

# *images*

OF BOULDER COUNTY PARKS AND OPEN SPACE



*fall 2010*

## Images

volume 32, number 3

*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 PHOTO:** Coal Creek. See article this page about the 20 year anniversary of this project. Photo by Pascale Fried

### PHOTOGRAPHS & ILLUSTRATIONS

Coal Creek ..... Kristine Nelson  
Bald Mountain ..... Rachel Gehr  
Swainson's Hawk ..... Terry Spivey  
..... USDA Forest Service  
Field Notes ..... Carol Beam, Mary Olson  
Walker Ranch Event ..... Rachel Gehr  
Bus Tour ..... Tina Nielsen

### NATURE DETECTIVES

Katherine Young  
Illustrations: Michelle Durant

### DISCOVER BOULDER COUNTY

Larry Colbenson and Tom McMichen

### IN CLOSING

Rachel Gehr, Larry Colbenson and Tina Nielsen

### PRINTING

Boulder County Printing Department

### EDITORS

Rachel Gehr and Pascale Fried

*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](mailto:swilliams@bouldercounty.org) or send your name and address to Boulder County Parks and Open Space, 5201 St. Vrain Road, Longmont, CO 80503.

### To receive *Images* online:

1. Go to [www.bouldercounty.org/lists/index.htm](http://www.bouldercounty.org/lists/index.htm)
2. Scroll down to Parks and Open Space and check the box next to Images Magazine.
3. Enter your email address at the bottom of the page and press the Sign Up button.

Non-credited articles are by the editors. Suggestions and comments are welcome; please contact us at 303-678-6201 or [pfried@bouldercounty.org](mailto:pfried@bouldercounty.org).

### BOARD OF COUNTY COMMISSIONERS

Cindy Domenico  
Ben Pearlman  
Will Toor



Printed on recycled paper

# Partnerships for Success: The Coal Creek/Rock Creek Trail System

by Kristine Nelson

In 1989 Boulder County began the process of creating the Coal Creek and Rock Creek Regional Trail System and has dedicated staff to its planning and implementation. Since the beginning of the corridor vision, seven miles of the Coal Creek Trail and 7.5 miles of the Rock Creek Trail have been completed

In the spring of 1990, a public gathering was held at Dutch Creek Open Space in Louisville to dedicate and open the first segment of the Coal Creek /Rock Creek Trail Corridor. That stretch of trail, beginning near the corner of Aspen Way and ending at Dutch Creek Open Space, was the initial implementation of a vision of two regional trails in southeastern Boulder County.

## Completion of the Vision

The full realization of that vision is now in sight. Once complete, the Coal Creek Trail will span nearly 12 miles from Superior, through Louisville and Lafayette, and end in Erie. This winter, another mile of the trail will be complete. This trail segment will connect the City of Boulder's Cowdry Draw Trail off of 66th Street to the Mayhoffer/Singletree Trail west of Original Town Superior on Coal Creek Drive.

The Rock Creek Trail will span over 12 miles starting in Superior, through Broomfield and end in Lafayette. Construction of three more miles of trail will begin this fall in Superior. The new trail segment will connect





into the Mayhoffer/Singletree Trail located at the southern end of 3rd Avenue in Original Town Superior. It continues south and parallels McCaslin Boulevard before ending at the Coalton Trail near the intersection of Coalton Road and McCaslin Boulevard.

The Coal Creek Trail generally follows Coal Creek and is characterized as a riparian area with plenty of large trees that traverses near urban areas. On any given day, bicyclists, pedestrians, commuters, families, and nature enthusiasts can be seen using the trail. Since most of the Coal Creek Trail is within city limits, equestrians are not allowed.

Although the Rock Creek Trail generally parallels Rock Creek, it lies further away from the creek, traversing through open fields within rural areas. Some portions of this trail are located near urban areas as it goes through Superior and eventually Broomfield. Equestrians are welcome to use most of the Rock Creek Trail along with bicyclists, pedestrians, and nature enthusiasts.

## Communities Work Together

Building the trail system along Coal Creek and Rock Creek could not have happened without successful partnerships between Boulder County, the Town of Superior, the cities of Louisville and Lafayette, and the Urban Drainage and Flood Control District. In the coming years, the partnerships will grow as the trails traverse through Broomfield and Weld counties.

In December 2009, Boulder County, the Town of Erie and City of Lafayette formed a partnership to complete the eastern link of the Coal Creek / Rock Creek Trail Corridor. The partners jointly applied for and won a grant from Great Outdoors Colorado (GOCO) to complete another four miles of trail that will link Lafayette to Erie.

## 20th Anniversary Celebration

**When:** Sunday, September 19

**12:00pm** Organized Bicycle Rides to Community Park

**1:00pm** Ceremony, and Cake

**Where:** Community Park, 955 Bella Vista Drive  
Louisville, Colorado

**Contacts:** Kristine Nelson, Regional Trails Planner,  
Boulder County Transportation Department  
303-441-3900

Lafayette to Community Park Bicycle Ride  
Jeff Moline, Open Space Superintendent,  
City of Lafayette; 303-665-5506, ext. 3615

Superior to Community Park Bicycle Ride,  
Alan McBeath, Superintendent of Parks and  
Open Space, Town of Superior; 303-499-1723

## Wildlife You Might See Along the Trail

Bank swallow	Mallard duck
Belted kingfisher	Muskrat
Black-capped chickadee	Northern Flicker
Black-crowned night heron	Prairie dog
Bullock's oriole	Raccoon
Canada goose	Red fox
Cottontail rabbit	Red-tailed hawk
Coyote	Red-winged blackbird
Fox squirrel	Western kingbird
Great blue heron	Western meadowlark
Great horned owl	Yellow warbler
Magpie	



# Candid Camera

by Dave Hoerath

Smile! You're on Candid Camera! Some animals might say that at a remote watering hole or pass or game trail on open space because Boulder County Parks and Open Space has a small army of remote cameras taking pictures. Since staff can't be everywhere at once, remote cameras allow us to identify important habitat components and areas for wildlife.

Staff uses the cameras to target areas that might be important for wildlife. They can help confirm (or confound) these ideas. You don't know until you look!

Cameras are often placed at springs, thickets, saddles, caves, mines, fence crossings, and along game trails. They can tell us which areas are important to which critters at which time of the day, month, or season. This timing component helps us manage the timing and location of our own management activities: forestry, controlled burning, trail construction, restoration... or whether we do the activity at all. When the information is plugged into our management planning, it can contribute to the delineation of Habitat Conservation Areas.

Cameras operate via a motion or infrared heat sensor, allowing them to function at night. Instead of an old film roll of 36 exposures, these cameras use digital technology and memory cards which allows them to be out for weeks at a time to take hundreds of photos.

