

BOULDER COUNTY PARKS AND OPEN SPACE

images

news properties nature history events

winter 2014-15



Images

volume 36, number 4

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

COVER ART: Walker Ranch Homestead,
photo by Barry Shook

PHOTOGRAPHS & ILLUSTRATIONS

Volunteer
Elizabeth Etzel and Fletcher Jacobs
South Boulder Creek Kristen Turner
Elk Herd Cathy Bryarly
Level 3 Partners Craig Sommers
Frosty Spiderweb Elizabeth Etzel
Owl Janis Whisman
Junior Rangers Graham Fowler

NATURE DETECTIVES

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DISCOVER BOULDER COUNTY

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Boulder County Printing Department

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Images is a quarterly publication. Subscriptions are free to Boulder County residents or \$4 annually. Contact us at 303-678-6222 or swilliams@bouldercounty.org

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Artist-in-Residence at Caribou Ranch

Caribou Ranch was, at one time, home to an artistic endeavor: the Caribou Ranch recording studio. This studio once hosted hundreds of musicians in the 70s and 80s before a fire damaged the structure in 1985. Michael Jackson, Carol King, Elton John, U2 and the Beach Boys are just some of the artists who drew inspiration from living and recording in the mountains in Boulder County. With a similar concept in mind, the Artist-in-Residence (AiR) Program of Caribou Ranch is now a way for artists of many genres to find inspiration in Boulder County's natural beauty.

The AiR Program gives county residents a tangible connection to today's artists—not only musicians, but painters, illustrators, photographers, visual/film artists, sculptors, performers, poets, writers, composers and crafts/artisans, too.

The program also gives artists an opportunity to experience open space in a setting tailored to the artist's needs. In the past three years, photographers, song writers, painters, quilters and authors have participated in the AiR Program. Here is what three had to say about their experience:

- *The most amazing event was one evening a coyote walked into the open space west of the cabin and sang to the mountains for 20 or 30 minutes. The echo and delay made its voice sound at times like a whale song. (Bob Story)*
- *That barn was the perfect environment for concentrated creativity. In a typical week, I write 2,000 words. At the DeLonde Barn, I wrote 20,000. I can't believe how much work I got done. (Greg Hill)*



- *My first encounter was a golden eagle circling overhead just moments after sitting down at the picnic table having just unpacked my stuff. I saw the moose, three bulls, two cows and a calf every day but the last morning. (Barbara Yates Beasley)*

The Boulder County Parks and Open Space Department is now accepting applications for 2015.

For more information, program guidelines and an online application, visit the department's webpage at www.BoulderCountyOpenSpace.org or contact Pascale Fried at 303-678-6201. The application deadline closes on February 15, 2015!

Above: carved spoons by Kent Young

Below: painting by Joan Wolbier

Walker Ranch Loop: A Favorite Trail

by Fletcher Jacobs

This fall, work began on a major reroute of one of Boulder County's most popular trails. Several volunteer groups have worked with Boulder County staff to begin construction of a reroute of the eastern side of the Walker Ranch Loop. This work will not only make the trail less susceptible to erosion but also make it a more enjoyable experience for the tens of thousands of hikers, bikers and equestrians who use the trail every year.

In September, 156 volunteers from Vail Resorts' Broomfield office and Volunteers for Outdoor Colorado (VOC) began construction on the reroute. These two groups partnered to help us initiate work on the northeastern corner of Walker Ranch Loop heading south. Under the direction of VOC crew leaders and Boulder County Parks and Open Space staff, volunteers were able to construct 2,400 feet of new trail in place of the original erosion-damaged one. In October and November, VOC returned twice and Boulder's Corden Pharma spent another day to help us construct an additional 2,150 feet of trail with 64 additional volunteers. A special thanks to our partners at VOC for helping lead the charge with their volunteer crew leaders and lending us some of their trail tools.

Over 60,000 Visitors Benefit

Walker Ranch sees over 60,000 visitors a year who come to hike, bike, run, fish, and snowshoe. The open space property is designated a National Historic Landmark, containing over 14 miles of multi-use trails.

These trail construction projects were the first implementation of our management plan to realign portions of the 7.8-mile Walker Ranch Loop to improve sustainability and user experience. The focus of our first phase of projects is to relocate this section of trail from off the access road (where areas have begun to erode rapidly) to a more sustainable location. Additional work will reroute a new trail off the access road from the Ethel Harrold Trailhead down to the Walker Ranch Loop.

Boulder County staff thanks the volunteers from Volunteers for Outdoor Colorado, Vail Resorts, and Corden Pharma for their help starting this project. We appreciate all their effort helping to improve our trail system!

Summer 2015—Plan a Visit!

Work on this section of the reroute should be completed in summer 2015. We hope you are able to take the drive up Flagstaff Road to come visit and enjoy the new trail.



Top and middle: Volunteers for Outdoor Colorado and Vail Resorts help at two projects in September 2014

Below: A view of South Boulder Creek from the Walker Ranch Loop

North Boulder Elk Herd: A Success Story

by Zachary Goodwin

It's hard to imagine Colorado without the iconic elk, but around the turn of the 19th century, elk were nowhere to be found in Boulder County. Statewide extirpation was a distinct possibility. During the late 1800s and early 1900s, Colorado experienced a rapid influx of prospectors and homesteaders who thought of game as infinitely abundant, and as a result, elk populations suffered a significant decline. The federal government took notice of this and passed legislation to close Colorado elk hunting from 1913 to 1929. At the same time, elk refuges were being designated in the Greater Yellowstone Region to save this important mammal from further decline. Fortunately, from 1912 to 1928, 14 reintroductions were completed in Colorado alone, totaling approximately 350 elk.

Today, Colorado Parks and Wildlife (CPW) estimate total elk populations to be around 264,000 animals in 43 managed units/herds. Of those 43 herds, one along the Front Range in Boulder County is truly emblematic of the wild species. The North Boulder Elk Herd, being extremely skittish and wary of human contact, displays behavior and an attitude toward humans more typical of natural elk behavior. This demeanor runs in stark contrast to elk found in and around Estes Park who are habituated to human contact and are thus losing some of what makes them wild.

The Heil Valley Ranch Elk Study

When the majority of Heil Valley Ranch Open Space was purchased during 1993 and 1994, little was known about the North Boulder Elk Herd that supposedly used this area as winter range. In fact, it was not entirely clear whether the herd traveled up into Indian Peaks Wilderness during summer months,

if they were year-round foothill residents, or if it was some combination of the two. With that said, when Boulder County purchased Heil Valley Ranch, a subset of the larger North Foothills Open Space (NFOS), an extensive elk study was proposed. The study aimed to determine exact information regarding elk movements, seasonal ranges, population numbers, and dynamics in order to effectively manage Heil Valley Ranch and adjacent open space properties.

Beginning in 1997, Boulder County Parks and Open Space (BCPOS) and CPW began radio-collaring elk cows for observation. Over the next 10 years these animals were monitored via radio-telemetry. During this monitoring stage, it was confirmed that the North Boulder Elk Herd consistently migrated in the summer from the Indian Peaks Wilderness Area to Heil Valley Ranch and the larger NFOS during the winter months. This observation solidified the North Foothills Open Space area as critical elk habitat for mating and winter foraging. In addition to understanding seasonal movements, this data continues to play a critical role in the department's land acquisition decisions, development practices, and planning of new trails.

