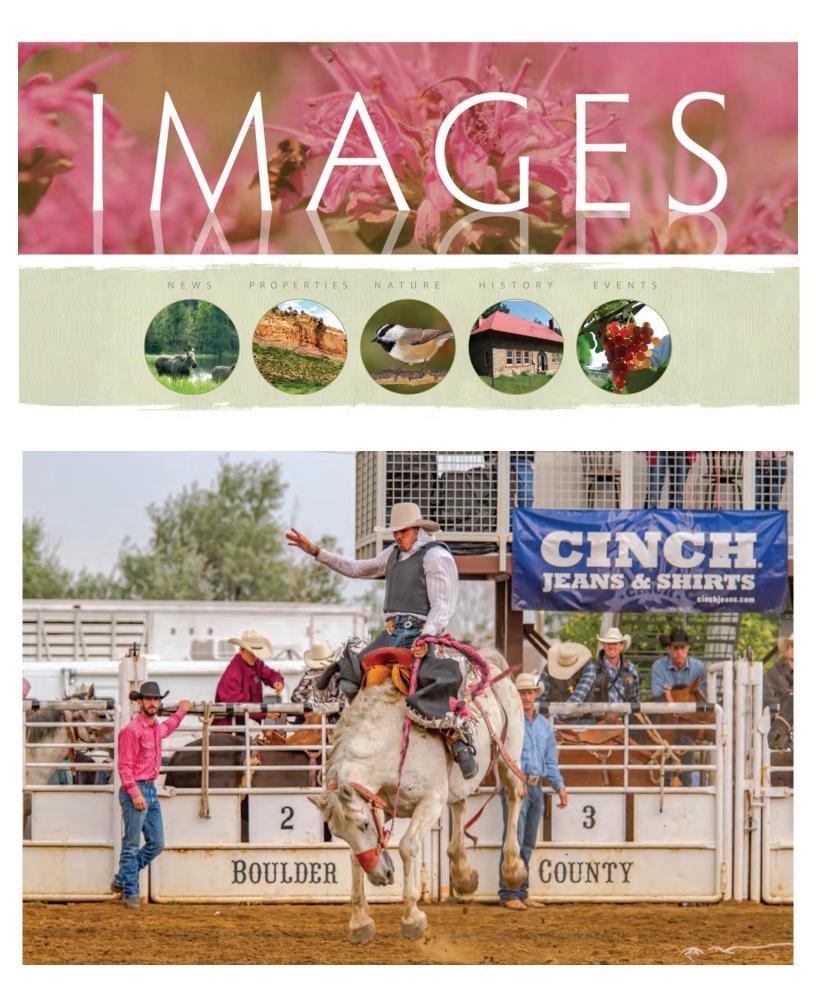
BOULDER COUNTY PARKS AND OPEN SPACE

Summer 2017



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: "In Flight" by Craig Rademacher shows a rider at the 2016 CPRA Rodeo at the Boulder County Fair. Conservation Award Winners, Nik Brockman Angler, Pascale Fried Restoration, Ernst Strenge Flies, Ken Sherlock Lichen, Gina Bare Visitor at Heil Valley Ranch, Corrie Brockman Girls at Walker Ranch, Sally Wier

NATURE DETECTIVES

Katherine Young and Deborah Price Illustrations: Roger Myers

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Land Conservation Awards

On April 26, the Boulder County Parks and Open Space Department (BCPOS) 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. Ron Stewart's longstanding and dogged dedication to protecting open space and preserving the unique "feel" of Boulder County is an accomplishment that will live on for future generations. A Longmont resident, Stewart was a member of the Boulder County Parks and Open Space Advisory Committee for six years, county commissioner for 20 years, and BCPOS director for 18 years. Thanks in big part to Stewart, the job of conserving land for open space has been done so well that Boulder County has almost 105,000 acres of open space to manage for the public's benefit.

Environmental Stewardship Award recognizes individuals, families or organizations that make significant contributions in land protection and/or management. Carron Meaney is an exceptional ecologist and mammologist. As a Preble's meadow jumping mouse expert, she has assisted BCPOS and the City of Boulder Open Space and Mountain Parks Department with monitoring and managing their habitat. Her guidance was invaluable in helping BCPOS launch a long-term study to monitor the impacts of the 2013 flood on this federally protected species.

Heritage Award honors individuals or organizations whose contributions demonstrate notable achievements in preserving Boulder County's heritage through substantially privately funded historic preservation projects. Eric Stevens and Michelle Wieber were recognized for the repair and restoration of the Wood House after a mud slide, triggered by the 2013 flood, severely damaged the circa 1875 house. The building was constructed by the Wood family during the hard rock mining boom in the newly established Salina community, and is an excellent example of a vernacular late 19th century wood frame house. Stevens and Wieber received two grants from the Boulder County Landmark Rehabilitation Grant Fund, and then matched the grants with their own funds to repair the house.

Partnership Award recognizes alliances with businesses and organizations around the county to foster a community-based stewardship ethic for the preservation and care of open space. Singletrack Mountain Bike Adventures (SMBA) has been a trail stewardship partner since 2010. SMBA is the longest running, independent junior mountain bike program which introduces youth riders to the sport. They have participated in 17 projects and contributed 1,870 hours to the department. The most impressive part of their volunteer work is that nearly all the kids ride up from Boulder to open space work sites! This partnership has been a great opportunity to address critical trail maintenance needs at Betasso Preserve, Heil Valley Ranch and Hall Ranch, as well as creating a learning experience regarding public land management for their young members. **Outstanding Volunteer Awards** honor 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 three recipients.

Melinda and Lauren Courtman have volunteered for the department since 2014. The mother-daughter team are native garden stewards at the Peck Native Seed Garden, tending the garden and monitoring seed development in order to collect those seeds. Both lead volunteer seed collections (Lauren is the youngest seed collection crew leader we have trained to date) and help with seed cleaning projects. Last year when a group was unable to finish a large lot of choke cherry seeds, the Courtmans insisted on taking the seeds home to finish the cleaning on their own to ensure the berries didn't mold. The two have been instrumental in cleaning the much needed flood recovery species we collected in 2016.

