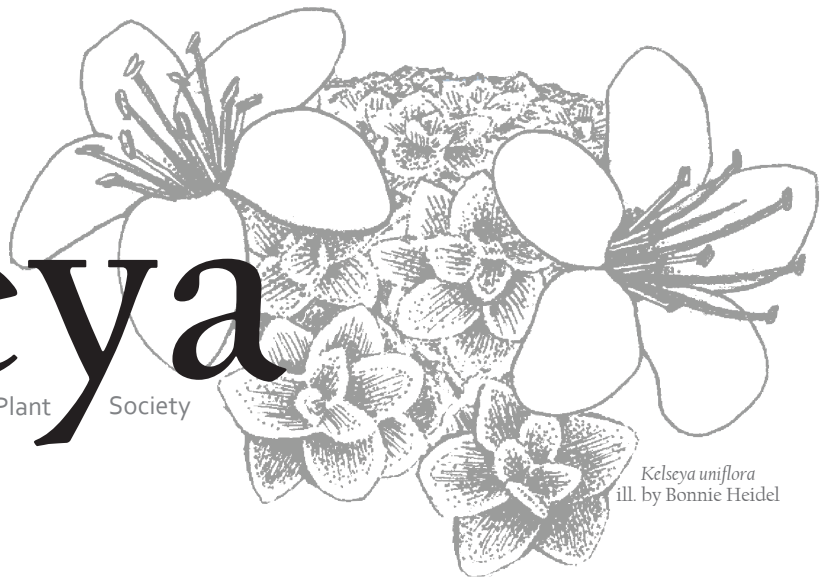


Kelseya

Newsletter of the Montana Native Plant Society



Kelseya uniflora
ill. by Bonnie Heidel

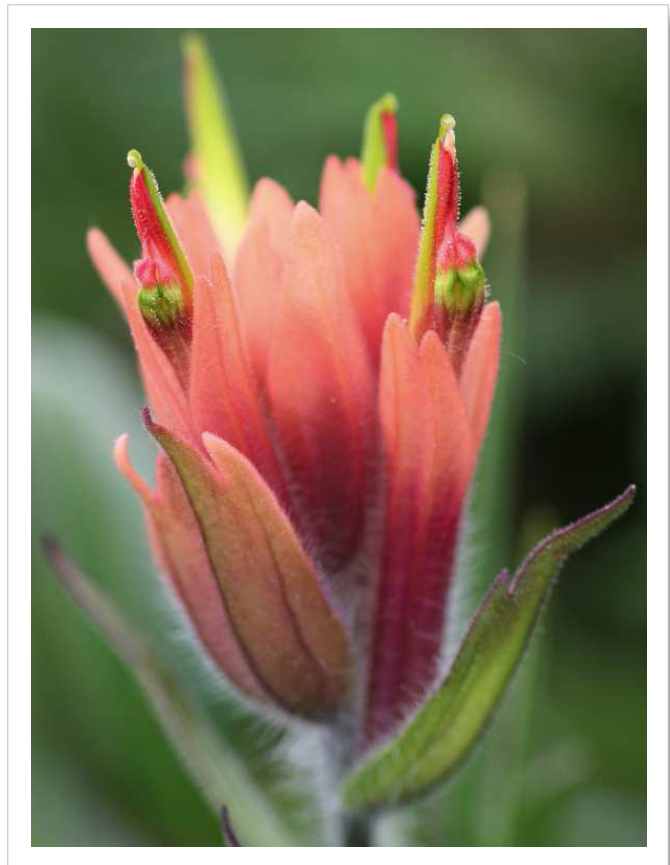
A New *Castilleja* Species for Montana

by Mark Egger, University of Washington

The Scapegoat Plateau is a wondrous place, not only from the standpoint of its sublime alpine and subalpine scenery and unusual limestone geology, but also for its magnificent wildflower gardens. However, until 2009, I'd never heard of the place! Sure, I'd hiked Glacier National Park, visited some of the mountains of southwestern Montana and read about the vast wilderness of the Bob Marshall, but I'd never heard of the Scapegoat Wilderness Area, nor of the plateau from which it derives its name.

But I did know noted Montana botanist Peter Lesica, of the University of Montana, and he knew of my long-time devotion to the study of the many species of the genus *Castilleja* (Indian Paintbrush) and related plants. Thus he sent me a few photos of a *Castilleja* he and Nature Conservancy botanist Dave Hanna found growing on Flint Mountain, one of the high ridges on the continental divide adjacent to the Scapegoat Plateau. They could not place the plants with certainty to any of the known species of *Castilleja*, and so the plants first came to my attention. While I certainly do not have the breadth of knowledge of plants typical of botanical professionals, I do know my paintbrushes and I knew right away that Pete and Dave had discovered something very unusual.

After conveying my first impressions about the photos, Peter sent me his collections of the unusual plants via the University of Washington herbarium, where I am a research associate. After examining these specimens I was fully convinced that it was likely they had located a species new to science. It was the winter, though, and we realized that we would need more



Castilleja kerryana. Photo by Mark Egger.

material and a more complete knowledge of the variation in the plants themselves, as well as their distribution, ecology and population numbers, before we could

continued on page 6

Chapter Events

Calypso Chapter

The Calypso Chapter had a great summer season with well-attended field trips. We now are working on our fall-winter schedule and hope to have a couple of presentations before our annual Christmas Potluck in on Dec. 8. That event will be hosted by Catherine and Bill Cain, 11 am to 2 pm at their home outside Glen. All Calypso members are invited to come help plan our activities in 2014. Put it on your calendar and RSVP to 498-6198 or nativeplants@montana.com.

