (University of Michigan) will be returning to Colorado to provide a workshop on the sedges of Colorado focused on the west slope. Denver Botanic Gardens, Colorado Native Plant Society, and University of Colorado Denver are collaborating to offer this "sedgevent" that will combine a workshop at the picturesque Rocky Mountain Biological Laboratory in Gothic with two days of field trips.

The workshop will be held on Friday with an hour of lecture and then focus the rest of the day on identifying fresh specimens.

Saturday and Sunday, we will venture out into the field focusing on areas around Crested Butte.

The workshop is targeted at advanced beginners to those with intermediate skills. Please register early. Registration is limited to 18.

If your organization is willing to help sponsor this workshop to help defray the cost, please contact Leo Bruederle (Leo.Bruederle@ucdenver.edu).

Anton Reznicek, Ph.D. Dr. Reznick is Assistant Director of the University of Michigan Herbarium and Curator of Vascular Plants. His research focuses on the evolution and systematics of the Cyperaceae, especially *Carex*, phytogeography of the northeastern North American flora, and conservation of the Great Lakes region flora.

To register, go to <http://www.conps.org/Activities/workshops.shtml>. If workshop is full, contact Linda Smith at 970-663-4085 or conpsoffice@gmail.com to be added to the wait list.

News & Announcements

It Happened! *Flora of Colorado* will be printed! Charles L. Maurer and Other CoNPS Members Came to the Rescue!



Jennifer Ackerfield

Photo © Don Neumann

Jennifer Ackerfield is very excited and grateful. CoNPS members came through for her and donated the remainder of the money needed to print *Flora of Colorado*. There were a number of large and small donations and pre-orders of the book, but the fund was still almost \$10,000 short of the amount needed to cover printing costs. We thought, wouldn't it be nice if Jennifer had a fairy godmother or godfather who would make her dream come true? And it happened!

In an email sent with the Winter 2014 issue of *Aquilegia*, Charles Maurer read that \$10,000 was the amount still needed in order for the *Flora of Colorado* to be printed by the publisher, BRIT, in time for the 2015 wildflower season. Maurer contacted CoNPS, offering to donate the remainder of the funding (by that time, \$8,500 was still needed) so that the book would be published in time for wildflower season. Thanks to Maurer's generosity and the generosity of other CoNPS members, the book will be published in early May, just in time for us to take it into the field and key out the Spring plants.

Who is this man who stepped in to make sure the book would be published in the Spring of 2015 and why was he interested in the *Flora of Colorado*?

Charlie Maurer, a member of the Plateau Chapter of CoNPS, has a connection with Colorado State University and botany. Maurer was a student of Dr. Harold Harrington, author of the *Manual of the Plants of Colorado*, and a graduate of Colorado State University.

Maurer spent his early years on a large ranch located near Cimarron, Colorado, and graduated from Montrose County High School in 1956. He attended the Colorado School of Mines for two years before transferring to Colorado A&M in 1958, later called Colorado State University, where he received a BS in Agronomy [1961] and a MS in Botany and Plant Pathology studying under Dr. Ralph Baker [1963]. He received a degree in statistics from Metro State in Denver in 1972.

After working for the Coors Brewing Company in Golden, Colorado, for nearly 30 years, he took early retirement in 1993. While at Coors, he worked as a research agronomist, bacteriologist, chemist and several other jobs ending, his last 15 years or so as Director of Quality Control. After retiring from Coors, he worked for the EPA's national forensic crime laboratory [NCIS] in Lakewood, Colorado, both on site and remotely, via computer, for about 14 years as a quality management consultant.

I took plant identification classes from Dr. Harrington sometime about 1959 or early 1960. We used his recently published *Manual of the Plants of Colorado* as our textbook. He was, at that time, similar in age to my father and was, as I recall, a large, gentle man who was easy to talk to and was very patient with students both in the class room and on field trips.

Charles Maurer

Charlie and his wife returned to western Colorado, settling in Grand Junction in 2000, where he finally had time to rekindle his interest in the flora of the region, especially that found on their family ranch near Cimarron. He took the three native plant identification classes (Native Plant Master classes) offered through the CSU Extension service in Grand Junction to get reacquainted with plant identification after a too long absence.

When will Ackerfield's book be printed? Jen and the editors at BRIT are carefully going through the book, making corrections. It is a tedious process but hopefully it will be completed this month and the book will be available in early May.

The Remarkable Jennifer Ackerfield

Has any woman single-handedly written the flora of an entire state? This was a question pondered by Jen Ackerfield and Jan Turner. For help, they turned to Rudi Schmid, professor emeritus at UC Berkeley, editor of the "Reviews and Notices" column in *Taxon*, and an outstanding scholar. Rudi was not aware of any woman, other than Jen Ackerfield, who has been the single author of a modern flora/manual for an entire state. And Jen is only 39 years old!

See Dr. Schmid's website for information on women botanists: "Agnes Arber and Other Early Women Botanists," <http://rudischmid.com/arber/>. Perhaps Schmid will expand the site to include contemporary women botanists!

2015 CoNPS Research Grants Recipients

Congratulations to the 2015 Marr and Steinkamp Research Grants recipients. Contributions to the funds help make these research projects possible. If you wish to contribute, please contact treasurer, Mo Ewing, at bayardewing@gmail.com.

John W. Marr Fund

The John W. Marr Fund supports research on the biology of Colorado native plants and plant communities.

DeMasters, Carla (Rebecca Huft, DBG) Working on MS UC Denver. Using native annual/biennial forbs to direct the development of restored plant communities - a case study of Gunnison sage-grouse habitat. \$500

Diaz, Vanessa (Erin Tripp) Working on MS in Museum and Field Studies. CU Boulder Museum of Natural History. Determining lichen individuality through analysis of ploidy architecture using Colorado *Xanthoparmelia* specimens. \$500

Pardee, Gabriella (Rebecca Irwin) Second year Ph.D. student. Dartmouth U. Uncovering the mechanisms of change in plant growth and reproduction due to early snowmelt and frost events in the Rocky Mountains of Colorado. \$500

Worah, Moneka (Leo Bruederle) Working on MS in Environmental Sciences. UC, Denver. The taxonomy of *Physocarpus* on the Colorado Eastern Slope. \$925

Myrna P. Steinkamp Fund

The Steinkamp Fund supports research on the biology of Colorado rare native plants.

Wills, Brandee (Mitch McGlaughlin) First year MS student – biology. UNC, Greeley. Population structure and resolving taxonomic synonymy of *Phacelia submutica* using ITS and NADH sequences. \$1,000

HUGE Native Plant Sale at High Plains Environmental Center (HPEC) on May 16!

HPEC grows native plants on a large scale in their nursery, at 2968 Bluestem Willow Drive, in Loveland. HPEC will be opening their nursery to the public, on May 16, 2015, for a huge, one day, native plant sale, as well as unveiling native plant demonstration gardens that have been in development since 2012. The High Plains Environmental Center is also selling a pre-packaged pollinator garden that contains 18 4" plants for \$72. They can be ordered online. <http://suborbitat.org/>

Society of Wetland Scientists

Rocky Mountain Chapter's Annual Meeting 4-15

The 2015 Rocky Mountain Annual Meeting will be held on April 15 in Golden, Colorado, at the American Mountaineering Center and is expected to bring together over 100 researchers, students, government scientists, private sector consultants, and other wetland practitioners. <http://www.sws.org/Rocky-Mountain/rocky-mountain-chapter-news.html>



CoNPS 2015 Annual Conference & Colorado Rare Plant Symposium Native Plants & Pollinators

September 11-13, 2015
American Mountaineering Center
Golden, CO

The theme for this year's Annual Conference has been selected: Native Plants and Pollinators! Stay tuned for details!

Photo of Hummingbird and *Cleome serrulata* © Charlie Turner

Congratulations to Stephen & Becca!

Welcome to Cecelia Nancy Stern, who was born on March 14, 2015. Cecelia is the baby sister of 2 year old Henry Stern and daughter of Stephen Stern and his wife, Becca Ely. Stephen is president of the Plateau Chapter of CoNPS. He is Assistant Professor of Biology at Mesa State University in Grand Junction and his speciality is the taxonomy and systematics of the plant genus, *Solanum*. Photo courtesy of Stephen Stern



Shambhala Mountain Center Program

Exploring Trees & Wildlife Program, June 5-7, \$190 + 2 nights
<http://www.shambhalamountain.org/program/et615-exploring-trees-wildflowers/>

Employment Opportunity: Estes Park Watershed Coordinator

The Watershed Coordinator will lead disaster-related restoration efforts in Estes Valley while addressing other watershed issues including flood resiliency, ecological health, water quality, wildlife habitat, and riparian stability. Primary duties include project management, outreach and education, and grant writing. To apply: www.mysnyder.com

Forest Service Fills Two Regional Botanist Positions, One in Denver!