Cynthia Baker has been a master food safety advisor for six years. She provides consumers with up-to-date, safe food

The Story of the Parks and Open Space County open space properties receive approximately 1.5 million visits each year, and thousands volunteer their time and talents to help manage and improve the land. The department recently premiered the film "Founder's Legacy" **about the early years of the department. View the video at BoulderCountyOpenSpace.org/founders**

preservation/safety information. Her engaging communication skills make her an effective educator with others, both faceto-face and on the telephone. Baker's experience in food preservation, especially canning, is exceptional. She often takes produce from the CSU Extension Community Garden to make jams for CSU Extension Horticulture and Family & Consumer Sciences Agents to use in programming efforts.



Commissioner Deb Gardner, Michelle Wieber (Heritage Award), Eric Stevens (Heritage Award), Carron Meaney (Stewardship Award), Commissioner Elise Jones, Kara Stewart, (Land Conservation Award), Sean Stewart (Land Conservation Award), Melinda Courtman (Volunteer Award), Lauren Courtman (Volunteer Award), Commissioner Cindy Domenico, Conor Knight (Partnership Award), Jessie Bronson (Partnership Award), Emily Knight (Partnership Award), and Matt Tomasko (Partnership Award)

Beginning Fly Fishing

by Ken Sherlock



Spring through autumn is the best times to fish at Walker Ranch

Boulder County offers some great fly fishing opportunities. In particular, South Boulder Creek that runs through Walker Ranch is a jewel of a stream, home to brown and rainbow trout, many in the 10 to 15-inch range. Spring through autumn is the best time to fish at Walker Ranch. The state sometimes reduces the flow of water from Gross Reservoir above this stretch during the winter, making fishing difficult.

To get started, a 3, 4, or 5-weight rod is a good choice if you are planning to fish bigger streams. Length can vary from seven to nine feet, keeping in mind that a smaller rod will be easier to cast, but a longer rod will give you greater distance. Make sure to match your reel and fly line to the weight of your rod.

The key to catching trout on a fly rod is is called "matching the hatch." If you know what bugs are hatching and what the trout are feeding on, then you

are halfway there. A good source for what is hatching are local fly fishing websites to see what they recommend. They also provide river flow levels that will let you know if the water is too high, too low (or hopefully) just right.

Part of the attraction of fly fishing is learning to recognize different aquatic insects that you can use in your fishing. Insects go through two types of metamorphosis—complete or incomplete. Complete metamorphosis is characterized by four stages: egg, larva, pupa, and adult. Incomplete metamorphosis has three stages: egg, nymph, and adult.

About 90 percent of a trout's diet is made up of subsurface insects. That means knowing which egg, larva, pupa, and nymph patterns to use will help you catch more fish. However, when a trout explodes and grabs an adult dry fly off the surface, it's a sensation you are not likely to forget anytime soon.

Stoneflies, caddis, and mayflies comprise a large portion of the insects you are likely to encounter on a river. There are many kinds of mayflies: blue winged olives, pale morning duns, and green drakes, for example. An Adams fly imitates a variety of mayflies—you should always carry one in your fly box.

ART OF CASTING

There are many other bugs to try that will also work well. These include terrestrial insects such as grasshoppers, beetles, ants, and bees. Leeches, also called woolly buggers, and worm imitations are particularly effective as well.

A fly rod cast usually involves one or two back casts before placing the fly on the water. The technique is not that difficult to learn, but it helps to practice before you get to the river. One way to do this is to tie a piece of yarn on the end of your line and practice in your yard or a park. Fly fishing on South Boulder Creek, however, will challenge even the best fly fishermen. The next time you are at Walker Ranch, walk along the stream and look closely at the trees that line the shore. You will notice fishing flies hanging from many of the branches (quite a few are mine).

A good method to avoid losing flies is to stand in the river and let your line float downstream below you. Use a motion with your wrist, a roll cast, to flick your line into the riffles and behind rocks in the stream. Relax, be patient, and the fish will come.





Pheasant tail nymph





Research on Open Space

The Boulder County Parks and Open Space Department offers grants for research on county open space lands each year. All proposals are reviewed by a team of resource specialists, and awarded research projects are monitored during their activities on open space. The following is a summary of a 2016 study conducted by Sarah E. Reed and Jeremy Dertien with the Wildlife Conservation Society. Their project focused on potential effects of human recreation activity on Abert's squirrel and dusky grouse in Boulder County.

Abstract: Many protected land networks, including Boulder County Parks and Open Space (BCPOS) and Boulder Open Space and Mountain Parks (OSMP), operate under a dual mandate to provide public access for outdoor recreation while also protecting natural resources. However, there is growing evidence that recreation activity can negatively affect wildlife communities, and land and wildlife managers are seeking solutions to balance the benefits of outdoor recreation for human communities with its impacts on species and ecosystems. We conducted a pilot study of the potential effects of recreation on Abert's squirrel (Sciurus aberti) and dusky grouse (Dendragapus obscurus). The objectives of the study were to: (1) Test the effectiveness of survey methods for the target species; and (2) Examine relationships between the types and intensity of recreation use and target species detections. We selected 24 sampling locations in a factorial design among permitted activities (mountain biking and hiking, or hiking only), domestic dog policy (off-leash, on-leash, or excluded), and variation in recreation use intensity. We surveyed for Abert's squirrels using feeding-sign surveys, we surveyed for dusky grouse using dropping counts and acoustic monitoring, and we monitored recreation activity using remotely-triggered cameras. Detections of Abert's squirrels were positively associated with the density of large trees and negatively associated with the density of Douglas fir (Pseudotsuga menziesii).

Conclusions: Providing public access for recreation while conserving wildlife species and other natural resources are important goals for BCPOS and OSMP, similar to most protected areas around the world. However, visitation of protected areas and participation in outdoor recreation are increasing rapidly in the U.S. (Cordell 2012) and globally (Balmford et al. 2015). At the same time, there is growing evidence that recreation activity can negatively affect wildlife species at the community, population, and individual levels. In a recent global systematic review of 274 published articles on recreation and wildlife, we found that nearly all studies (93%) documented at least one effect of recreation on wildlife, and the majority (60%) of those effects were negative.