An interesting component of the study period coincided with the opening of recreational opportunities at Heil Valley Ranch. The Lichen Loop, Wapiti and Ponderosa Loop trails opened in March 2000 and October 2001, offering the county a rare opportunity to observe how elk would respond to the introduction of predictable and consistent human traffic. Prior to the trails opening in 2000 and 2001, elk use in the recreation corridor was consistently observed, but after the trails opened, elk activity at Heil Valley Ranch became more fragmented. This shift in grazing habits is largely due to human presence in the area and is a contributing factor to Heil Valley Ranch's criti-



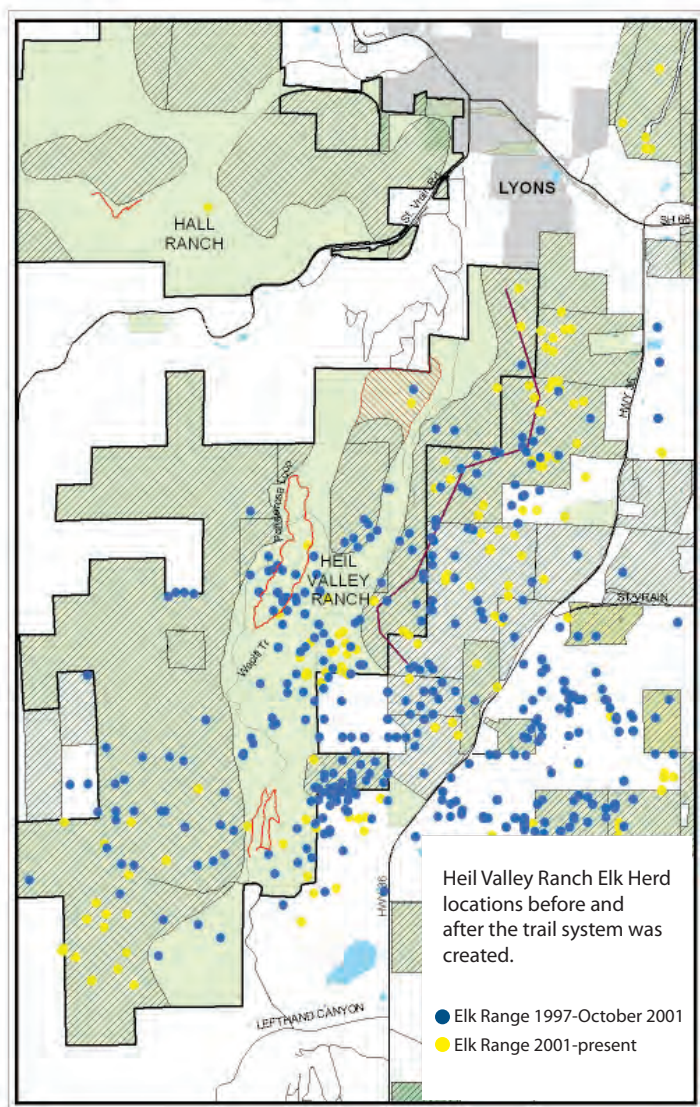
The elk study aimed to determine exact information about elk movements, seasonal ranges, population numbers, and dynamics in order to effectively manage Heil Valley Ranch and adjacent open space properties.

cal wildlife habitat closures. The western closure not only plays an important role in elk habitat serving as a consistent area of use during the rut, but also serves as habitat for other sensitive creatures such as golden eagles, prairie falcons, pine martens, black bears, and mountain lions. The eastern closure, while notoriously rugged, is also pristine elk habitat and an important travel corridor between Heil Valley Ranch and the rich grazing opportunities found on the high plains. Furthermore, it is an excellent north/south travel corridor for other large mammals including mule deer, mountain lions, and black bears.

Moving Ahead

As Boulder County moves forward and the human population continues to rise by a projected 0.1 to 0.9 percent per year until 2040, sound land management practices will become even more crucial to maintaining an ecological balance between human recreational needs and wildlife survival needs. This balancing act is particularly significant at Heil Valley Ranch and is a success story that should be touted. With a total of 14.6 trail miles running north/south through the recreation corridor and significant untouched wildlife closures on the eastern and western sides, an equilibrium between human opportunities to play and wildlife opportunities to forage has seemingly been reached.

Elk in Colorado have rebounded dramatically since the early 1900s, but this conservation story is far from over. The North Boulder Elk Herd continually faces new hosts of challenges from chronic wasting disease to increased habitat fragmentation. It is up to Boulder County government and its residents to work together and responsibly manage these open spaces for the betterment of not only overall ecological health of the area, but also for the recreational endeavors of future generations.



Update: Flood Recovery by the Numbers

Work Completed

Waterways Work (\$1 million): Temporary repair of three breaches and debris removal along St. Vrain Creek.

Parks and Trails (\$1 million): 15 miles of regional trails, eight miles of mountain trails at Heil Valley Ranch and Walker Ranch, trailheads, access roads, buildings, and 15 miles of fencing. All but two parks have reopened.

Volunteer Efforts: Over 4,500 hours of service on 70 projects including: five miles of trail repair, 100 acres of agricultural lands cleared, and 35 acres of native planting including seed-ing, shrubs, and trees.

Work in Progress

(\$1 million): LoBo Trail, Walden Ponds Wildlife Habitat Area, Boulder Canyon Trail, and Fourmile Link Bridge.

2015-16 Projected Repairs

Parks and Trails (\$2 million): Walden Ponds Wildlife Habitat Heatherwood Trail, Anne U. White Trail, Pella Crossing trails.

Reservoirs and Ditches (\$16.5 million): Braly/Western Mobile/Ramey, Pella Crossing, Walden Ponds Wildlife Habitat, and various ditches on open space.

Waterways Restoration: More than \$35 million of unfunded recovery projects along creeks in Boulder County.

Partner Contributions: Visible Results

by Karen Imbierowicz



Over 30 volunteers from Level Three, a property stewardship partner, clipped barbed wire and collected trash, helping to clean up three acres damaged by the 2013 Flood.

For over 40 years the Boulder County community has cared deeply for parks and open space, the wildlife it supports, recreation opportunities it offers, and cultural history it provides. Participation in the care and maintenance of this resource plays a direct role in the high quality of life we enjoy here. Through our various volunteer programs and the Partnership Program, we endeavor to protect and preserve this resource into the distant future.

About 130 department staff members, along with a small army of volunteers, care for over 98,000 acres and 110 miles of trails. If the care of all of this were to fall solely on the staff of Parks and Open Space, each staff member would be responsible for 750 acres and almost one mile of trail. Fortunately, Boulder County residents, including local organizations and businesses, dedicate their time and energy to the stewardship of our public lands.

The Boulder County community continues to be extremely grateful for the capable help we received from our devoted partners in the challenging days following the epic flood event of September 2013. With our partner groups and other volunteer help, we have begun to restore damaged land and trails. This year's projects focused on collecting seed to be used in rejuvenating flood ravaged areas, removing debris from agricultural lands so local farmers can continue to produce, constructing and removing fences for farmers as well as on other properties, and on a great deal of demanding trail restoration work.