What you get on camera can be like pulling the surprise out of the cereal box! It can be a dud (blowing grass set off by the motion sensor) or the shiny car (cougar with kittens)! Some camera sets document all kinds of animals all throughout the day, even the same day. We can sometimes identify individuals (by color or size or pattern or antlers) which is important for low-density species like moose, bears, bobcats, and cougars. Cameras also make it possible for us to document reproduction by important species or in surprising areas, like elk at Rabbit Mountain. We can even document the health of study animals like radiocollared bobcats and cougars.

Trail cameras save us lots of time (and effort), contribute to our management, and give us lots of very cool photos!



## Trail Camera Gallery

*Clockwise from top left*

1. This blurry bear demonstrates that animals don't stop to pose for photos. Taken at Betasso Preserve.
2. At the Pierce property, a portion of barbed wire fence was replaced by wooden fence which keeps livestock in, but allows elk to safely jump it and traverse their home range.
3. Scientists can identify individual bobcats by their spot patterns. Taken at Heil Valley Ranch.
4. A camera site at Hall Ranch was baited with a deer carcass to entice a cougar to visit for the radiocollar study. This lucky fox got in a free lunch.

# Research on Boulder County's Open Space Lands

*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 2009 study conducted by Katherine McClure. Her research project focused landscape effects on disease and demography in the black-tailed prairie dog.*

## Abstract:

Landscape context can strongly influence wildlife disease incidence by precipitating shifts in host community structure and altering movement of hosts and vectors across the landscape. The black-tailed prairie dog (*Cynomys ludovicianus*) has undergone significant population declines due to sylvatic plague (*Yersinia pestis*), and understanding the combined effects of human-mediated landscape change on disease dynamics and host demography are crucial for the conservation of this species. In this thesis, I investigated putative correlates between landscape structure and plague occurrence at prairie dog colonies in Boulder County, Colorado during the 2005 plague epizootic. I used AICc to evaluate the relative support of logistic regression models of plague occurrence, and predicted that disease occurrence would be negatively associated with streams, urbanization, water bodies, roads, and isolation from other plague-positive colonies. The best supported models of plague occurrence in this study included negative effects of urbanization, streams, isolation from plague positive colonies and positive effects of prairie dog colony cover, colony area, and water bodies at the 250m scale.

Urban colonies were afforded some protection against plague, highlighting the importance of protecting urban colonies in Boulder County. In addition, I estimated prairie dog survival rates from 2003-2006 in Boulder County in order to investigate the short- and long-term effects of plague on prairie dog survivorship. Eight colonies infected with plague in 2005-06 suffered mortality rates exceeding 99%. Survival rates of prairie dogs in colonies founded since the 1994 plague epizootic were not significantly different from older colonies unaffected by plague in 1994, suggesting that demographic signals of plague events diminish over time. Finally, an investigation of prairie dog survivorship in relation to landscape and colony characteristics failed to uncover significant relationships between maximum survival estimates and measures of landscape composition, colony area, and prairie dog density, indicating that, in the absence of plague, landscape characteristics may be less important determinants of prairie dog survival than are patch level

characteristics. Taken together, these results underscore the ongoing threat plague presents to prairie dog populations in Boulder County, and suggest that the intervening landscape matrix plays a critical role in plague transmission by altering terrestrial animal movements.

## Conclusion:

This study has shown links between landscape context and disease occurrence in Boulder, Colorado. Multi-host vector-borne diseases such as plague exist within a complex ecological fabric that can be both the cause and consequence of community structure, host behavior, vector abundance, and host contact rates. Results of this study suggest that the spatial context of disease dynamics is likely a highly influential aspect of disease occurrence, transmission, and persistence. In the plague system in particular, landscape characteristics such as streams, urbanization, and isolation likely serve as significant deterrents to plague spread. Zoonotic diseases are currently emerging at an unprecedented rate, with an estimated 75% of these new diseases originating in wildlife (Daszak, 2002). In order to protect human health and conserve species highly susceptible to emergent diseases, it will become increasingly necessary in future years to understand the often complex ecological relationships that govern disease emergence and persistence in natural systems. Moreover, as evidence continues to build that habitat loss, fragmentation, and degradation often play a critical role in disease emergence and persistence (Patz et al., 2004), a mechanistic understanding of the relationships between landscape structure and occurrence may be of vital importance.

*If you want to read the full report, or other funded research, visit the department's website at [www.boulder-county.org/openspace/resources/res\\_funding/res\\_fund.htm](http://www.boulder-county.org/openspace/resources/res_funding/res_fund.htm).*





# Building a Legacy

by Richard Koopmann

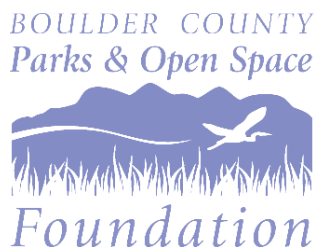
We were young and filled with energy. The Boulder County Parks and Open Space Department was small, less than 10 years old and it took the skill of a magician to find resources to jump-start all the great ideas that the community and staff wanted us to get involved with. One of those ideas involved a vintage motor home that we had purchased from Colorado Surplus for \$500 and the task was to convert it into an exciting, mobile environmental education exhibit.

I remember contacting the offices of a local corporation and asking if they would be willing to help with the costs of retrofitting this vehicle. The response was quick and unequivocal . . . “We do support local non-profits, but government gets only our taxes.” With that answer we went back and regrouped and found an existing nonprofit partner that believed in the project. The second request for assistance to the same corporation was granted and we were able to build a quality educational unit, called “The Lodestar” that lasted for many years.

## A Beginning

This was the genesis of the Parks and Open Space (POS) Foundation. There simply are times when the government resources are stretched too thin to add in any new projects, despite how unique and important they may be. There also are individuals and companies who really believe in the project and want to help, but they feel more comfortable donating to a Foundation rather than writing another check to a government agency. In recent years, we have noticed an increasing number of memorials on behalf of individuals who supported the open space program. Their families are choosing to remember them with gifts to the Foundation.

The POS Foundation was formed in 2005 as a not-for-profit fundraising partner of the POS Department. Its mission is to strengthen the connection between the public and the POS Department by raising private funds, supporting innovative projects, fostering partnerships and increasing community involvement. This organization is designed for the long term. We expect to grow as the need for supplemental resources grows.



In many ways, the Foundation is modeled after successful programs with the National Parks. The nonprofit Rocky Mountain Nature Association has been operating at Rocky Mountain National Park since 1931. Their first project was to develop

information brochures on the park. Since then they have raised over \$15 million to support research, publications, educational exhibits and seminars, trail construction, historic preservation and land acquisition.

The POS Foundation is governed by a Board of Trustees consisting of 1/3 from POS staff, 1/3 are members of the Parks & Open Space Advisory Committee and/or Historic Preservation Advisory Board and 1/3 are from the general public. The Foundation is open to general support and has annual membership categories ranging from \$50 thru \$1000 or more. There are currently around 75 active members.

