



The MRHI Brief

***Our Mission:** "The Mosquito Range Heritage Initiative, through cooperative efforts, seeks to conserve unique natural areas, preserve historic & cultural sites, promote diverse recreation and develop community business opportunities."*

July 2016

MRHI UPCOMING EVENTS

- MRHI Booth at Alma's Festival in the Clouds, July 16th and 17th**
- "Flowers, Forests, and Fiber," July 20th**
Mosquito Bites and Mosquito Rangers. Beaver Ponds 10am-12pm (Rangers 12:30)
- Mosquito Range Mountaineers, July 21**
- "The Science of Soil," July 27th**
Mosquito Bites and Mosquito Rangers. Beaver Ponds 10am-12pm (Rangers 12:30)
- Mosquito Range Mountaineers, July 28th**
- MRHI Booth at Burro Days, July 30th and 31st**
- Community Hike, August 5**
- End of Summer Event, August 11th**
Potluck and presentation of Summer Projects
- Selkirk Trail project, August 18th-21st**
Come help MRHI in partnership with Wild Connection in closing an illegal road at Selkirk Campground. Register online at www.wildconnections.org.

MRHI Expands Youth Research and Education Opportunities

By Cara Doyle

After four years of successful early childhood environmental education and ongoing requests for more, MRHI has significantly expanded opportunities for children to explore environmental education. There is now a continuum for children to learn about our mountain range, from preschool and elementary environmental education, to high school phenology research, college internships and even a scholarship.



youth who call this their backyard? Is there a way for them to participate, learn and make a difference? We believe they can and should."

"The possibilities are endless. Take a spectacular mountain range with an incredible combination of rare alpine plants, fragile terrain and tens of thousands of visitors...and one can only imagine the opportunities and challenges," states Cara Doyle, MRHI Executive Director. "We have worked with quite a few nonprofits, government agencies, and other partners since MRHI was formed," said Doyle. "But what about the area

"Mosquito Bites," ages 3-7, explore nature and the environment in partnership with their parents through stories, songs, art and outdoor exploration. Programs are based on the nationally award-winning Growing Up WILD curriculum. The new "Mosquito Rangers" offer opportunities for elementary-aged children to explore environmental themes each week through STEM-related hands-



on activities, field studies and projects.

An exciting new program allows South Park High School students to engage in important research in phenology (study of cyclical patterns in seasonal development related to the environment). The program provides high school students in our under-resourced school district the opportunity to explore career possibilities in natural resource fields and contribute to scientific discovery, explained Dustin Gannon, botanist and program coordinator. He noted the new program also provides unique and outstanding resume-building opportunities, as well as the chance to generate potentially important and useful data about an

understudied, at-risk species.

"Mosquito Range Mountaineers" offers weekly summer opportunities for high school students to explore mountain trails, attempt some high alpine scrambles and peak bagging, all while exploring potential natural resource career opportunities. High school students also have the opportunity to apply for the JoAnn Dufty Memorial Scholarship, a one-time \$1000 college scholarship to further their studies.

Summer internships provide graduating seniors or college students the opportunity for hands-on experience in rare alpine plant science, habitat restoration, trail maintenance and children's environmental



education. All the MRHI youth programs are offered at no cost to participants. Sponsors this year include South Park National

Heritage Area, New Belgium Brewing, Bridge Network, Anschutz Family Foundation, Beaver Ponds Environmental Education Center, South Park Parents as Teachers, South Park High School, and the Town of Alma.



Sponsored by the Anschutz Family Foundation, Bridge Network, South Park National Heritage Area, and New Belgium Brewing

MRHI Rare Plants Project

An important part of MRHI's resource conservation work is the Rare Alpine Plant project. Our team consists of three botanists, two Natural Resource Conservation Technicians, and our two Summer Associates led by a Project Coordinator and Project Director. Occasionally MRHI even has volunteers join us in the field. So far in the summer of 2016 we have found 27 instances of rare plants, ranging from *Eutrema penlandii* (Penland's eutrema, Mosquito Range mustard) (on the threatened and endangered list) to a much more 'common' rare plant *Chionophila jamesii* (snow lover). We've hiked approximately 40 miles or 54 adjusted miles (allowing for 2+ researchers out each day). We've covered 48 acres or 65 adjusted acres and are still going strong.

The focus this year is to return to *Eutrema penlandii* sites found in 2011 through 2014 to re-count the number of plants to see if there is an increase or decrease in population. While we are out, we will continue to look for new populations of other plants. We have a few new plants to look for this year that are of interest to the South Park Ranger District.



