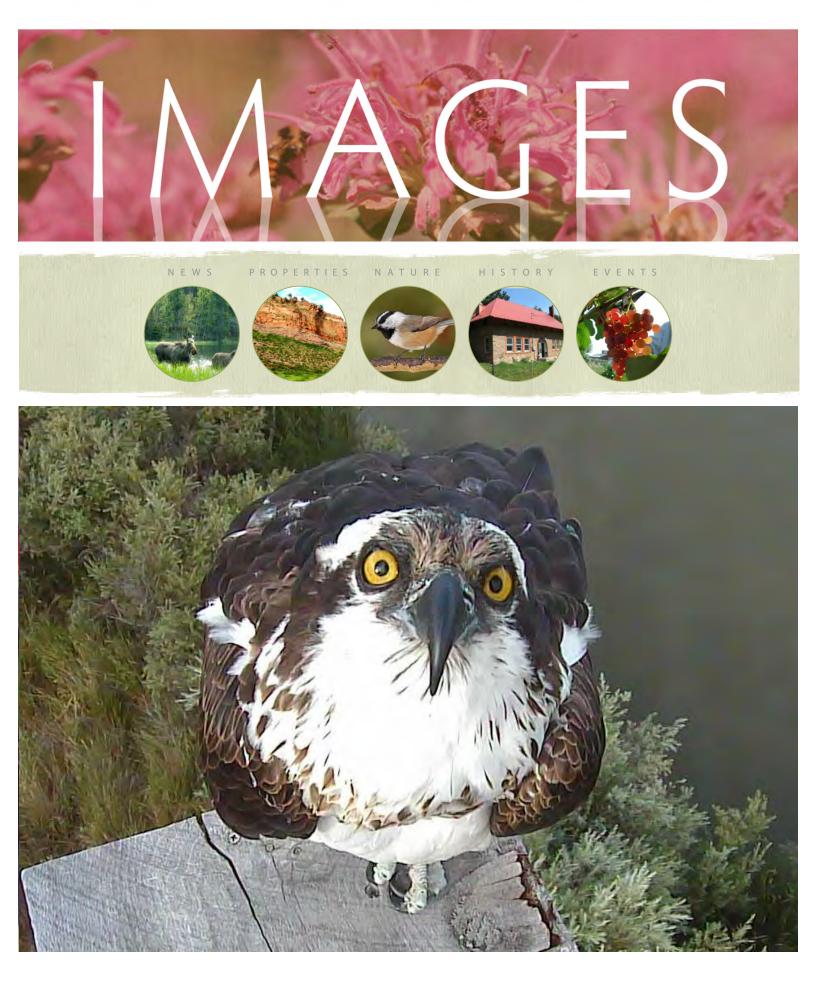
# BOULDER COUNTY PARKS AND OPEN SPACE Summer 2016



# IMAGES

The mission of the Boulder County Parks & Open Space Department is to conserve natural, cultural and agricultural resources and provide public uses that reflect sound resource management and community values.

#### PHOTOGRAPHS & ILLUSTRATIONS

Cover Photo, from osprey camera at Boulder County Fairgrounds Conservation Award Winners, Michael Lohr Lower Boulder Creek Restoration, Ernst Strenge Pella Crossing, Pascale Fried Hikers at Hall Ranch, Maggie Haseman Girls at Walker Ranch, Sally Wier Moose at Mud Lake, Graham Fowler

#### NATURE DETECTIVES

Katherine Young and Deborah Price Illustrations: Roger Myers

#### DISCOVER BOULDER COUNTY

Larry Colbenson and Sheryl Kippen

#### PRINTING

**Boulder County Printing Department** 

#### EDITORS

Rachel Gehr and Pascale Fried Images is a quarterly publication. Subscriptions are free to Boulder County residents or \$6 annually. Contact us at 303-678-6222 or swilliams@bouldercounty.org

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#### volume 38, number 2

# A Day in the Life: Web Specialist

"Oh no—not again—this isn't happening!" I keep telling myself. I'm looking at an email that says the osprey camera is not responding. I open the camera webpage and the video is black. Panic sinks in. I open another browser and try connecting to the camera from my computer. No luck. I try connecting to the wireless transmitters that send the camera feed to one of the buildings out at the Boulder County Fairgrounds. Well, I can connect to those and I can even hear the microphone positioned under the camera. But I can't connect to the camera. There is just a blank screen where there ought to be a giant osprey nest.

Fortunately, it is October and the ospreys have migrated south to a warmer climate. The male and female osprey had a successful breeding season. Four eggs were laid, three hatched, and the three chicks fledged (left the nest).

Now that the ospreys are gone, I remind myself that I won't be bombarded with emails, phone calls, and media requests demanding an explanation for why the camera isn't working. That's comforting, but means yet another visit to the camera.

I was just at the camera a week ago with two volunteers. We installed a new shielded audio cable to remove an annoying hissing sound that could be heard when watching the birds. We went up in a 40-foot scissor lift to the top of the nest and replaced the cable. It was a great experience for the volunteers to see the nest up close and in person.

#### **TROUBLESHOOTING: RACCOONS TO LIGHTNING**

While we were out at the site, we noticed lots of raccoon droppings. Osprey viewers reported hearing odd sounds from the nest. We suspected the sounds

were raccoons, and the droppings confirmed that a raccoon den must be close by. So it was no surprise that when I went out to the nest to investigate the inoperative camera, I found one of the network cables had been chewed in half probably by a raccoon, judging by the bite marks.

And this isn't the first time something went wrong with the camera. After installing the camera in 2012, it worked great for a few months, but then inexplicably failed in early June. We had to wait until after the birds migrated before going up to the nest to retrieve the camera. We were told by the manufacturer that we had a faulty camera

### ONE MILLION VIEWS... AND COUNTING

Since the osprey camera was installed in 2012 it has received over one million views.

Over 601,000 views in 2015

This year we are getting over 2,500 views a day

Total view time in 2016 is 1,720 hours

Average view duration is 22 minutes

so they sent us a new one. We tried again in 2013, but the camera failed again. So in 2014, we worked with View Into The Blue, a local company that specializes in webcams, to completely revamp our setup. Then on May 6, the camera was struck by lightning. So in 2015, we installed a lightning rod and made a few other tweaks. And we haven't had a problem since. Well, until that pesky raccoon chewed through the network cable.

But I was able to repair the cable. And just to make sure it doesn't happen again, the cable is now protected in a PVC pipe. The camera is operational again, knock on wood, and thousands of osprey viewers are able to watch the beautiful birds.

# **Taking Flight: Osprey Volunteer**

#### by Jasmine Finks

Three healthy, juvenile ospreys fledged from a nest at the Boulder County Fairgrounds in 2015, and were caught on camera! Fledging refers to when the chicks leave the nest for the first time, which takes approximately seven weeks after hatching. It was truly a remarkable year, with the opportunity to see into the daily activities that occur during the osprey nesting season. 2015 marked the first year where we witnessed the entire season on camera. Since it was the first fully successful year, as the Volunteer Osprey Moderator (VOM) it was an amazing experience for me to develop, educate, and connect with an online community using "the chat."