The POS Foundation relies on the generosity of individuals, groups, corporations, and other Foundations to reach its goals. It is incorporated in the State of Colorado as a non-profit and is exempt from Federal income tax under section 509(a)(3) of the IRS Code. Donations are fully deductible as provided by law.

If you would like further information or to explore a project, membership or gift with the POS Foundation, we can be reached through our website at [www.preservebouldercounty.org](http://www.preservebouldercounty.org), or call 303-678-6270.

## Foundation Activities

We are not yet in the same league as the Rocky Mountain Nature Association, and our needs are more localized, but examples of projects the POS Foundation has supported in the last five years include:

- trail and trailhead funding at Heil Valley Ranch and Walker Ranch
- bus transportation funding to get school children out to open space properties
- matching fund support for riparian and native plant restoration grants
- grant match dollars for Calwood environmental education program
- providing grant match funds for Boulder Creek restoration project
- providing matching funds for open space acquisition grants
- supporting a grant for a scenic byway overlook project on the Peak-to-Peak
- providing grant match funds for Biochar research
- providing support for art projects on open space
- providing administrative support for the Eldora Land Preservation Fund

# A Different Path

by Rachel Gehr

Recently, I visited Bald Mountain Scenic Area to take pictures of visitors and wildflowers. I love this property because an easy 20-minute walk rewards you with expansive views of the Continental Divide and surrounding area—not to mention a large variety of wildflowers.

Another plus of visiting Bald Mountain is that you can brag to your friends that you “summitted” a mountain. The bench at the top is a welcome sight and offers a perch to soak in the views.

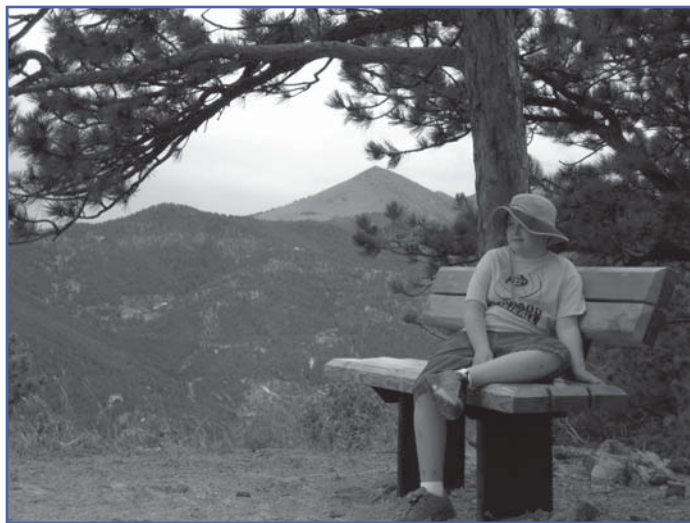
I took along my 11 year-old son, Mike, who has a developmental disability. Mike does not hurry through anything. Hiking with him slows me down and forces me to appreciate what is happening around me.

## Never In A Hurry

It is easy to get caught up in “destination” thinking on a hike—working towards a goal rather than enjoying the journey to get there. Mike however, is the anti-dote to hurry because this kid can NOT be rushed.

If he wants to run his hands over the tops of wild grasses for five minutes, he’s going to do that. He likes to feel the points on cacti and yucca plants as if testing each one to make sure they are sharp. And then there’s standing in one place and twirling your hat while singing Sesame Street songs.

When heading out on a hike I look forward to fresh air, the sound of the path under my boots, beautiful views and some



*Taking in the views from the bench at the summit of Bald Mountain.*

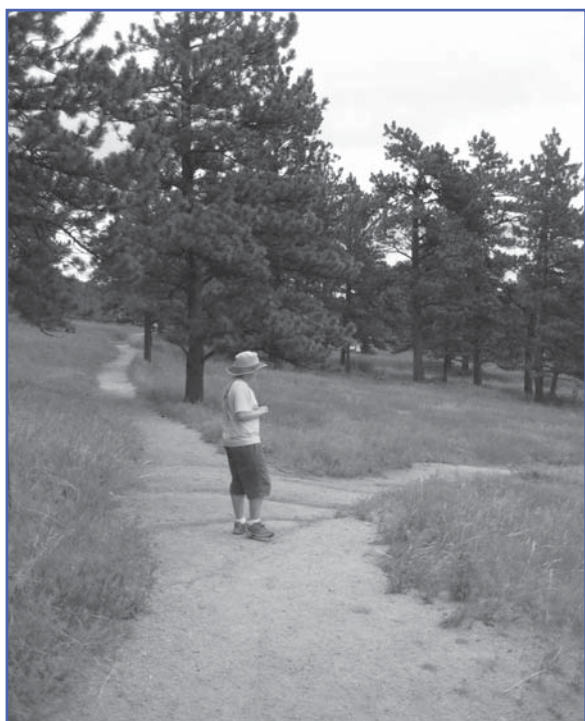
quiet. But Mike doesn’t have these big ideas about “nature.” With him, it’s moment to moment. Nature isn’t an intellectual concept to him, it’s an “in the moment experience” of a breeze, textures, open air, mud and soft grass. I often point things out to him and say “purple flower” or “tree”; he repeats what I say, but I don’t think he cares one bit.

## Bald Mountain in Under Two Hours

I might have hiked the path at Bald Mountain in 30 minutes without him. But we took well over an hour to cover one-mile, leaving plenty of time for picture-taking and view pondering. At the end of that hike I had taken over 100 photos.

I sometimes laugh at myself when I get impatient; how in the world can I want to rush my way through a path in the forest?

If you have a chance to hike with someone who has a disability it will change your experience of nature. I still enjoy hiking without Mike, moving at a quicker pace, covering more territory. But I’ve also learned to appreciate going at his pace and all that slowing down has to offer.



*Frequent pauses during a hike allow for time to take pictures and look around.*

### About Bald Mountain Scenic Area

This area consists of 108 acres of mostly ponderosa pine and rocky mountain juniper communities.

**The Trail:** The Pines to Peaks Trail is a one-mile loop to the summit (7,160 feet) that provides overlooks of the eastern plains and Continental Divide.

**To get there:** Bald Mountain Scenic Area is located 5 miles west of Boulder on Sunshine Canyon Drive (Mapleton Ave. in Boulder city limits).

# An Unusual Bird of Prey

by Francesca Giongo

When you spot a large hawk perched on a post or a telephone pole, you might not be looking at a red-tailed hawk, the most common year-round bird of prey in Colorado. You might actually be looking at a Swainson's hawk, named after the 19th century British naturalist William Swainson.

Perched birds can be differentiated from red-tailed hawks by the presence of a reddish "bib" on their chest, contrasting with the whitish belly. In flight, they have two characteristics that differentiate them from other soaring hawks. When viewed from below, they show light feathers on the leading edge of the wing, and dark feathers on the trailing edge. This color pattern is the opposite of that found in other hawks. Also, they have a slightly longer wingspan and narrower wings than hawks of comparable size.