On a warm fall evening in October at The Great Frame Up in Longmont, Boulder County partners celebrated the completion of their sixth year of caring for our public parks and trails. This year's Partnership Program event coincided with "Outdoor

Project Type	Tangible Results
Agriculture	<ul style="list-style-type: none">• 2,100 feet of irrigation ditches cleared
Facilities	<ul style="list-style-type: none">• 1,350 feet of new fence constructed• 300 tires removed• 8 tons of trash collected• 30 tons of fill for belay areas moved
Forestry	<ul style="list-style-type: none">• 80 slash piles built• 2 acres of forest floor raked prior to prescribed burn
Plant Ecology	<ul style="list-style-type: none">• 4,800 grass & sedge planted• 6,500 perennials planted• 1,150 trees planted• 450 pounds of native seed collected• 1 acre of shrubs lopped• 30 tree cages removed
Trails	<ul style="list-style-type: none">• 3 miles of trails maintained, restored & improved
Weeds	<ul style="list-style-type: none">• 211 Russian olive trees removed• 2 acres of weeds removed
Wildlife	<ul style="list-style-type: none">• 2,000 feet of prairie dog barrier installed• 4,380 feet of fence removed• 3,400 feet of fence maintained

Creations – A 2014 Boulder County Juried Art Show.” Beautiful artwork depicting our parks and open space properties was on display for a month. Celebrating our partners in this setting emphasized the special place in which we live and why we care so much for it. Thank you to our partners for their steadfast involvement!

2014 Partner Groups

Trail Stewardship (help with trail maintenance and construction two or more times a year): Backpacker Magazine, Boulder Area Trails Coalition, Boulder County Horse Association, Boulder Mountainbike Alliance, Boulder Trail Runners, Redstone Cyclery, Singletrack Mountain Bike Adventures, and Ultrarunners

Property Stewardship (help with property maintenance two or more times a year): Amgen, Boulder Climbing Com-

munity, Corden Pharma, University of Colorado–Program for Writing & Rhetoric, Eldorado K-8, Geocachers, Level 3 Cares, Nederland Area Trail Organization, New Vista High School, On-core Manufacturing, Smartwool, vAuto Genius Labs, Volunteers for Outdoors Colorado, and Wildland Restoration Volunteers

Foothills Partner: (participate in at least one trail or property project a year): Alexander Dawson School, Alpha Phi Omega, Behind the Red, Boy Scouts of Boulder County, Defenders of Wildlife, Foothills United Way, Google, Leisure Trends Group, Mapleton School District, Naropa Institute ROOTS program, Niwot Community Association, Olde Columbine High School, Only Natural Pet Store, Qualcomm, Rally Software, Stratus Consulting, Thornton Youth Volunteer Corps, University of Colorado–MBA Program, University of Colorado–Upward Bound, and WILD Foundation

Research on Boulder County's 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 2013 study conducted by Taylor Crow and Kristina Hufford from the University of Wyoming. Their project investigated mountain mahogany establishment.

Introduction: Rangeland restoration requires the successful establishment of vegetation propagated from seed. We seek to understand the factors that contribute to successful restoration of the shrub True Mountain Mahogany, (*Cercocarpus montanus* H.B.K.) (*Rosaceae*). We are investigating the effects of geographic origin, soil factors, and planting properties on seed germination and seedling establishment of this species in a transplant study established along a north-south transect from Wyoming to New Mexico. Results will contribute to the management of mountain mahogany shrublands by identifying the radius for collection of seed sources and environmental factors that are most likely to result in revegetation success.

Conclusions: Mountain Mahogany has become a recommended reclamation plant because of its widespread distribution, wildlife habitat value, and ability to grow in nutrient poor and rocky conditions. However, little research has been accomplished to understand planting requirements and environmental tolerance of this species. By comparing the performance between populations of different origin we can provide evidence to support best practices for seed sourcing when using this species for reclamation. Comparisons between disturbed and undisturbed sites will also result in recommendations to improve survival of mountain mahogany plantings, and will assist future reclamation activities throughout the Rocky Mountain region. Ultimately, the data collected from this transplant study will ensure that future

reclamation of mountain mahogany shrublands will establish sustainable populations suited for site conditions, resulting in long-term reclamation success.

Call for 2015 Studies

The department is currently accepting proposals for 2015 funding. Two categories will be awarded—grants up to \$5,000 and grants up to \$10,000. The deadline for proposals is Monday, January 19. Department staff have identified priority needs for research including these five topics:

- Design a long-term, riparian buffer management study on croplands, pasture and rangelands, utilizing a background literature review, and providing a recommended repeatable field study design for assessing riparian habitat conditions between croplands, pasture and rangelands with differing buffers.
- Study of post-flood vegetation recovery in affected BCPOS streams, primarily Boulder Creek, Coal Creek, Lefthand Creek and St. Vrain River stream corridors.
- Monarch butterfly inventory of breeding sites and milkweed mapping.
- Literature review looking into the impacts of recreational shooting on natural resources and impacts on local recreation and neighbors.
- General herpetile assessment and mapping of hibernacula at Rabbit Mountain.
- Describe the impacts of forest management and slash disposal methods on long term plant community development.
- Describe dependencies of fire-caused, large tree mortality on basal duff accumulation.

Other research proposals will be accepted. For more details, visit the department's website at www.BoulderCountyOpenSpace.org/research

A Collection of Ice Crystals: The Formation of Snow

by Sally Wier

Snow is peaceful. Fresh, delicate and pure, it coats the landscape and renews the world with white drifts. After a snow-storm, the naked branches of aspen trees at Caribou Ranch cast twisted shadows on flawless fields. At Mud Lake, the tracks of wandering moose puncture the white trails. It is winter, it is quiet, and frozen crystals have transformed the land.

Solid-Liquid-Vapor

Snow and ice crystals form in a variety of ways, resulting in a huge diversity of individual crystal types and shapes. A fascinating aspect of how snow and ice appear on our landscape depends on the three physical states of water: solid, liquid or gas (vapor). Water typically transitions between these three stages in order from solid, to liquid, to gas, or vice versa. However, sometimes, conditions allow for water to bypass a stage and jump directly from being a gas to a solid, or the other way around. These unusual transitions are key to the formation of snow.

Regular snowflakes form when moisture-laden clouds drop to temperatures of freezing or below. In these conditions, water vapor within the cloud can bypass the liquid stage and immediately form as a solid ice crystal by condensing onto a central dust particle. As more water vapor condenses around the core crystal, larger crystals develop.

Shape Shifting

Each snowflake is unique, but they all share the characteristic that the crystals are six-sided. These crystals also only come in one of six different shapes: needles, columns, plates, plate-capped columns, dendrites and stars. Which shape a snow crystal takes depends on the amount of humidity present and the temperature at the time the crystals form. As individual crystals form, they can cling together, forming a larger flake of ice. When the accumulated crystals become heavy and large enough, they fall out of the cloud and float to earth as snowflakes.

Snow doesn't always appear in these iconic stellar shapes, however. Sometimes liquid water held within clouds becomes supercooled: it drops below freezing temperatures without crystallizing or becoming solid. Supercooled water droplets in



A winter scene at Heil Valley Ranch

clouds adhere to falling snowflakes and freeze into tiny balls. Termed graupel, these little pellets of mixed snow and ice fall to the ground and create a fine coating of ball-bearing like snow.

Hovering Above

Ice does not always fall to the ground from above. Sometimes sparkling ice begins to coat our world directly out of thin air. If the outside air is below freezing, as well as sufficiently damp, it is possible for water vapor to turn directly into solid ice crystals on surfaces which are also below freezing. This process creates a coating of "hoarfrost" on surfaces such as tree branches, leaf edges, blades of grass or telephone wires. Though Colorado often experiences cold enough temperatures, the air is usually too dry to allow hoarfrost to form. When this coating of ice does occur, though it can be a truly magical sight.