(Larson et al. 2016). Moreover, studies of hiking and other non-motorized activities observed negative effects on wildlife 1.3 times more frequently than studies of motorized activities. Land and wildlife managers are seeking solutions to balance the benefits of outdoor recreation for human communities with its potentially negative effects on species and ecosystems (Hadwen et al. 2007). In this pilot study, we did not find evidence for an effect of permitted activities, domestic dog policy, or recreation use intensity on Abert's squirrels. However, we detected dusky grouse less frequently in recreation areas where mountain bikes are permitted and in areas with greater visitation levels by cyclists, and we were unable to identify another characteristic of the sampling locations (e.g., vegetation characteristics) that could explain these relationships. Thus, we recommend that BCPOS and OSMP continue to monitor the potential effects of recreation on dusky grouse in future years. To do so, we recommend altering the research design to focus on sampling locations with habitat characteristics associated with dusky grouse (e.g., mixed conifer forests), switch from a plot-based to a point-transect survey design, employ acoustic monitoring as a primary survey method, and increase the total number of sampling locations. We also recommend that dusky grouse surveys be paired with community-level surveys for other species groups (e.g., point counts for passerine birds), to identify additional species that may be sensitive to recreation disturbance, and to account for possible interactions among species (e.g., turkeys [Meleagris gallopavo]). Results of this research would help to balance the recreation and conservation goals of protected lands by informing ongoing management of recreation and supporting decisions regarding designated use of new acquisitions.

To read the full report, or other funded research, visit www.BoulderCountyOpenSpace.org/research.



Roots and Routes from Mexico

by Cindy Maynard

You may have seen the photos of men's backs bent over their short-handled hoes working through seemingly endless rows of crops. This is the quintessential image of the Mexican field workers called "braceros." The short-handled hoes they wielded have since been outlawed. They are still preferred by some growers because they cause less damage to crops, however, they cause a great deal more damage to workers' backs.

Immigration along the Mexican border regularly makes news, but these issues are not new. Prior to 1904 the border was completely open and people could come and go at will. That changed in 1924, when Congress passed the "Labor Appropriation Act of 1924" officially establishing the U.S. Border Patrol for the purpose of securing the borders.

After that time, Mexican workers have been imported legally and illegally by companies needing seasonal or temporary workers. When World War II threatened to syphon off thousands of workers, endangering U.S. food security, the U.S. and Mexican governments jointly initiated a plan to facilitate immigration of temporary guest workers to make up for the enormous manpower shortage created by the war. The Bracero Program (1942 to 1964) sought to formalize the temporary worker arrangement.

PROMISES MADE

In theory, the plan seemed a reasonable solution, with benefits to all parties. Mexican workers were imported to work for an agreed-upon amount of time, receive pay equal to wages of non-Mexican workers, safe, sanitary housing, medical treatment, and a contract written in Spanish. The workers hoped to get a decent paycheck, humane treatment, and return to their families with much needed cash. The Mexican government thought the program would be a positive contribution to the war effort, and hoped the workers would learn new skills they could bring home. They anticipated that the workers would bring money home to enrich the Mexican economy. The agricultural growers hoped to get a reliable work force, for reasonable wages, for a limited time. It sounded like a program that would benefit everyone.

A word derived from "brazos," meaning arm, braceros came to Colorado primarily to work in the sugar beet fields. From the very start, however, there were problems. By 1945, 300,000 men worked as braceros, sanctioned by both governments. But there was such a glut of men applying for work that bribery became common practice. Many workers who did not get official permission to work came across the border illegally. Companies continued to recruit workers directly from Mexico, circumventing the program completely. Often, the growers did not live up to their promises. Housing was sub-standard, discrimination and racism were rampant, and pay was not equal.

The Mexican government deducted 10 percent of workers' earnings to be safeguarded in a Rural Savings Fund for the workers' future use. That money disappeared. It is still not known what became of it. Mexico began to doubt that there was a legitimate labor shortage and suspected Mexicans were not being treated equally and fairly. They began to see the downside of exporting so much of their labor force to the U.S. In the U.S, non-Mexican workers resented the Mexicans whom they believed were driving down wages and taking their jobs.



Photos of workers who were part of the Bracero Program are courtesy of Colorado State University.



The program lasted for 22 years, far longer than expected. By the time it was discontinued, 4.5 million Mexicans had come to the U.S. as braceros. Many of the braceros and families returned home after their contracts expired, but later emigrated to the U.S. Today, numerous families and communities can trace their heritage to these programs.

6

Behind the Name: Heil Valley Ranch Trails

by Kat Chen

Are you looking for a short scenic hike in the Boulder area? Look no further than Heil Valley Ranch. The 1.3 mile Lichen Loop is a hiker-only trail that walks you through ponderosa pine forest, incredible geology, and past evidence of local history.

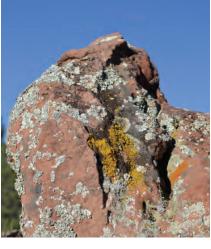
LICHEN LOOP

This trail gets its name from lichen, a common organism growing on the rocks along its trail. Lichens may resemble mosses to an untrained eye, however, mosses are classified as plants. Lichens are not plants, but rather leafless, rootless life forms composed of two diverse organisms: an alga and a fungus. Lichen can often grow in places where neither fungi nor algae could grow alone. The symbiotic relationship between these organisms allows them to survive under diverse environmental conditions, using rocks, trees, or other solid surfaces as their substrate. An organism from the kingdom fungi must make up the majority of the lichen, as it provides the structure of the lichen and is responsible for adhering to the substrate on which it grows. Since fungi cannot produce their own food, they pair with algaephotosynthetic organisms classified as either plants or bacteria. Algae will photosynthesize sugars for the lichen, and in return receive a place to live and grow. This relationship is replicated again and again in the varieties of lichen that vary in color, size, and structure.

While the Lichen Loop is named for its

abundance of lichen, it is also a homonym for one of the geologic formations that runs through this property: the Lykins Formation. The Lykins Formation is characterized by soft sedimentary rocks, including red, sandy shale and pink sandstone. This formation is softer than those that surround it, and therefore has weathered much quicker. You can locate this formation at Heil Valley Ranch in its north-south trending valley that separates the Lichen Loop from the Wapiti Trail.

Next time you visit Heil Valley Ranch, hike the Lichen Loop to find its namesake organisms and its sound-alike geologic formation.





Above: Lichen at Heil Valley Ranch. Photo of wild turkeys at Heil Valley Ranch taken by a trail camera.

WAPITI TRAIL

Avid hikers and bikers of Boulder County know Heil Valley Ranch to have exciting trails and gorgeous views. If you have ever been to Heil Valley Ranch, you have likely traveled all or part of the Wapiti Trail. This trail climbs from the main trailhead up to an elevation above 6,700 feet.