By Steve J. Popovich, Field Studies Chairperson

In the last issue of *Aquilegia*, I mentioned that much of the Western US managed by the US Forest Service was still without Regional Botanists, due to recent retirements. I am happy to report that we now have two new Regional Botanists, filling the last gaps in the West! Regional Botanists help assure quality, expertise, and consistency in management of botanical resources on lands administered by the Forest Service.

CoNPS congratulates John ("Johnny") Proctor on his acceptance as the Intermountain Region's new Regional Botanist, based out of the Regional Office in Ogden, Utah, which oversees management of National Forests (NF) and Grasslands in Utah, Nevada, southern Idaho, western Wyoming, and parts of California and Colorado (Manti-LaSal NF). For a number of years, John served as the Forest Botanist on the White River National Forest, based out of Glenwood Springs. Prior to that, he was a Botanist for the Routt National Forest, living and working out of Walden. In his 20 years of experience, John has held Botanist positions in three Regions on three Forests, and spent two years in the Bureau of Land Management (BLM). He has a wealth of experience in



Johnny Proctor & daughter, Keala



Tyler Johnson

the development and use of native plant materials for restoration, and piloted innovative programs in Colorado with multiple stakeholders. He tirelessly worked to manage numerous rare plants under his Forests' purview. We are losing a respected botanist from Colorado to Utah, but the cause is admirable. Johnny, you will be missed in Colorado. The Intermountain West is lucky to have you!

The Rocky Mountain Region, which oversees management of National Forests and Grasslands in Colorado, much of Wyoming, Kansas, Nebraska, and the SW quadrant of South Dakota including the Black Hills, has announced the selection of Tyler Johnson as its new Regional Botanist. Tyler is currently Botanist on the Bridger-Teton NF in Wyoming. He brings an excellent background of technical, botanical, ecological, and leadership skills, including rangeland and hydrological monitoring. He reports to the Regional Office in Denver on April 6.

Tyler is a third-generation Forest Service employee, following in the footsteps of his father and grandfather. His mother worked for the BLM in fire logistics. He jokes that his professional life as a botanist has focused on two things: plants that there are too many of (noxious weeds) and plants that there are not enough of (rare species)!

Tyler attended Northern Arizona University, where he earned his undergraduate degree in botany and his Master of Science in forest ecology studying tamarisk on the Verde River in central AZ. In fact, he wrote a chapter in the book *Tamarix: A Case Study in Environmental Change in the American West* (Anna Sher and Martin Quigley, eds., 2013). He also fought wildfire, worked on the Lincoln NF in southern NM, and spent a year in New Zealand researching an invasive shrub called gorse (*Ulex europaeus*).

Tyler's work on the Lincoln NF focused on a group of narrow endemic species that are only known from the Sacramento Escarpment there. Two plants that he worked with extensively were the prickly poppy (endangered) and the Sacramento Mountain thistle (threatened). Tyler is proud of a project that involved gathering seeds from various locations of the Mountain prickly poppy and growing them to maturity in a specifically-designed garden. The seeds of these plants have now been taken back to the field to repopulate areas where the poppy has been extirpated. He is now finishing a project working with whitebark pine (Candidate species for listing as threatened or endangered).

Tyler is moving to Golden with his wife Mari and their two dogs Dixie and Boone. Among his many hobbies are brewing beer, cooking, kayaking, photography, and, of course, botanizing. Tyler, CoNPS welcomes you and wishes you well in your new position!

2015 CoNPS Field Study: Pineries Open Space in the Black Forest

In 2015, CoNPS members will be partnering with botanists from Colorado Natural Heritage Program, Denver Botanic Gardens, and Colorado College to assess the status of several species of disjunct tallgrass prairie rare plants on the Pineries Open Space in Black Forest, north of Colorado Springs. The area suffered a severe wildfire in June 2013. The rare plants survived the fire and the purpose of this project is to assess the status of previously known populations, confirm new populations, and geotag locations for databases. The field work will be May 15-16 and July 17-18. Experienced botanists and less-experienced support folks are sought for this project being conducted for El Paso County Parks. If interested in being a part of this study, please email Judy von Ahlefeldt at blackforestnews@earthlink.net, or contact Steve Popovich, Field Studies Chairperson, 970-295-6641.

(News & Announcements cont. on page 20)

Restoration Using Seeds in the Grand Junction Area by Sherry Shenk

The Grand Junction chapter of Great Old Broads for Wilderness will be doing our 3rd year of work to use native seed to revegetate closed trails on BLM land this fall. During the previous 2 years, we hand collected the seed on BLM land. This year we will continue to do that, but probably will also buy some seed.



Photo © Sherry Schenk

We have found that planting in November at least sometimes means the seeds are put in the ground right before a snow or rain. I am unable to give you exact dates that we will plant at this time, but they will probably be sometime the first two weeks of November.

We worked last year with teenagers from the Hilltop Trail crew and the teens did more of the physical work of digging while we supervised and did the planting. Last year we had a grant that enabled us to buy some native plants from a local nursery (Chelsea Nursery). This year we do not have that kind of money so will rely on seeds.

We also have a constraint in that we have found we need to keep a limit on the number of people who are working on a trail on a particular day. If we don't, damage to the land and plants beside the trails often times happens just from people walking up and down.

If you would like more information, you can contact Sherry at sherryeeschenk@gmail.com Sherry is a member of the Plateau Chapter of CoNPS.

CoNPS Twitter Account!

Follow CoNPS on Twitter @ColoradoNPS

2015 Crested Butte Wildflower Festival

July 15-19

For details, see <https://www.crested-buttewildflowerfestival.com/2015-program-guide/>

CoNPS member, Tom Zeiner, is on the Festival Board of Directors.



2015 National Native Seed Conference April 13 -16, 2015 Santa Fe, New Mexico

<http://nativeseed.info/location/>

12th Annual Arizona Botany Meeting

April 25, 8 am -5 pm

Opt. field trips, Apr 26

Museum of Northern Arizona,
Flagstaff.



The Arizona Botany Meeting is co-sponsored this year by the Arizona Native Plant Society and the Museum of Northern Arizona. This year's theme is Ethnobotany in the Southwest: Past, Present and Future. Registration is \$40 and is \$25 for undergraduate and graduate students. Early registration is due by April 17. The late registration fee is \$50 (\$30 for students). Register on line at AZNPS.com

CoNPS Field Trip Plant Lists on SEINet!

Look for an article on this in the Summer 2015 *Aquilegia*.

Information also on CoNPS Twitter and CoNPS Facebook..

Eriogonum Society 2015 Annual Meeting

July 24-27 Reno, NV http://eriogonum.org/index.php?option=com_content&view=article&id=89&Itemid=127

2015 APS Annual Meeting

The American Penstemon Society's Annual Meeting: Chico, CA

July 10-13 <http://apsdev.org/aps/meetings.html>

Upcoming Class on Phenology !

Friday, April 24th - 10am to noon, Denver Botanic Gardens with Instructor Mary Goshorn of DBG's Research Dept.

Come and learn more about what phenology is, how it's used, and why it is important. We will begin in the classroom, then move outside to practice collecting phenological data on the lilacs in the Gardens.

Mary Goshorn works in the DBG research department and set up DBG's Phenology Trail. She will share her knowledge of phenology and show you how you can be involved, and help scientific study in the process.

Cost \$10 DBG Members; \$12 non-members. For more details and to register online: <http://www.botanicgardens.org/programs/classes-lectures/lifelong-learning/phenology-natures-calendar>

Annual Seed Swap and Plant Sale

Saturday, September 19, 2015; 9 to 11 am

Butterfly Pavilion, Westminster, CO

This is a joint event of Colorado Native Plant Society and Front Range Wild Ones. Come to our plant sale and seed swap and pick up some new Colorado native plants for your garden! In addition to seed, we invite you to donate any "extra" plants from your garden for a fundraiser to benefit both organizations. This event is open to members of either the Colorado Native Plant Society or Front Range Wild Ones. More details will follow in the Summer 2015 *Aquilegia*.

New CoNPS Publication: Native Plants for Pollinators Brochure!

Wondering which native plants would look good in your garden, attract pollinators, and be easy to grow? The Horticulture & Restoration (H & R) Committee has produced a two-sided handout that will be available online, at garden centers, and at the CoNPS Annual Conference.

In addition to the photo and name (common and scientific), the handout provides brief notes about growing conditions or special features of each plant.

This handout will soon be available online through the CoNPS website on the Horticulture & Restoration page, <http://www.conps.org/Committees/horticulture.shtml>

Native Plants for Pollinators
Gardeners Can Make a Difference - Help Protect Our Native Pollinators!

Did you know...? A pollinator-friendly yard not only provides nectar and pollen for the pollinators, but also nesting sites and/or host plants on which pollinators can lay their eggs. When the eggs hatch, the leaves of the host plant are instant food.