## A Long Way to Travel

What makes this bird unique, however, is not just its coloration. The Swainson's hawk has one of the longest migrations on any American bird of prey. It migrates from its breeding grounds in North America to the pampas of Argentina, an 11,000 -17,000 mile journey. The migration to the wintering grounds lasts at least two months. Depending on the breeding grounds latitudes, migration can start anytime between August and October. The birds that breed in Colorado generally leave by late September. Often several birds would congregate as they wait for favorable northerly winds to start their long journey. To conserve energy as they migrate, they gain altitude by riding thermals, columns of warm air created by the heating of the Earth's surface. The hawks will spread their wings and soar up on one thermal, then close their tails and glide downward until they find another thermal.

The Swainson's hawk is a bird of open country – deserts, grasslands, and prairies with scattered trees that they use for nesting. During the nesting season they compete for territory with red-tailed and ferruginous hawks, and defend their territory against these species. They are monogamous and might return

The Swainson's hawk has one of the longest migrations of any American bird of prey, migrating from its breeding grounds in North America to the pampas of Argentina, an 11,000 -17,000 mile journey

to their nests year after year. The male builds the nest and brings food to the incubating female. In Colorado, the egg laying occurs between mid-May and mid-June, and hatching mid-June through mid-July, often coinciding with the appearance of suitable prey.

## A Seasonal Diet

Its diet is another peculiar trait that sets the Swainson's hawk apart from other birds of prey. Prey selection changes seasonally. When they are feeding their young, the Swainson's primarily hunt small mammals such as ground squirrels, pocket gophers, mice, and young rabbits. Locally, they will supplement this diet by catching small birds, amphibians and reptiles. The rest of the year, these birds feed on insects. They could catch dragonflies and dobsonflies in flight, but mostly hunt grasshoppers, crickets and locusts on the ground. In addition to hunting from elevated perches, the hawks would follow tractors plowing the fields, as this action exposes their prey. According to the Colorado Breeding Birds Atlas, during the fall, farmers in eastern Colorado "direct visiting birders to flocks by pointing out fields scheduled for plowing that day" as the birds gorge themselves on insects before migrating.

## Decline and Recovery

These feeding habits, although beneficial for farmers, were the cause of a sharp decline in Swainson's numbers in the recent past. In the mid 1990s, ornithologists who were radio tracking migrating hawks to their wintering grounds in Argentina discovered thousands of them dead on agricultural fields. The farmers there had used insecticides like DDT and monocrotophos to control grasshoppers and locust infestations. The birds died from direct exposure and from feeding on the grasshoppers. In addition, those who survived laid eggs whose shells were too thin and would crack under the weight of the incubating bird. Following this discovery, an international effort was mounted to better document the Swainson's migrating patterns. The results were presented to governments, chemical companies, and farmers. This eventually led to the ban of the most dangerous insecticides, and the species has staged a remarkable comeback, a great example of a success story in conservation.





# NATURE DETECTIVES

Fall 2010



Deer antlers

## Show Time for Antlers

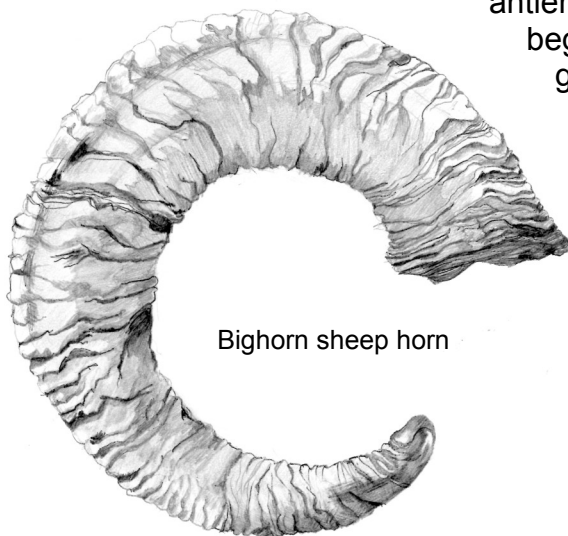
The young bull elk strutted near a few cow elk grazing in the meadow. Although the cows were ignoring him, the bull practiced holding his neck just so, showing off his polished antlers. From the far side of the meadow came the bugling call of another male. The cows lifted their heads and listened. The caller was an eight-year-old bull and as he walked toward the cows, his strong arched neck held a heavy rack of antlers over his back. The cows watched this healthy, mature bull with interest.

Without ever viewing his own antlers in a mirror, the young bull knew he was no match for the new arrival. To prove he was not a competitor, the young bull lay down. In a few years, with good food, health and luck, he would carry such antlers and younger bulls would give way for him.

## Also Prime Time for Horns

A couple months later, higher in the mountains, two male bighorn sheep backed away and charged headfirst at each other. Hikers a mile away heard the impact as the animals' large curled horns crashed together. The closely matched rams kept up their clashes until the more exhausted ram finally staggered off.

Antler and horn contests like these happen every fall. Male deer, elk and moose flaunt antlers. They'll drop their old antlers in winter and soon begin to grow new ones. Bighorn sheep, mountain goats and pronghorn display permanent horns. Here is how to remember which animals grow which kind of these amazing body ornaments:



Bighorn sheep horn

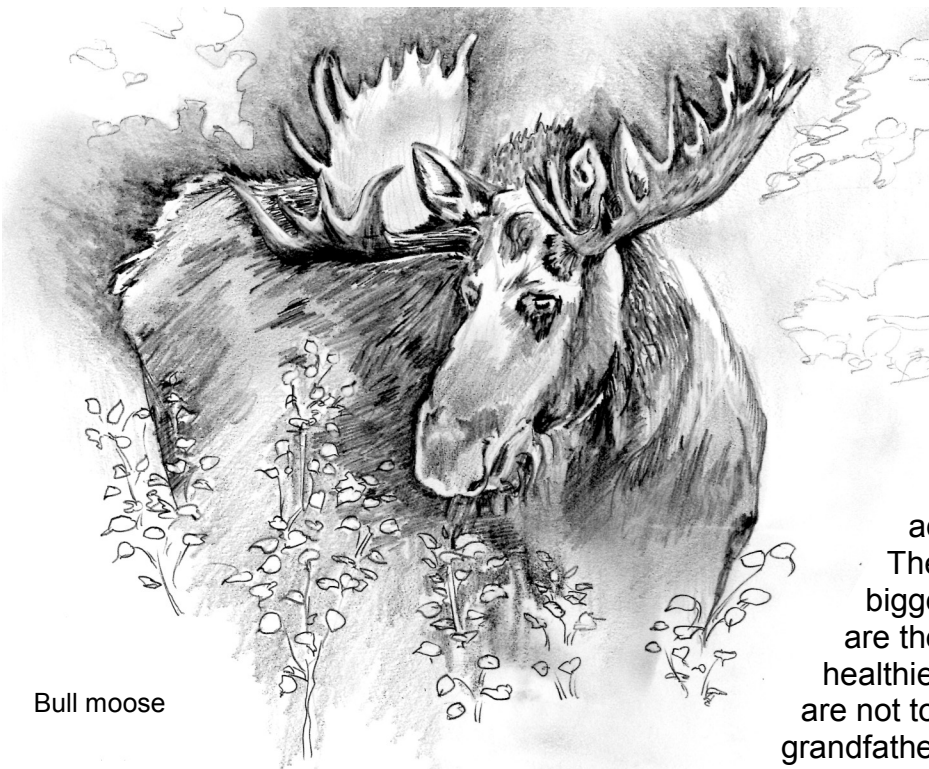
The horns of a pronghorn,  
Mountain goat or sheep  
Never fall off because  
Their horns are to keep.