Have you ever wondered what Wapiti means? Wapiti is another name for the mammal *Cervus Canadensis*, more commonly known as elk. Elk are a large member of the deer family that grow tall branching antlers, and tend to form large social groups. These animals prefer forest edge habitats and can be found in parts of North America and eastern Asia. Rocky Mountain elk can often be spotted at Heil Valley Ranch in colder months; this same population migrates up to the Rocky Mountains during summer. Next time you hike the Wapiti trail, imagine the climb these herds of elk make in spring and fall.

WILD TURKEY TRAIL

At the summit of the Wapiti Trail, you will reach two conjoining loop trails: the Ponderosa Loop and the Wild Turkey Trail. If you spend any significant time at Heil Valley Ranch, you can easily see why one of its five trails is named for wild turkeys.

Wild turkeys, *Meleagris gallopavo*, are the same species of bird as domesticated turkeys. Turkeys are native to North America and prevail in mature forests with scattered openings. Despite their somewhat awkward appearance, turkeys are agile in flight. Turkeys have a variety of vocalizations. The characteristic "gobble" is the sound generally made by adult male turkeys, known as toms, in order to advertise their presence to receptive hens. Gobbles may travel far, so if you hear this sound, toms may be near or they may be a mile away. Next time you hear the distinctive call of wild turkeys from the Wild Turkey Trail, gobble back—these turkeys are talkative!

Future Stewards of Our Land

by Justin St Onge

Boulder County Parks and Open Space (BCPOS) faces many challenges, from population growth to land restoration to climate change, and will see changes both for better and worse in the future. To confront what the future may bring, we must not only continue to conserve natural, cultural, and agricultural resources on our open space lands, but also instill the value of these lands to others, especially the next generation of decision makers.

With almost 40,000 acres of BCPOS land open to the public, we have an amazing classroom to educate youth on the value of open space and stewardship of cultural and natural resources. Building a strong and meaningful connection to the land can be a pivotal moment in a child's relationship with nature. Immersing children into the wonders of the natural world creates formative experiences that shape how they think and act about open space well into the future, as well as the value it plays in their lives currently. As population growth continues to increase along the Front Range, and the impacts of climate change become more visible, we need a knowledgeable and concerned population to tackle current and future environmental decisions and challenges.

Creating fun and enjoyable experiences for children on open space land does not need to be a daunting task. Thankfully, nature allows children to use their own imagination and curiosity without much prompting, and perhaps more successfully than any video game or television show.





Boulder County Parks and Open Space provides access to everything from mountains to prairie, museums that highlight regional cultural and natural history, and educational programs. With these resources, the department can provide opportunities that engage and educate our community and visitors.

GREAT FOR KIDS

BCPOS provides several kids programs that offer interactive and engaging ways to foster a child's appreciation of nature.

Nature Detectives Club

For kids under 12 years of age, the Nature Detectives Club gives kids the chance to use their keen investigator skills to complete a mystery guide that highlights the natural surroundings and history of nine local parks. You can pick up mystery guides at each property, or you can print copies from the department's website. Kids who return completed mystery guides will receive prizes!

Junior Ranger Adventures

The Junior Ranger Adventures program is a fun and exciting way for kids five to 12-years of age, as well as the whole family, to get outdoors and learn new outdoor skills. An account can be created through the county website to track your progress and earn badges and prizes.

Museums

The department's museums are an excellent way to step back into time and learn what life was like in Boulder County in the past. Boulder County manages three museums where you will learn about the history of agriculture, or get a glimpse into the world of hard rock mining.

Visit Every Property

Still in search of exciting ways for your child to interact with nature? Visit every open space property in Boulder County! By searching on Boulder County's website or picking up *A Guide to Your County Parks* brochure you can find locations for each of the parks, discover what each property has to offer, and plan your adventure. Bring along binoculars, if you have them, and a sense of adventure to make your experiences enjoyable and create lasting memories for the entire family.



Wasps With Paper Houses and Bad Reputations



Out of the thousands of different species of wasps, only hornets, yellow jackets and paper wasps get a big reaction. "There's a wasp!" is rarely an exclamation of delight and for good reason. These wasps pack a potent stinger on their rear end. The three different species are not equally likely to sting, but all three are commonly feared on sight. Learning a little about them can help you avoid getting stung and allow you to appreciate their building skills and their positive role in the balance of nature.



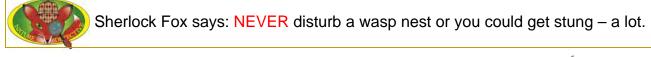
Paper Home Construction 101

Hornets, yellow jackets and paper wasps are social insects that live in colonies similar to honey bees and ants. They construct paper nests to shelter their developing baby wasps. To make the paper, these wasps bite splinters off old wood from houses or fences or bite off pieces of plants. The wasps chew up mouthfuls of these woody bits along with water. When spread out and dried, the pulpy paste makes a kind of paper.

Wasp papermaking is similar to how humans make handmade paper, except we don't mix the paper slurry with our jaws.

Ground, Tree or Roof – Each Kind to Its Own Space

Each species of social wasp has a different building plan for home construction and a different preferred home location. Shelters made out of paper cannot withstand a whole winter's worth of moisture and wind so wasps always start a new nest every year. Once you know where they typically locate their homes, you can use your detective skills to find them near where you live. Cautiously!





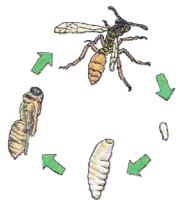
Queen Paper Wasps Begin Their Colonies in Spring

By late summer, a **paper wasp** colony can be buzzing with dozens of busy workers, but it doesn't start that way in the spring. With the end of winter and arrival of warmer days, a queen wasp crawls out from the safe hideout where she overwintered.



She warms up in the sun and sips some flower nectar for energy. As she searches alone for a good spot to begin a nest, she crawls under a roof overhang. She decides to start her nest in this place, out of the rain and wind. She shapes some paper pulp into a stalk like the knob at the top of an umbrella. The stalk anchors the nest to the underside of the house eaves. Then she begins to form six-sided cells in an umbrella shape, open toward the ground.