Sponsored by the Summit Foundation, Pike & San Isabel Resource Advisory Committee (PSI-RAC), Bridge Network, and South Park National Heritage Area

MRHI Partners With Alma Foundation to Break Ground on Buckskin Gateway Park in Alma

The Alma Foundation has purchased 2.5 acres of land along Buckskin Rd in order to preserve and enhance the public space in Alma. For many years the land to the right of Buckskin Road has been used as a social trail by the Alma Community. This social trail trespassed on private property and had the potential to be closed down.

MRHI joined the Alma Foundation to break ground on the new trail which winds through the parcel completely on Alma Foundation property. The switchbacks on the trail will make it less steep, more sustainable, and more accessible for mountain biking. MRHI assisted in further maintenance including seeding and reinforcing during Wendy's Wildflowers and leading youth trail crews during the visits of Knights of Heroes.

Jara Johnson, Alma Foundation member and MRHI board member emphasizes the impact of this project: "This pocket park will provide multi use single track trail, river access, environmental education and family picnicking opportunities. This mountainous park will provide parking and visitor information to encourage responsible recreation in the Town of Alma Source Water Protection Area."

Bring your bike or your dog and come check out Alma's newest community trail!



Sponsored by the Summit Foundation, Pike & San Isabel Resource Advisory Committee (PSI-RAC), Bridge Network, and South Park National Heritage Area



South Park High Schoolers from Nancy Jirka's AP Biology Class participate in MRHI's high school phenology program. Every other week they go into the field to *Eutrema penlandii* monitoring plots to track and record the growth cycles of these endemic and rare plants. MRHI Botanist and Fairplay local Dusty Gannon initiated this program which gives local students entering AP Biology field experience as well as lab credit, but also creates important data about a rare and seldom studied alpine plant.

Thank you to everyone who has joined MRHI on our hiking series! This summer we have explored the Limber Grove Trail, Little Sacramento Gulch, Pennsylvania Mountain, and Hoosier Pass on our free Community Hikes and Wildflower Walks. Our final scheduled hike is August 5, but look for more hikes to be announced later in the season!



Ella Pizarro Receives JoAnn Dufty Memorial Scholarship



Ella Pizarro of Fairplay was selected as the 3rd annual recipient of the JoAnn Dufty Memorial Scholarship. The \$1000 award pays tribute to JoAnn Dufty (1931-2013) whose environmental interests made a lasting impression in Colorado and whose legacy now creates new opportunities for aspiring college students. This year MRHI has begun to make contributions to sustain the fund. Scholarship applicants were asked to answer an essay question that read, "How do you feel you currently represent Mrs. Dufty's qualities of artist, community activist, explorer, or what in your future plans will enhance these qualities?"

Ella Pizarro's application demonstrates that she is a top student with a 3.7 weighted grade point average, an accomplished musician, has a great passion for travel, and participates in a variety of community service activities. Ms. Pizarro plans to major in Communications/Journalism at Colorado University of Denver. MRHI is very proud of all of Ella's hard work and we are very excited to see all of the great things she will accomplish!

A big thanks to Kathy and Dean Butler who provided MRHI with the materials to create a float in the Alma 4th of July parade!



A cheerful South Park community hikes with MRHI led by Summer Associate Callie Edwards on the Limber Grove Trail. Our upcoming hike is: August 5th. And look out for additional hikes that may be announced later in the summer.



Call to Action!

Please Join MRHI on our Selkirk trail project August 18-21 to close an illegal road near Selkirk Campground on off of Boreas Pass. Sign up to help as many or as few days as you can! Camping encouraged. For more information or to sign up go to wildconnections.org.



MRHI Hosts Knights of Heroes

MRHI hosted 40 girls and their mentors participating in the Knights of Heroes program to complete trail work days at the Alma Buckskin Gateway Park and Beaver Ponds Environmental Education Center over a series of three days.

Knights of Heroes is a nonprofit organization that gives youth who have lost a parent in the armed services the opportunity to experience a week of adventure and service in Colorado. Each summer, families with children between the ages of 11 and 17 are invited to attend at no cost.

In partnership with Wildlands Restoration Volunteers, MRHI taught the girls about tool use and safety and the basics of trail maintenance. The girls added drainages, leveled pathways, and developed additional portions of the trail.