Connecting with the online community started by listening to what was valuable to them. Next, it led to connecting with them on a personal, yet professional level. This included welcoming people to the chat, reminding people of the comment policy, and remembering those frequent chatters (people who post often). The chat became a place for old friends and new alike, to visit and talk about the daily accomplishments. The chatters had amazing questions about the activities occurring at the nest. Answering those questions required digging into past research and my personal experience handling raptors. It became clear that education was important to our viewers.

#### A COMMUNITY CHAT

Since education held a significant part of the viewer's interest, it became my next goal. This initiated the "question of the day" and "fun fact" posts during the week. It was both a great way to connect with the online community and have some fun at the same time. Encouraging education was perfect since the majority of people on the chat were new to the osprey world. Many of the viewers even did their own research and provided facts and details that were remarkable! The best thing was that we all learned together and evolved as an online community.

Being the VOM was a rewarding experience. The daily duties of posting pictures, answering questions, and posting facts were very enjoyable. We had viewers recommend the Boulder County site to other live cam viewers, which increased the volume. As the chat became more active, different perspectives were integrated. We had numerous people who were learning, and some who were experienced osprey cam viewers. Even local nest viewers would let us know what was happening from the ground. Upon visiting the nest myself, I noticed an increase in people who were watching the ospreys at the Boulder County Fairgrounds as compared to previous years.



Views of the osprey from the camera during the summer of 2015

It was truly a remarkable year, with the opportunity to see into the daily activities that occur during the osprey nesting season.

As the end of the nesting season approached, it was definitely bittersweet. Because we had established a close online community, it was sad to see the season come to an end. Many of the chatters wanted access to the chat so they could refer to past comments. The chat remained accessible—even the cam stayed on during the off season. It was such a great experience to see the webpage gain more popularity and to be the VOM. With the 2016 osprey nesting season upon us we can continue to grow and educate the audience about these amazing creatures.

It was truly an honor to be a moderator for the Boulder County osprey cam, and I hope to connect and educate with both familiar names and new people this year. 2015 was such a feat and here's to 2016 being another success!

Thanks to Boulder County for the open window to view these amazing creatures as they raise the next generation of ospreys.

# Land Conservation Awards

On April 14, the Boulder County Parks and Open Space Department held the annual Land Conservation Awards ceremony. Here are highlights from the special gathering.

Land Conservation Award honors individuals, families, and organizations whose contributions demonstrate notable achievements in preserving Boulder County's agricultural lands. After a 10-year effort, the project to protect the 3,334-acre Tolland Ranch was completed by the Toll family, the Conservation Fund, and partner agencies that included the Colorado State Forest Service, Boulder County, and Great Outdoors Colorado. In addition to the conservation easement, the Toll family placed a conservation easement over the property and granted a trail easement giving hikers, mountain bikers, nordic skiers, equestrians and other non-motorized trail users enhanced access to these areas. The conservation easement allows these recreational uses, while still protecting the Tolland Ranch's natural and cultural resources.

**Environmental Stewardship Award** recognizes individuals, families or organizations that make significant contributions in land protection and/or management. Jim McKee was a volunteer naturalist for the department from 1991 until his death in 2015. He was a well-informed and well-rounded naturalist, and an expert on plants, wildflowers and weeds, birds, wildlife, and ecosystem preservation issues. McKee was a tireless advocate for conservation of natural resources and open space, and a member of the Boulder County Parks and Open Space Advisory Committee from 1996 to 2006. He also volunteered for the City of Boulder Open Space and Mountain Parks Department, Boulder County Nature Association (BCNA), and served on an advisory board for the State of Colorado Division of Wildlife.

Heritage Award honors individuals or organizations whose contributions demonstrate notable achievements in preserving Boulder County's heritage through substantially privately funded historic preservation projects. In 2009, Boulder County acquired the 77-acre Vicklund property southeast of Longmont. Julius (Jules) Van Thuyne kept ownership of the house and wanted to keep its historic appearance. This project was not a small cosmetic makeover, but instead a foundation-to-roof rehabilitation that required approval of the Historic Preservation Advisory Board, building permits, and finding a talented construction contractor. The completed project respected the historic exterior appearance of the house and it remains a functional residence.

**Partnership Award** recognizes alliances with businesses and organizations around the county to foster a communitybased stewardship ethic for the preservation and care of open space. Since 2012, the CU Program for Writing and Rhetoric has recruited students for volunteer projects. Participants are often international students who are unfamiliar with open space programs. The volunteer projects relate to their coursework. This program exemplifies the value added that comes with being involved in volunteer work projects. To date, the CU Program has removed four acres of trash, cleaned 1,470 feet of ditches, raked a half an acre of duff, restored 120 slash piles, restored 34 acres of forest, and maintained trail including construction of two drainage structures.



### Land Conservation Award Recipients

Jules Van Thuyne, Glynis McKee, Brian Mckee, David Mckee, Kevin McKee, Phyllis Hasheider, Alex Fobes, Rebecca Dickson, Commissioner Deb Gardner, Henry "Wolky" Toll, Lois Toll, Christine Quinlan, Tom Macy, Linda Garcia, and Blair Underwood **Outstanding Volunteer Award** honors individuals whose leadership and support of the Parks and Open Space volunteer programs have enhanced our community partnerships and improved public service. This year, there were two recipients.

Blair Smallwood has volunteered with the department's cultural history program since 2011. He is a valuable volunteer at the Agricultural Heritage Center. Smallwood guides tours for school groups and feeds, waters, and cleans up after livestock. At special events, he'll churn butter, shell corn, rope fake calves, set up tents, and more. In addition, Smallwood attends most of the department's farm tours, often donating prizes such as homemade greeting cards with his photographs of local farms. Linda Garcia has been a Small Acreage Management volunteer for seven years, a Wildlife Master for three years, and has also been a Master Gardener. Garcia brings her personal experience as a small acreage owner as she answers questions about weed control, pasture management, reseeding and wildlife conflicts. Garcia also volunteered at "From Our Lands to Your Hands" events and the Boulder County Fair Crop Show. Linda's outgoing personality makes her a great volunteer both to work with and in her interactions with the public.

# **Project Notice:** Walker Ranch Fire Mitigation Forestry Project

by Ashley Garrison

The Parks and Open Space Department has begun a fire mitigation project at Walker Ranch Open Space.

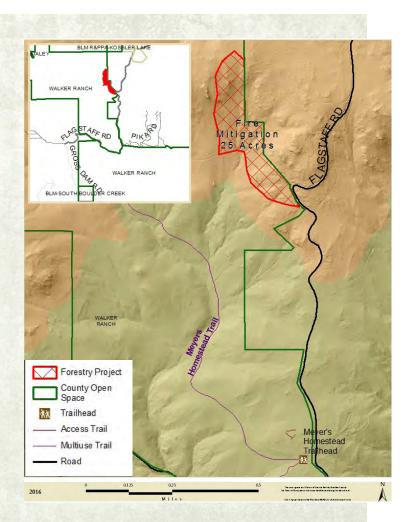
The project area was identified for fire mitigation forestry treatments during the Walker Ranch Management Plan update in 2013. The four phases of this project will link forest treatments along private and county open space lands, decrease potential fire intensity and create opportunities for fire suppression.

Phase one is 25 acres in the Meyers Gulch area of the open space. Ladder fuels and tree density will be reduced through removing small (2-12" diameter at 4.5") ponderosa pine infested with dwarf mistletoe, and Douglas-fir trees. This will reduce the amount of available fuel in the event of a fire and raise thresholds for extreme fire behavior.