Just as ice can surprisingly appear in our world out of vapor, so too can it disappear. In the high elevation, and dry and windy environments of Colorado, snow is often lost to the atmosphere via the process of sublimation: the conversion of solid ice into water vapor without passing through the liquid state. Essentially the reverse process of hoarfrost formation, sublimation causes the loss of large amounts of snow into the thin air every winter in Colorado.

Ice covers our wintry world in many forms, from star-shaped ice crystals, to balls of graupel, to delicate coatings of hoarfrost on leaves. What makes all these forms of snow and ice possible is the invisible and unique dance of water molecules through different physical states, whether up in the clouds, or down next to trees and shrubs. Moving between solid, liquid and gaseous states (and sometimes missing a state in between), water transitions its way into and out of our world before our eyes, peacefully sparkling along the way.

Program of interest:

High Country Winter Ecology
Saturday, January 17, 10 a.m. -noon
Look for details on page 12.

NATURE DETECTIVES

Winter 2014



How a Meadow Jumping Mouse Named Preble's Got So Famous

This important species of meadow jumping mouse is named for Edward Preble, the scientist who discovered them in Colorado way back in 1899.

Preble's meadow jumping mouse got famous when it became clear the mice were becoming scarce about twenty years ago. The U.S. government listed them as **threatened**. Now people are required to think about the habitat needs of jumping mice before they make changes to the places where the mice live.

Pull Out and Save

Mouse Check-up

Tim is a Boulder County wildlife biologist who traps mice. He entices them into his trap with a sweet pea mix. He puts in a little quilt fluff so they don't get cold overnight. In the morning, he examines the mice and lets them go. Scientists like Tim know their work isn't really about one species of mouse. It is about saving healthy habitat for all animals, including people.

Preble's Meadow Jumping Mouse vs. Deer Mouse

When an animal lives only in a very specific kind of habitat, that animal is a **habitat specialist**. When an animal can thrive in lots of different kinds of places, that animal is a **habitat generalist**. Both specialists and generalists are important for the balance of nature.

Preble's meadow jumping mice are specialists. They live where thick grasses and shrubs grow alongside unpolluted streams. They need protected spaces to dig winter hibernation burrows.

Deer mice, in contrast, are generalists. They live in many different habitats. They readily move into places where changes make it impossible for the specialist mice to survive. Places that have experienced fire, flood, building construction or over-grazing are prime deer mouse habitat. It is not surprising that there are more deer mice in Colorado than any other mammal. Deer mice are active at night. They don't hibernate and they only live about a year.



Jumping for Safety

Preble's meadow jumping mice are like the mouse version of kangaroos. The mice's one-inch-long back feet and long back legs are designed for jumping, hopping and leaping. Their 4-6 inch tails are longer than their bodies. A swing of their long tail helps the mice change directions in mid-leap, maybe saving them from becoming food for a predator.

Their front feet are small. When they aren't jumping, they crawl along through the grasses. They don't make paths or runways like many other mice such as deer mice do.

Jumping is one way to escape the animals that eat them. They often just creep through the grass and flatten against the ground in hopes they won't be seen. They are also good swimmers. Their list of predators includes: garter snakes, rattlesnakes, bullfrogs, foxes, house cats, weasels, hawks and owls.



Cold Weather Is for Sleeping

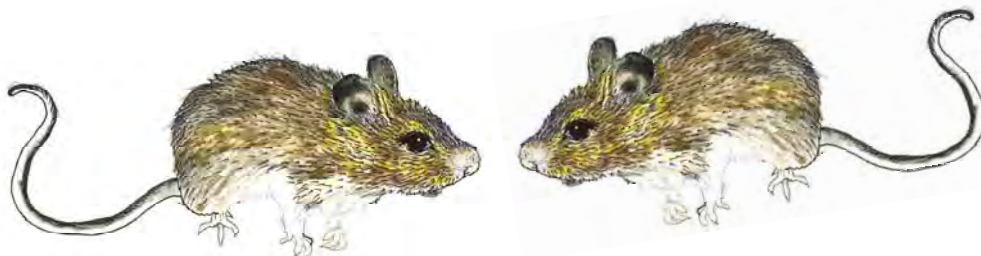
September into mid-October marks the beginning of winter hibernation for Preble's meadow jumping mice. The adults usually wriggle into their shelters before the juveniles, who are still busy trying to put on enough body fat to survive winter. Since animals lose fat when they hibernate, meadow jumping mice are among the smallest mammals that can hibernate. They snooze in grass and leaf nests in burrows underground. They come out of hibernation in late April to May.

Summer is for Babies

Most of the babies are born between June and August. There are usually about five or six babies in a litter, and each female can have two or three litters during the summer.



Newborn babies are naked, blind, deaf and pink, but they can squeak. Their moms take care of them for a month. During the first week they get some hair and soon start to crawl. By their third week, they can hop and hear. Vision comes next. In a month, they are fully covered with the stiff, coarse fur of adult jumping mice. They can chirp, cluck and thump their tails to communicate with each other.



Eat and Hide to Survive

Preble's meadow jumping mice spend most of their time alone. They don't fight with other jumping mice. They are active at night and sometimes at dawn and dusk too. They rest in grassy, leafy nests they build on the ground under shrubs or sometimes in burrows.



They hop, crawl around, climb and even dig for food that they can find by smell and sight. Insects such as caterpillars and beetles make up half their diet in spring. They also eat berries, leaves, fungi, moss and pollen. In the summer, seeds are the main items on the menu. They don't store food to eat later.

Flood Survivors

Preble's meadow jumping mice often live near streams that naturally flood. If robust native plants flourish along such streams, the habitat can withstand floods fairly well, and so can these little mice. A healthy Preble's meadow jumping mouse can live at least three years.

People and Mice

Space for Preble's meadow jumping mice continues to dwindle as people use the land. Protecting this specialist mouse's habitat is important. Relatively undisturbed land where Preble's mice thrive, with clean water and a variety of plants, is healthful habitat for many kinds of critters, including mammals, birds, reptiles and insects. Loss of Preble's meadow jumping mouse habitat is really a loss for lots of species. These rare mice may help us learn how to solve habitat problems for many animals.



Page 4 Answers: **Raccoon—Generalist** (lives many places, eats anything it can); **Preble's Mouse—Specialist** (needs thick grasses by unpolluted streams to survive, eats mostly grass seeds and some insects); **Lynx—Specialist** (lives high in the mountains, eats mostly snowshoe hares); **Bear—Generalist** (lives in the mountains, foothills and sometimes on the plains, eat berries, seeds, meat and anything it can find,); **Coyote—Generalist** (adaptable to living anywhere, mostly eats meat, but also eats plants and seeds); **Albert's Squirrel—Specialist** (lives in ponderosa pine forests and eats buds, pine needles, seeds, cones and twigs)

Generalists vs. Specialists

Habitat specialists have very specific habitat requirements in order to survive. Habitat generalists can live in many different places and usually eat many different types of food. Draw an arrow from each mammal below to the category where it belongs. (Answers page 3).



Raccoon



Preble's Meadow Jumping Mouse



Lynx



Bear



Coyote



Abert's Squirrel

Habitat Generalist

Habitat Specialist

Mouse Long Jump Challenge

Preble's meadow jumping mice are called that because they can jump at least three feet away when they need to escape from a predator. They have even been documented to jump 6-8 feet in one leap! Their little bodies are only about three inches in length. If you translate this size to human terms, a four-foot tall child would be able to jump at least 40 feet and up to 120 feet in one jump!