Antlers appear on the heads  
Of male elk, moose and deer  
And, though it's hard to believe,  
They grow new ones each year.

## How'd You Get Those Antlers?

An antler grows from a bony base on the skull called the pedicle. Antlers are true bones that grow from the tips. The growing bone bump is covered with skin and short hair. The covering looks like soft velvet fabric so that's what it is called. The velvet grows along with the antlers. Blood vessels carry calcium and phosphorus to build the new bone. Antlers grow really fast, up to ½ inch a day. The growing antlers are soft and sensitive so the males are careful with them.

The spongy new growth gradually hardens into finished bone antlers. By fall, the moose bulls, deer bucks and elk bulls are ready to show them off. But first they have to get rid of the velvet, which has become dry, itchy and tattered. The males start attacking bushes and trees with their antlers. As the itchy velvet is scraped off, leftover blood and plant juices stain the white bone. Soon the antlers shine with rich dark color. As the bulls and bucks thrash the plants, they get a true sense of their antlers' size. The antlers are strong now and won't break off from their base pedicles.



Bull moose

### Whoa, Those are Big Antlers

Moose get to grow the biggest antlers. A record size moose can have antlers seven feet wide that weigh almost 80 pounds. Big elk antlers might be five feet across. An extinct elk that lived in the time of mastodons and mammoths had moose-like antlers that grew to 14 feet across.

The males that grow the biggest antlers, then and now, are the ones that are the healthiest, find lots of good food and are not too young or too old. Their grandfathers and fathers likely had showy antlers, too.

## Winter Cast Off

After spending so much energy growing antlers, it seems strange that they just fall off in the winter. The bond to the pedicle weakens; the antlers fall off; the pedicle scabs over and is covered with new velvet. Soon new antler buds will start to grow. Rabbits, porcupines and rodents such as deer mice nibble the shed antlers for the nutritious minerals in the bone.



Woodrat eating an old antler



## Horns Come With Their Own Covers

Like antlers, sheep and goat horns are bone, but they grow completely differently from antlers. Horns grow from the base of the horn next to the skull rather than growing like antlers from the tips. Horns are permanent and usually grow bigger every year until old age. Female pronghorn, bighorn sheep and mountain goats have horns, too, but their horns are smaller and plainer than male horns.

Unlike antlers, the bony horns have a cover. The cover is made of keratin. Cat claws, your fingernails, hooves and bird beaks are also made of keratin. Oddly, pronghorn shed the keratin covers on their horns each year and grow new ones to fit their new horn size. On the sheep and goats, the keratin cover grows along with the horns and is not shed.



Pronghorn sparring

## Antler and Horn Shoving Contests

When they are old enough to become dads, male moose, elk and deer start practicing strength contests with other young males by having antler-shoving matches. Baby goats and sheep begin playfully butting horns with each other soon after they are born. They learn how strong they are in these games and how their antler or horn size compares to others.

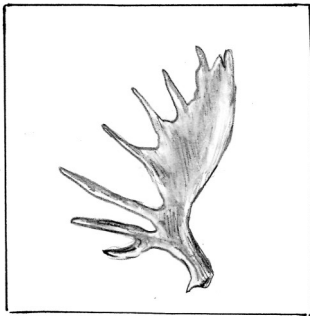
## The Trouble With Horns and Antlers

Horns and antlers can be troublesome. The curved horns of the male bighorn sheep can grow so large, some sheep have to purposely break off the ends on rocks so they can see. Antlers and horns are heavy to carry around. Sometimes males will try to rest one side or the other of large antlers on the ground while they sleep. Antlers can collect unwanted decorations such as electric fence wire. A Colorado elk once got a lawn chair stuck on his antlers. Two males that accidentally lock antlers will starve if they can't untangle.

Perhaps that is why there is more strutting around and bluffing than actual combat between males. Even when there is a fight, it rarely results in death.

The purpose of horns and antlers seems mainly to show females of each species which males are the strongest and would likely father strong babies. Hooves are used more than horns or antlers for defense against enemies like coyotes or wolves.

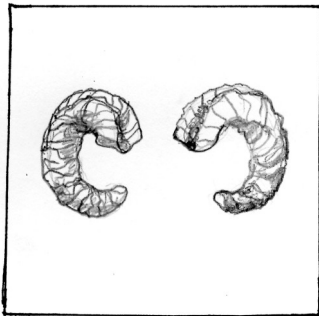
## Antler and Horn Match-up



1



A



2



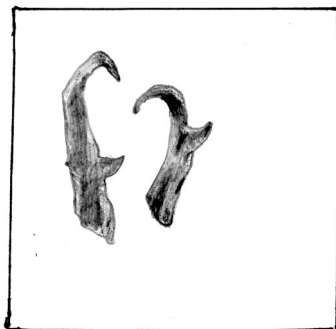
B



3



C



4



D

Can you tell which of these hoofed animals belongs to which set of horns or antlers?

Draw a line from the animal to its correct headgear.

### Design Your Own

If you were going to design horns or antlers, what would they look like and why?

Answers: 1C, 2A, 3D, 4B



# Field Notes

## A Day in the Life of Facilities Technician



*From left: Tom surveys the corner of the foundation for the Walker Ranch house which was rebuilt in 2008-2009.*

*Tom was the project manager for facilities staff on the construction of the Walker Ranch house.*

*Facilities recently completed construction of the restrooms for the Picture Rock Trailhead.*



My normal day starts out around 6:00 a.m. I like to get my day planned out as well as our crew before they arrive. I make out a work assignment for each of our crew members. This is done every day. We may have to make exceptions because of what we call “POP-UPS”—jobs that are called in and that need to be taken care of right away.

I then check my emails and about my day, this includes working on up coming projects, checking on current projects in the field, making orders for current as well as upcoming projects. I, along with my supervisor, need to get paper work in to land use for permits to be created for new projects.