The Boulder County Sheriff's Office Fire Management staff will use chainsaws to cut trees. This work will occur during daylight hours, including weekends. Wood generated from this project will be removed from the forest and be made available through public firewood sales. The Boulder County Youth Corps will pile the slash from this project to be burned during winter months.

#### **KEY TERMS:**

**Fuel:** any living or dead material that will burn **Ladder Fuels:** plants and other living and dead materials that provide a path between fuels on the ground to the branches and crowns of trees, sometimes resulting in high-intensity crown fires (Source: Colorado State Forest Service)



#### MORE INFORMATION ABOUT THIS PROJECT:

- www.BoulderCountyOpenSpace.org/walker
- Registration notices about public firewood sales notices: www.BoulderCountyOpenSpace.org/firewood
- Questions: Stefan Reinold, Senior Resource Specialist (Forestry/Fire) at sreinold@bouldercounty.org or 303-678-6202

# **Lower Boulder Creek Restoration**

#### by Ernst Strenge

Land-altering sand and gravel mining followed by ineffective reclamation; stream channelization resulting in steep, eroding banks and a disconnected floodplain; prevalence of non-native species with only small pockets of native vegetation; low quality riparian, in-stream, and upland habitats...

These are just a few characteristics that have defined the Alexander Dawson Open Space property between 109th Street and Kenosha Road over the past several decades. In the course of

A long-term partnership between Parks & Open Space and Corps of Engineers makes the master plan vision a reality. past mining, the onemile reach of Boulder Creek was channelized, and earthen levees were constructed along portions of its banks

disconnecting the channel from its historic floodplain and creating an unstable and impoverished stream system. The reclamation of the mine left the uplands with primarily nonnative species growing in poor, unconsolidated soils containing very little organic matter and no soil structure, resulting in low plant productivity. The site has been in this degraded state for a very long time, and without active ecological restoration, would take decades or longer to improve.

In 1998, Boulder County adopted the Lower Boulder Creek and Coal Creek Open Space Master Plan, which called for largescale stream restoration within this reach of the creek. Objectives included re-establishing successional river processes, creating self-sustaining riparian ecosystems and historic floodplain and associated features, and restoring a diversity of native plant communities and wildlife habitats throughout the stream corridor.

#### A PARTNERSHIP FORMS

Shortly after the adoption of the master plan, Boulder County Parks & Open Space (BCPOS) began seeking technical and financial assistance to achieve the objectives of the plan. That assistance was found through the U.S. Army Corps of Engineers under a program established by the Water Resources Development Act, and the Lower Boulder Creek Aquatic Ecosystem Restoration Project was initiated in 2001.

The Lower Boulder Creek Aquatic Ecosystem Restoration Project is a joint endeavor of the Omaha District of the Corps of Engineers and BCPOS. Besides the financial assistance, the Corps has provided the necessary planning, engineering, design, permitting, and contract management for the project, while BCPOS oversaw and assisted with each of these steps. Most importantly, though, BCPOS has brought the local knowledge of stream ecology and restoration, which is essential for project success, and ensured the project meets the county's interests and master plan objectives.

With many starts and stops along the way, the Corps and BCPOS have collaborated over the past decade to move the project forward. Between 2006 and 2011, the Corps, with the assistance of BCPOS, prepared a feasibility study to determine whether restoration of the stream channel, riparian habitat, and other associated aquatic habitats within the project site were technically feasible, environmentally acceptable, and provided cost-effective environmental benefits. In 2011, the project's feasibility study and environmental assessment were completed. A conceptual natural stream restoration plan was approved and a Project Partnership Agreement was signed by the Corps and the county to move the project forward to the Design and Implementation Phase. In 2014, the project's design was finalized, and the project's groundbreaking occurred in October 2015. At the time of this article, the majority of earthwork is complete. Between spring 2016 and winter 2017, over 5,500 native trees and shrubs will be planted and a diverse mix of native grasses, sedges, rushes, forbs, and shrubs will be seeded.

The final stream restoration design includes excavating a new meandering stream channel, approximately 6,300 feet in length, on the south side of the existing channel and a 150-foot wide floodplain bench that is allowed to flood along the new channel. Native riparian plants will be planted or seeded along the channel and floodplain bench, and the uplands will be seeded with a native mix of grasses and forbs.

#### FLOURISHING RESULTS ON ALL FRONTS

It has been 18 years since the master plan was adopted and 15 years since Parks & Open Space first contacted the Corps of Engineers about the potential to partner on this stream restoration project. Patience and persistence by BCPOS staff and the Corps have paid off, and the Lower Boulder Creek project site will once again be a functional, diverse, and intact ecosystem where our native plants and wildlife will thrive as the creek is allowed to meander, the floodplain is allowed to flood, and the newly planted vegetation becomes established and flourishes. The corridor will provide a mosaic of structurally diverse and biologically rich riparian and in-stream habitats surrounded by restored uplands. With a little bit more time and patience, we will truly see the fruits of our restoration labors.

# PRIMARY BENEFITS OF THE RESTORATION PROJECT:

- Restoring and protecting regionally scarce and declining riparian habitat by planting high quality riparian habitat and providing a functional stream corridor and floodplain
- Providing important habitat for migratory birds and a diversity of other native wildlife species
- Providing improved in-stream habitat, including riffle-pool sequences, gravel bars, large woody debris, and streamside shading
- Increasing the diversity of native plant species along Lower Boulder Creek through active planting and improved natural regeneration
- Creating connections to adjacent habitats along Lower Boulder Creek and across the larger landscape
- Reducing flood velocities and improving the overall hydraulic function of the stream
- Improving aesthetics of the area



This photo, taken during construction, shows the newly graded channel with a pool (bottom left), cobble riffle (middle), and floodplains, which will be planted with native riparian vegetation.

# museums to explore







### Nederland Mining Museum

Open Friday, Saturday and Sunday from June through October, 10 a.m.-4 p.m. Location: 200 N. Bridge Street, Nederland Phone: 303-258-7332

Get a glimpse into the world of hard rock mining days during the late 19th and early 20th centuries. Learn about the lives of the miners of yesteryear.

### **Assay Office Museum**

Open the third Saturday of the month, April through October, 11 a.m.-3 p.m. Phone: 303-443-0865

Learn about the history of hard rock mining and see where prospectors took their ore samples to find out if they had "struck it rich." The determination of the assayer could, and often did, make or break a prospector.

### **Dougherty Museum**

Open Friday, Saturday and Sunday from June through August, 11 a.m.-5 p.m. Location: 8306 N 107th Street, Longmont Phone: 303-776-2520

In 1927, Ray G. Dougherty bought a circa 1900 reed organ from a music store in Longmont. That was the first item of a collection that grew large enough to fill a 29,000 sq. ft. museum. The collection consists of beautifully restored and original automobiles, as well as various tractors, a stage coach, music antiques, and more.

## **Agricultural Heritage Center**

Open Friday, Saturday, and Sunday from April through October from10 a.m.-5 p.m. Phone: 303-776-8688

Come to the farm, enjoy the rural setting and learn about the rich agricultural history of Boulder County. The farm includes two barns with interactive exhibits, a milk house, blacksmith shop, and a furnished 1909 farmhouse. There are also animals on site seasonally including chickens, pigs, and others.