Here's your challenge:

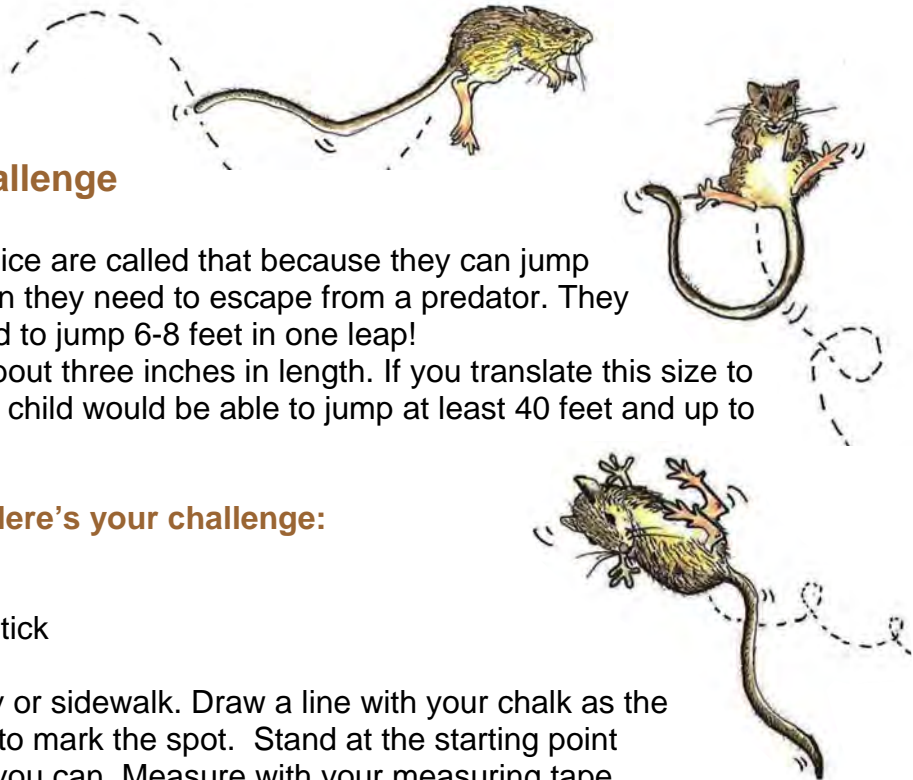
Materials needed

Measuring tape

Piece of chalk or a straight stick

Go outside on your driveway or sidewalk. Draw a line with your chalk as the starting point, or use a stick to mark the spot. Stand at the starting point and make the longest jump you can. Measure with your measuring tape to see how far you jumped. Try it several times to see if you improve. Remember that if you were a Preble's meadow jumping mouse, you would be able to jump at least 10 times farther than how tall you are!

What other animals can you think of that jump long distances? Don't forget insects and spiders.



Owls at Home in Winter

by Kate Nelson

Pulling up your snow boots for a cold winter evening walk can be difficult, but spotting an owl in the crisp night air can make it worth it. Many of our local owls stay very active in the winter. Flammulated and burrowing owls leave for the season, but long-eared owls, screech owls, boreal owls, saw-whet owls, northern pygmy owls and the quintessential great horned owls all stick around. Here are some owl behaviors to be on the lookout for during those dusk or dawn winter walks.

High-Altitude Hunters

Strap on snowshoes for a moonlight hike near tree line, and you may cross paths with boreal owls. They truly are high elevation dwellers, points out Michelle Durant, wildlife biologist with Boulder County Parks and Open Space, so spot these 10-inch-high owls in areas over 9,500 feet like Brainard Lake or the Fourth of July Trail.

Boreal owls can start courting as early as late February. Listen for their quick succession of “hoos” in the spruce-fir forest just after sunset.

Local and Little

Northern pygmy-owls come down from higher elevations for the winter, making them great owls to watch out for when hiking in the foothills. With a call that has been compared to a truck’s back-up beeper, these owls vocalize mainly in March, but can occasionally be heard on a warm February evening.

Small owls have to be extra careful of predators, so northern pygmy-owls keep quiet once nesting begins. However, the smallest owls don’t always seek the smallest prey. Northern pygmies have been known to hunt birds that may be much larger, like grouse. These fierce hunters have been spotted at Heil Valley Ranch and Hall Ranch basking in the early morning sun.

Another small owl to watch for is the saw-whet. Durant reports that they have even been spotted in Louisville during the winter months. About the size of a soup can and sounding similar to northern pygmy-owls, saw-whets may be seen or heard in conifer forests between 5,000 and 10,000 feet, such as along Highway 72. Another motivator to head out in the cold to look for them is that saw-whet owls are extremely high on the owl-cuteness scale.

Saw-whet owl populations tend to fluctuate in our area, and northern pygmy owls are not only tiny, but excellent at blending in. Spotting either species would be a rare winter treat.

“Who” is Likely to be Seen

January may be the coldest time of the year, but it’s when things are heating up for the great horned owls. Courting starts in January for these large owls and by February they have settled on their nests. In the spirit of their Boulder County community, great horned owls recycle nests instead of constructing new ones. The *Boulder County Nature Almanac* recommends looking for bulky stick nests high in cottonwood or willow trees. These nests may have previously belonged to hawks, crows, or magpies, but now house a great horned owl and her eggs. Look for the distinguishing “horns” on the female’s head poking up from the nest.

Great horned owls call year-round, as they don’t have the same worries about predators that smaller owls do. Most of us have been repeating their “who-who’s” since we were toddlers. Listen carefully this winter, though, and you may be able to discern the higher-pitched voice of female owls. “The female actually sounds more feminine,” says Durant, “and has an extra ‘who’ in her ‘who-who.’” Great horned owls call within their nesting territory, so when one is heard, a nest is not far away.

The chances of spotting or hearing one of these large owls are high. Great horned owls are thriving in urban areas, partly because they are such successful predators. Common or not, the haunting call of these owls on a still winter night is enough to make you forget your frozen toes, at least for a few welcome minutes.



A saw-whet owl perches in a tree. Standing at only six to eight inches tall it’s a rare sight to see

Learn More: Learn more about the owls that live in our area in the book *Owls of Boulder County*, by Steve Jones. The publication is available online at www.bcna.org/owls/boco_owls.htm.

Behind a Name: Ricky Weiser Wetland

by Francesca Giongo

"I never had anything to do with lakes, I do not know why they picked me... I am honored and sort of bemused." That was Martha "Ricky" Weiser's reaction upon learning that Boulder County had decided to rename Pelican Marsh, the westernmost pond at Walden Ponds Wildlife Habitat, after her.

The pond dedication was held in February 2002. Maybe Ricky Weiser had nothing to do with the lakes, but she surely had a lot to do with the shaping of Boulder County and the City of Boulder open space programs for nearly 50 years.

Since her arrival in Boulder in 1956, Weiser became a tireless advocate for land-use planning, environmental preservation and open space protection. According to Will Toor, Boulder's mayor in 2002, "Of all the people I know who regularly attend council meetings, she's the one who brings the most to the process." Weiser helped write the Boulder County Comprehensive Plan, the Non-Urban Development Policy and the Open Space Charter. She was also instrumental in the creation of the state's Natural Areas Program, in which the state works with landowners to preserve land with unique natural features. One of the first parcels of land to receive NAP designation was 105 acres of Weiser's land.