Pollinator-Friendly Landscaping Tips:

- Plan for as long a season of bloom as possible (early spring to late fall) with at least three different species of plants blooming at the same time all season. A diversity of plants increases the pollinators and the predator-prey balance.
- Instead of just planting one of each species scattered throughout the garden, by planting clumps of at least 3 of the same species - helps the pollinator save energy.
- Most bees and butterflies prefer sunny, open areas. Pollinators attracted to open sunny areas will also have more choices to pollinate the flowers or lay eggs on the taller shrubs and trees along the borders or north end of your yard.
- Avoid using chemical pesticides; or if necessary, use at dawn or dusk when insect pollinators are less active.
- Try leaving areas of bare soil for ground nesting bees, which are the bulk of our native bee population.

(See CoNPS Gardening Guides for sample plans of native plant gardens - <http://www.conps.org/Committees/horticulture.shtml>)

(Flowers listed are perennials unless otherwise noted. (*) May be aggressive growers with good soil and moisture.)

Early Season Wildflowers	Scientific Name	Notes
Nodding Onion	<i>Allium cernuum</i>	Nodding pale pink umbels; 6'-12" tall, open woodlands, sunny, dry locations, up to 11,000' late spring early summer
Sulphur Flower	<i>Eriogonum umbellatum</i>	6'-12" sunny, dry, well-drained, up to 10,500'
Wallflower	<i>Erysimum ssp.</i>	6'-24" tall flower heads; biennial or short-lived perennial. Sunny dry locations up to 8,000'
Prairie Smoke	<i>Quercus ilicifolia</i>	Nodding rose pink blossoms followed by long feathery seed pods, 6' - 12" tall, sun to part shade, moist to gardens, up to 10,000'
Firecracker Penstemon	<i>Penstemon axillaris</i>	Bright red blossoms on spikes; 2-3' tall, sunny, dry, well-drained. Bees love this plant.
Blue Mist Penstemon	<i>Penstemon azureus</i>	Small blue-violet spikes up to 1' tall in late spring. Dry, well-drained locations in sun to part shade, up to 10,000'
Pacific Flower	<i>Phacelia patens</i>	6'-12" tall, part sun, moist to dry locations up to 8,000'
Golden Banner *	<i>Thermopsis montana</i>	Cup-shaped lavender blossoms followed by feathery seed heads

Mid-Season Wildflowers	Scientific Name	Notes
Pearly Everlasting	<i>Anaphalis margaritacea</i>	Silvery foliage, clusters of straw white flowers, excellent dried flower; 1-2' tall, sunny, moist or dry sites, up to 10,000'
Showy Milkweed *	<i>Asclepias speciosa</i>	3-4' tall, back of border; sunny, moist to dry locations; up to 8,000'; will self-seed; great for the Monarch!
Harebells	<i>Campanula rotundifolia</i>	Nodding bell-shaped flowers; 6-12" tall, moist to dry, sun to shade, up to 13,000'
Aspen Daisy	<i>Eriogonum speciosum</i>	Daisy-type blossoms; lavender with yellow centers; 1-2' tall, sun to part shade, moist to dry, up to 9,500'
Blanketflower	<i>Gaillardia aristata</i>	1-2' tall, up to 9,000'; dry, well-drained, sunny locations. Most of the commercial varieties are non-native hybrids.
Beebalm	<i>Monarda fistulosa</i>	2-3' tall, sun to part-shade, moist or dry, up to 9,000'
Rocky Mtn. Penstemon *	<i>Penstemon alpinus</i>	1-2' tall spikes; dry, well-drained, sun to part shade; up to 10,000'
Black-eyed Susan	<i>Rudbeckia hirta</i>	Golden yellow-brown centers; biennial or short-lived perennial, reseeds readily; dry mountain meadows up to 9,000'; moist to dry locations

Late-Season Wildflowers	Scientific Name	Notes
Rocky Mtn. Bee Plant	<i>Cleome arvensis</i>	1-3' tall; annual; large pink to lavender flower heads; reseeds readily; sun to part shade, dry, well-drained; up to 7,500'; available by seed
Common Sunflower *	<i>Helianthus annuus</i>	2-5' annual; sunny, dry, well-drained, give these plants lots of room in an informal, meadow-type setting
Spotted Gayfeather	<i>Asclepias tuberosa</i>	Spikes of fringed rose-purple flowers attract butterflies. Rigid linear leaves; 6'-12" tall; dry, sunny, well-drained locations; up to 7,500'
Tansy Aster	<i>Machaeranthera tanacetifolia</i>	Erect stems of small lavender-candy-like flowers; short-lived, but readily reseeds; 6'-20" tall, sun, dry, well-drained locations; up to 8,000'
Goldenrod *	<i>Solidago ssp.</i>	1-4' tall depending on species; spreads by rhizomes; tiny yellow flowers in heads bloom mid-late summer; sun/part shade; moist to dry; elev. range varies w/species

Shrubs	Scientific Name	Notes
Rabbitbrush	<i>Chrysothamnus nauseosus</i>	Bright yellow flowers late summer; up to 6' tall which can be controlled by early spring-time pruning; dry, well-drained, sun, up to 8,000'
Chickcherry *	<i>Prunella virginiana</i>	Racemes of white flowers in spring, followed by red/black fruit. Up to 6' high, wide-spreading, prefers dry, well drained location in sun or part shade; up to 8,000'
Golden Currant	<i>Ribes aureum</i>	Yellow flowers in spring, black fruit for the birds; leaves red/orange in fall; 4-6' tall, arching branches; sun/part shade, well-drained; moist to dry, up to 10,000'
Woods Rose *	<i>Rosa woodsii</i>	Large pink flowers in summer; reddish-brown prickly stems; red-orange hips in fall; 2-6' tall; suckers from rhizomes; sun to part shade; moist to dry; to 10,500'
Boulder Raspberry	<i>Rubus idaeus</i>	Large white flowers in summer; fruit great for wildlife; 6' tall; sun to part shade, dry, well-drained; up to 9,000'

The H & R Committee is currently working on native plant gardening guides for different regions of the state. Included in the guides will be selected plants and their photos and instructions on how to create a native plant garden; landscape designs for a garden will also be published in each guide. These will be available in late spring or early summer of 2015.

Plan Jeffco

PLAN Jeffco Annual Dinner, "Celebrating Jeffco Land Trusts," will be held September 21, 2015 Monday, 5:30 pm - 11:00 pm The Vista at Applewood Golf Course 14001 W 32nd Ave, Golden, CO 80401 http://www.planjeffco.org/meetings-and-events_events.html

N.A. Rock Garden Society Plant Sale

The Rocky Mountain Chapter of the North American Rock Garden Society (NARGS) will hold their Spring Plant Sale at the Denver Botanic Gardens on Saturday, April 18, from 9 am- 3 pm.

BioBlitz in the Wet Mountains

Mark your calendars! We are just getting started with plans for a bioblitz for this year. The winner is the Huerfano County portion of the Wet Mountains. CNHP will be working on a county-wide survey this year in Huerfano, and we thought that doing the San Isabel National Forest part of the county would be a good addition to that effort. The current thinking is to start noonish on Friday June 26th and go through noonish on the 28th. The Wet Mountains don't seem to be that well known, because there are no 14ers to draw a crowd. There is a good variety of habitats, from montane forests to alpine and some interesting wetlands. There are large montane meadows as well. The area is mostly along the ridge at around 11,000 feet and on the southern slopes of the Wets. The top of Greenhorn Mountain and North Peak are into the alpine (above 12,000 feet). Also fair game for the effort is the Black Mountain part of the Wets with old pinyon-juniper woodlands and meadows. There are good views of the Sangres across the Wet Mountain Valley, for those interested in the scenery. Being a bit out of town, this will be a camping-based effort.

Contact Steve Olson to sign up at leadersteve01@gmail.com.

Aquilegia Volume 39, No. 1 Spring 2015

AQUILEGIA: Newsletter of the Colorado Native Plant Society

Aquilegia is the newsletter of the Colorado Native Plant Society and is available to members of the Society and to others with an interest in native plants. Four regular issues are published each year (Spring, Summer, Fall, Winter) plus a special issue for the Society Annual Meeting held in the Fall.

All contributions are subject to editing for brevity, grammar, and consistency, with final approval of substantive changes by the author. Articles from *Aquilegia* may be used by other native plant societies or non-profit groups, if fully cited to author and attributed to *Aquilegia*.

The deadline for the Summer issue is April 30. Announcements, news, articles, book reviews, poems, botanical illustrations, photographs, and other contributions should be sent to Jan Loechell Turner, Editor, at JLTurner@regis.edu

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Construction has Begun on the Education Center at Betty Ford Alpine Gardens

by Nanette Kuich and Nicola Ripley

Betty Ford Alpine Gardens in Vail, CO, broke ground this winter on an education center, with completion scheduled for July 2015. The 3,000 square foot structure will include a multi-purpose interpretation/education room, alpine greenhouse, seed storage, and resource library that will enable the gardens to be a year-round facility for education and learning.