Clark Fork Chapter

Thursday, 10/10, 7:30 pm. Cleaning and Stratifying Native Seeds. Join Kathy Settevendemie (Blackfoot Native Plants) and Bryce Christiaens (Native Ideals Seed Farm) for this workshop on how best to treat native seeds for maximum germination. Rm 203, Natural Sciences Bldg. (formerly Botany Bldg.), UM Campus.

Thursday, 11/14, 7:30 pm. Wildflowers at the Gates of the Arctic. Come hear Madeline Mazurski tell about her travels in one of Alaska's national parks. Montana Natural History Center, 120 Hickory Street (note different location).

Thursday, 12/12, 6:30 pm. Holiday Potluck. The Chapter will hold it's annual holiday gathering in the Del Brown Room, Turner Hall, UM Campus on the northwest side of the Oval. With luck, parking will be available west of the Gallagher Bldg. in lots or on streets off Arthur and Connell Aves. Maps will be emailed in early December. Bring plates, utensils and a dish to share. Alcoholic beverages are okay! Don't forget to bring a few of your favorite slides or digital pictures from the summer. Info: Peter at 728-8740 or Kelly at 258-5439.

Monday, 1/13/2014, 7:30 pm. MPG Ranch. Ranch manager Philip Ramsey will talk about the natural history and wildlife of MPG Ranch. This conservation property covers diverse habitats across more than 9,500 acres in the Sapphire Mountains. The presentation will explore the ranch's history, restoration efforts, plant monitoring and wildlife use. Rm 123, Gallagher Business Bldg., UM Campus. This is a joint meeting with Montana Audubon (note different day and location).

Flathead Chapter

Chapter meetings are held at Teakettle Community Hall, 235 Nucleus Ave., Columbia Falls, unless otherwise noted. For more information, contact Rachel at 892-2446 or Jen at 270-7028.

Wednesday, 10/17, 5:30 pm. Potluck Dinner. We'll be sharing adventures from the summer and planning events for the coming year. With no program, this evening gives us time for socializing. Bring dishes, utensils and some food to share.

Wednesday, 11/20, 7:00 pm. Program TBA. The program will begin at 7, but members are encouraged to come to the 5:30 business meeting beforehand to discuss and help plan Chapter activities. Feel free to bring a sack supper.

Wednesday, 12/18. Christmas Party. Time and Place TBA.

Kelsey Chapter

Chapter president Kathy Lloyd is passing the torch after 17 years (!) of leadership. Who will she pass it to? Chapter members are encouraged to contact Kathy to find out about this great opportunity to champion the cause of native plants and to connect and engage people in activities around this subject. Info: Kathy at 449-6586.

Maka Flora Chapter

For information on upcoming events, contact Libby Knotts at 774-3778, rek@midrivers.net.

Valley of Flowers Chapter

Meetings are held at 7 pm on the second Tuesday of each month from October through April in room 108, Ag Biosciences Building, MSU campus unless otherwise announced. Info: Joanne at 586-9585.

On **September 17**, Chapter members met to begin planning for the **2014 MNPS Annual Meeting**, which the VOF Chapter is hosting June 27-29 at Luccock Park Methodist Camp in Paradise Valley, south of Livingston. Ideas and suggestions for activities and field trips are welcome!

Tuesday, 10/8. Landscaping with Montana Native Plants. Sandy Blake, owner of the Blake Nursery north of Big Timber since 1977, will share her experience as a long-time resident in our climate.

Tuesday, 11/12. Managing Native Plants for Wildlife. NRCS biologist Peter Husby will discuss his observations of local areas that doing well as he travels about for his job.

Tuesday, 12/10. Holiday Pot Luck. Details to follow.

Eastern At-Large

Dave Shea (Choteau) is the representative for MNPS members east of the continental divide who do not affiliate with any Chapter. For information about meetings or upcoming events, contact him at 466-2161.

Western At-Large

Following Judy Hutchins' able leadership, Jon Reny (Libby) is the new representative for MNPS members west of the continental divide who do not affiliate with any Chapter. He is working on activities for the year and would love to hear your thoughts. You can reach him at 334-0459, jreny@kvis.net.



Why Are Plants Giving You A Buzz?

by Peter Lesica

Perhaps right now you're sitting at the kitchen table or your computer reading *Kelsey* and sipping a cup of coffee or tea. Often we love these drinks, as well as many soft drinks and chocolate, because of the caffeine they contain. Wikipedia says that 90% of all Americans consume caffeine daily and that it is the world's most widely consumed psychoactive drug. This common stimulant comes from plants: coffee (*Coffea arabica*), tea (*Camellia sinensis*) and cacao (*Theobroma cacao*). We know what we get out of caffeine, but what are the plants that produce it getting? If you think plants are making caffeine so you can have your chocolate high or hot cup of joe, read on.