Learn more about these museums at www.BoulderCountyOpenSpace.org

# Nature Journaling—Get Hooked

by Cindy McIntosh

Nature is all around us. Human beings are interconnected with nature as our very own survival depends on sustaining a healthy planet earth. Slowing down and really seeing what is happening outdoors helps us gain a deeper appreciation and respect for the environment which in turn leads to being better stewards of the planet. Take your observations to the next level and document what you see in a nature journal. Nature lovers and scientists alike have kept journals since the beginning of time. These records, from scribbled lists to detailed drawings, are a valuable historical resource. You may be surprised to find that keeping a journal is an invaluable tool—one that helps keep you excited about being a nature explorer. So get outside, with journal in tow.

The best part of nature journaling is that it's fun and easy. And, it's completely personal and customizable. Do you like to sketch and paint, write poems, make lists, take photos or all of the above? Let your interests guide your choices. If you aren't ready to commit, grab an inexpensive composition book, a pencil, a good eraser, and a pencil sharpener. Give it a shot. Countless discoveries await you.

Take a moment to think about what it is that you are curious about and jot down your thoughts. Maybe you'd like to learn more about the birds that live in your neighborhood or how plant life morphs throughout the seasons. Or how about what creatures live in the soil or count on trees to survive? From exploring the soil, the mountains, or the sky, the possibilities are endless. One topic leads to the next and the next; it's all intertwined.

#### THE BACKYARD AND BEYOND

Your journal is always waiting for you. Step outside and find a place to sit quietly and observe. Start a session by recording the date, time, weather, and location. After that, the sky is the limit. What is happening right where you are? What sounds do you hear? How does the sun feel on your skin? What insects can you spot? Quickly capture the basics—details and color can be added in later if you desire. It's fun to go back and read through your journals. Each entry captures your unique experiences at the time as well as your personal state of being. Reviewing them takes you back to that place and time on a whole new level.

There are endless settings where you can practice your journal keeping skills. Here in Colorado, we are lucky to have a diverse variety of environments nearby. Each one has its own unique ecosystem. Don't overlook obvious locations such as backyards, birdfeeders, and local parks or trails. Pack along your journal when traveling to a nearby town or across the globe. Journaling about your travels encourages you to look at the world with fresh eyes. Weather not cooperating? Perch yourself in front of your favorite window and journal from there.

Spending time in nature has many healing properties. In the outdoors, we slow down our bodies and minds to better absorb all of our surroundings. Increased physical activity fights obesity, clears our head, relieves stress, and promotes better sleep. A regular journaling habit encourages you to turn off the TV and games and get outside.

> Remain curious throughout your life. Outdoors is a gigantic science lab where things are constantly changing. One of the exciting things about exploring is that you can never run out of ideas on what to delve into next. Passion is contagious—get others excited about exploring nature. Step outside and be a part of it. What are you waiting for? Grab your journal, gather some friends and go exploring.

Do you like to sketch and paint, write poems, make lists, take photos or all of the above? Let your interests guide your choices.

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Wild critters tend to run, hop, slither or fly away before you can observe them up-close or for very long. Most are difficult or impossible for a kid to catch. Many could be dangerous if you do get near them.



Happily, roly-polies are not dangerous. They don't bite, sting, poke or pinch, and instead of running away, they form an easy-to-pick-up, hard ball when you touch them. Roly-polies live interesting lives in yards and gardens near you. Gather up some raisin-size roly-polies and see what you can detect about them.

Hold one gently, and it might unroll and begin to walk on your hand. Study its legs and the overlapping plates on its back. The plates make up the roly-poly exoskeleton. The plates on their back are hardest and act like armor to protect their softer belly and legs from enemies.

## A Roly-poly Is a Pill Bug – Not a Sow Bug

Another common name for roly-poly is pill bug because the rolled-up critter looks a bit like a pill. When you search for pill bugs, you might find crawlers that look very similar. If they run rather than roll up, they are sow bugs. Sow bugs are closely related to pill bugs, but they cannot roll up. Sow bugs have a flatter body than pill bugs, and they have two tiny appendages that stick out behind like short tails.

## Pill Bugs and Sow Bugs Are Both Crustaceans

Have you eaten any crustaceans? Shrimp, lobsters and crabs are all crustaceans. Most crustaceans live in the ocean or very near it. Pill bugs and sow bugs live totally on land.

Compare a roly-poly (pill bug) with a picture of a lobster or a crayfish. (Northern crayfish are freshwater crustaceans living in our area.)

Do you see any similarities?

What differences do you see?





pill bug



sow bug

lobster



## Upside-down Roly-poly

Gently flip a captured roly-poly on its back. The underside is paler in color than the dark gray top. Notice its fourteen legs are alike. The belly and legs are protected when the pill bug rolls up. (Did you remember insects have six legs and spiders have eight?)

Opposite the head, look for two small white areas under the pill bug. These are gills. Oxygen is transferred from the air into the pill bug's blood through its gills. Gills need to be kept moist. If they dry out, the roly-poly suffocates. Drying out is an occupational hazard for crustaceans that don't live in water.

## **Mini-me Babies**

Pouches aren't just for mammals such as kangaroos. A pill bug female lays her eggs into a pouch on her underbelly. The pouch is between the first five pairs of her legs, and it can hold hundreds of eggs. The eggs develop in the pouch for two to three months. After the eggs hatch, the roly-poly babies stay in the pouch for three or four days before they crawl out. They look like tiny, colorless copies of their mom, and they stay near her for about a year until they grow into adults.

## **Molting to Grow**

Baby pill bugs hatch with six pairs of legs, but after their first molt, they have a complete set of seven pairs. Their exoskeleton does not grow and as they get bigger, it gets tight so they have to molt. They molt half their exoskeleton at a time. First the back half comes off then days later, off comes the front half.

If you find a pill bug that looks brownish in front or back, it is halfway molted. The newly uncovered outer layer hardens into the new exoskeleton. The babies molt five times as they become adults, and adults molt a few more times during their life. A single molt can take a month to complete.

It is a tough environment for babies once they wriggle out of the moist pouch. Most will suffocate because they can't keep their gills damp. Others will die from disease or predators, but those that survive will live a year and a half on average. The longest survivors live four or five years.

## Pill Bugs Conglobate; Can You?

This weird word is pronounced "con-glow-bate" and rhymes with "roller skate." It means rolling up into a ball shape.



Try it for yourself. See if you can curl up like a pill bug with your legs, arms, and head all tucked out of sight.

Maybe it will be helpful the next time your brother or sister or a friend tries to jump on top of you, but you might wish you had roly-poly armor too!

## For These Land Crustaceans, Habitat is Critical

A damp habitat is a healthy habitat for pill bugs. They drown in too much water and suffocate if they get too dry. Their bodies cannot regulate temperature so they freeze if their surroundings are too cold, and they die if temperatures are too hot. The best place to find



the happy medium is under rocks, logs, bricks, boards, rotting leaves and dirt—especially near human habitation. They are often hidden along foundations of buildings. They are more likely to emerge from hiding at night when the air is cool and humid, or during cloudy days after a rain.

If habitat conditions become drier, rolling up may help their gills stay moist. Roly-polies tend to huddle together to preserve moisture when they get warmer or drier. Maybe they also huddle just because they like to be in a group.