The Gardens are the highest in North America, at 8200 feet, with a world class collection of alpine and rock garden plants. The thousands of visitors rate the Gardens as one of the “Top 3 Things to Do in Vail” on TripAdvisor.com and recently as one of the top 30 ‘Must See’ Public Gardens in the US (*Active Times*, 2014), and now, with this addition, the facility will offer an all seasons place to visit, to study, to learn, to promote and to understand the possibilities of growing plants in an alpine environment.

Betty Ford, the Former First Lady, lent her name to the gardens in 1988, and was part of the development process, with a vision of it becoming the premier alpine botanical garden in the world. The addition of the Education Center will bring this vision closer to reality with unlimited potential for public education programs.



Exterior View of the Education Center Picture Courtesy Betty Ford Alpine Gardens

Betty Ford Alpine Gardens holds the nation's official collection of Colorado's Alpine Flora. As part of the North American Plant Collections Consortium (NAPCC) program, BFG works to develop this special collection of plants through seed collections, propagation, cultivation, and plant sharing.

Betty Ford Alpine Gardens has been working with the Bureau of Land Management for many years to monitor and survey some of Colorado's rarest plants, critical to understanding how to manage land for their preservation. Species currently being monitored include:

- *Penstemon debilis* (Parachute Penstemon) – one of North America's rarest plants, occurring in only 4 sites on the Roan Plateau. BFG monitors these populations and has recently been testing different propagating techniques for future re-introduction projects.
- *Astragalus debequaeus* (DeBeque Milkvetch) – grows in Garfield County in areas potentially impacted by mining operations. Staff have been developing a greater understanding of the life cycle of these plants.
- *Penstemon harringtonii* (Harrington's Penstemon) – found only in Colorado, centered in Eagle County. BFG has been working with the BLM to more accurately estimate population size;
- *Eutrema penlandii* – found only in moist areas of Hoosier Pass, BFG staff are working with the Mosquito Range Heritage Initiative to monitor populations.

Betty Ford Gardens is still raising funds to complete the \$3.5 million Education Center project, with less than \$1 million to go. There are a number of naming opportunities for various structures, gardens, educational resources and display areas. The Interpretive exhibits in the main education room, Rock Garden and Living Roof are some of the more significant areas requiring various levels of support. For more specific information please contact Nicola Ripley, Executive Director at Nicola@bettyfordalpinegardens.org or 970-476-0103 ext. 6.

START TAKING PHOTOS!

The deadline for the 2015 CoNPS photo contest will be August 1st. Rules and the application form will be posted on the CoNPS website later this spring.

FALL CoNPS ELECTION

The CoNPS Board of Directors Election will take place this Fall. Ballots will be in the Annual Meeting issue of *Aquilegia*. If you are interested in running for a Member-at-Large position on the Board of Directors, contact Irene Shonle at irene.shonle@colostate.edu.

Native Plant Master® Classes 2015

CSU Extension

These classes are offered by the Native Plant Master program of the Colorado State University Extension Service. There are charges for these classes and registration is required. Please check with individual programs (counties) for registration deadlines, costs, and requirements.

Boulder County

Basic Botany May 14, 6:30-8:30 pm, 66 S. Cherryvale Rd, \$40,

Basic Botany May 17, 8:30 am – 12:30 pm, Rabbit Mtn OS \$40

Riparian Corridors: June 27—Coal Creek Trail; July 18—James Creek; Aug. 8—S. Boulder Creek Trail, 8:30 am - 12:30 pm \$90

South Boulder Grasslands OS, June 6, 13, 20, 2015 8:30 am – 1:30 pm, \$90

Native Plants of Prairie Dog Colonies (Carolyn Holmberg Preserve) May 21st, 5:30 pm to dusk \$30

Caribou Ranch Open Space, July 24, July 31, Aug. 7, 2015

8:30 am – 12:30 pm \$90

Fire Ecology, July 11, 2015 Walker Ranch Open Space, and Sat, September 12, 2015, 8:30 am to 12:30 pm, Bald Mountain Open Space, \$40 per class or \$60 for both

To register, contact Deryn Davidson at ddavidson@boulder-county.org

Custer County

Basic Botany, May 16, Westcliffe

Native Plant Master Course June 6, 13, 20

Please contact the Custer County Extension office for more information. 719-783-2514. Robin.young@colostate.edu

Douglas County

Native Plant Master Classes

May 27, 29, June 1 Castlewood Canyon State Park 8 am – 1 pm (Registration fee \$90)

June 2, 4, 9 Roxborough State Park 8 am – 1 pm (Registration fee \$90)

Basic Botany Class (Tuesday, May 19, 2 pm - 4 pm) Douglas County Extension Office 410 Fairgrounds Rd, Castle Rock, Free, with NPM course registration.

Registration deadline is May 1

To register, or for more information, contact Jane Rozum jrozum@douglas.co.us

Eagle County

Montane Plants Mondays, June 15, 22, 29 - Vail Nature Center

Alpine Plants - Tuesdays - July 7, 14, 21 - Betty Ford Alpine Gardens and Loveland Pass

Trees and Shrubs - Fridays - August 7, 14, 21 - No Name Creek, Glenwood Canyon

The Native Plant Master classes are from 9 a.m. - 1 p.m. Please contact Jeff Pieffer to register at jeff.pieffer@eaglecounty.us

Larimer County

The NPM program is open to adults and youth ages 16-17. Courses will be held at Lory State Park, Pineridge Natural Area, Maxwell Natural Area, Soapstone Prairie Natural Area, and Gateway Natural Area. For more information and to obtain an application, visit the CSU Larimer County Extension web page at www.larimer.org/ext or contact the Extension office at 970-498-6000. Applications were due by March 15, 2015. Karen Crumbaker <crumbakm@co.larimer.co.us>

Metro to Mountain Group

April 28, 6:00, pm– 9:00 pm Basic Botany – April – ECMR

May 5, 6:00 pm – 9:00 pm Basic Botany – May – ECMR

May 8, 15, 22, 8:30 am – 12:40 pm, NPM Course at Mt. Falcon

May 13, 8:30 am – 12:30 pm, Plants of Green Mountain

May 17, 8:30 am – 12:30 pm Plants of Green Mountain

May 19 & 23, 6:00 pm – 9:00 pm, Plant Families and Intro to Keying – ECMR and South Valley

May 28, June 4 and Jun 11, 8:30 am – 12:40 pm, NPM Course at South Valley

June 8, 10, 12, 8:30 am – 12:40 pm, NPM Course at Lair o' the Bear

June 16, 23, 30, 8:00 am – 12:10 pm, NPM Course at Green Mountain

June 22, July 27, Aug. 24, 8:30 am – 12:40 pm NPM Course on Wetland/Riparian Plants at the South Platte Park

June 25, 9:00 am – 10:30 am, Creating Your Own Native Plant Garden – CSU Extension-Denver

July 10, 17, 24, 8:30 am – 12:40 pm, NPM Course at Golden Gate Canyon State Park

July 11, 18, 25, 8:30 am – 12:40 pm, NPM Course at Reynold Park

July 22, 29, 9:00 am – 3:00 pm, Plant Field Sketching class

July 29, 8:00 am – 12:00 pm, Alpine Plants

August 1, 8:30 am – 12:30 pm, Grasses of Green Mountain class

August 25, 1:00 pm – 4:00 pm, Explore Gardening with Native Plants

September 19, 1:00 pm – 3:00 pm, Wildflower Collecting and Sowing class

Register for any class at <http://npm.eventbrite.com>

Pueblo County

Essential Botany: What You Need to Know to Successfully Identify Colorado's Native Plants. May 9, Sat. 9 am- 2 pm. To register, call the CSU Extension Office at 719-583-6566.

Teller County

Basic Botany Class - May 28, 2015 Woodland Park Library

Native Plant Master Course - May 29, June 5 & 12, Woodland Pk.

Native Plant Master Course - July 17, 24 & 31

For fees, registration, and additional information, contact Mark Platten, mark.platten@colostate.edu.

(News & Announcements continued on page 29)

CONSERVATION CORNER

The Mosquito Range Heritage Initiative's Rare Alpine Plant Project

by Ginni Greer

In 2014, I had the opportunity to search for *Eutrema penlandii* on Mt. Evans with a number of botanists and Colorado Native Plant Society members. When speaking with them, I realized that most of the 'alpine native plant community' knows nothing about the efforts being carried out in the Mosquito Range to locate and document the GPS locations of rare alpine plants.

The Mosquito Range is a unique area of high mountain peaks and passes, alpine cirques, and rich fens in Park County. Its unusual hydrology and geology create areas that contain many of the state's rare plants and natural communities. Additionally, atypical limestone outcrops and unglaciated uplands have created a biodiversity hotspot. Few other areas in Colorado support the number and rarity of plant species found here. Recreational opportunities abound in the area that at times threaten the fragile ecosystems of the rare alpine plants.