Getting materials ordered for projects is taken care of by me. This lets the crew have more time on their assigned projects, without having to stop and pick up needed materials.

I may have meetings (like everyone else has) to attend from day to day, which of course changes your daily schedule, but you need to attend them!

Blue prints need to be red lined, before each project I start. “Red lined” is a term we use to go over the details of the prints to make sure they are correct and understandable. If mistakes are found they need to be corrected by the architect or who ever

was involved with blue prints. If the plans are not “red lined,” it could cause problems in the field.

Depending on the day in question, I may have materials to pick up and deliver to job sites, or I may have materials to deliver to vendors to either be powder coated, welded, etc.

On the first of the month, we start the day off by cleaning our trucks, which are assigned to the facilities crew, inside and out. Having a clean truck helps with knowing where tools are located and it also allows us to transport materials, if needed.

On other days, I too get out in the field and work side by side with crew members. Working in the field gives you time to communicate with the team and you get to demonstrate your skills as a carpenter too!

I am very happy being able to do my part as a Technician III and work for Boulder County with our crew. It is very rewarding to walk away from your job and see the results of your days work. We construct restrooms, kiosks, and shelters that are not only useful, but they are very attractive!

This is not only a rewarding job for me, but I am proud to be a part of the facilities crew representing Boulder County.

*Tom Popadak is a Park Facilities Technician III working in the department's Park Operations Division.*

# Don't Put That Fishing Rod Away Yet!

by Lynette Anderson

Spring is a season I happily anticipate for fishing adventures to local ponds and streams. My first stop: purchasing a new annual state fishing license. Next, it's an inventory of gear to make sure needed repairs are done before getting to my favorite fishing spot. Like most "gear junkies" I enjoy perusing the aisles of lures and flies, looking for that colorful or creative item that might just land a bass or trout, or something nifty to hang on my fishing vest. Looking at the calendar as it creeps towards the end of the year, and as it gets cooler and we relinquish our summer freedom, fishing gear (and other outdoor accessories) tends to be stowed away in the garage until the spring. But autumn can be a wonderful time to fish, whether you are new to the sport or enjoy it religiously. There are some things that make it different from warmer weather angling, most notably the cooler temperatures and of course the waning daylight; however, some of these differences make your trip worthwhile and enjoyable.

Working as a park ranger for almost 20 years, I have always enjoyed contacting and talking with anglers. It is lots of fun to see all the different lures folks use, and to hear all of the great fishing stories. A couple of years ago, I decided to take the plunge and learn how to fish. One of my favorite fishing memories is plopping a lure into a small hole in the ice on Lefthand Creek in January, and pulling out a fairly good-sized rainbow trout! I was pretty concerned for a moment that the fish wouldn't fit through the hole in the ice. I froze my line that morning (and my fingers), but that fish was worth catching. For a few moments, I forgot how cold it was.

## Warm and Cold Water Fishing

In Boulder County we are lucky to have many local ponds and streams that allow one to experience both warm and cold-water fishing. These two habitats allow for very different species of fish: warm water tends to have large and small mouth bass, perch, walleye, catfish, and crappie. Coldwater streams are great places to search out rainbow, brown, and brook trout. So if you want to learn how to catch a large mouth bass, warmer water is what you need. Good warm water fishing can be found at Pella Crossing, Walden Ponds Wildlife Habitat, and Fairgrounds Lake. Do you want to land a nice trout? Go to one of the many local streams, rivers or creeks, such as South Boulder Creek at Walker Ranch. Now that you know what kind of fish you'd like to catch, and where you are headed, you need some gear!

Besides a pole and license, an almost endless variety of flies and lures can be purchased that promise "sure fire" catching. Of course, I have discovered that fish aren't impressed with advertising. Rubber worms (unscented) seem to be fairly successful when it comes to catching bass. Remember that with cooler temperatures, fish (a cold blooded animal) might move a bit slower. Their watery environment is changing. Cooler water temperatures mean certain insects and small crustaceans are either at the end of their lifecycle, or getting ready to burrow into



*An angler at Pella Crossing shows off his catch.*

the mud to hibernate for winter. This means fish might not be interested in the same lures or flies that they might have gobbled up in June since their food source is drastically different. This can make for the interesting (and sometimes frustrating) part of figuring out what that fish will bite on.

Of course, one of the big positives to fall fishing: cooler temperatures! Cool, crisp fall days are perfect to enjoy outdoors, and fishing is a great way to get outside. You can also enjoy watching migrating waterfowl and gorgeous autumn colors while you try to land the big one.

## Some Ground Rules

There are some things to keep in mind when fishing in Colorado. You must have a valid state issued fishing license, which is current until March of the following year. Some ponds and creeks have restrictions on what can be on the end of your hook—in some places, fishing with bait is illegal. Bait is defined as anything that has a scent, whether it is live, dead, or artificial material (such as rubber or moldable plastic). Stinkbait, Powerbait, and Gulp! products are considered bait, and shouldn't be used in an area that prohibits them. Some ponds in Boulder County have catch and release regulations regarding bass, so if you catch one, it needs to be returned to the water immediately (of course, you can take a quick picture with that 25 pound monster). Keep in mind, all Boulder County Parks and Open Space properties close at sunset, and as the year progresses, we lose daylight.

I hope you have been inspired to spend a sunny, autumn day with your fishing gear. Maybe I'll see you out there and we can swap fishing stories.



# Discover Boulder County

## A CALENDAR OF NATURAL AND CULTURAL HISTORY EVENTS

### **Rattlesnake!**

**Wednesday, September 8; 6:00pm to 7:30pm**

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

As summer winds down and fall approaches, rattlesnakes become more active as they prepare for hibernation. Enjoy a moderate 1.5-mile evening hike and learn about this reptile which can be found in the plains and foothills of Boulder County. Volunteer naturalists will share information about the western rattlesnake including habitat, ecology, behavior, and how to be safe in rattlesnake country.

**Tour Blue Bird Mine Complex and the Cardinal Mill  
September 11th, 2010; 1pm to 3pm**

**Meeting location given to registered participants**

The Blue Bird Mine at the Caribou Ranch Open Space was an active silver mine on and off for the better part of a hundred years. During this program we'll travel by car to within a couple hundred yards of the mine to walk around the complex. After visiting Blue Bird, we'll caravan to our next stop, the Cardinal Mill, where we'll talk about the methods used at Cardinal to process many tons of hard rock ore over the course of this structure's working life. Register by calling 303-776-8848 or send e-mail to [tmcminen@bouldercounty.org](mailto:tmcminen@bouldercounty.org).