In humans, caffeine produces a stimulating effect in the brain by counteracting the anti-stimulation properties of adenosine. But caffeine is an alkaloid, and many alkaloids are poisonous and function to defend plants against predators and herbivores. Caffeine helps protect tea bushes from shot-hole borers. It does this not by poisoning the beetles directly but by limiting the growth of the fungus that young larvae feed on. As a result adult beetles are inhibited from depositing eggs on plants with higher levels of caffeine. Caffeine also inhibits the growth of the fungus that causes "witches' broom" in cacao plants.

Modern techniques of gene transplanting have also provided evidence for caffeine's ability to deter herbivores. Tobacco cutworms are one of the most serious pests of commercial tobacco, and these moth larvae are immune to tobacco's main alkaloid defense, nicotine. Geneticists have successfully transferred the genes that produce caffeine in coffee into tobacco plants. They found that leaves of these transgenic tobacco plants were repellant to cutworms and that this effect was due to the leaves' ability to produce caffeine. Furthermore, the transgenic plants were more resistant to tobacco mosaic virus and *Pseudomonas* blight.

In addition to having the poisonous effects of an alkaloid, caffeine also is a diuretic (it makes you have to pee more often). For those of us who drink tea or coffee this isn't a big deal and gives us an excuse to get away from the computer screen for a couple minutes. However, biologists have speculated that in arid environments caffeine can have a deleterious effect, causing animals to lose their single most precious commodity—water. So ingesting caffeine is to be avoided by animals that hope to survive when water is at a premium. This benefits any plants producing caffeine where it's dry.

So plants use caffeine to do dirt to their animal enemies. Are we the only animals that benefit from caffeine? It turns out that honeybees and perhaps other nectar-feeding insects derive a "buzz" similar to the one we experience, and although it might make them happy, it benefits the plants as well. Recently biologists have found that the nectar in coffee flowers contains a small amount of caffeine. The caffeine reduces the anti-stimulation properties of adenosine in the insect brains just as in humans. The increased stimulation resulting from the caffeine was associated with a threefold increase in the bees' ability to remember the scent of the flowers and return to them repeatedly. By using a drug to enhance memories of reward, coffee plants secure pollinator fidelity and improve reproductive success. So while tea bushes are using caffeine to chase away their enemies, coffee trees are using it to woo their pollinators. Next time you see a honeybee at the breakfast table offer her a cup of dark roast; she'll be sure to remember you.

Further reading

Kim, Y. and H. Sano. 2008. "Pathogen resistance of transgenic tobacco plants producing caffeine." *Phytochemistry* 69: 882-888.

Wright, G. A., D. D. Baker, M. J. Palmer et al. 2013. "Caffeine in floral nectar enhances a pollinator's memory of reward." *Science* 339:1202-1204.



Coffea arabica. New Oxford Book of Food Plants by J.G. Vaughan and C. A. Geissler



2013 Annual Meeting Roundup

A Little Botany in the Little Belts: Lots of Fun

by Kathy Lloyd, Kelsey Chapter

The MNPS annual meeting, hosted by the Kelsey Chapter, was held at Camp Rotary in the Little Belt Mountains the first weekend in July. The weather was perfect, the flora was in glorious bloom and the facility was ideal.

A grass class conducted by MSU's Matt Lavin took place on Friday afternoon and was a huge success (look for a writeup next issue). Saturday field trips took participants to King's Hill/O'Brien Creek RNA, Mizpah Peak, Onion Park RNA, Paine Gulch RNA, Dry Fork Belt Creek and Green Mountain/Pilgrim Mountain. Saturday also featured a GPS mapping activity for children that was loads of fun. The Kelsey Chapter would like to thank the hike leaders who worked hard to provide a good experience for all participants. Some people even learned a few new plant names!

Digital images taken on the various hikes were on display afterward and a wonderful catered meal on Saturday night (thanks to Ethel from Murry's in Helena) left us feeling fat and happy. Election results were masterfully conveyed by our Secretary, Patrick Plantenberg, and awards were presented to Bob Person and Janet Ellis for their contributions to the goals of the society. Committee meetings on Sunday morning rounded out the weekend.

It's always good to catch up with plant friends from around the state and to share news and experiences. Thanks to everyone who worked so hard to make the gathering such a success and we look forward to next year's event, hosted by the Valley of Flowers Chapter.



T-shirts: get 'em while they last!

If you weren't able to attend the 2013 Annual Meeting in the Little Belt Mountains, you may have missed a chance to get a t-shirt. Not to worry. We have both short and long sleeved shirts in men's and women's sizes and styles left. The shirts are good quality, 100% cotton in a natural color, and feature short-styled columbine on the left front. Short-sleeved tees are \$15; long-sleeved are \$18. Contact your chapter representative to get yours today. And pick up a couple extra as gifts for the upcoming holiday season!



2013 Special Achievement Award: Janet Ellis

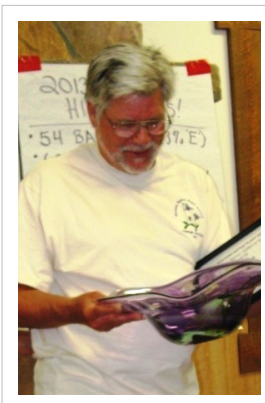
Conservation and education are big parts of the Montana Native Plant Society mission, and this often means working with public and private land managers to help protect native plant communities. Few people have accomplished as much on this front as Montana Audubon's Janet Ellis.