From Egg to Larva to Pupa to Wasp Is Metamorphosis

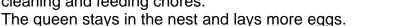


After she's made a few cells, the queen deposits a tiny **egg** in each cell. A single **larva**, looking like a short, fat worm, hatches out of each egg. The queen hunts for caterpillars or other soft insects to feed her growing offspring. She chews her prey into mush, and like a mama bird, she feeds some to every larva.

When the larvae grow large enough, each seals the end of its cell, and changes from a larva body into a **pupa**. Each pupa transforms into an adult wasp and chews out of the cell. From egg to adult takes about a month. The new wasps are daughters, and none competes with the queen. They are worker wasps.

Workers, Male Drones and New Queens

As the colony produces more workers, the umbrella shape grows larger, and the worker wasps do all the building, guarding, hunting, cleaning and feeding chores.





Beginning in autumn, some new wasps bigger than workers will hatch. These are future queen wasps and male drones. Their job is to fly around and find a mate. Once cold weather sets in, all the drones will die. All the worker wasps and the old queen will die. The new queens will search for a solitary winter hideaway. The abandoned paper nest will never be reused by a colony.

Begin Again

In spring, each surviving new queen will start her own colony. Paper wasps are usually mellow and not quick to sting unless you mess with their nest. Unlike honeybees, each wasp worker and queen can sting over and over when provoked.



Hornets Make Paper Bag Homes



Hornet colonies have the same life cycle as paper wasp colonies. They too hunt insect and caterpillar prey. Less calm than paper wasps, they are even



more likely to sting when their nest is disturbed. Each upset hornet can sting repeatedly. Happily, their nest location is often high up in trees out of harm's way.

Hornet colonies may contain hundreds of wasps by the end of the summer. Somewhat like additional floors in an apartment building,

hornets keep adding umbrella-shaped layers of cells, stuck together by pillars. The wasps enclose the layers of cells with an outer cover, like a paper bag. A hornet nest looks a little like an old football, covered with gray papier-mâché.

Yellow Jackets Are Thieves



Yellow jackets are the nuisance wasps that invade outdoor summer picnics and barbecues. They are willing to sting their way into your picnic basket, grab bits of a hamburger or crawl into your soda can. They hang out in gangs around garbage cans. The vast majority of reported "bee stings" are actually yellow jacket stings. To make it worse, their venom is even more painful than hornet or paper wasp venom.

The reason these aggressive wasps are after *your* food is that they are scavengers. Unlike hornets and paper wasps, they eat recently dead earthworms, dead insects and dead animals. They like sweet things such as ripe grapes on the vine or on your plate. When the wasps' natural food becomes harder to find in the fall, feisty yellow jackets are most eager to steal your food.

Their life cycle is the same as hornets and paper wasps, except they usually build their nests underground. The cells have a paper cover like hornet nests. By the end of the summer, hundreds of yellow jackets might live in a cavern with one hard-to-spot entrance hole. People accidentally discover the location when they are mowing a lawn or running across a yard, and the wasps zoom out for a stinging defense of their home.



Weird Wasp Facts



Entomophobia means extreme fear of being stung.

Tarantula hawks are enormous, two-inch, red-winged wasps that sting tarantulas to paralyze them for larvae food. Their sting is one of the most horrible in the world. Luckily they don't live *here*. They make yellow jackets seem not so bad.

You can tell some paper wasps from hornets or yellow jackets by their long dangling legs in flight.

Wasps Are Important



Although colony wasps are insect predators, they can become prey themselves. Raccoons will raid paper wasp nests at night,

pulling the whole nest down to fish out the juicy larvae or pupae. Badgers, mice, frogs, birds, spiders, beetles, ants and other wasps are also wasp predators.

How do wasp eaters not get stung? Some animals, like frogs, crush the insect immediately so it doesn't have time to sting. Others have thick skin or are not affected by the toxin in the venom. Cats and dogs sometimes try to eat bees and wasps, and that's not a good thing! It might lead to a trip to the vet.

Do You Believe Colorado Has Thousands of Wasp Species? It's True!

Unlike the colony-dwelling social wasps, most wasps live solitary lives, and some species are so teeny that they escape our notice. All these different wasps contribute to a balanced ecosystem as predators or as prey or as flower pollinators. They include hunting wasps, spider wasps and parasitic wasps. Keep your detective eyes open to see how many kinds of wasps you can spot. Borrow insect books from the library or check online for help identifying species.

Build an Easy Papier-mâché Hornet Nest

What you need: flour water round balloon strips of newspaper or paper towels brown or gray tempera paint 3-foot long piece of string



Mix equal amounts of water and flour to make papier-mâché paste. Mix well with a wire whisk until it's smooth (add more water if it's too thick).

Blow up the balloon and tie the end. The knotted end will be the stalk at the top of the nest. Tie the string to the knot so you can hang your nest.

Dip newspaper or paper towel strips in the paste and stick the paper onto the balloon. Cover the whole balloon, overlapping the paper strips in a variety of directions. Let dry and add a second and third layer of paper strips. Let dry completely.

Use paint to add some color splotches to the outside of your nest, and paint a solid circle on the bottom to look like the entrance to the nest. If you want, you can buy some plastic toy wasps and glue them to the outside!







ALSE

Text by Katherine Young and Deborah Price Illustrations by Roger Myers

The Castle Rock Bridges of Boulder Canyon

by Sally Wier

In the foothills of the Rocky Mountains lies a canyon—quiet, secluded, and remote. It is home to mule deer and Steller's jays, mountain lions, and foxes. Tall pines shoot upwards from their roots which cling surprisingly well to the steep, precipitous, rocky walls. Below, a cold creek fed by the winter's melting snows, rushes past boulders, and American dippers flit to and fro amidst the turbulent waters. This describes Boulder Canyon prior to the 1850s. A rugged, sheer corridor running between the mountains and plains, it is only in the past 165 years that humans have progressively forced their way through the canyon carved

2017 marks the 100-year anniversary of the upper and lower bridges. The county will landmark them later this year. by Boulder Creek. Today we drive on a wellmaintained state highway along this pathway, but the natural beauty of the rugged canyon remains on the steep walls above our heads, and remnants of earlier human history can be found not far from where the tires of our cars tread.