*The Cardinal Mill building*

### **Conifers of Caribou**

**Saturday, September 11; 10:00am to 12:30pm**

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

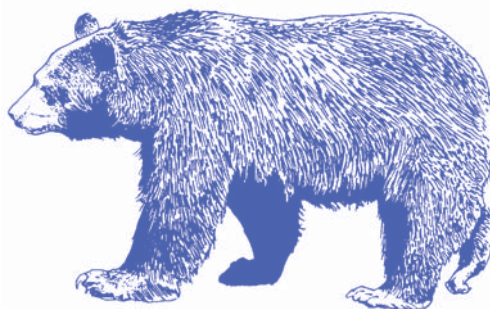
Join volunteer naturalists Ellen Smith and Barbara Willis for an easy one-mile hike exploring the scenic montane forest of Caribou Ranch Open Space. You will learn to identify a variety of coniferous trees using a simple dichotomous key, and talk about forest ecology and management issues.

### **Bears in Our Backyard**

**Monday, September 13; 6:00pm to 7:30pm**

**Bald Mountain Scenic Area; 5 miles west of Boulder on Sunshine Canyon Drive (Mapleton Ave. in Boulder city limits)**

As summer winds down, black bears are busy gorging on berries and other food in preparation for their long winter sleep. How much do bears need to eat before hibernation, and what are their chances of survival? What would you do if you encountered a bear and how do you bear-proof your backyard? Join volunteer naturalists to get answers to these questions and more as you hike in search of bear signs, and learn how people and bears can share our wild places. Participants should be prepared for a moderate 1.5-mile hike.



### **I Spy Trees - For Preschoolers**

**Thursday, September 16; 9:30am to 10:30am**

**Roger's Grove picnic shelter, 220 Hover Road, Longmont (just north of the Boulder County Fairgrounds, and adjacent to the St. Vrain Creek Greenway)**

Come for a walk with volunteer naturalists Diane Faigen and Darleen Eide and get to know the neighborhood trees. We'll explore different trees, and learn why they are important to many birds and other animals. This program is for preschool children, but siblings are welcome. Hands-on activities and a craft will be provided.

### **Clever Corvids**

**Saturday, September 18; 10:00am to noon**

**Heil Valley Ranch; North of Boulder off Lefthand Canyon Drive; meet at group picnic shelter**

Ravens, crows, jays and magpies are noisy, intelligent and gregarious birds found throughout Boulder County. They are all members of the bird family called Corvidae, or corvids for short. Join volunteer naturalists Nancy Beaudrot and Diane Klammer for an easy 2-mile hike to observe and learn more about the natural history, ecology, and stories about these clever birds.

# Discover Boulder County

## A CALENDAR OF NATURAL AND CULTURAL HISTORY EVENTS

### Autumn at the Walker Ranch Homestead

**Sunday, September 26; 10:00am to 4:00pm**

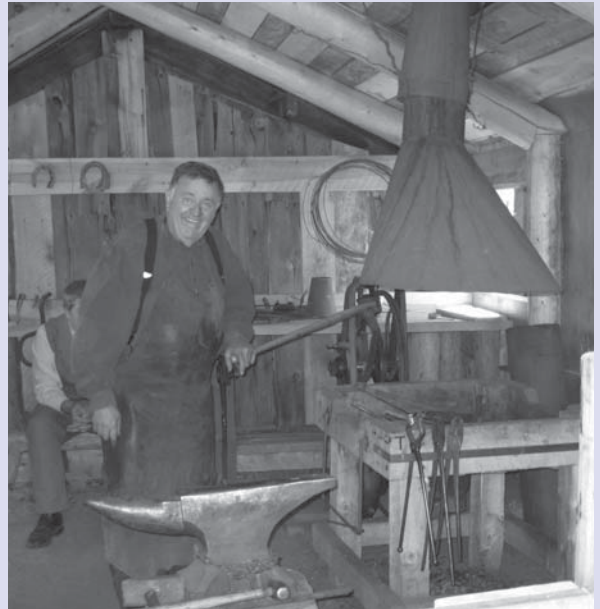
**Walker Ranch Homestead; 7701 Flagstaff Mountain Road, approximately 7 miles west of Boulder on Flagstaff Road**

Come see how autumn was spent on a working ranch in the late 1800s. At this special event, costumed volunteers demonstrate the chores necessary to get the ranch ready for winter such as root-cellarling, sausage-making and doing laundry with a washboard and wringer to name a few. Visitors can participate in some chores.

Visit the blacksmith as he makes hinges, nails, and other hardware needed around the ranch, or join in the fun at an old-fashioned barn dance featuring guitar, banjo and fiddle music. There will also be guided tours of the homestead.

This program is free and open to all ages. For more information, please call 303-776-8848 or email [tmcnich@bouldercounty.org](mailto:tmcnich@bouldercounty.org).

**Please note:** Dogs and bicycles are not permitted on the site. Visitors are invited to bring a picnic lunch to enjoy at nearby Walker Ranch Open Space picnic sites.



### I Sit Listening to the Wind: A Woman's Encounter Within Herself and Nature

**Saturday, September 25; 9:30am to noon**

**Meeting location will be given to registered participants**

Join volunteer naturalist Louise Alderson for a walk in nature. Using passages from the book *I Sit Listening to the Wind*, by Judith Duerk, you'll experience the rhythm of nature with personal reflection and growth. Participants should be prepared for a moderate 1-mile hike. For women of all ages; register by calling 303-678-6214 by Thursday, September 23.



### Fire on the Mountain: Ten Years After

**Saturday, September 25; 10:00am to noon**

**Walker Ranch Open Space; approx. 7 miles west of Boulder on Flagstaff Road; meet at Meyers Homestead Trailhead**

Join volunteer naturalists for an easy 2-mile hike to mark the ten-year anniversary of the wildfire that burned nearly 1,100 acres at Walker Ranch. You will see evidence of the fire, the rehabilitation efforts, and the re-vegetation that has occurred since the blaze. You will also learn about the natural role of fire in ponderosa pine ecosystems, and the forest management practices that mitigate against the effects and scale of wildfires.

### Moose at the Ranch

**Saturday, October 2; 10:00am to 1:00pm**

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

Moose were introduced to Colorado in the late 1970s in the North Park area. Since then, moose have expanded their range southward in Colorado and now call Caribou Ranch Open Space home. Join volunteer naturalists for a moderate 3-mile roundtrip hike into moose country, and learn more about the natural history and habits of this largest member of the deer family. Please bring clothing and hiking shoes/boots suitable for weather conditions at 8,500 feet.

### Wildlife Preparing for Winter

**Sunday, October 3; 10:00am to noon**

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

Take a hike in the high country to learn about the many ways animals prepare to survive winter. We'll talk about wintering strategies including migration, hibernation, and other adaptations. We will also look for signs of wildlife activity, including tracks, scat, and browse marks on trees. Be prepared for a moderate 2-mile hike above 8,500 feet.