Janet has worked for Audubon for 30 years and has frequently collaborated with MNPS on conservation issues. In response to the rampant harvesting of purple coneflower (*Echinacea*) on eastern Montana prairies in the late 1990s, Janet and MNPS member Robyn Klein worked to pass legislation that prohibits unregulated collection of plants for commercial use on Montana state lands. Janet also was instrumental in getting legislation passed that allows the Montana Department of Agriculture to regulate the importation and sale of exotic plants, such as purple loosestrife, that threaten native vegetation. In 2000, Janet and Audubon's Susan Lenard joined with MNPS and several other conservation organizations in petitioning the U.S. Department of Agriculture to modify the Conservation Reserve Program to eliminate incentives for sodbusting native prairie.

Perhaps Janet's most significant contribution has been in the realm of wetland and riparian conservation. Under her leadership, Montana Audubon and MNPS successfully petitioned the state Department of Agriculture in 2008 to add Russian olive, an exotic tree that threatens Montana's cottonwood forests, to the Montana Statewide Noxious Weed List. Janet also researched and published results on U.S. Army Corps of Engineers nationwide 404 permits that allow dredging and filling of stream channels and wetlands. Montana Audubon is the leading conservation organization in the state commenting on these 404 permits. Janet helped incorporate riparian and wetland setbacks into Lewis and Clark County's subdivision regulations in 2005, helping protect wetlands throughout the county. She has developed compendia of information for protecting streams and wetlands in land use planning decisions. Janet continues to lobby for conservation in the Montana legislature and to educate the managers and the public on values of wetland and riparian habitats. Congratulations Janet!



2013 Outstanding Service Award: Bob Person



The Montana Native Plant Society is fueled by the unusual and tireless dedication of volunteers. Without the enthusiasm and willingness of our members to chip in on projects, we would accomplish very little. This year we are proud to present the Outstanding Service Award to Bob Person.

Most of us know Bob as web master extraordinaire for MNPS. Since Bob volunteered to manage our web site 2008, the quality of our web presence and the quantity of new information available to the public has greatly increased. Bob is creative, timely and careful in his work, and has had a major impact on how we as a Society are presented to the wider world.

For example, Bob was instrumental in getting the full archive of the *Kelsey* newsletter scanned and posted online. He created a What's New post on our home page so people can immediately find new information. He installed PayPal credit card registration for our Annual Meetings and completely revamped the Links section that provides easy access to other relevant information. The proceedings of our bi-annual Plant Conservation Conferences are posted along with Conservation Committee activities. Our board minutes, chapter calendars and policies are posted on our site, and the number of photos has greatly increased.

In addition to serving as web master, Bob is also a member of the MNPS board. He keeps the Society updated on web-related issues and contributes many thoughtful ideas and comments.

Bob is a member of the Kelsey Chapter and a leading force behind field trips, presentations and public outreach in the Helena area. Our annual holiday potluck has been hosted by Bob and his gracious wife, Toni, for many years now and it is always lots of fun.

In addition to all he does for us, Bob also serves as a board member of the Prickly Pear Land Trust, the Montana Discovery Foundation and Helena Civic TV. He is a ski instructor at Great Divide Ski Area and a volunteer ski patrol member. We are incredibly lucky to have Bob as a part of the Montana Native Plant Society.

Summer Field Trips: July Hike to Flatiron Mountain

By Jon Reny

One beautiful Sunday morning in early July, five folks departed Libby, MT, heading north towards the Yaak. Our hike began in the saddle between Pipe Creek and the South Fork of the Yaak River. We took our time hiking up the old road as there were lots of flowers to see.

After an hour's gentle stroll, we hit the first of the openings that extend all the way to the ridge. The original plan was to zig-zag our way up, but after 10 minutes it became apparent the slope had gotten much steeper over the past decade and we decided to follow the trail to the top. The views improved with every step. Another hour and we were at the peak enjoying the vistas, the breeze and the plants.

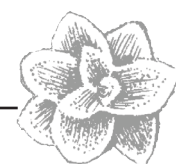
We recorded a total of 30 different species in bloom along the road, while only 15 species were recorded in the openings. Sego lilies were in all stages and we saw the fruiting structures of glacier lilies (ripe with seeds). Three species of pussytoes, three orchids and even a few beargrass plants were still in flower. The openings were much drier and hotter. We found two species of buckwheat (*Eriogonum*) and at least three species of *Penstemon*. Purple asters were everywhere and we'll just leave them as purple asters.

When it was time to go, we managed to descend through openings till we hit the old road we had walked up. We headed back down the road and stopped at the Red Dog Saloon for ale and peanuts.

Beside locals Brian Baxter and myself, three folks from Indiana made the trek—Elise, Todd and Luke Durell. They were in Montana to visit Elise's sister (Jon's wife) and chose to come along on the hike. I am glad they did! Sadly, Betty Kuropat, who was supposed to co-lead the hike, had been attacked by a deer (the doe hit her square on the shoulder, knocking her down and stepping on her ankle) and she was not fully recovered. Sorry you missed it, Betty!



Flatiron Mountain Hikers, l-r Brian Baxter, Luke Durell, Todd Durell, Jon Reny



proceed further in describing the new species.