CASTLE ROCK STANDS APART

Roughly 13 miles up Boulder Canyon from Boulder, a prominent formation known as Castle Rock stands independently from the canyon walls on the south side of the road. In the summertime its base is peppered with families enjoying picnics by the creek and rock climbers dot the grey stone above. Castle Rock is accessed easily by car, thanks to two bridges that cross the creek and a dirt road which wraps around the south side of the formation and back up towards the main thoroughfare of Colorado State Highway 119. This small stretch of road and its two bridges are not only useful to many canyon recreationalists, it is also a remnant of a long and storied past that brought people into and out of the mountains through Boulder Canyon.

Prospectors who amassed in Colorado during the gold rush of 1859 began to blaze trails up placer-rich mountain canyons with hopes of finding wealth. These crude paths eventually became the basis of mountain roads. 1871 brought the completion of the Boulder Canyon Road, which was later extended to Caribou due to a large silver strike in the mountain mining community of Caribou. With 33 total creek crossings, the responsibility of maintaining the road fell to Boulder County in 1887, and with the advent of the automobile the importance of keeping the road in good condition increased significantly.

THE WORK OF CONVICTS

In 1913, the Boulder Canyon road was made part of one of the primary roads in the state, and in 1914 the first major construction on the road began. The labor was done by convicts from Cañon City, and despite the major setback of an enormously destructive flood that summer, they still managed to reach Castle Rock by 1917. Here they found two already extant bridges, but demolished them and rebuilt both the upper and lower bridges by the end of the year. The road was fully completed by 1919 and in 1923 it became Colorado State Highway 119.

ROCKSLIDES AND WASHOUTS

Being in a steep canyon, however, the road was continually bombarded by rockslides and creek washouts and road maintenance continued. In 1947 some significant rerouting of the road was completed and the road was moved from the south of Castle Rock to the north, thus abandoning the two bridges and miles of convict-built road on the southern side. Other similar bridges were avoided and eliminated by rerouting, and by 1955 only three of the original 33 creek crossings on the road remained.

Taking a walk or drive around the south side of Castle Rock allows us to step into the dynamic past of expansion in the American west driven largely by the increase in prominence of the automobile. The two bridges of Castle Rock still stand today as essentially unaltered examples of the formative construction of early highways, especially by convict crews.

While no longer part of Highway 119, the Castle Rock upper (top photo) and lower bridges are still in use today. Built by convicts in 1917, they were part of the original alignment of Boulder Canyon.



Where to Go this Summer? Explore these Museums

Summertime in Boulder County often means out-of-town family will be visiting. Besides taking them to eat at your favorite restaurant, hike a nearby trail, and go to a town festival, it would be fun to visit a county museum. These four museums are wonderful places to spend a couple of hours with guests, friends and family:







For more information, visit BoulderCountyOpenSpace.org.

Nederland Mining Museum

Open Friday, Saturday and Sunday from June through October, 11 a.m.-5 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.

Agricultural Heritage Center at the Lohr McIntosh Farm

Open Friday, Saturday, and Sunday from April through October, 10 a.m.-5 p.m. Location: 8348 Ute Highway 66, Longmont Phone: 303-776-8688 Enjoy the rural setting and learn about the agricultural history of Boulder County.

The farm includes barns with interactive exhibits, a milk house, blacksmith shop, and furnished 1909 farmhouse. There are animals on site seasonally including chickens, pigs, and others.

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.

Assay Office Museum

Open the third Saturday of the month May through October, 11 a.m.-3 p.m. Phone: 303-443-0865 Located west of Boulder, 6352 Fourmile Canyon Drive 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.



DISCOVER BOULDER COUNTY Calendar of Events

SUNSET HIKES

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 6, Ron Stewart Preserve at Rabbit Mountain (meet at the picnic shelter near the trailhead)

Thursday June 22, Walden Ponds Wildlife Habitat (meet at the picnic shelter at Cottonwood Marsh)

Wednesday July 12, Betasso Preserve (meet near the picnic shelter)

Tuesday July 25, Mud Lake Open Space (meet at the trailhead at the parking lot)

Wednesday August 9, Bald Mountain Scenic Area (meet at the trailhead parking lot)

Wednesday July 13, Caribou Ranch Open Space

Tuesday August 22, Heil Valley Ranch (meet at shelter near the Lichen Loop trailhead)

WILDFLOWER HIKE AT MUD LAKE

Saturday June 3, 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 for an easy 1.5 mile hike around Mud Lake and 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.



GIVE ME THAT OLD TIME MUSIC

Saturday June 3, 5-7 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.

JUNIOR RANGER OUTDOOR ADVENTURES KICKOFF

Saturday June 3, 11 a.m.-1 p.m. Betasso Preserve, off Sugarloaf Road at 377 Betasso Road

Registration is required. To register, please visit www.bouldercountyopenspace.org/jr.

Join the fun at the Family Outdoor Adventures Kickoff. You'll participate in a camping-themed relay, practice building a safe campfire, and learn how to be bear aware.

This event is perfect for kids ages 5-12, but all family members are welcome. A parent or guardian must be present.

Bring water, snacks, sunscreen and hiking shoes. If you have questions, contact Ranger Erin Hartnett at 303-678-6211 or ehartnett@bouldercounty.org.

If you can't attend this event, don't worry! Sign up for the summer challenge. To learn more, visit www.bouldercountyopenspace.org/jr.

I SPY BONES

Wednesday June 7, 10-11:30 a.m.

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

GEOLOGY WALK AT SANDSTONE RANCH

Saturday June 10, 10-11:30 a.m.

Sandstone Ranch Open Space, the Visitor Center is located south of Highway 119, one mile east of Weld County Road 1. Take the east entrance to the Sandstone Ranch area, turning south on Sandstone Drive. Follow signs to Upper Visitor Center parking lot. Join volunteer naturalists Dick Pratt and Roger Myers to learn about this dramatic landscape, from the Great Plains to the Continental Divide. After a short, easy walk exploring geologic history, visit the beautiful and historic Sandstone Ranch house to learn about the history associated with this site.

Calendar of Events

FISH HAWKS OF BOULDER COUNTY

Sunday June 11, 9-10:30 a.m.

Boulder County Fairgrounds, Cattail Pond, north entrance off Boston Avenue, Longmont

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.

A MUSKRAT'S NEIGHBORHOOD

Tuesday June 13, 2-3 p.m.

Louisville Public Library, 951 Spruce Street, Louisville

Muskrats may be seen as the little cousin to the beaver, but they are a very different animal! Muskrats also provide habitat for all sorts of other species. Discover some of the neighbors that share space with muskrats and find out how important they are to building a better world for wildlife in and near the pond.