For more information about Knights of Heroes go to <http://knightsofheroes.org/>

MRHI 2017 Calendars Now Available!

Cover by: Bob Ensign

The 7th annual Mosquito Range Heritage Initiative calendar is now available. This fundraising calendar is a collection of beautiful photographs from talented photographers living in the area or frequently recreating in the Mosquito Range. All photos were taken within the MRHI study area which spans from Weston Pass to Hoosier Pass. MRHI is thrilled to have the talent of local artists to depict all of the raw beauty that MRHI is striving to protect.

The calendars will be sold for \$10 each to support conservation in the Mosquito Range.

They will be available at the following locations:

- Fairplay Forest Service Office
- High Alpine Sports
- Al-Mart
- Coyote Creek Gallery
- MRHI Booths at Festival in the Clouds and Burro Days



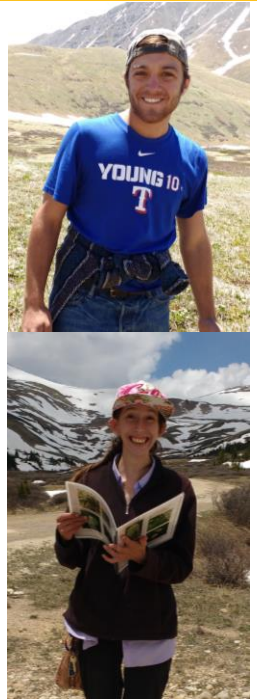
MRHI's Summer Associates Callie Edwards and Austin Phillippe Discuss Their Experiences

As part of MRHI's Rare Plants and Trails project and Outdoor Environmental Education Programs, MRHI has been able to host two Summer Associates through Conservation Legacy, a division of AmeriCorps. The Associates work hard alongside our education and conservation staff. We asked our associates to reflect on their experiences with MRHI.

Austin Phillippe: Working for MRHI has been a pleasure, I have gotten the opportunity to go on hikes and see mountains that I would have never been able to see if I had not worked for MRHI. It has also been great to work with other naturalists to expand my plant knowledge. My favorite part of my summer internship has been learning about new teaching methods working with Gail Smith.

Callie Edwards: It is really cool that I get paid to go outside and hike. I was hoping to learn some more about the environment and I have been doing just that. I went from knowing nothing to knowing quite a bit about flowers. I have also learned a lot through cross training with the Environmental Education Programs. Teaching kids is something that I have not done before and it has been a great experience. I learn just as much from the kids as they do from me.

I love everything about this opportunity and I have a hard time choosing a favorite part. Before this experience my main interest was in geology, but after what I have learned so far I am thinking about studying geo-botany. Having grown up in the mountains I have been able to explore them, but MRHI has given me a new respect for every part of the mountains.



MRHI Begins work with the GLORIA Project

By Claire Tortorelli and Dusty Gannon



The Mosquito Range is going global! GLORIA, The Global Observation Research Initiative in Alpine Environments, is a world-wide effort dedicated to understanding and monitoring effects of climate change in the alpine. To date, over 120 sites spreading from the poles to the tropics are being monitored using the GLORIA protocol. This summer, MRHI is installing a GLORIA site in our very own Mosquitos. Four summits ranging in elevation between tree-line, 11,700ft, and the upper limits of plant life, 14,000ft, were chosen for the project. On each peak, soil temperature, human-use and plant species will be recorded. These sites will be re-surveyed every five to ten years in order to monitor changes in biodiversity, plant species migration, community composition, and changes in soil temperature. The data from the Mosquito Range summits will be stored in the global GLORIA database to be used by scientists all over the world in order to further understand how climate change affects alpine ecosystems. If you are interested in volunteering for this exciting project, contact info@mrhi.org. More information for GLORIA can be found at <http://www.gloria.ac.at/>.



Sponsored by South Park National Heritage Area, Bridge Network, and The Summit Foundation



MRHI hosts a series of free educational programs at Beaver Ponds Environmental Education Center. Right: Lara Getz Environmental Educator shows her team the distinguishing characteristics of various macroinvertebrates. Left: Education Programs Coordinator and Environmental Educator Gail Smith leads a parade of camouflaged critters.



Support MRHI, become a Member!

To become a MRHI member, you can either visit our website at www.mrhi.org or request a membership slip and mail it back to us at PO BOX 375 Alma, CO 80420. Thank you for your support! Membership levels: Basic - \$25; Family - \$60; Youth - \$10; Business - \$100; Corporate - \$250.

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