Unfortunately, both Pete and I had very busy schedules during the summer of 2010, and it was not until 2011 that we were able to coordinate a joint trip into the heart of the Scapegoat Wilderness to fully document the new species. In late July that year, I flew into Missoula to meet up with Pete and we made a bee-line for the Front Range campground at the head of the Straight Creek Trail, which would start us out on the 20+ mile hike up to the habitat of the plants we hoped to find. At the campground, we rendezvous-ed with Dave Hanna, his wife, Becca, and Russell and Jill Owen, the outfitters for our little expedition. Though Russell had to work elsewhere, Jill led the packhorses as the rest of us hiked.

After spending the night at the campground and gasping a bit from the blow-back of the bear spray we'd tested out, we set out the next morning. The Straight Creek Trail is, well, straight, and we hiked many miles on it, partly in semi-open forest, partly in the extensive burn area from the massive fire there a few years back. By the time we reached the cut-off trail, this Seattle softie already had sore feet. Then the real hike began. Up out of the Straight Creek valley, way up in the afternoon heat, to a camp spot at the base of Cigarette Peak, a poorly-named summit within just a few miles of the Scapegoat Plateau. While my companions, all fit mountaineer types, had no problems, the climb up to the camp nearly did me in. But I figured if I'd made it to the summit of Cerro Zempoaltepetl in southern Mexico to see a rare *Castilleja* while I was suffering from the flu, I could do this! Once I



Castilleja kerryana. Photo by Mark Egger.

set my pack down, though, I wasn't at all sure I could get back up. Anyway, after a meal and a lot of water, I managed to crawl into my tent. In the meantime, Peter and Dave climbed up further up Cigarette Peak and located a new population of the target species on the high slopes above camp!

The next morning we set off again for the central part of the Scapegoat Plateau. It was not an easy hike, but much shorter than the day before, and we were entering an area with a rich flora and spectacular vistas. Making our way up an extensive ramp covered in flowers, the high ridge of Flint Mountain came into view—a graceful upsweep of the pale limestone stratum that makes up most of the bedrock of the Scapegoat Plateau.

Passing on, we located a camping spot among the subalpine firs and near one of the few water sources on the plateau, the eroded sinkholes of which quickly swallow up the snowmelt from the slopes above. It was a gorgeous spot with broad vistas of Scapegoat Mountain to the

southeast, as well as many other named and unnamed peaks and ridges.

After setting up camp, Dave and Peter set off to climb a nearby peak in search of additional locations for the new species while I ambled back toward Flint Mountain on my blistered feet. Rounding a corner of rock, I came upon them, my first view of a small population of our paintbrush growing in what turned out to be the most mesic site of those we found—a rocky, heath-dominated slope. After taking a number of photos and notes, I returned to camp to find that the others had located another new population on the unnamed peak they explored. I slept soundly that night.

The third day we split up again. Pete and Dave, our power hikers, set off to climb Scapegoat Mountain, while I headed for Flint Mountain, which was a bit closer to camp. Becca decided to relax around camp and keep an eye on the horses, so Jill offered to come along with me.



After determining the best way to negotiate the limestone rubble on the flanks of the mountain, we made it into the meadowy upper slope of the saddle, which is the lowest point of the dramatic summit ridge of Flint Mountain. This is true alpine habitat and we almost immediately came across hundreds of plants of the new paintbrush scattered over the moderately xeric slopes. I was in heaven; what a wonderful place! An undescribed *Castilleja*, some of the most beautiful and wild scenery I've seen anywhere, and a splendid and relatively easy ridge to climb in search of more plants. Eventually, we made it all the way to the summit at more than 9,000 feet, where the gradual summit ridge suddenly drops off a sheer cliff of at least a thousand feet. And there, right on the edge, on the continental divide, with much of the Scapegoat Wilderness spread out in all directions, were a few more paintbrushes! It was a great moment.

During the hike up the ridge, it became obvious that our paintbrush was a very frequent associate of *Dryas octopetala* and that the hemiparasitic *Castilleja* was likely using the *Dryas* as its host plant in most cases. In general, paintbrushes are not obligately tied to one host species, but it also is true that many species show a marked preference for a particular genus or species, such as the close tie between the widespread *Castilleja flava* and shrubby *Artemisia* species. I was also struck by the beauty of the plants, with their subtle variations in a wide range of colors, including colorful calyces (uncommon in North American *Castillejas*) as well as bracts, and the well-exserted corollas standing up strongly above the rest of the inflorescence. These were not just run-of-the mill paintbrushes—they were both distinctive and striking.

On the way back down from the summit Jill and I found another real treat, a small population of *Aquilegia jonesii* in full flower. Though I'd looked for it before, this was my first encounter with these fine little columbines. Back at camp, we learned that Pete and Dave had located several additional sub-populations of our *Castilleja* on and near Scapegoat Mountain. Between the specimens we collected and the photos and notes concerning the live plants and their habitats and ecology, we felt we had very good evidence to formally describe a new species.

It was a long and exhausting hike all the way out on the last day, made easier by the realization that everything had gone well and that we had accomplished what we came to do.

Peter suggested that I write the formal description, with my background and knowledge of the genus. I debated for a long time about naming it for him, as he had collected the first plants and sent them to me, made the arrangements for our visit, spent much of his life documenting the flora of Montana, and because he's a heck of a nice guy. In the end, however, I chose to name *Castilleja kerryana* in honor of my daughter, Kerry Elena Egger, in the hope that she may continue to live in a world filled with diverse natural forms, as well as for my sister, Kerry Marie Egger, four years a beautiful flower upon this planet. And finally, I named it as a gift of sorts for my aging mom.