EXPLORE SUMMER!

Wednesday June 14, 9:30 a.m.-noon Space is limited, meeting location will be provided to registered participants

This family event will provide an opportunity to learn about birds, mammals, reptiles, animal tracks, and more through hands-on activities at different stations on an exploratory walk. Designed for children ages 4-10 with adult companions. To register, email dprice@bouldercounty.org or call 303-678-6215 by Monday, June 12.

WILDFLOWERS OF BOULDER COUNTY SLIDE PROGRAM

Thursday June 15, 6-7:30 p.m.

Lafayette Public Library, 775 West Baseline Road, Lafayette

Join volunteer naturalists for a slide program to 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 our native plants.

Barnyard Critter Day



Sunday June 25 from 10 a.m.-3 p.m. Agricultural Heritage Center

8348 Highway 66, between Lyons and Longmont

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, call 303-776-8688 or email jdrew@bouldercounty.org.

Old Fashioned Playdates

Monday June 19, 10 a.m.-noon Sunday August 6, 10 a.m.-noon Walker Ranch Homestead; 8999 Flagstaff Mountain Road, approximately 7 miles west of Boulder

Do you like to play outside and meet new friends? What about trying graces and lawn bowling—games that your great grandparents might have played? Join us for a morning of fun, especially for ages 6-12, accompanied by a parent or guardian.

CELEBRATE SUMMER HIKE AT MUD LAKE

Saturday June 17, 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 wildflowers, wildlife, and forest ecology. We will also talk about summer weather patterns and safety in the mountains.

A BUTTERFLY'S LIFE

Tuesday June 27, 6-7:30 p.m.

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

Curious about butterflies? Please join volunteer naturalists for a beginner's guide to Boulder County butterflies. This slide program will review the amazing life cycle of butterflies, and cover basic information on behavior, host plants, identification tips, and more.

HISTORY AND HABITAT OF CARIBOU RANCH

Saturday July 8, 9 a.m.-noon

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

Escape the summer heat and explore the beautiful forests, meadows, and wetlands of Caribou Ranch. Volunteer naturalists will be stationed along the trails to answer questions and help you learn about the wildflowers, wildlife, and colorful history of this diverse landscape.

DRAGONS & DAMSELS SLIDE PROGRAM

Tuesday July 11, 7-8:30 p.m.

Longmont Public Library, Meeting Rooms A & B, 4th Avenue and Emery Street

Have you ever been curious about those colorful gems flying over pond and stream? Join volunteer naturalist Leslie Larson and learn about the amazing life of dragonflies and their damselfly cousins, including their acrobatic flying, huge multi-faceted eyes, convoluted mating schemes, and behavioral quirks.

Calendar of Events

Summer Heritage Evenings at Walker Ranch Homestead

Bring your family and a picnic supper (please bring a blanket if you plan to picnic – there are no tables at the homestead). At both events visitors can participate in chores and games.

Free and fun for all ages.

SUMMER HERITAGE EVENING: LIVESTOCK

Saturday July 15, 4-7 p.m.

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 at the petting zoo.

SUMMER HERITAGE EVENING: BACK TO SCHOOL

Friday August 11, 4 - 7 p.m.

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. Go back to school in a one room school session or compete in a spelling bee.

Walker Ranch Homestead, 8999 Flagstaff Mountain Road, approximately 7 miles west of Boulder

For more information, please call 303-776-8848 or email skippen@bouldercounty.org.

DRAGONS & DAMSELS IN THE FIELD

Saturday July 15, 10 a.m.-noon Pella Crossing Open Space, about 1 mile south of Hygiene on the east side of North 75th Street.

Join volunteer naturalist Leslie Larson to learn about the amazing life of dragonflies and their damselfly cousins, including their acrobatic flying, huge eyes, mating schemes, and behavioral quirks. We'll also learn how to differentiate dragons from damsels, about their 3-stage life cycle, and some clues to help with field identification.

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 29, Mud Lake Open Space Thursday July 27, Bald Mountain Scenic Area Thursday August 31, Caribou Ranch Open Space

WHO TURNED THE LIGHTS OUT? PREPARING FOR THE SOLAR ECLIPSE

Friday July 21, 7:30-10 p.m.

Space is limited, meeting location provided to registered participants

A total solar eclipse will be visible on August 21 across the United States. Learn why this event will be so special. Afterwards, enjoy viewing summer constellations and other celestial objects with the help of the Longmont Astronomical Society. To register, email dprice@bouldercounty.org or call 303-678-6215 by Wednesday, July 19.

BUSY BEES AND WORKING WASPS

Thursday July 27, 2-3 p.m. Louisville Public Library, 951 Spruce Street

Not all bees make honey and not all wasps are the same—there are thousands of species! These interesting insects stay very busy by constructing elaborate hives and nests, and help build a better world. Find out what all the buzz is about! Designed for children ages 4-10 with parents or guardians.

COBBLES OF TIME—THE GEOLOGY OF CARIBOU RANCH

Saturday July 29, 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 is a fascinating chapter in the geologic story of Caribou Ranch. Join volunteer naturalist Roger Myers on this 4.5-mile moderate hike to examine the evidence first hand. We will also learn about some of the oldest rocks in the area and the valuable minerals that were mined nearby.

NATURE DETECTIVES IN THE FIELD: WORKING WASPS

Tuesday August 1, 10-11:30 a.m.

Space is limited, location given to registered participants

Social wasps are best known for their stings, but these insects build a variety of paper homes, help control pests, and are an important part of the food web. Find out what the buzz is all about! Designed for children ages 4-10 with parents or guardians. To register, email dprice@bouldercounty.org or call 303-678-6215 by Friday, July 28.

> 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

FULL MOON HIKE

Monday August 7, 7:30-9:30 p.m.

Space is limited, location given to registered participants

Families are invited to discover an open space in the moonlight, and learn about the importance of the moon to people, wildlife, and more. Watch the moon rise on the trail. To register, email dprice@bouldercounty.org or call 303-678-6215 by Friday, August 4.

LIVING IN LION AND BEAR COUNTRY

Saturday August 19, 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 mountain lions and black bears. Along the trail we'll talk about why the foothills are such good habitat for these animals, and how we can be safe in lion and bear country. We'll also discuss hunting and feeding habits, including why bears may consume 20,000 calories a day this time of year!