In 2010, Sheila Lamb of the US Forest Service South Park Ranger District (USFS-SPRD) suggested that the Mosquito Range Heritage Initiative (MRHI) apply for a grant from the US Forest Service RAC Secure Rural Schools to fund a Rare Alpine Plant Project. In the spring of 2011, MRHI was granted funding and the Mosquito Range Rare Alpine Plant Project had its beginnings. Initially this was to be a two year project to preserve and protect rare alpine plant communities in the Mosquito Range. Our focus was finding new populations of *Eutrema penlandii*, a threatened, federally listed plant and protecting them when they are in danger due to recreation. This species is an Ice Age relic occurring at elevations of 12,000 feet and up. When we started the project in 2011, there were nine known locations in the Mosquito Range and adjoining areas. We now know of 60 locations. The project has been such a success that we have continued to receive funding from a number of sources, allowing the project to expand beyond the original two years. We just completed our fourth year and plan to begin our fifth next season. As you can imagine, the goals, objectives and scope for the project have grown through the years.



Eutrema penlandii Photo © Ginni Greer

Eutrema penlandii, a member of the Mustard family (Brassicaceae), is a small (not over 6") perennial plant of the alpine tundra that has been found only in the Mosquito Range of Colorado. Each flower has 4 white petals. The heart-shaped basal leaves have rounded tips. The leaves and fruit (siliques) have stalks and are hairless, features that distinguish them from *Draba*. The siliques turn purple-black once they are mature, another distinguishing feature. It's thought to be an Ice Age relic. (from Taliga, Christine E. and Gina Glenne, 2011. Plant Guide for Penland's eutrema (*Eutrema penlandii*). USDA-Natural Resources Conservation Service, Colorado State Office. Denver, 80225-0426, http://plants.usda.gov/plantguide/pdf/pg_eupe10.pdf.)

MRHI set out to create a detailed botanical survey of rare alpine plant communities in relation to recreational roads & trails (authorized and unauthorized). Once plants are located, they are mapped with a Trimble GPS. The data are then downloaded into ESRI ArcMap, which allows us to share data with our partners and create maps of the known plant populations. We developed and continue to work to implement a conservation plan to protect these rare plant communities. In addition, we continue to educate community residents and visitors on our rare alpine plants and methods to preserve and protect them. The project team consists

of at least one botanist, a mapper, a trails manager, and environmental stewards.

A list of the rare plants in the Mosquito Range was compiled by Sheila Lamb (USFS - SPRD), Gina Glenne (USFWS) and Steve Olson (USFS), using information from the Colorado Natural Heritage Program records. The list was prioritized and this is the list from which we work. The list has changed slightly through the four years with new plants being added and the most common of the rare plants removed. The 2014 list is on the following page.

Critically Imperiled (S1)

Armeria maritima ssp. *sibirica*
Braya glabella
Draba weberi
Papaver radiculatum ssp. *kluanensis*
Draba globosa
Erigeron lanatus
Eutrema penlandii
Silene kingii (*gastrolychnis*)
Mertensia alpina
Viola selkirkii

Imperiled (S2)

Astragalus molybdenus
Braya humilis (*neotorularia*)
Castilleja puberula
Crepis nana (*askellia*)
Draba exunguiculata
Draba fladnizensis
Draba grayana
Draba oligosperma
Botrychium ssp.
Ipomopsis globularis

Machaeranthera coloradoensis
(*Xanthisma*)
Parnassia kotzebuei
Phippsia algida
Ranunculus gelidus (*R. karelinii*)
Saussurea weberi
Senecio soldanella (*Ligularia*)
Townsendia rothrockii

Vulnerable (S3)

Aquilegia saximontana
Chionophila jamesii
Draba crassa
Draba streptobrachia
Penstemon harbourii
Not Ranked (SNR)
Oxytropis podocarpa

The USFWS and BLM spearheaded setting up five permanent *Eutrema penlandii* research monitoring plots and two Modified Whittaker plots that are visited each year. The monitoring plots allow population trends and the health of plants to be noted. MRHI, in conjunction with Sheila Lamb, is also creating floristic lists of all the plants in the *E. penlandii* monitoring plots and in surrounding areas. Although this is a less scientific approach and we aren't always there at the same time of the year every year, it is a start at learning more about the plants in the Mosquito Range.

In addition to locating the rare plants, we record all instances where roads or trails encroach on the plant populations. Where possible, we close these illegal trails, as well as place rocks around the plants, and post conservation signage to protect the plants. Each year we monitor closures and re-do them when necessary. In 2014, MRHI was fortunate to have the assistance of an AmeriCorps NCCC crew for two weeks to assist with trail work and road closures. In addition to other work, they built one very impressive buck and rail fence. MRHI also partnered with Wildlands Restoration Volunteers (WRV) in 2014 to stop off road usage that has expanded into the Cameron Amphitheater in recent years, threatening six rare alpine plants that call this area home.

A not so fun part of the project has been noxious weed removal. We work at the lower elevations in areas that lead to national forest land to stop the spread of noxious weeds. Our focus has been *Matricaria perforata*, *Linaria vulgaris* and non-native thistles. We have concentrated our efforts in the towns of Fairplay and Alma, as well as neighboring communities. In 2013 we tried biological control of *Linaria vulgaris* by releasing *Calophasia lunula*. Unfortunately, when we checked on them in 2014, we saw no signs that they had survived the winter. We continue to educate the public wherever possible regarding how noxious weeds are spread and what individuals can do to help stop the spread.

Education remains one of our goals and takes on many different forms. We have set up a program for high school students to learn about trails, tools, and rare plants while meeting their volunteer requirements. We have worked with the Boys and Girls club in a weed pulling and tree planting project. We also conduct wildflower walks each summer, often with the USFS botanist. We attend HOA meetings to distribute information regarding noxious weeds and we sponsor community weed pulls. In addition, we attend local community events to talk about the rare plant project and noxious weeds and write noxious weed articles for newsletters. In 2014, MRHI held twelve Family Adventure Series programs. This summer environmental education series explored everything from bugs to backbones, birds to geology. These two-hour sessions featured fun, movement, crafts, and hands-on nature exploration for children from preschool to middle school. Another aspect of environmental education for children was the Story-Walk®. Story-Walk® is an innovative and delightful way for children to enjoy reading and the outdoors at the same time.

The last two summers, MRHI has been fortunate to have funding for four environmental stewards through the Southwest Conservation Corps. Stewards receive a small living stipend during the 10-week program, in addition to an education award upon completion of the program. The stewards gain valuable work and field experience in finding and keying plants, learning to map locations using a Trimble GPS, how to use ESRI ArcMap, and trail and conservation work.

In the four years (2011 – 2014) that MRHI has been exploring the Mosquito Range we have scouted 169 locations, found 60 new instances of *Eutrema penlandii* (not necessarily new populations), mapped 563 instances of rare plants, hiked 727 GPS miles or 979 'adjusted' miles, and explored approximately 1,187 'adjusted' acres.

Volunteers play a large role in all MRHI projects. Through the years we have had 675 volunteer hours contributed scouting for plants, 363 hours pulling noxious weeds, and 1,548 hours on trail work.

Our partners through the four years have included the US Forest Service South Park Ranger District, the US Fish and Wildlife Service, South Park National Heritage Area, Bureau of Land Management, the Coalition for the Upper South Platte, Park County GIS/Mapping Department, Park County Land and Water Trust Fund, and the Colorado Natural Heritage Program.



Locating and marking *Eutrema penlandii* Photo © Ginni Greer

According to Sheila Lamb, SPRD, the Forest Service and other partners have a need for information, especially related to rare, sensitive, threatened, and endangered species to assist with land management. But they don't have the funding to pay for research. "So, relationships with partners who are able to get this information are invaluable."

MRHI plans to continue the rare plant project in 2015. If you would like to join in the search for rare plants in the Mosquito Range sometime, please send an email to info@mrhi.org. We would love to have you!

To learn more about the Mosquito Range Heritage Initiative, go to our website, www.mrhi.org.

Ginni Greer is Secretary of the Mosquito Range Heritage Initiative.

House Bill 15-1006

by Jessica P. Smith

Background: A member of CoNPS has brought to the attention of the CoNPS Board and the Conservation Committee concern over a piece of legislation moving through the Colorado House of Representatives. This legislation is House Bill 15-1006, which would establish a grant program to manage invasive phreatophytes (invasive, non-native species, growing in the riparian corridors, and consuming a high amount of water), namely Russian olive and tamarisk.