If you would like to read the illustrated paper describing *Castilleja kerryana*, it is available as a downloadable PDF at <http://www.phytoneuron.net/2013Phytoneuron/21PhytoN-Castillejakerryana.pdf>.

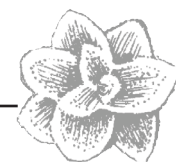
Here is a link to my Flickr collection of four photo sets, one for each of our four days in the Scapegoat Wilderness: http://www.flickr.com/photos/mark_egger_castilleja/collections/72157627294149553/.



Flint Mountain, Scapegoat Wilderness Area. Photo by Mark Egger.



Mark Egger is a Research Associate at the Burke Museum of Natural History and Culture at the University of Washington. He supports his plant studies by also teaching science in the Lake Washington School District, northeast of Seattle. Mark has been a member of the Washington Native Plant Society since 1983, serving for two years as the state president and for five years as the conservation chair.



News & Notes

Welcome New Members!

The Montana Native Plant Society welcomes the following new members:

Clark Fork Chapter:

Mike and Youanna Mullens,
Beth Anne Austein, Pam Roos, Joe Toth,
Thomas J. Watson, Joyce Ferguson,
Julie Ellison

Flathead Chapter:

Becky and Larry Williams,
Asta Bowen

Kelsey Chapter:

Laura Stafford and Diane Papineau

Maka Flora Chapter:

Scott Ross

Valley of Flowers Chapter:

Kirt Walstad

State-Western-At-Large:

Noel and Patricia Holmgren
and Judith L. Bungarz

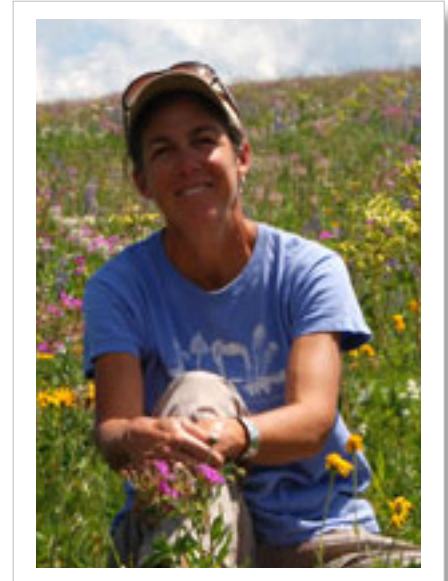
President's Platform

It's hard to believe another summer has come and gone and we are once again heading toward winter. As we collect seeds, put our gardens to rest for the winter and sort through our files of photos, we recollect the summer's flora with fondness.

The glorious display of wildflowers in the Little Belt Mountains during the MNPS Annual Meeting was a reminder of what our native plants can look like when ground is managed well. Some of those meadows were actively grazed by cattle and yet the plants were healthy and amazingly beautiful. Too often we see land that has been abused, soils compacted and plants stripped off. If the heartbreak we feel at seeing that type of devastation can inspire us to do something to mitigate it, perhaps we can have an impact that will last.

A special thanks to each of you who cares about Montana's native plants. Without your commitment and dedication to MNPS and the work of conserving and preserving our native species, nothing will happen. Our individual and collective voice must continue to be heard. We must continue to sit at the table and join in conversations whenever and wherever possible to keep native plants in society's consciousness. Thanks to each of you who takes this mission to heart.

— Kathy Settevendemie



Chapter Membership: What Joining Means to MNPS

by Cathie Jean, Membership Chair

Membership in the Montana Native Plant Society has many benefits. First and foremost is that your participation enables MNPS to fulfill its mission of preserving, conserving and studying native plants at the state and local level. Chapters are formed locally and receive a portion of the annual MNPS membership dues to support Chapter-organized projects and activities in your community. Joining a Chapter will help you realize the benefits of being part of this important organization.

The mailing label on the annual Summer Field Trip guide and the quarterly *Kelsey* newsletter tells you which Chapter you belong to and the date your membership expires. Contact your membership chair when and if your Chapter affiliation needs to change.

Members who haven't joined a Chapter can be part of state At-Large groups and are represented by eastern or western representatives on the Board of Directors. If the Chapter affiliation on your mailing label has an SE (Eastern-At-Large) or SW (Western-At-Large), you are an 'at-large' member. If you have an 'S' only, please let the membership chair know if you would like to be assigned to the eastern or western At-Large group. You can make changes during annual membership renewal or by picking up the phone and calling the membership chair at 599-9614, or mntnativeplantmembership@gmail.com.



Conservation Corner

In early August a consortium of six western native plant societies (Arizona, Idaho, Montana, Nevada, Oregon and Utah), led by MNPS, sent a letter to the U.S. Agricultural Research Service urging the agency to exercise great caution when introducing exotic plants into the United States. A somewhat shortened version of the letter follows; so far we have not received a reply.