FUN ON THE FARM—

ADVENTURES FOR LITTLE FARMERS The first and third Fridays of each month June through September 9:30-10:15 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. Afterwards, explore the farm. Adult chaperones must stay with children.



This Little Piggie Friday, June 2 and Friday, June 16

Pioneer Life Friday, July 7 and Friday, July 21

Chicken Scratch Friday, August 4 and Friday, August 18

How does your Garden Grow? Friday, September 1 and Friday, September 15



Stearns Lake at Carolyn Holmberg Preserve (access trailhead from Dillon Road on South 104th Street)

Bring your family and friends and enjoy a summer night fishing at the lake!

A few details:

- Anglers must have current Colorado fishing license (Kids under 16 years don't need a license.)
- Open to shore fishing only
- Artificial and live bait permitted
- Check-in required at trailhead on South 104th Street

For more information, please call 303-678-6204.

NOTE: Event will not be canceled due to rain.

Picturing Open Space Painting and Photography Sessions

Throughout the summer, artist-led group photography and painting sessions will be held on Parks and 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 the 2017 "Land through the Lens Photography" exhibit. Plein air artists can create work to submit for consideration to the 2018 "Outdoor Creations" exhibit.

Sunrise Photography Session at the Agricultural Heritage Center

Saturday, June 17, 5-7 a.m.

All Day Paint and Photography Session at Duck Lake Saturday, June 24, 8 a.m. – 3 p.m.

Lazy Afternoon Paint and Photography Session at Walker Ranch Sunday, July 9, 3–6 p.m.

Morning Photography Session at the Anne U. White Trail Saturday, July 22, 7–11 a.m.

Registration required at www.BoulderCountyOpenSpace.org/register

To learn details about each event, visit www.BoulderCountyOpenSpace.org/photoshow

Mining Programs through the Summer

HARD ROCK MINING TOURS

Saturday July 1, 9:30 a.m.-12:30 p.m. Saturday August 5, 9:30 a.m.-12:30 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 303-258-7332.

PANNING FOR GOLD

Sunday June 18, 12–2 p.m. Sunday July 23, 12–2 p.m. Sunday August 20, 12–2 p.m. Meeting location provided to registered participants

Try your hand at gold panning! Placer mining 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? Open to ages 5 and older. Register two weeks prior to the event at www.BoulderCountyOpenSpace.org/register or call 303-258-7332.

AN EVENING AT THE MUSEUM

Programs run from 7-8 p.m. Nederland Mining Museum, 200 N. Bridge St., Nederland Friday June 9, Wildlife Abounds Friday July 14, Switzerland Trail Friday August 11, Geology

Share coffee and dessert while exploring local history and mountain lore. These events will take place on the second Friday of each month from June-October.





Summer Night Hikes

Join volunteer naturalists to hike about one mile round-trip on an easy trail, enjoy the starlight, listen for night sounds, and learn about nocturnal habits of the critters that live here. Bring water, closed-toe

hiking shoes and a flashlight.

Space is limited, meeting location provided to registered participants.

Foothills Night Hike

Tuesday June 20, 8:30-10:30 p.m. To register, email lcolbenson@bouldercounty.org or call 303-678-6214 by Sunday, June 18.

High Country Night Hike

Wednesday July 19, 8-10 p.m. To register, email Icolbenson@bouldercounty.org or call 303-678-6214 by Monday, June 17.

Community Forestry Sort Yards Now Open



Unloading limbs at Meeker Sort Yard

The Boulder County Community Sort Yard program, a free log and slash disposal service for mountain residents, is open for the 2017 collection season. County residents can drop off tree branches, logs, and pine needles free of charge at either sort yard location.

Nederland Area Sort Yard - 291 Ridge Road, Nederland

• Open Wednesday, May 3, through Saturday, Oct. 14

Hours of Operation: Wednesday thru Saturday from 9 a.m. to 5 p.m.

Allenspark/Meeker Park Area Sort Yard - 8200 Hwy 7, Allenspark

- Open Wednesday, May 24, through Saturday, Oct. 7
- Hours of Operation: Wednesday thru Saturday from 9 a.m. to 5 p.m.

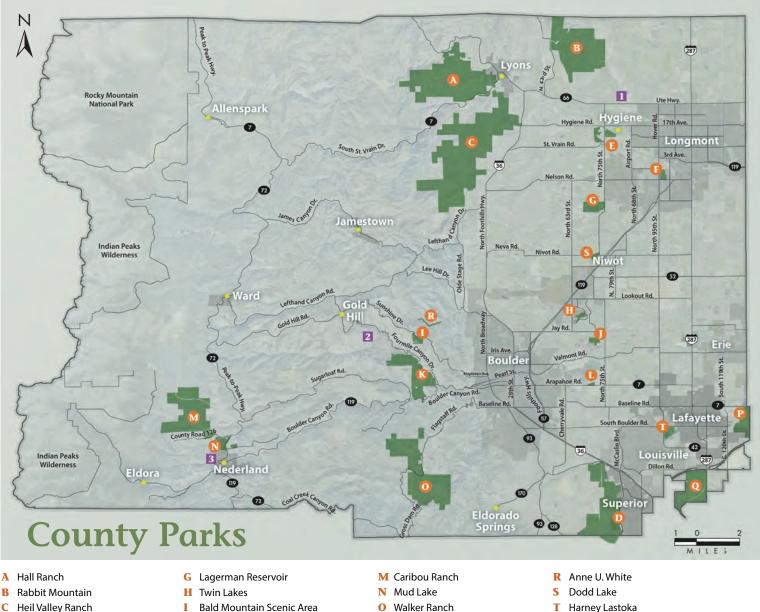
For information visit: BoulderCountyOpenSpace.org/sortyard

Volunteers Needed!

We are looking for individuals who can commit to 4 hour shifts and a minimum of 10-15 hours per month. If you are interested in helping, please go to: BoulderCountyOpenSpace.org/volunteer or contact Shane Milne at smilne@bouldercounty.org or 303-678-6089.



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



- **Coalton Trailhead** D
- E Pella Crossing
- F Boulder County Fairgrounds
- Walden Ponds Wildlife Habitat
- K Betasso Preserve

J

- L Legion Park
- P Flagg Park
- **Q** Carolyn Holmberg Preserve
 - at Rock Creek Farm
- 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.