Smell is the key to how pill bugs group together. Roly-polies give off their own scent that other pill bugs can sense and follow. Smell is also important for finding food. Tiny hairs on two pairs of antennae and around their mouth are sensitive to touch and smell. Their two eyes are less useful and probably see little more than light and dark.

### **Pill Bug Dinner Menu**

Pill bugs perform an essential task in nature by eating. Their tiny mouthparts can only munch soft rotting leaves and other dead plant bits. Think what the world would be like with mounds of rotting plants building up everywhere.

Organisms smaller than roly-polies decompose the pill bug poop into food that plants need for new growth. Without decomposers like pill bugs, plants wouldn't have food and ultimately neither would we.

## **Pill Bug Defenses**

bite of many enemies.

To avoid being on the dinner menu of predators, a pill bug's body matches the color of its surroundings. If a roly-poly is found – despite its camouflage color – by an animal such as a preying mantis, rolling up is a good defense. The plates extending around the pill-shaped body shield the roly-poly from the



Pill bugs must stay hidden to avoid larger predators such as birds that can swallow them whole.







## Get Up Close and Personal with a Pill Bug

Look under rocks and logs, or damp leaves and dirt close to where you live to find some roly-polies.

Pick one up very carefully so you don't hurt it. Don't forget, it will <u>not</u> hurt you. Set it on the sidewalk in a shady spot and see what happens. Remember pill bugs need moisture so a sunny, dry spot is not a good place for a pill bug to be.

See if you can answer these questions:

- Does it roll up? If it does, wait and see how long it takes for it to unroll and try to get away.
- Watch the pill bug walk. Can you count its legs? How many of the legs face forward and how many face backward?

Count the overlapping plates on its back. There should be



## **Reminder:**

seven-not counting the head and tail area.

Return the pill bug to the place where you found it, and wash your hands to keep from spreading any germs you might have picked up.

## **Studying Pill Bugs**

It's never a good idea to keep wild critters out of their natural habitat for too long. But if you want to study pill bug behavior, you can catch a few and put them inside a glass or plastic container (make sure air can get in). Include moist dirt and some decaying leaves or sticks. Put in a piece of apple or potato.

Keep the container out of the sun and in a cool spot. Sprinkle in a little water to keep it moist, but make sure it's not too wet.

When you are finished studying the roly-polies, put them back outside exactly where you found them.







Text by Katherine Young and Deborah Price Illustrations by Roger Myers

# Pella Crossing: Rebuilding a Treasure

by Mary Olsen

The damage at Pella Crossing Open Space during the flood of September 2013 generated dramatic images of wreckage and immediate and unending pleas from the public for its repair and reopening. A multi-disciplinary team of Parks & Open Space staff, including recreation and facilities, resource management, water, wildlife and plant ecology, has been working diligently to secure funding and ensure adequate and sufficient design for the rebuilding of the reservoirs and visitor facilities. The reconstruction projects occurring at Pella



Staff and numerous partners are eager to have visitors once again walk and ride along the trails at Pella Crossing, enjoy the opportunity to catch a fish, see stunning views of Longs Peak, look for raptors soaring above, and find tranquility in this treasured open space.

Crossing are the result of the county's collaboration with the City of Longmont, the federal government, and multiple state agencies.

#### **COMPLETED PROJECTS**

Last fall, the City of Longmont completed the construction of the Heron Relief Channel, the drainage channel from Pella Crossing Heron Lake to the St. Vrain River, to intercept floodwaters and guide them back to the river. In December 2015, the Board of County Commissioners approved the \$3.5 million flood reconstruction project for the trails, facilities and breaches at Pella Crossing. The project will be largely funded by the Federal Emergency Management Agency (FEMA), with matching funds from the state and county. Construction is slated to begin this summer, with hopes of reopening the park by the end of the year.

The Dragonfly and Webster reservoirs at Pella Crossing were fully breached during the flood, and the embankments at Poplar and Sunset reservoirs were damaged. To address the repairs, an engineering firm was hired to generate plans that comply with the State Engineer's Office of Dam Safety (embankments classified as dams). Emergency spillways will be constructed across each damaged embankment, along with water level controls for the ponds, to mitigate future flood events by carrying floodwaters through the reservoirs without causing berm failure.

#### TOWARDS RESTORATION

The flood brought volumes of sediment deposition and erosion to Pella Crossing. Construction crews will need to move nearly 36,000 cubic yards of earthwork for the repairs. The trail system, trailhead, restroom and kiosk will be rebuilt, and multiple fishing and pond access sites will be repaired. Additionally, the Zweck and Turner ditch, which washed out during the flood, will be restored to its historic alignment within the park.

The Webster Pond breach caused a significant loss of water capacity in the pond; ultimately the State's Dam Safety Branch concluded that restoring capacity to pre-flood levels would require the embankment to be considered a jurisdictional dam. The additional costs and constraints associated with a jurisdictional dam are monumental; staff concluded that keeping post-flood water levels could instead allow for wetland establishment and increased wildlife habitat values within Webster Pond. The department secured funding through the Colorado Parks and Wildlife Wetlands Program to create three acres of wetland along Webster's shoreline. By re-contouring the sediment deposited by the flood, wetlands will be constructed to sustain wetland plants and associated wildlife. The riparian areas and pond shorelines at Pella Crossing's reservoirs and along the stretch of St. Vrain within the open space have included habitat for waterfowl, shorebirds, songbirds, raptors and Preble's meadow jumping mouse; the constructed wetlands will augment those habitat values.

# Who Visits our Parks?

#### by Michelle Marotti

Last summer, while you were outside enjoying your local trails, were you asked to fill out a survey? That survey is one tool we use to collect information about visitors and gather feedback about open space management. We want to know who our visitors are, what activities they enjoy, how they describe their experience, and ways we can improve in the future.

To answer these questions and more, every five years, Boulder County Parks & Open Space (BCPOS) conducts a system-wide demographics and satisfaction survey. These five year studies complement regular annual studies and look at long-term trends in visitor demographics, preferences, and behaviors.

During the spring and summer of 2015, trained staff and volunteers collected 2,275 surveys at 14 parks and five regional or neighborhood trails.

When a visitor travels to a Boulder County property, they most likely travel by car (89 percent), whereas when a visitor travels to a Boulder County regional or neighborhood trail they most likely use alternative transportation such as biking, hiking, and running (53 percent). Visitors tend to visit either with family (41 percent) or alone (34 percent), and probably did not bring a dog (80 percent). If it is not their first time visiting the park (28 percent), they generally visit trails frequently (53 percent visited monthly, weekly, or more than once a week).

The visitor is most likely hiking (41 percent) or biking (27 percent) and did not experience conflict with other visitors on the trail (91 percent). Regardless of whether the visitor experienced conflict, most park visitors did not feel crowded during their visit (70 percent).

#### **OVERALL SATISFACTION**

Most visitors are happy with the quality of the facilities (4.3 out of 5 overall facility rating). On a scale of 1 (poor) to 10 (excellent), visitors rated BCPOS land at an average of 8.7.

Visitors prefer trails wide enough for two people (43 percent) or three people (27 percent) to walk side-by-side and feel that there are about the right number of trails at that park or trail (63 percent). Visitors support or strongly support both multi-use trails (69 percent) and trails for a single activity (65 percent).