Jennifer Bolton, a lobbyist on behalf of the Audubon Society, testified against the bill in the House Agriculture, Livestock, and Natural Resources Committee Hearing. Their society was afraid the bill did not go far enough to mandate restoration with native species. This hearing occurred on February 2, 2015. The bill passed unanimously out of committee, but it was amended to address some concerns of environmental lobbyists. Amendments at that time included "giving priority to proposed projects that demonstrate an integrated management approach to invasive phreatophytes and achieve specified management objectives". The bill was also amended "to protect the riparian habitat native to each basin in which projects are proposed". The bill can be found here: http://www.leg.state.co.us/CLICS/CLICS2015A/csl.nsf/fsbillcont3/F67AD6EA00B4C33187257D90007828BF?Open&file=1006_01.pdf and a summary of amendments here: http://www.leg.state.co.us/CLICS/CLICS2015A/csl.nsf/fsbillcont3/F67AD6EA00B4C33187257D90007828BF?Open&file=1006_01.pdf

Actions: Members of the CoNPS Conservation Committee investigated this bill. We solicited feedback from the CoNPS board. Members of the board were generally in support of the bill, and no negative feedback was received. Megan Bowes, Ecologist at the City of Boulder OSMP, responded her agency has received support from this program in the past. She hoped that the bill would not mandate any specific restoration prescription, because in some cases, depending on the existing plant community, the only prescription necessary is to remove invasives and let nature take its course. Jenny Neale contacted Anna Sher, Biology Professor at the University of Denver and expert on exotic invasives and restoration. She was supportive of the bill.

Mo Ewing and I also spoke with Steve Ryder, State Weed Coordinator with the Colorado Department of Agriculture, and Eric Lane, State Director of Natural Resources. Steve and Eric are also supportive of the bill, especially as amended in Committee. They believe that the bill provides the flexibility in managing invasive removal, and would not benefit from more specific requirements. Eric stressed that each site is different, and that some sites may need active restoration with native species, but in others, where the number of invasives removed was minimal and a healthy population of native plants was present, the best response would be to just let nature take its course. This bill will fund projects that use Best Management Practices as determined by the grant review committee. The committee will be an inclusive body, involving multiple stakeholders, including local representatives. Steve asked if CoNPS would like to be involved in the process of project review, and we agreed that we may have members who are experts and we may be able to be involved. We asked him to keep us in mind in that process.

Summary and Future Actions: Therefore, we believe this is not a bad bill and we should not oppose it. The bill has now moved to the House Appropriations Committee and will probably remain in a holding pattern until early April. If we want to actively support this bill, we should follow up with lobbyist Jen Bolton (who Eric Lane believes is now in support of the bill) and Brent Moore, lobbyist with the Colorado Weed Management Association and Colorado Association of Conservation Districts. I will get their contact information and reach out to them, asking if they recommend taking any action on moving this bill forward, and what CoNPS can do if our Board decides to actively support this bill (i.e., to whom to write a letter). Mo and I believe this may be a good way to establish a conservation advocacy partnership with them.

Jessica P. Smith is a member of the CoNPS Board of Directors and works for CNAP (Colorado Natural Areas Program).

Southern Rockies Seed Network and CoNPS Cross Pollinate

by John Giordanengo

Ecological restoration succeeds in large part by establishing the right plants, at the right time, and in the right place. Although the last two requirements are easily met by skilled restoration practitioners, obtaining the right plants has proven challenging in our region. The right plants are those that are locally adapted, their genetics honed by hundreds if not thousands of years of evolutionary pressures such as drought, fire, herbivory, a multitude of pests, a wide range of weather conditions, and combinations of all these factors. Such plants may be referred to as ecotypes. Over the past decade, the demand for ecotypic plants has been largely unaddressed. Given the rate and extent of ecological disturbance in our ecoregions—booming extractive industries, wildfires, floods, urbanization, habitat loss, and other anthropogenic disturbances—and knowing well the desire for ecotypic seed among land management agencies and industry, developing reliable sources of ecotypic seed is critical to maintaining the integrity of Colorado's ecosystems and native flora.

Pooling Demand for Native Ecotypes

The unmet demand for ecotypic seed, cuttings, and containerized plant materials within our ecoregion exists in large part due to a historic reliance upon mass-produced plant cultivars, a lack of consistent and focused demand for ecotypic plants, and a scarcity of proper production and storage facilities. Furthermore, adequate investment in research and development for ecotypic plant materials has failed to keep pace with a rapidly evolving restoration industry. To address these challenges, the Southern Rockies Seed Network formed in 2014, thanks to the dedication of more than 40 agency and industry partners in Colorado and Wyoming. The seed network is working to develop ecotypic workhorse plant materials (i.e., those most commonly used in ecological restoration) as well as niche ecotypic seeds to meet targeted partner needs (i.e., pollinator plants, shrubs for mineland reclamation, or propagation of rare species for conservation). These plant materials would become available through a network of industry partners such as nurseries, seed companies, community gardens, etc. The seed network is also able to contract-grow plant materials for specific partners.

Seed Network Functions

Myriad other functions of the Southern Rockies Seed Network include: pooling seed needs across a broad partnership to focus demand in the marketplace; increasing production capacity through education and networking among strategic partners; coordinating seed collection efforts, production, storage, and testing activities; developing a sound provenance system; marketing; and research and development to improve knowledge and practice of using ecotypic seed. Curiously, one of the most challenging parts of this work will be finding remnant populations of native plants that have not been genetically altered by cultivated varieties of native plants. If such genetic degradation seems far fetched, consider for a minute the case of Colorado's native Greenback Cutthroat trout, which have reached the furthest limits of extinction due to hybridization with the non-

native Rainbow Trout. It is no stretch of the imagination that a great many of our native plants are far more promiscuous than trout, readily forming hybrids where their populations come close enough together that natural pollination barriers are overcome.

CoNPS Members Can Play a Valuable Role

Developing a sustainable seed network poses many challenges, none of them insurmountable as can be attested to by the dozen or so existing successful seed networks across the country. However, such an effort should never be attempted without the sincere support of partner organizations such as the Colorado Native Plant Society. Recognizing the values and interests of their flora-loving members, The Colorado Native Plant Society and the Southern Rockies Seed Network are forging an inter-organizational agreement that will, in part, strategically engage CoNPS volunteers in collecting native ecotypic seed and locating remnant native plant populations throughout Colorado. "We are looking for experiences that make this love of plants meaningful and that bring us together with others who feel the same way," says Denise Wilson, secretary of the CoNPS board of directors and seed collection guru. "Native seed collection in our wild habitats is a perfect volunteer activity to learn, meet friends new and old, get outdoors, give back to the environment, and have fun doing something we love!"

Training and Seed Collection Opportunities for CoNPS Members

Trainings for native seed collection and identification of remnant native plant populations will be held in June and July of 2015. Stay tuned to CoNPS and/or Synergy for an invitation for training, as well as seed collection events to be held throughout the spring, summer, and fall!

Intriguing Questions

A great richness of fascinating research questions also provides an opportunity for CoNPS members to be engaged in the seed network. Although there is much the industry has learned from the poor performance of cultivated native trees moved too far from one portion of their range to where they are planted, there is much to learn with respect to the genetic variation among populations of native grasses and forbs across their geographic distribution. Research by the USFS on the adaptability of cultivated trees to reforestation sites distant from the source populations found observations on poor growth and survival, and that maladaptation took time to develop. These observations led to the development of the first "seed movement" guidelines in 1939. These guidelines were further revised in 1966, including general seed movement guidelines such as a maximum of 1,000 feet in elevation, and a maximum of 500 miles in latitude, between "source of plant stock" and the "site to be restored."

More recently, Bower et. al. (Generalized Provisional Seed Zones for native plants. *Ecological Applications*, 24(5), pp

913-919) developed a map of provisional seed zones for all of North America, based on an aridity factor and minimal annual temperatures, overlain atop Level III ecoregions. Although this work is helpful to the industry, much region- and taxa-specific work remains to be done.

Such genealogical research is essential to help understand “how local is local.” In other words, much research is needed to better understand if the Western wheatgrass (*Pascopyrum smithii*) collected in Boulder County can be used for restoration only in Boulder County, or if it is “genetically appropriate” to use that species throughout eastern Colorado, or even into Wyoming. The Native Plant Materials Policy (FSM 2070.3) requires that practitioners “Ensure genetically appropriate native plant materials are given primary consideration.” The policy defines “genetically appropriate” as: (a) Adapted to target site conditions; (b) Genetically diverse; (c) Unlikely to cause genetic contamination; (d) Not likely to become invasive; (e) Not likely to be a source of non-native pathogens; and (f) Likely to maintain critical connections with pollinators.

FROM THE PAST TO THE FUTURE: Exotics, Cultivars, and Ecotypes used in Revegetation

In order to understand where we are in the ongoing saga of revegetation and restoration science and practice, it is important to have at least a glimpse at history. The evolution from a revegetation paradigm primarily dependent upon introduced species to one that is more restorative in nature, utilizing the benefits of site-specific populations, has been gradual. Many of the initial revegetation materials consisted of introduced species that, although successful in their original mission of critical area stabilization, soon became invasive. Examples include kudzu (*Pueraria lobata*), crownvetch (*Coronilla varia*), Russian olive (*Elaeagnus angustifolia*), and others. By the mid-1980s, the revegetation paradigm began to shift towards the use of improved native cultivars, and much gratitude is given to the NRCS plant materials centers for creating a diverse source of native plants to meet the growing restoration needs emerging in the US at the time. These cultivars were a great leap forward from the previous reliance upon entirely non-native species for ecological restoration, and it is likely such cultivated natives will provide an important source of restoration materials for decades to come.