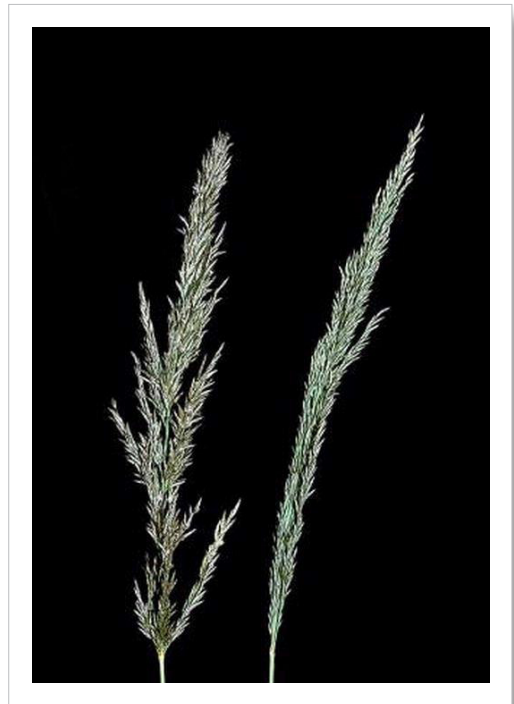
“We are writing on behalf of many thousands of members of western native plant societies. We are dedicated to conserving the native flora of western North America. We are concerned about the U.S. Department of Agriculture’s continuing practice of promoting the introduction of non-native species into the native plant communities of the western United States.

Tamarisks were introduced into the U.S. as ornamentals. The USDA was cultivating these species in 1868 and presumably began distributing them for bank stabilization soon thereafter. These plants are now listed as noxious weeds throughout the west and hundreds of millions of dollars have been spent trying to control the plant in order to protect precious riparian habitat. Lehmann lovegrass was introduced into Arizona by the USDA in the 1930s. It frequently displaces native vegetation. Selections of buffelgrass were released by the NRCS plant materials center in Texas in 1977. Buffelgrass grows densely and crowds out native plants of similar size and promotes larger fires in areas that are not historically fire-prone, resulting in the death of most native woody plants. Annual fescue was released for commercial use by NRCS. Annual fescue has become naturalized throughout the western states and is considered aggressive and invasive. Garrison creeping foxtail was released for commercial use by NRCS in 1959. The plant escapes into native subirrigated meadows and riparian areas where it forms monocultures and is no longer considered desirable as a pasture grass. A selection of Canada bluegrass was released in 2003 by the NRCS Plant Materials Center at Bridger, Montana. The plant frequently escapes and invades native rangeland and has formed persistent monocultures in some areas of Montana. Forage *Kochia* was introduced into North America by USDA Forest Service and NRCS in 1966 and released in 1984 for use as forage and soil erosion control. The plant successfully competes with both weeds and desirable native plants and is capable of invading native rangelands.

We recognize that USDA has done good work in developing selections of native plants useful in restoration and that the above introductions were made with good intent. However, we are concerned with the introduction of exotic plants, many of which have had an adverse effect on native biological diversity. We urge USDA to take two steps to address these concerns. First, rigorous testing for adverse effects to native plant communities should be required before exotic plants are released for commercial use. Second, and more importantly, we strongly urge USDA to develop and release native rather than exotic species for restoration purposes.”

In addition, the Montana Native Plant Society commented on two draft BLM management plans this spring. Comments to the Miles City Field Office included a request for more restoration of rangelands dominated by crested wheatgrass, more attention to the effect of stock ponds on native riparian vegetation and protection of populations of Visher’s buckwheat (*Eriogonum visherii*). Comments to the Billings Field Office included better protection for globally rare plants through proposed ACECs (Area of Critical Environmental Concern) designation and better management of wild horses.

Copies of the all three full letters may be found on the MNPS website under the Conservation tab.



Lehmann lovegrass. Photo by Joseph M. DiTomaso, University of California - Davis, Bugwood.org





Carroll College Goes Native: New Garden Graces Library Environs

by Kathy Martin

At Carroll College in Helena, spring semester brought with it the usual anticipation and enjoyment of warmer temperatures and more hours of sunshine. Whether they brought books outside for a fresh perspective on studies, or left them behind in favor of a stroll to clarify the mind, students took to the outdoors. During the last few weeks of classes, traditional end-of-year events like softball weekend, finals and graduation were the talk of the college campus, but this year, for the first time, one more event awaited—the burgeoning of blooms in the newly constructed native plant garden.

Installing a native plant garden has been a priority of Carroll College's Green Team for many years. The existing campus master plan notes that "new projects will also have attractive but low maintenance plantings to enhance the overall landscape," and directs us to "maintain landscapes with water and fuel-conserving management routines." By 2021, campus grounds, except the athletic fields, will be a series of organically maintained groves, small lawns and gardens, with most vegetation in those areas native to our region.

This initial garden will serve as an educational tool that will introduce the Carroll and Helena communities to the use of native plants to create a "Montana-friendly" landscape. The plot adjacent to the campus library was selected for its location (high visibility and traffic flow), flat topography, reasonable size and distinct boundaries. On July 13, 2012, the college's first native plant garden finally materialized with financial support from the Kelsey Chapter of the Montana Native Plant Society and the Last Chance Audubon Society.