Weiser was so well-versed in public speaking that people often asked her to speak on their behalf. Both the Democratic and the Republican parties asked her to run for office. She always declined, saying "I'd rather be the burr under the saddle than the horse." Weiser was much more than an environmental activist. She was a true renaissance woman. She held a degree from Yale Drama School, and before moving to Boulder had worked in the theater in New York City for several years. Once in Boulder, she spent 25 years with the Colorado Shakespeare Festival and in 1974 became the first woman to direct a play for the festival. She was also an honored member of the Society for Creative Anachronism, an international non-profit group which studies the Middle Ages by recreating crafts and activities of that period. Under the title of "Baroness Kryel of Windhover Cliff" she taught stage combat and often said she could fight off anything as long as she had a sword in her hand.

Weiser died at the age of 77 in 2002, just a few weeks after the Walden Ponds' dedication. So passed a truly remarkable woman who, in the words of Ron Stewart, then County Commissioner, "like a wetland, has had a transformational effect on Boulder County by raising the level of civil discourse, improving the government process and saving our environmental treasures."



Above: The Ricky Weiser Wetland

Below: The dedication of Ricky Weiser Pond. From left to right: Ron Stewart, Jana Mendez, Ricky Weiser and Paul Danish

Winter Months Bird Checklist

Seen Year-Round

American Coot	Canada Goose	Mallard
American Kestrel	Downy Woodpecker	Northern Flicker
American Robin	Great Blue Heron	Red-tailed Hawk
American Wigeon	Great Horned Owl	Red-winged Blackbird
Belted Kingfisher	Green-winged Teal	Ring-billed Gull
Black-billed Magpie	House Finch	Song Sparrow
Black-capped Chickadee	Killdeer	Western Meadowlark

Winter Visitors

American Tree Sparrow	Hooded Merganser
Bufflehead	White-crowned sparrow
Common Goldeneye	
Common Merganser	
Dark-eyed Junco	
Gadwall	
Herring Gull	

You can download the Birds of Walden Ponds Checklist from <http://www.BoulderCounty.org/os/parks/pages/waldenponds>

The Chicago-Colorado Company

by Cindy Maynard

Some Colorado towns began life as rough-and-tumble mining towns, some as forts, and some as outposts for farmers and ranchers. Very few were intentionally planned communities with orderly development goals, brought together by the glue of common vision—however, Longmont was one of the latter.

The economic depression after the Civil War, the completion of the transcontinental railroad, and public sentiment for “Manifest Destiny” made relocating to the West very attractive. Boosters of western settlement, like Horace Greeley (“go west young man”) encouraged many to seek better lives in the Colorado Territory.

The founders of the Chicago-Colorado Colony were inspired by that spirit. In late 1870 the original group of organizers met in Chicago to drum up enthusiasm for a bold project. Its purpose was to recruit members who “were temperate people of good moral character” to found a colony in Colorado. By January 1871 the wheels were literally turning as the committee rolled west to select a proper site for the colony. Who were these original organizers? They were men of substance—business, religious, and military leaders. If you know Longmont, you will recognize the names of the first officers: Collyer, Gay, Bross, Pratt, Bowen, Kimbark, and Emery.

When they arrived in Colorado, William Byers, owner of the Rocky Mountain News, escorted them around the Front Range to scout out the best site for their new colony. Byers also happened to be the agent for land sales for the new railroad linking Denver to the transcontinental Union Pacific Railroad in Cheyenne. After briefly being tempted by Greeley Colony, they decided on a small, bare hill across the St. Vrain River from the Town of Burlington. Most Burlington folks welcomed the colony. In fact, 75 of them bought memberships in the colony

organization. Inspired by the impressive view of Longs Peak to the west, they named their new colony Longmont.

The colony, whose watch-words were “temperance, industry and morality,” attracted ambitious hard-working settlers. It had impressive organizational plans. Membership was limited to 1,000. Each member paid 150 dollars for his membership and was entitled to a five to 40 acre farm plot. An additional 25 to 50 dollars could buy a residential or business lot in town, but only one such purchase was allowed to each member. The founders were serious about the rules. Failure to make improvements to your parcel or being caught drinking alcohol could cost you your membership.

The townsite was platted by colony president, Seth Terry, a lumberman from Illinois. His industrious wife back in Illinois arranged to have his entire lumber inventory shipped by rail to the new colony. Buildings sprang up quickly. Town boundaries were Ninth Ave. on the north, First Avenue on the south, Bowen St. on the west and Martin St. on the east. By June 2, 1871 approximately 400 residents called Longmont home. Longmont was incorporated as a town on January 7, 1873, an amazingly short time from the arrival of the first colony members, proving that good organization, planning, and a common purpose can accomplish amazing results.

The years between 1871 and 1881 were difficult. Bringing a good water supply to the new town was one of many challenges. But Longmont had its guardian angel, Mrs. Elizabeth Thompson, a wealthy New York philanthropist. Not only did she buy 25 memberships to donate to help deserving folks start a better life, she also purchased an entire city block and built Colorado’s first public library. The Library Hall also housed the town hall, church, public school and community center. The colony

celebrated Mrs. Thompson on June 15, 1871 by throwing the first Strawberry Festival, with lots of financial support from Mrs. Thompson herself.

Longmont still bears the legacy of its founders. It continues to attract new residents from Sweden, Germany, Russia, Mexico and Japan. We still celebrate Longmont’s diversity and fascinating history.



LONGMONT, COLORADO.

Image of Longmont in 1873
courtesy of Longmont Museum

Discover Boulder County *calendar of events*

2015 Nature Hikes for Seniors

Join us the last Thursday of every month (except where noted) for a nature hike for seniors. These hikes are enjoyable and slow-paced!

- Programs begin at 10 a.m. and end by noon.
- Hikes include information about an area's history, wildlife and resource management projects.
- Meet at the park entrance kiosk, unless noted below.
- For more information and directions, call 303-678-6214.
- Please call in advance if you plan to bring a group so we can provide enough staffing.

January 29	Carolyn Holmberg Preserve at Rock Creek Farm (meet at Stearns Lake parking lot on South 104th Street)
February 26	Hall Ranch Open Space (meet at the group picnic shelter near the upper parking lot)
March 26	Walden Ponds Wildlife Habitat Area (meet at the group picnic shelter at Cottonwood Marsh)
April 30	Walker Ranch Open Space (meet at the Meyers Homestead Trailhead)
May 28	Agricultural Heritage Center at Lohr/McIntosh Farm
June 25	Betasso Preserve
July 30	Caribou Ranch Open Space
August 27	Bald Mountain Scenic Area
September 24	Mud Lake Open Space
October 29	Heil Valley Ranch Open Space (meet at the group picnic shelter near the Lichen Loop Trailhead)
November 19*	Walden Ponds Wildlife Habitat Area (meet at the picnic shelter at Cottonwood Marsh) *on the third Thursday due to Thanksgiving holiday.
December 31*	Rabbit Mountain Open Space *on the fifth Thursday due to Christmas holiday.

Wildlife and Winter Hike

Sunday, December 14; 10 a.m. -noon

Heil Valley Ranch Open Space (south trailhead); north of Boulder off Lefthand Canyon Drive; meet at picnic shelter

Join volunteer naturalists to observe seasonal changes and to discover how wildlife in the foothills prepares for winter. You'll learn about behavioral and physiological adaptations to the shortening days and cooling temperatures, and also look for signs of wildlife that are active year-round. Participants should be prepared for a slow-paced hike of about 2 miles.