In the late part of 20th century the industry shifted once again, with a focus on local ecotypes, revealing the steady progress towards locally adapted plant materials. Several federal and state orders, mandates and guidelines have encouraged the use of ecotypic plant materials in restoration. Much of this change was spawned by the Federal Native Plant Conservation Memorandum of Understanding of 1994 (renewed in 2014), whereby 11 federal agencies agreed to ensure that “to the greatest extent feasible, native plant species are maintained, enhanced, restored, or established on public lands, and that such activities are promoted on private lands.” In 1995 those agencies partnered with 53 organizations to form the Plant Conservation Alliance, which has coordinated efforts nationally. Other influential promulgations include: Executive Order 13112 (Invasive Species, 1999); Native Plant Conservation Initiative

National Strategy (1995); USDA’s efforts to “Preserve, Maintain, and Enhance the Diversity of Plant Communities” (36 CFR 219); Guidelines for Burned-Area Emergency Rehabilitation, encouraging use of seeds that originate from genetically local sources of native species (WO Amendment 2500-2000-2, 2523.03); the Native Plant Materials Development Program (2001, CFR, BLM), and the *Forest Service Seed Handbook* (FSH 2409.26f, Seed Handbook, R2 Amendment 1993).

Most recently, the June 20, 2014, Presidential Memorandum on Pollinators provided another boost for the development of native ecotypic plants for restoration. In part the presidential memorandum directs (Sec 3(f)) that: “The Departments of Agriculture and the Interior shall establish a reserve of native seed mixes, including pollinator-friendly plants, for use on post-fire rehabilitation projects and other restoration activities.”

It is with this brief history in mind that we embrace a meaningful relationship with the Colorado Native Plant Society, forging a future of working together toward the ongoing preservation of Colorado’s native flora.

Interested in Learning More?

A seminal program of Synergy Ecological Restoration, the Southern Rockies Seed Network is working to raise funds and is seeking out assistance with website and database development, marketing, research, etc. Myriad interesting opportunities exist for passionate plant enthusiasts to help make this seed network grow. If you are interested in learning more about this network, or in growing seed, providing funding, conducting research, volunteering on seed collection projects, and the like, please contact John Giordanengo at 970-420-7346 or john@synergy3.org. With some light lifting by many hands, we can get this budding network off the ground!

Conservation Committee Meeting Summary

Many members of the Conservation Committee met for a brainstorming session on February 6, 2015. This is a brief outline of the ideas that were discussed. For a more complete summary, see the CoNPS website under Conservation Committee.

I. On-the-Ground Conservation/Restoration Projects

A. CoNPS should not try to run our own on-the-ground programs. There are numerous opportunities to do conservation projects run by other organizations. We should partner with other organizations and offer joint conservation programs for our members. We should be a source for conservation volunteers. We may pick up new members by partnering with other organizations. We will choose two or three joint programs this year to test CoNPS member interest in these programs.

II. Public Comments

A. The consensus was that CoNPS should continue to respond to requests for public comments, recognizing that our impact will probably be greater on local interests.

B. Chapter presidents should be contacted to identify one or more people in their chapter to keep an eye on local issues and inform the chapter president of important local issues needing comment.

III. Ongoing Programs Run by CoNPS for Fun and Education

A. Types of Programs - plant ID, rare plants, open space

B. Specific Programs

1. Adopt-a-Rare Plant Program (call it Rare Plant Treasure Hunt) – presently run by Colorado Natural Heritage Program and Denver Botanic Gardens - keep this program going with CoNPS support.

2. Phenology studies

3. CoNPS Annual Field Studies Bioblitz

4. Other suggestions to consider in the future

IV. Ideas for the Conservation Corner column in *Aquilegia*

A. Conservation Corner should be used to educate our members about conservation in Colorado

B. Write a series of articles about conservation organizations and programs in each chapter region

News & Announcements (cont. from p. 23)

CoNPS Twitter Account!

Follow CoNPS on Twitter @ColoradoNPS

Aquilegia coerulea var. *daileyae* Locations

Aquilegia coerulea var. *daileyae* is being studied by researchers at the University of California, Santa Barbara. They have located sites at Reynolds Park and Hermit Park but are interested in new sites where the plant can be found. The variety has no nectar spurs but two sets of sepals making the flower look like a *Clematis*. If you know of other locations where *Aquilegia coerulea* var. *daileyae* occurs, please contact Scott Hodges at scott.hodges@lifesci.ucsb.edu and Zac Cabin at zacharycabin@gmail.com. In addition, if you know of a rental (with 2 beds and cooking facilities) available from mid-June through early August in the Reynolds Ranch area near Conifer, please contact Zac.

Photo © Al Schneider www.swcoloradowildflowers.com



Front Range Wild Ones Calendar of Events

Wednesday, April 8; 7 pm - Creating a Suburban Wildlife Oasis by Marcia Tatroe

Wednesday, May 6; 7 pm - Pollinator Gardens by Susan Smith

June, July, August - Garden Tours, TBA

Wednesday, September 2; 7 pm

Wednesday, October 7; 7 pm - Guest Speaker: Nick Daniel, Denver Botanic Gardens

Wednesday, November 4; 7pm

*Chapter meetings are held at Englewood Library in the Anderson Room on the first Wednesday of the month.

<https://frontrangewildones.wordpress.com/calendar/>

Wildlands Restoration Volunteers Weed Pulls

Sat. April 18

Purge Your Spurge Plant Exchange, 9am-Noon. Bring in your bagged Myrtle Spurge in exchange for Free Native Plants! Boulder County Fairgrounds in Longmont, CO. (303) 543-1411 X 3#

Myrtle Spurge 1 - Spruce Gulch, Boulder (Volunteer Project), 8am-4pm. Spend a beautiful day with other volunteers helping to rid the state of the noxious weed Myrtle Spurge. Lunch provided. No experience necessary. Minimum Age 16 (accompanied by an adult). To sign up go to www.wlrv.org and select "Current Project Schedule" or call Morgan (303) 543-1411 X 3#

Sat. April 25

Purge Your Spurge Plant Exchange, 9am-Noon. Bring in your bagged Myrtle Spurge in exchange for Free Native Plants! Daughenbaugh Open Space located on West Cherry St. East of McCaslin Blvd. in Louisville, CO. "Purge Your Spurge" on Facebook or (303) 543-1411 X 3#

Purge Your Spurge Plant Exchange, 9am-2pm. Bring in your bagged Myrtle Spurge in exchange for Free Native Plants! 900 Jefferson County Pkwy, Golden, CO. "Purge Your Spurge" on Facebook or (303) 543-1411 X 3#

Sat. May 2 (This one is co-sponsored by CoNPS Boulder Chapter!)

Purge Your Spurge Plant Exchange, 9am-Noon. Bring in your bagged Myrtle Spurge in exchange for Free Native Plants! 6400 Arapahoe Rd., Boulder, CO. "Purge Your Spurge" on Facebook or (303) 543-1411 X 3#

Myrtle Spurge 2 - Olde Stage Road, Boulder (Volunteer Project), 8am-4pm. Spend a beautiful day with other volunteers helping to rid the state of the noxious weed Myrtle Spurge. Lunch provided. No experience necessary. Minimum Age 16 (accompanied by an adult). To sign up go to www.wlrv.org and select "Current Project Schedule" or call Morgan (303) 543-1411 X 3#

Wed. May 6

Myrtle Spurge 3 - Wonderland Lake, Boulder (Volunteer Project), 8am-4pm. Spend a beautiful day with other volunteers helping to rid the state of the noxious weed Myrtle Spurge. Lunch provided. No experience necessary. Minimum Age 16 (accompanied by an adult). To sign up go to www.wlrv.org and select "Current Project Schedule" or call Morgan (303) 543-1411 X 3#

Sat. May 16

Purge The Spurge Plant Exchange 9 am-Noon. Denver Natural Area's Program will be hosting the first of two Purge The Spurge events on Saturday, May 16th at the CSU Extension Denver office (888 East Iliff Avenue Denver, CO) in conjunction with the "Plant-a-Palooza" plant sale.

Sun. May 17

Myrtle Spurge 4 - North Table Mountain, Golden (Volunteer Project), 8 am- 4 pm. Spend a beautiful day with other volunteers helping to rid the state of the noxious weed Myrtle Spurge. Lunch provided. No experience necessary. Minimum Age 16 (accompanied by an adult). To sign up go to www.wlrv.org and select "Current Project Schedule" or call Morgan (303) 543-1411 X 3#

Sat. June 6

Purge The Spurge Plant Exchange 9am-Noon. Denver Natural Area's Program will host another Purge The Spurge event on Saturday, June 6 at the Denver City Park Greenhouse.