Carroll's grounds crew and hard-working volunteers from across the campus planted the garden. Missoula-based landscape designer and artist Kari Brittain was on hand to teach, direct, haul plants and complete the planting scheme. The garden covers about 1,200 square feet and has approximately 35 different plant species. A gravel path bisects the plot, giving garden enthusiasts access to its interior. The college welcomes visitors to the garden throughout the year to see how it grows. Check out Carroll's Green Team webpage at www.carroll.edu/resources/greenteam/gardens.cc for garden updates, the list of wildflowers and shrubs growing in the garden, and a downloadable list of garden plants with photos.



Volunteers planting the garden. Photo by Kathy Martin.

MNPS Small Grant Competition

The Montana Native Plant Society (MNPS) announces its 18th annual Small Grant competition for projects or studies that support the following objectives: 1) stimulate research, conservation and educational activities that help foster an appreciation of Montana's native plants and plant communities; and 2) promote native plant conservation through better understanding of Montana's native flora and vegetation and the factors affecting their survival.

The competition is open to residents of Montana and to all members of the MNPS. **The deadline for proposals is February 14, 2014.** Project or study proposals must pertain to native plants of Montana. All proposals that meet the minimum criteria will be considered, however proposals are sought that generate data or public support for conservation of native plants in the wild. For more information see the Montanan Native Plant Society website or contact Dr. Linda Lyon, l_lyon@umwestern.edu.



MNPS Chapters & the Areas They Serve

CALYPSO CHAPTER - Beaverhead, Madison, Deer Lodge, and Silver Bow Counties; southwestern Montana
 CLARK FORK CHAPTER - Lake, Mineral, Missoula, Powell, and Ravalli Counties
 FLATHEAD CHAPTER - Flathead and Lake Counties plus Glacier National Park
 KELSEY CHAPTER - Lewis & Clark, Jefferson, and Broadwater Counties
 MAKA FLORA CHAPTER - Richland, Roosevelt, McCone, Sheridan, and Daniels Counties
 VALLEY OF FLOWERS CHAPTER - Gallatin, Park, and Sweet Grass Counties plus Yellowstone National Park

All MNPS chapters welcome members from areas other than those indicated. We've listed counties just to give you some idea of what part of the state is served by each chapter. Watch for meeting announcements in your local newspaper. Ten paid members are required for a chapter to be eligible for acceptance in MNPS.

Your mailing label tells you the following:

CHAPTER AFFILIATION: CAL=Calyпсо; CF=Clark Fork; F=Flathead; K=Kelsey; MF= Maka Flora; VOF=Valley of Flowers

YEAR YOUR MEMBERSHIP EXPIRES: Memberships expire in February of the year listed on your mailing label.

Use this form to join MNPS only if you are a first-time member! To renew a membership, please wait for your yellow renewal card in the mail. **Moving? Please notify us promptly of address changes at mtnativeplantmembership@gmail.com.**

Membership in Montana Native Plant Society is on a calendar-year basis, March 1 through the end of February of the following year. New-member applications processed before the end of October each year will expire the following February; those processed after November 1 will expire in February of the year after. Membership renewal notices are mailed to each member in January. Please renew your membership before the summer issue of *Kelsey* so your name is not dropped from our mailing list. Your continued support is crucial to the conservation of native plants in Montana. THANK YOU!

MONTANA NATIVE PLANT SOCIETY MEMBERSHIP

Name (please print) _____ E-mail _____

Address _____ City/State/Zip _____

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Membership Level	Dues w/affiliation	Dues w/o affiliation
Individual	\$20	\$15
Family	\$25	\$20
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Living Lightly	\$15	\$15
Lifetime (one-time pymt)	\$300 per household	-----

Canadian subscribers please add \$4.00 to cover mailing costs. Additional donations may be specified for a particular project or the general fund.



About Montana Native Plant Society

The Montana Native Plant Society (MNPS) is a 501(c)(3) not-for-profit corporation chartered for the purpose of preserving, conserving, and studying the native plants and plant communities of Montana, and educating the public about the value of our native flora. Contributions to MNPS are tax deductible, and may be designated for a specific project or chapter, for the Small Grants fund, or the general operating fund.

Your yearly membership fee includes a subscription to *Kelsey*, the quarterly newsletter of MNPS. We welcome your articles, field trip reports, book review, or anything that relates to native plants or the Society. Please include a line or two of "bio" information with each article. Drawings should be in black ink or a good quality photocopy. All items should be typed, saved in Microsoft Word or rich text format (rtf), and sent electronically to: carokurtz@gmail.com or mailed to Kelsey Editor, 645 Beverly Avenue, Missoula, MT, 59801.

Changes of address, inquiries about membership, and general correspondence should be sent to MNPS Membership, 398 Jeffers Road, Ennis, MT 59729. Advertising space is available in each issue at \$5/column inch. Ads must be camera-ready and must meet the guidelines set by the Board of Directors for suitable subject matter; that is, be related in some way to native plants or the interests of MNPS members.

The deadline for each issue is Fall–September 10; Winter–December 10; Spring–March 10; Field Trip Guide–April 10; Summer–June 10. Please send web items to our webmaster concurrent with these dates.

If you want extra copies of *Kelsey* for friends or family, call the Newsletter Editor or email: carokurtz@gmail.com. No part of this publication may be reprinted without the consent of MNPS. Reprint requests should be directed to the Newsletter Editor.

Visit our website at: www.mtnativeplants.org or contact our webmaster Bob Person at: thepersons@mcn.net

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Montana Native Plant Society

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