High Country Winter Ecology

Saturday, January 17; 10 a.m. -noon

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

Snow is an amazing substance! Join volunteer naturalists on a winter hike to explore the many properties of snow, and to examine the snowpack and learn how some plants and animals have adapted to life in the cold. Participants should be prepared for a slow-paced hike of about 2 miles. Ski or hiking poles are recommended due to icy trail conditions.



I Spy Wildlife in Winter

Tuesday, January 20; 4:30-5:30 p.m.

Lafayette Public Library, 775 west Baseline Road, Lafayette

Join volunteer naturalists to learn about the many ways that animals prepare for and survive winter. At this indoor program, we'll talk about animals that hibernate, migrate, and are active during winter. We will also look for signs of wildlife in winter, including tracks, scat, and nests. This program is for preschool to early elementary-age children accompanied by an adult.

All Programs

All ages are welcome unless otherwise noted. NO PETS PLEASE! Be prepared for winter temperatures. Bring drinking water and wear closed-toe walking/hiking shoes.

For more information about these programs or to arrange a volunteer-led program for your group, contact Larry Colbenson at 303-678-6214 or lcolbenson@bouldercounty.org.

Discover Boulder County *calendar of events*

Birds of Prey Slide Shows

Tuesday, December 9; 7-8:30 p.m.

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

—and—

Tuesday, January 6; 7-8:30 p.m.

Louisville Public Library, 951 Spruce Street, Louisville

—and—

Thursday, February 12 6-7:30 p.m.

Lafayette Public Library, 775 west Baseline Road, Lafayette

Learn how to recognize birds of prey, or raptors—hawks, eagles, falcons, and owls—in the winter. During this slide presentation, you'll learn how to distinguish between different raptors by identifying common field marks. You will also learn about the habitat requirements, behavior, and ecology of these magnificent birds.

Birds of Prey Driving Tours

Saturday, December 13; 10 a.m. -1 p.m.

Saturday, January 10; 10 a.m. -1 p.m.

Saturday, January 24; 9:30 a.m.-2:30 p.m. (extended tour)

Saturday, February 7; 10 a.m. -1 p.m.

Saturday, February 21; 9:30 a.m.-2:30 p.m. (extended tour)

Registration is limited; meeting location will be provided to registered participants.

Registration is limited; meeting location will be provided to registered participants.

Join volunteer naturalists for a driving tour of the best areas to view birds of prey. We will carpool from our meeting place, searching for raptors, learning about habitat and behavior, and working on observation and identification skills. Bring water, lunch or a snack, binoculars, spotting scopes, and a bird field guide if you have them. Older children welcome. Register by calling 303-678-6214, or emailing lcolbenson@bouldercounty.org no later than the Thursday before each scheduled tour.

Winter Heritage Day at the Walker Ranch Homestead

Sunday, January 25; 1-3 p.m.

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

Pioneer settlers had a lot to do preparing for and surviving Colorado's long winters. Learn about typical winter chores when you explore the Walker Ranch Homestead. You'll see a working demonstration in the blacksmith shop and smell food being prepared on the woodstove. Be prepared for cold, windy weather, and to walk in snow. For more information, contact Sheryl Kippen at 303-776-8848 or skippen@bouldercounty.org. Please note: Dogs are not permitted at the site.

Prairie Winter Hike

Saturday, January 31; 10 a.m. -noon

Carolyn Holmberg Preserve at Rock Creek Farm; Stearns Lake Trailhead, South 104th Street, ½ mile south of Dillon Road, Louisville

Learn how grassland and wetland wildlife respond and adapt to winter on the prairie. Volunteer naturalists will lead this easy walk to learn about the different winter strategies employed by wildlife that migrate through or live year-round in prairie ecosystems of Boulder County. Be prepared for a slow-paced hike of 2 miles.

Signs of Life—Wildlife in Winter Hike

Sunday, February 8; 10 a.m. -1 p.m.

Caribou Ranch Open Space; 2 miles north of Nederland on County Road 126; meet at parking lot kiosk

Join volunteer naturalists for a hike in the high country to learn about the many ways that wildlife survives winter in the Rocky Mountains. We'll talk about hibernation, dormancy, migration, and various strategies for animals that are active all winter long. We will also look for signs of wildlife activity, including tracks, scat, and browse marks on trees. Be prepared for a slow-paced hike of 2 miles. Ski or hiking poles are also recommended due to icy trail conditions.



Discover Boulder County *calendar of events*

Trickster Tales

Saturday, February 14; 10 a.m. -noon

Carolyn Holmberg Preserve at Rock Creek Farm; Stearns Lake Trailhead, South 104th Street, ½ mile south of Dillon Road, Louisville

Coyotes live throughout most of North America and coyote tales are found in many native cultures. Join volunteer naturalists for a moderate 2-mile hike to learn more about this clever, adaptable character.



Where the Wild Things Live!

Wednesday, February 18; 4:30-5:30 p.m.

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

Where do wild animals live? Everywhere! Come join volunteer naturalists and hike across a HUGE map of Boulder County, from the grassy plains to the highest peaks, looking for signs of wildlife. Everyone will be a nature detective and help discover where different animals find the food, water, shelter, and space they need to survive. This program is for preschool to early elementary-age children accompanied by an adult.

Nature Hikes for Seniors

Boulder County Parks and Open Space hosts a nature hike for seniors every month. No registration is necessary, however please call in advance if you plan to bring a group so we have enough naturalists at the program. For more information, call 303-678-6214. Programs run from 10 a.m. to noon.

Thursday, December 18; Rabbit Mountain Open Space

*Hike is on the third Thursday of the month due to Thanksgiving Holiday.

Thursday, January 29; Carolyn Holmberg Preserve at Rock Creek Farm (meet at Stearns Lake parking lot on South 104th Street)

Thursday, February 26; Hall Ranch Open Space (Meet at the group picnic shelter near the upper parking lot)

The Crusty Rocks of Rabbit Mountain

Saturday, February 21; 9:30 a.m. -noon

Rabbit Mountain Open Space; NE of Lyons on north 55th Street; meet at group picnic shelter

Join volunteer naturalists Megan Bowes, Roger Myers, and Linda Boley for a moderate 2-mile hike to discover geology and lichens. We'll learn about the unique location of the rock layers, what lichens are made of and how sandstone and other resistant rocks support their growth.

JUNIOR RANGER ADVENTURES

Saturday, February 28; 11 a.m. -1 p.m.

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

Calling all Junior Rangers!

Have you ever wondered what rangers do when the snow arrives? Just like wildlife, a ranger stays busy during the wintertime. Join us for a day of winter fun as you learn what it takes for rangers and their forest friends to thrive during the winter months. The Boulder County Parks and Open Space rangers will also have a fire and a s'more building station for you to make a toasty treat.

Junior Ranger Adventures is perfect for kids aged 6-12, but all family members are welcome. A parent or guardian must be present. Pre-registration is required. To register, please visit www.BoulderCountyOpenSpace.org/register.

Be prepared for the winter weather by wearing warm clothing, boots, hat and gloves. Sunscreen, water and snacks are also recommended.

If you have questions, contact Ranger Erin Hartnett at 720-352-7041 or ehartnett@bouldercounty.org.





2015 Calendars Now Available for Purchase

Get them while supplies last! These first-rate calendars feature 14 beautiful photos highlighting some of Boulder County's most significant natural and historical areas.

Each calendar comes in a 4.75" x 5.5" standing CD display case. They make memorable holiday and birthday gifts for your family, teachers and coaches, friends, coworkers, and neighbors.