# FINDINGS INDICATE THAT THE AVERAGE VISITOR:

- has lived in Boulder County for 10 or more years (58 percent)
- likely lives in Boulder (31 percent) or Longmont (16 percent)
- is between years 45 to 64 (33 percent) or 25 to 44 (31 percent) years old
- is slightly less likely to own a dog (46 percent) than not (54 percent)
- is slightly more likely to be male
  (53 percent) than female (45 percent)
- has a bachelor's (41 percent), master's or PhD degree (37 percent)
- self-identifies as white (92 percent)

The information and opinions gathered from visitors is used in conjunction with other visitor studies and tools to better manage the land and address community desires.. The report provides a snapshot of who our visitors are at various properties, which is used to help update management plans. The information can also be used to help us better understand the values of our communities, to determine where more education or enforcement is wanted, and to respond to community desires for specific amenities, facilities, trails, and types of management.

The next time you are on a trail and see someone handing out surveys, we hope you will take the time to stop and fill it out. Don't forget that the input you provide can have an impact on the decisions that managers make for the future of your open space!

*To read the full report visit www.bouldercounty.org and search for five-year visitor study.* 

Information gathered from the 5-year study impacts the future of open space.





# DISCOVER BOULDER COUNTY Calendar of Events

# **SUNSET HIKES**

Enjoy weekly nature hikes at sunset. Bring your family and friends for an evening exploring your local parks. At each hike, volunteer naturalists interpret each park's history, geology, ecosystems, plants and wildlife.

- Hikes begin at 6:30 p.m. and conclude by sunset
- Two miles of easy to moderate hiking
- All ages welcome. An adult must accompany children.
- No pets are permitted

**Tuesday June 7**, Walden Ponds Wildlife Habitat Area (meet at shelter near Cottonwood Marsh)

**Wednesday June 15**, Heil Valley Ranch (meet at shelter near the Lichen Loop trailhead)

Thursday June 23, Mud Lake Open Space

Monday June 27, Bald Mountain Scenic Area

**Tuesday July 5,** Walker Ranch Open Space (meet at Meyers Homestead Trailhead)

Wednesday July 13, Caribou Ranch Open Space

**Thursday July 21**, Heil Valley Ranch (meet at shelter near the Lichen Loop trailhead)

Monday July 25, Mud Lake Open Space

Tuesday August 2, Bald Mountain Scenic Area

Wednesday August 10, Betasso Preserve (meet near the group picnic shelter)

Thursday August 18, Caribou Ranch Open Space



#### NATURE DETECTIVES IN THE FIELD: TURTLE TRICKS

Thursday June 2, 10-11:30 a.m. Walden Ponds Wildlife Habitat; 75th Street between Valmont Road & Jay Road (meet at shelter at Cottonwood Marsh)

Learn about the cool survival tricks of two turtle species—the snapping turtle and the painted turtle—through stories, handson activities, and exploration. This program ties in with the Nature Detectives insert on pages 9-12 in this issue of *Images*. Designed for children ages 4-9 with adult companions.

#### WILDFLOWER HIKE AT MUD LAKE

Saturday June 4, 10 a.m.-noon Mud Lake Open Space; 2 miles north of Nederland on County Road 126; meet at parking lot kiosk

Join Boulder County volunteer naturalists for an easy 1.5 mile hike through the montane forest to search out and enjoy the beautiful spring wildflowers. Along the trail, we will also learn about some of the local ecology and watch for signs of wildlife that call this area home.



#### GIVE ME THAT OLD TIME MUSIC

Saturday June 4, 5:30-7 p.m.

Walker Ranch Homestead, Wagon Barn area; 8999 Flagstaff Mountain Road, approximately seven miles west of Boulder Join musicians Bill and Crystal Atkinson for some fun foot stompin' tunes. Bring a blanket or lawn chairs for seating and a picnic for your family to enjoy. If you like, sing or dance along. Bring your own instruments or use a few of the musicians' and be part of the band.

#### **I SPY BONES**



Wednesday, June 8, 10-11:30 a.m.

Betasso Preserve, Boulder Canyon (Highway 119) to Sugarloaf Road, follow signs to Betasso Preserve (meet at group shelter)

The bone detectives are on the prowl! Help volunteer naturalists search for evidence, including skulls, bones, and antlers of some of the animals that live here. This program is for children ages 4-9 and their families, and will include plenty of hands-on fun for all.

# Calendar of Events

#### SEEING OURSELVES THROUGH THE EYES OF NATURE

Saturday June 11, 9:30 a.m.-noon

#### Meeting location will be provided to registered participants

Join volunteer naturalist Linda Weber for a contemplative walk in nature. You will be given ways to slow down, focus inward, and allow yourself to be mirrored by wild, more-than-human nature. Using your senses you will experience nature's rhythms and learn more about the ways of earth and sky. Bring a notebook and pen. For ages 16 and up. To register, email lcolbenson@bouldercounty.org, or call 303-678-6214 by Thursday, June 9.

#### FISH HAWKS OF BOULDER COUNTY

#### Sunday June 12, 9-10:30 a.m.

#### Boulder County Fairgrounds, Cattail Pond, North Entrance off Boston Avenue, Longmont

What hawk-like bird has a white head, eats fish, and spends the summer and nests in Boulder County? Osprey! Join volunteer naturalists to learn about this remarkable bird of prey. An osprey pair has nested at Cattail Pond for several years, and we may see adults and young looking for food and trying out new wings. Bring a bird field guide and binoculars if you have them.



#### **CELEBRATE SUMMER HIKE AT MUD LAKE**

Saturday June 18, 10 a.m.-noon

#### Mud Lake Open Space, 2 miles north of Nederland on County Road 126, meet at parking lot kiosk

Join volunteer naturalists to celebrate the coming of summer to the high country! On this easy 1.5 mile hike we will explore the natural history of the area including wildflowers, wildlife, and forest ecology. We will also talk about summer weather patterns and safety in the mountains.

# WILDFLOWERS OF BOULDER COUNTY SLIDE PROGRAM

Monday June 20, 6-7:30 p.m.

#### George Reynolds Branch, Boulder Public Library, 3595 Table Mesa Drive, Boulder

Join volunteer naturalists for a slide program to kick off the summer wildflower season! You'll learn about the variety of wildflowers found from the plains to the alpine tundra, where and when to look for them, and some interesting facts about some of our native plants.



#### DARK SKIES AND CREATURES OF THE NIGHT

Tuesday June 21, 2-3 p.m.

#### Louisville Public Library, 951 Spruce Street, Louisville

It's not just bats and owls that love the night. About 62 percent of species are nocturnal and need darkness to survive. Learn how the mighty dung beetle, fireflies, and other creatures depend on dark skies through interactive demonstrations. Designed for families with children ages 6-10.

#### ASTRONOMY: OUR PLANETARY NEIGHBORS

#### Saturday June 25, 8:15-10:30 p.m.

#### Hall Ranch Open Space, one mile west of Lyons on Highway 7 (meet at the shelter near the upper parking lot)

This year is a great time to view the visible planets in the night sky! Find out more about our neighbors in the solar system, learn to identify a few summer constellations, and view the sky through telescopes provided by the Longmont Astronomical Society. Families welcome.