Sat. September 15

Myrtle Spurge Spruce Gulch 2.0 (Volunteer Project), 8 am - 4 pm. Spend a beautiful day with other volunteers helping to rid the state of the noxious weed Myrtle Spurge. Lunch provided. No experience necessary. Minimum Age 16 (accompanied by an adult). To sign up go to www.wlrv.org and select "Current Project Schedule" or call Morgan (303) 543-1411 X 3#

Colorado Native Plant Society Membership Form

Name _____

Address _____

City _____ State _____ Zip _____

Phone _____ E-mail _____

Chapter (if known) _____

If this a change in address, please write your old address here.

Address _____

City _____ State _____ Zip _____

Most members receive the *Aquilegia* newsletter electronically.

Check the box if you would like to receive the printed copy of *Aquilegia*.

Please make check payable to: Colorado Native Plant Society

Chapters : Boulder, Gore Range, Metro-Denver, Northern, Plateau, Southeast, or Unaffiliated.

DUES include newsletter *Aquilegia* published quarterly.
Membership dues cover a 12-month period

- New Renewal
 Student \$17 Senior (65+) \$17 Individual \$25
 Family \$35 Plant Lover \$50 Supporting \$100
 Patron \$250 Benefactor \$500 Lifetime Member \$800

CONTRIBUTIONS to CoNPS are tax deductible

John Marr fund for research on the biology and natural history of Colorado native plants \$ _____

Myrna P. Steinkamp Memorial fund for research and other activities to benefit the rare plants of Colorado \$ _____

Send completed form and full remittance to:
CoNPS Office
PO Box 200
Fort Collins, CO 80522

Check box to receive information on volunteer opportunities

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ADMINISTRATIVE COORDINATOR..... Linda Smith..... conpsoffice@gmail.com

CoNPS CALENDAR

APRIL 2015

Apr 9 Assessing post-flood riparian conditions (program) (B)
Apr 13-16 National Native Seed Conference, Santa Fe, NM
Apr 15 Soc. of Wetland Biologists RM Chapter Annual Mtg.
Apr 18 Rock Garden Society meeting at Denver Bot. Gardens
Apr 24 Phenology class at Denver Botanic Gardens
Apr 25 Grass ID Workshop, Castle Rock, 9 am -3 pm
Apr 25 Staunton State Park (MD)
Apr 25-26 AZNPS Annual Meeting, Flagstaff, AZ
Apr 26 Winter Willow ID Workshop, Loveland
Apr 29 Early Spring Hike in Northern Jefferson County (B)

MAY 2015

May 2 Purge Your Spurge - Myrtle Spurge Weed Pull (B)
May 2 Tabeguache Trail (near Grand Junction) Hike (P)
May 2-3 Wildflowers of Red Rock Park, Gallup, NM (SJ)
May 5 *Phacelia* chapter program (MD)
May 7 Butterfly Use & Pollination of CO *Eriogonum* Program (N)
May 9 Essential Botany Class (SE)
May 13 Demonstration Gardens, Northern Water Conservancy District, Berthoud, CO Field Trip (N)
May 14 Early Spring Gems of Six Mile Fold Hike (B)
May 15 William F. Hayden Park on Green Mountain (MD)
May 16 High Plains Environmental Center (HPEC) Huge Native Plant Sale, Loveland
May 16 Birds and Botany in Cheesman Canyon Hike (SE)
May 20 Roxborough State Park Hike (MD)
May 20 Sand Canyon, Canyons of the Ancients (SJ)
May 23 Rabbit Mountain Open Space Hike (N)
May 30 CoNPS Board Meeting, Regis U. Library, Denver
May 31 Staunton State Park Hike (MD)
May 31 Watering Holes, Pawnee Grasslands Hike (N)
May 31 Log Hill Mesa, North of Ridgway (P)
May 31 Timpas Creek Hike (SE)

JUNE 2015

June 5-7 Trees & Wildflowers, Shambhala Mtn. Center
June 6-7 Wildflowers of Southeast Utah (SJ)
June 7 Red Rocks Park Hike (MD)
June 7 Phantom Canyon Hike- Full (N)
June 10 Owl Canyon Pinon Pines Hike (N)
June 11 The Drunken Botanists—Hike and Dinner (B)
June 13 Greenhorn Mountain (SE)
June 14 Vedauwoo Rec trails Hike, east of Laramie, WY (N)
June 14 Elk Park on Pikes Peak Hike (SE)
June 20 Cottonwood Pass Hike (SE)
June 20 East Bear Gulch Trail Hike (SE)
June 20 Willow Identification Hike (MD & B)
June 21 Willow Identification Hike (MD & B)
June 21 Wildflowers and Views, Mesa Verde Nat. Park (SJ)
June 24 Mount Goliath and Summit Lake (MD)
June 26-28 BioBlitz in the Wet Mountains (SE)
June 27 Golden Gate Canyon State Park Hike (MD)
June 27 Middle Cherokee Park Hike (N)
June 28 Staunton State Park Hike (MD)

JULY 2015

July 2 Rocky Mtn Nat Park, Forest Canyon Pass Hike (MD)
July 7 Caribou Ranch Hike (B)
July 8 Well Gulch, Lory State Park Hike (N)
July 8 Wildflowers of Hermosa Fens & Wetlands, Bolam Pass (SJ)
July 9 Hoosier Ridge – East (MD)
July 10 Rocky Mtn Nat Park— Cub Lake/The Pool Loop Hike (B)
July 10-13 - American Penstemon Society Annual Meeting, Chico, CA
July 11 Pulling for Colorado Event- Weed Pull (MD)
July 11 Cordova Pass Trail in the Spanish Peaks Hike (SE)
July 12 Lost Lake, off Little Laramie River Road, Laramie, WY (N)
July 15-19 Crested Butte Wildflower Festival
July 18 Rocky Mountain Alpine Plants – Ute Trail Hike (B)
July 18 Buffalo Canyon above Helen Hunt Falls Hike (SE)
July 22 Lower McCullough Gulch Near Breckenridge Hike (MD)
July 24-26 Shelf Lake Area Field Trip & Opt. Camp Out (MD & N)
July 24-27 Eriogonum Society Annual Meeting, Reno, NV
July 25 Goose Creek Trail Hike (SE)
July 30 – Hoosier Ridge West Field Trip (GR)

AUGUST 2015

Aug 1 Rocky Mtn Nat Park, Wild Basin Area Hike (MD)
Aug 1 Lower McCullough Gulch, south of Breckenridge (N)
Aug 2 Staunton State Park Hike (MD)
Aug 5 James Peak Wilderness Crater Lakes Trail Hike (MD)
Aug 9 Trail Ridge Road, RMNP, west of Estes Park, CO (N)
Aug. 12 Dan & Anne Clark's Native Plant Garden, Loveland (N)
Aug 15 Middle Bald Mtn near Red Feather Lake Hike (N)
Aug 22 Signal Mountain Trail (N)
Aug. 22 Wild Mushroom Hunting -- and Eating in S. CO (SJ)
Aug 27 South Boulder Creek Floodplain Hike (B)
Aug 28-30 *Carex* Workshop - Tony Reznicek, Rocky Mountain Biological Laboratory, Gothic, CO

SEPTEMBER 2015

Sept 9 Cathy Fromme Prairie (West) Hike (N)
Sept 11-13 Native Plants & Pollinators, CoNPS Annual Conference & Annual Colorado Rare Plant Symposium, American Mountaineering Center, Golden, CO
Sept 19 CoNPS & Front Range Wild Ones Annual Seed Swap and Plant Sale, Butterfly Pavilion, Broomfield, CO
Sept 26 Hugh's Cabin Barbecue and Hike, Poudre Canyon (N)

OCTOBER 2015

Oct 4 Castlewood Canyon State Park Hike (MD)
Oct 17 Landscaping with Native Plants Workshop, Pueblo

KEY

B	Boulder Chapter
GR	Gore Range Chapter
MD	Metro-Denver Chapter
N	Northern Chapter
P	Plateau Chapter
SE	Southeast Chapter
SJ	San Juan/Four Corners Native Plant Society



Colorado Native Plant Society

P.O. Box 200

Fort Collins, Colorado 80522

<http://www.conps.org>

Harlequin's Gardens



SOIL NOT OIL by Mikl Brawner

Who came up with the fears?
That insects are bad?
That fungi are bad?
That bacteria are bad?
That we should use oil to poison them?

Money made somebody make some things up.
Poisoning Life has never been a good idea.
But we've grown up since the 20th Century;
Our view is bigger now.

We see the soil as alive with millions of beings,
Supporting and surviving together,
Feeding the plants that feed the soil
And consuming carbon and our wastes,
And storing the energy as fertility.

This is natural; this is native; this is good.
This is the support system for photosynthesis:
The way we got our energy for thousands of years—through plants.
Humans can support Life. We can grow nutritious food. We can feed Life.
And we can say, "No, not at all," to neonics.
They kill and sicken our insects, and more, for a long time.

Enough of poisoning our earth.
Save the bee-ings.
We Want Life Back.



Harlequin's Gardens New Western Garden features many Colorado natives

100% Neonic-free Plants
Many Local & Regional Native Plants
Beekeeping Supplies
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Good Classes; Knowledgeable Staff
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