How to Purchase

Visit: <https://BoulderCountyOpenSpace.org/calendar>

You must pay for your order when you place your PayPal order. If you don't have a PayPal account, you may pay using a PayPal guest account.

There are two ordering options:

- Pay and Ship - \$4.00 per calendar: Purchase your calendars online and specify where they should be mailed. Calendars are mailed in a padded mailer using U.S. Postal Service
- Pay and Pick Up - \$2.00 per calendar: Purchase your calendars online and pick up your calendar at the Parks and Open Space office in Longmont.

Destination: Winter Trails

The air is cold and crisp. Snowflakes flutter gracefully to the ground, and trails are finally blanketed with snow.

We know you are eager to strap on that new pair of snowshoes, head out to your local trail, and enjoy the crunch of snow beneath your feet.

Consider visiting the Walker Ranch Meyers Homestead Trail, or Mud Lake and Caribou Ranch Open Space—all are great destinations for winter recreation.

Etiquette on Snowy Trails: Before you visit these trails or others, make sure you know how to practice good winter trail etiquette.

As a snowshoer, yield to cross-country skiers. Whenever possible, snowshoe along the edge of the trail and avoid walking on ski tracks in the center of the trail. This may require you to travel single file. Before passing another visitor—slow down, politely call out, and pass with care. Similarly, if you need a break, step off to the side so as not to block the trail.

Follow these simple guidelines, communicate with your fellow visitors, and help reduce conflict on the trails in winter.

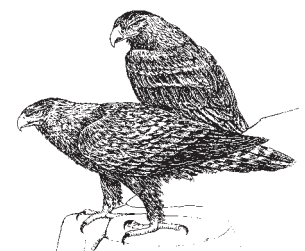


Wildlife Habitat Closure at Rabbit Mountain

The Boulder County Parks and Open Space Department has a wildlife habitat closure on the southeastern section of Rabbit Mountain Open Space. The seasonal closure takes place from December 15 through July 15. Park visitors can find a map highlighting the closed area on the kiosk at the park entrance.

The area is critical wildlife habitat. It is very important that park visitors respect the closure. (The closure area is located to the south and east of the Eagle Wind Trail.) Wildlife take refuge in the closed area; it is an area where they forage, roost and nest. Birds are especially sensitive to disturbance during courtship and nesting which occurs from winter through midsummer. Please respect wildlife needs for solitude.

Park visitors found in the critical wildlife area can be fined up to \$300 by park rangers and county sheriff deputies who patrol the open space. For additional information, please contact the Boulder County Parks and Open Space Department at 303-678-6200 or www.BoulderCountyOpenSpace.org.

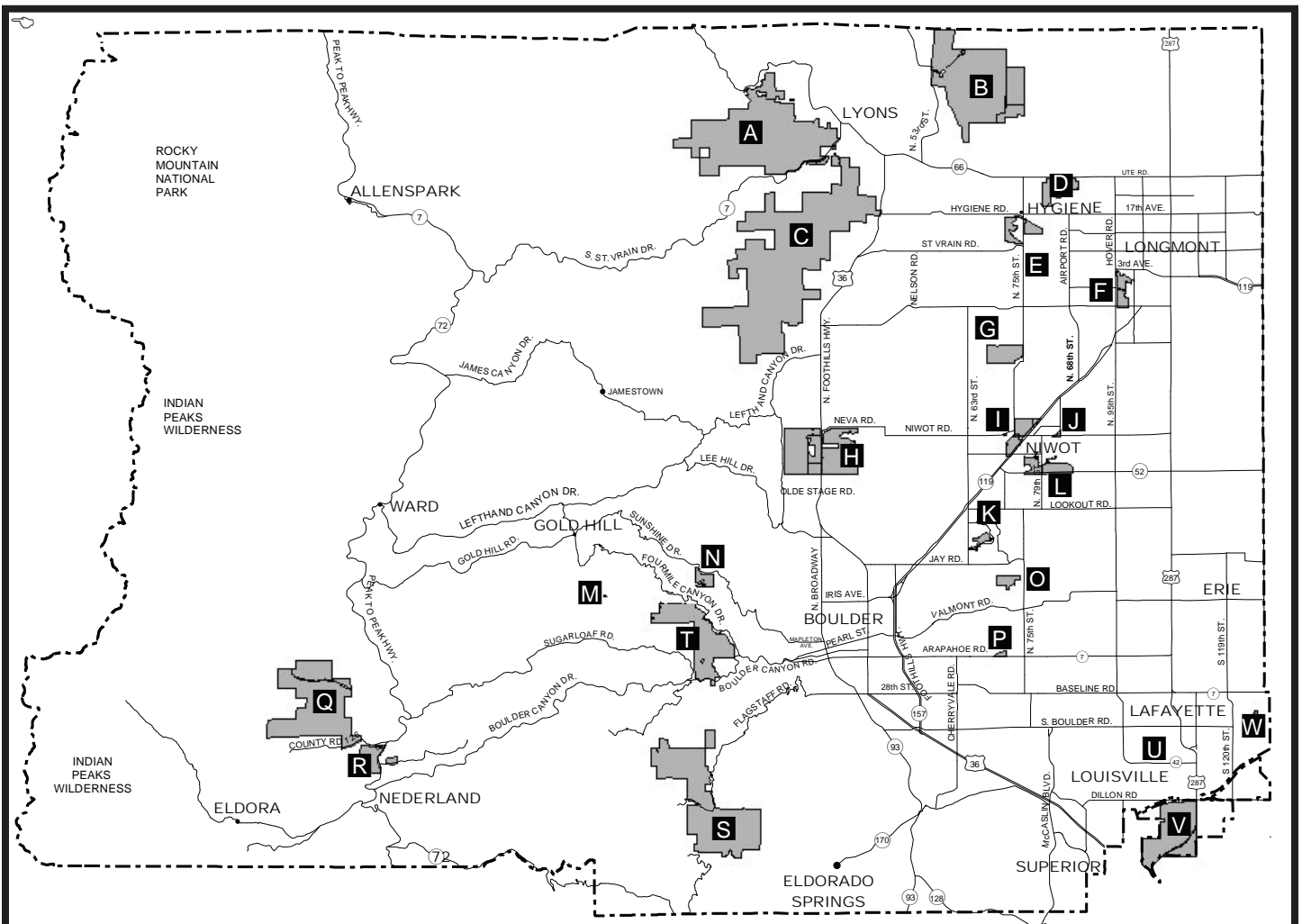




PARKS & OPEN SPACE DEPARTMENT
5201 St. Vrain Road
Longmont, CO 80503
303-678-6200

www.BoulderCountyOpenSpace.org

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| A. Hall Ranch | I. Dodd Lake | Q. Caribou Ranch |
| B. Rabbit Mountain | J. Lefthand Valley Grange | R. Mud Lake |
| C. Heil Valley Ranch | K. Twin Lakes | S. Walker Ranch |
| D. Agricultural Heritage Center
at Lohr/McIntosh Farm | L. Niwot Trail System | T. Betasso Preserve |
| E. Pella Crossing (closed) | M. James F. Bailey Assay Museum
Office | U. Coal Creek Trail |
| F. Boulder County Fairgrounds | N. Bald Mountain Scenic Area | V. Carolyn Holmberg Preserve
at Rock Creek Farm |
| G. Lagerman Reservoir | O. Walden Ponds Wildlife Habitat | W. Flagg Park |
| H. Beech Open Space | P. Legion Park | |