#### WILDFLOWERS OF CARIBOU RANCH

#### Sunday July 3, 9 a.m.-noon

#### Caribou Ranch Open Space, 2 miles north of Nederland on County Road 126

Escape the summer heat and enjoy the wildflowers of Caribou Ranch Open Space. Volunteer naturalists will be available along the trails to help you identify and learn about the wildflowers as you explore.



# **Barnyard Critter Day**

Sunday June 26 from 10 a.m.-3 p.m. Agricultural Heritage Center

#### 8348 Highway 66, between Lyons and Longmont

Animals have always been part of our lives. Come learn about the roles of chickens, pigs, horses and other animals on a farm. See demonstrations of sheep herding and horseshoeing, visit with chickens and pigs, and ride on a horse-drawn wagon. Please leave pets at home so our working animals will not be disturbed.

For more information, contact Jim Drew at 303-776-8688 or jdrew@bouldercounty.org

# Calendar of Events



# Summer Heritage Evening at Walker Ranch Homestead

Saturday July 16, 5-7:30 p.m. Walker Ranch Homestead 8999 Flagstaff Mountain Road, approximately seven miles west of Boulder

Bring your family, a picnic supper and enjoy an evening at the homestead. Visit with costumed

volunteers as they demonstrate late 1800s rural games and chores such as doing laundry the old-fashioned way, woodworking, meal preparation, and blacksmithing. Meet animals up close with the help of a petting zoo. All visitors can participate in chores and games! Please bring a blanket if you plan to picnic since there are no tables at the homestead.



#### VIRTUAL MEETS REALITY

Thursday July 7, 9:30-11:30 a.m. Heil Valley Ranch, north of Boulder off Lefthand Canyon

Drive (meet at group picnic shelter)

Can't let go of technology? Bring your kids (with your smartphone) and discover new ways to use technology that encourages you to look beyond the screen. Learn to observe nature with your eyes as well as your camera lens, and find out how you can contribute to a wildlife photo database for Boulder County. Designed for families with children ages 6-12.

#### NATURE HIKES FOR SENIORS

Enjoy a guided nature hike for seniors every month. For more information, call 303-678-6214. Programs begin at 10 a.m. and end at noon

Thursday June 30, Betasso Preserve Thursday July 28, Caribou Ranch Open Space Thursday August 25, Bald Mountain Scenic Area

#### ROCK, BIRD AND WILDLIFE ROAD SHOW

Friday July 8, 11 a.m.-1 p.m.

#### Nederland Mining Museum, 200 N. Bridge St., Nederland

Learn about the geology behind minerals as well as local sightings of birds and wildlife at a brief program presented by volunteer naturalists. If you have rock samples or photographs of wildlife at home that include mysteries you'd like to solve, bring them along!

#### **GEOLOGY WALK AT SANDSTONE RANCH**

#### Saturday July 9, 10-11:30a.m.

Sandstone Ranch Open Space, the Visitor Center is located south of Highway 119, one mile east of Weld County Road 1. Follow the signs off Hwy119 to the Visitor Center parking lot.

Join volunteer naturalists Dick Pratt and Roger Myers to learn about the geology of Sandstone Ranch and Boulder County. We will learn about this dramatic and diverse landscape, from the Great Plains to the Continental Divide. After a short and easy walk exploring geologic history, visit the historic Sandstone Ranch house to learn about the history associated with this site.



#### NATURE DETECTIVES IN THE FIELD: ROLY-POLY PILL BUGS

Thursday July 14, 2-3 p.m. Louisville Public Library

Discover fascinating facts about these flexible little crustaceans that you can find right outside your back door. Designed for children ages 4-8 and adult companions, with hands-on activities and exploration. Learn more afterwards through fun books at the library.



#### A BUTTERFLY'S LIFE

Wednesday July 20, 7-8:30 p.m.

Longmont Public Library, Meeting Rooms A & B

Are you curious about butterflies, or ever wondered where monarchs go during their migration? Join volunteer naturalists for a beginner's guide to Boulder County butterflies. This slide program will review the life cycle of butterflies, and cover basic information on behavior, host plants, identification tips, and more.

> **All Programs:** All ages are welcome unless otherwise noted. NO PETS PLEASE! Be prepared for cool to high temperatures and afternoon thunderstorms. Bring drinking water and dress in layers. For information about these programs, or to arrange a volunteerled program for your group, please call 303-678-6214.

# Calendar of Events

#### SUMMER CATFISH NIGHT

Friday, July 22, 7:30-11 p.m.

Carolyn Holmberg Preserve at Rock Creek Farm, south 104th St. and Dillon Road (meet at the Stearns Lake Trailhead)

Summer Catfish Night is a great opportunity for anglers to try their luck at night when the lake is usually closed and the catfish are biting!

#### COBBLES OF TIME—THE GEOLOGY OF CARIBOU RANCH

Saturday July 23, 9 a.m.-1 p.m.

#### Caribou Ranch Open Space, 2 miles north of Nederland on County Road 126

The story of Glacial Lake Devlin and evidence of its catastrophic demise is a fascinating and little-known chapter in the geologic history of Caribou Ranch. Join volunteer naturalist Roger Myers and others on this 4.5-mile moderate hike to learn about the evidence first hand. We will also learn about some of the oldest rocks in the area, and the valuable minerals that formed and were mined nearby.

#### **BUTTERFLIES AND OTHER FLYING CREATURES**

#### Sunday July 24, 9:30 a.m.-12:30 p.m.

Walker Ranch, approximately 7 miles west of Boulder on Flagstaff Road (meet at the Meyers Homestead Trailhead)

Volunteer naturalist Jan Chu and others will lead this slow-paced 1.5-mile hike along trails in search of butterflies, birds, and other flying insects. See how creatures in the foothills find the food, water, shelter, and space needed to survive. We'll talk about butterfly behavior and life cycles, and also learn some tips on identification.

# Kids Gone Fishing

These clinics are a fun way to for kids 5 to 15 to enjoy fishing. Kids go through stations to learn about casting, baiting a hook, fish handling, and more and then get to practice their new skills. This is a great opportunity for both kids who have never fished and those who want to learn more about fishing.

Clinics take place from 9 a.m.-noon

Sunday June 5 and Saturday August 6

Sign up at:

www.BoulderCountyOpenSpace.org/register

Registration opens 1 month prior to the clinic

**Got questions?** Contact Michelle Marotti at mmarotti@bouldercounty.org



#### FUN ON THE FARM— ADVENTURES FOR LITTLE FARMERS

The first and third Fridays of each month June through September 9:15-10 a.m. and 10:30–11:15 a.m. Agricultural Heritage Center, 8348 Highway 66, between Lyons and Longmont

Bring your 3-6 year olds to the farm to learn about animals, plants, and agricultural life.

All programs include a short story time, hands-on activities, and a take-home craft. Adult chaperones must stay with children.



Earthworms: Underground Gardeners Friday, June 3 and Friday, June 17

**Chicken Scratch: Chickens, Dirt, Eggs, and More** Friday, July 1 and Friday, July 15

**Experience early 20th century Farm Life** Friday, August 5 and Friday, August 19

**Cows and the Milky "Whey"** Friday, September 2 and Friday, September 16

#### FLORA AND FAUNA OF THE MONTANE WETLANDS AND FORESTS

#### Saturday July 30, 10 a.m.-noon

#### Mud Lake Open Space, 2 miles north of Nederland on County Road 126 (meet at the parking lot/trailhead)

Escape the summer heat and join volunteer naturalists Therese Pieper, Roger Myers, and Leslie Larson for a moderate 2-mile hike while learning about the plants and trees that make up this ecosystem and the wildlife that depends upon them. We'll discuss how the animals survive and thrive, identify various trees, shrubs, and wildflowers, and observe some of the geology behind this landscape.

#### LIVING IN LION AND BEAR COUNTRY

#### Saturday August 20, 9-11 a.m.

#### Heil Valley Ranch Open Space, North of Boulder off Lefthand Canyon Drive (meet at group picnic shelter)

Join volunteer naturalists for a moderate 1.5-mile hike and learn about the ecology and behavior of our local mountain lions and black bears. Along the trail, we'll talk about why the foothills are such good habitat for lions and bears. We'll also discuss hunting and feeding habits, and how to be safe in lion and bear country.



### **SUMMER NIGHT HIKES**

Join volunteer naturalists to explore an open space property under cover of darkness! We'll hike about one mile round-trip on an easy trail, enjoy the starlight, listen for night sounds, and learnabout nocturnal habits of the critters that live here. Bring water, closed-

toe hiking shoes and a flashlight.

#### **Heil Valley Ranch**

Wednesday June 29, 8:30-10:30 p.m.

Heil Valley Ranch Open Space; North of Boulder off Lefthand Canyon Drive (meet at the group picnic shelter)

#### Walker Ranch

#### Tuesday July 19, 8-10 p.m.

Walker Ranch, approximately 7 miles west of Boulder on Flagstaff Road (meet at the Meyers Homestead Trailhead)

#### **Mud Lake**

Tuesday August 16, 8-10 p.m. Mud Lake Open Space; 2 miles north of Nederland on County Road 126 (meet at the parking lot/trailhead)

#### MINING PROGRAMS THROUGH THE SUMMER

#### HARD ROCK MINING TOURS

Saturday July 2, 10:30 a.m.-1:30 p.m. Saturday August 6, 10:30 a.m.-1:30 p.m.

#### Meeting location provided to registered participants

Tap into the towns, tools and characters of local hard rock mining heritage by visiting mining sites of years gone by. Tours are open to ages 10 years and older. Some walking required.

Register two weeks prior to the tour at www.BoulderCountyOpenSpace.org/register or call 303-776-8848.

#### ALL THAT GLISTENS IS NOT GOLD

The second Sunday of each month, 11 a.m.-1 p.m. Meeting location provided to registered participants

Try your hand at gold panning! This activity led to the settlement of Boulder County as people sought their fortunes. Do you have what it takes to travel back in time and search for gold in a stream? Programs are open to ages 5 years and older.

Register two weeks prior to the event at www. BoulderCountyOpenSpace.org/register or call 303-258-7332.

#### PEEK INTO THE MINING TRUNK

Saturday June 18 Saturday August 20 11:30 a.m.-1:30 p.m.

Assay Office Museum, 6352 Fourmile Canyon Dr., Boulder Extend your learning and fun with mining when cultural history volunteers share artifacts from the mining trunk with visitors to the Assay Office Museum.

### share your photos with us!

Many species of wildlife share space with us on Boulder County Parks & Open Space properties including mammals, birds, insects, spiders, reptiles, and amphibians.

#### IF YOU HAVE AN INTERESTING SIGHTING, WE'D LOVE TO KNOW ABOUT IT!

Here is specifically what we are looking for: Rare or hard-to-find species, such as lynx, wolverine, porcupine, jackrabbit, badger, bighorn sheep, moose, ringtailed cat, barn owls, burrowing owls

- Migrating birds (waterfowl and songbirds)
- Raptors and owls
- Large carnivores, such as bears, mountain lions, bobcats, and coyotes
- Other interesting bugs, fish, butterflies, reptiles, or amphibians
- White-tailed deer

Although it is fairly easy to capture photos of mule deer and squirrels, these sightings are common and not as helpful to our project.



## Picturing Open Space Painting and Photography Sessions

Throughout the summer, artist-led group painting sessions will be held on Parks & Open Space properties, including sunrise and sunset sessions—some on properties usually closed to the public. These events are being held to encourage people to participate in this year's en plein air art exhibit, "Outdoor Creations—A Boulder County Juried Art Show." The paint-out period is from May 1 to August 11.

Submissions are due by August 11. Learn more at www.BoulderCountyOpenSpace.org/paintout.

Ranger-led photography sessions will also be held during the summer months. Sessions will be held at sunrise and sunset, and one will be a full-moon gathering. Some sessions will be held on properties usually closed to the public. These events are being held to encourage photographers to capture subject matter, which can then submitted to the "2017 Land through the Lens" exhibit.

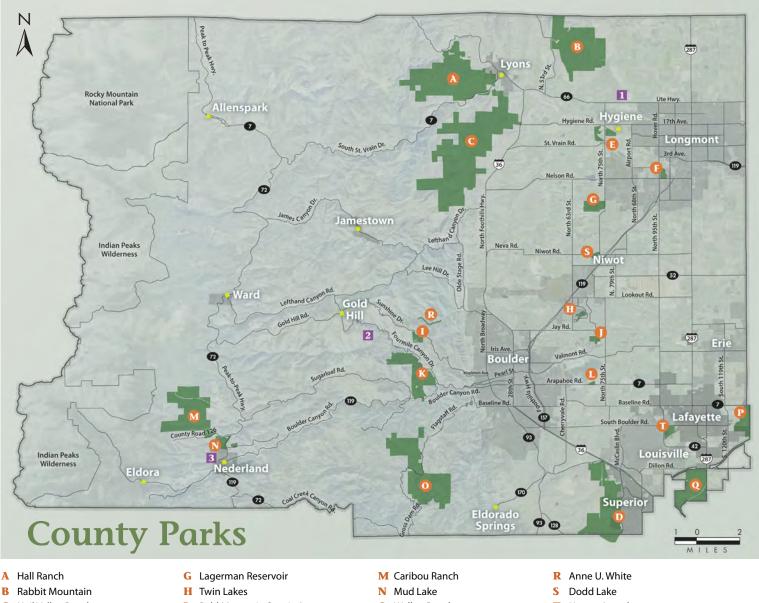
To learn more, visit www.BoulderCountyOpenSpace.org/photoshow. Registration is required.



Verdon Tomajko, Night Heron Diving, Walden Ponds Wildlife Habitat



Parks & Open Space 5201 St. Vrain Road, Longmont, CO 80503 www.BoulderCountyOpenSpace.org



- B
- С **Heil Valley Ranch**
- **Coalton Trailhead** D
- E Pella Crossing
- F Boulder County Fairgrounds
- I Bald Mountain Scenic Area
  - Walden Ponds Wildlife Habitat J
  - K Betasso Preserve
  - L Legion Park

- 0 Walker Ranch P Flagg Park
- **Q** Carolyn Holmberg Preserve at Rock Creek Farm
- Т Harney Lastoka
- 1 Agricultural Heritage Center
- 2 James F. Bailey Assay Office Museum
- 3 Nederland Mining Museum

Visit www.BoulderCountyOpenSpace.org/trails for information about properties that may be closed due to the 2013 flood.