# Discover Boulder County

## A CALENDAR OF NATURAL AND CULTURAL HISTORY EVENTS

### **Bears in Our Backyard**

**Saturday, October 9; 10:00am to noon**

**Heil Valley Ranch; North of Boulder off Lefthand Canyon Drive; meet at group picnic shelter**

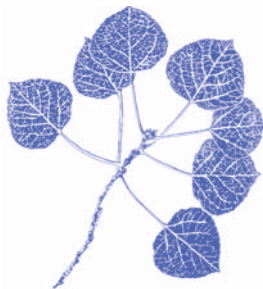
As summer winds down, black bears are busy gorging on berries and other food in preparation for a long winter sleep. How much do bears need to eat before hibernation, and what are their chances of survival? What would you do if you encountered a bear on the trail, and how do you bear-proof your backyard? Join volunteer naturalists to get answers to these questions and more as you hike in search of bear signs, and learn how people and bears can share our wild places. Participants should be prepared for a moderate 1.5-mile hike.

### **Quaking Aspen Hike**

**Sunday, October 10; 10:00am to noon**

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

The tree that gets the most attention in the Colorado autumn has lots to offer year-round. Join volunteer naturalists to learn more about the aspen—the most widely distributed tree in North America. On this trip, we'll hike about two easy miles (roundtrip) at 8,500 feet through conifer forest, meadows, and aspen groves at beautiful Mud Lake Open Space. Along the way, we'll discuss the natural history of the aspen, including its importance to wildlife, varied uses, response to fire, and threats to its health. We'll also keep an eye out for signs of wildlife, and maybe even hear the eerie sounds of bugling elk.



### **Whoooo are the Owls?**

**Tuesday, October 12; 7:00pm to 8:30pm**

**Lafayette Public Library, 775 west Baseline Road, Lafayette**

Owls have been regarded with awe throughout history and across cultures. To some people they are symbols of wisdom, to others, harbingers of doom. Over half of the owls recorded in the U.S. have been seen in Boulder County, and most of those owls nest here. Join volunteer naturalists to explore these creatures of the night, and learn about the diversity and special adaptations that make them such expert hunters.

### **Hanging Out With Bats**

**Saturday, October 16; 1:00pm to 2:30pm**

**Foothills Nature Center; 4201 N. Broadway (Wonderland Lake Trailhead), Boulder**

Explore the myths and mysteries surrounding the only mammal that flies. With volunteer naturalists, you will learn about the resident bats of Boulder County, their habits and habitat, and their importance to humans. This program is for families with preschool and elementary-age children, and will include a slide presentation and hands-on activities.

### **Geology and Landforms of Hall Ranch**

**Saturday, October 23; 9:00am to 1:00pm**

**Hall Ranch Open Space; one mile west of Lyons on Highway 7; meet at the group picnic shelter near the upper parking lot**

Join geologist and volunteer naturalist Dick Pratt and others to explore and learn about the remarkable and dramatic geology and landscape of Hall Ranch. This moderately strenuous 4-mile hike (roundtrip) will cover igneous, metamorphic, and sedimentary rocks that span over 1.7 billion years of geologic history. We'll have lunch at one of the highest elevation prairie dog towns in Boulder County, a great place to observe raptors and other wildlife. Wear hiking shoes or boots, dress for the weather, and bring water, lunch, and binoculars if you have them. This hike is geared to adults.

### **Story in the Rocks—Our Changing Landscape**

**Saturday, October 30; 10:00am to noon**

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

Join volunteer naturalists for a 1.3-mile moderate hike along the Lichen Loop Trail to learn how this scenic landscape has changed over time. The tales told in the rocks span over 200 million years, from ancient sand dunes to tidal flats to riverbeds where dinosaurs roamed. The rocks also determine the shape and ecology of the present landscape, and the plants and wildlife we find here.

## All Programs

All ages are welcome unless otherwise noted. NO PETS PLEASE! Dress in layers and be prepared for fall temperatures. Bring drinking water and wear closed-toe walking/hiking shoes. See the back cover for park locations. For information about these programs, or to arrange a volunteer-led program for your group, please call 303-678-6214.

# Discover Boulder County

## A CALENDAR OF NATURAL AND CULTURAL HISTORY EVENTS

### **Visit the Champion Cottonwood Tree**

**Saturday, November 6; 10:00am to noon (drop-in)**

**Champion Cottonwood Site: On the east side of Crane Hollow Road, just north of the intersection of Crane Hollow and St. Vrain Roads in northern Boulder County near the town of Hygiene. Please park carefully along Crane Hollow Road near the entrance gate.**

In a land of little water, the majestic plains cottonwood stands out in the landscape. Larger than most of its deciduous companions, this water-loving tree has long been treasured by native peoples, pioneers, and wildlife for food, shade, and habitat on the western Great Plains. Since 1967, Boulder County has been home to the largest plains cottonwood tree in North America, according to the National Register of Big Trees. This stately tree, over a century old, stands some 105 feet tall and nearly 9 feet in diameter. Join volunteer naturalists to see and learn more about the story of this sentinel of the plains. No hiking is required.

### **Snoods and Caruncles – Wild Turkeys of Boulder County**

**Wednesday, November 10; 7:00pm to 8:30pm**

**Longmont Public Library, Meeting Room A, 4th Avenue and Emery Street, Longmont**

Did you know there are wild turkeys in Boulder County? Come learn why Benjamin Franklin thought the wild turkey should be our national bird instead of the bald eagle. Volunteer naturalists Gene Kraning and Sharon Bokan will share information about identification, unique features, and behavior. You will also learn about the turkey's habitat and foods, amazing recovery from over-hunting, and where you might find these unique birds.

### **Circle of Lakes Wintering Waterfowl Driving Tour**

**Saturday, November 13; 9:00am to 2:00pm**

**Meet at Cottonwood Marsh parking area, Walden Ponds Wildlife Habitat, west of 75th St. between Valmont and Jay Road**

Join volunteer naturalist Dick Pratt and others for this tour of local wetlands and reservoirs in Boulder County in search of returning ducks, geese, and other waterfowl. We will carpool from Walden Ponds looking for birds, learning about habitat, ecology, and behavior, and working on our observation and identification skills. Bring binoculars, spotting scopes, and a bird field guide if you have them. This tour is geared to adults and older children.

### **Birds of Prey Slide Program**

**Monday, November 15; 7:00pm to 8:30pm**

**REI Store, Community Room, 1789 28th Street, Boulder**

Join volunteer naturalists for the evening and learn how to recognize birds of prey—hawks, eagles, falcons, and owls—in the skies above Boulder County. During this slide presentation, you'll observe and learn how to distinguish between different raptors by identifying field marks, behavior, location, and time of year. You will also learn about the habitat requirements and ecology of these magnificent birds.

### **Birds of Prey Driving Tour**

**Saturday, November 20; 10:00am to 1:00pm**

**(Meeting location will be given to registered participants)**

Join Boulder County volunteer naturalists for a driving tour of some of Boulder County's best areas to view birds of prey, or raptors. We will carpool from our meeting place searching for raptors, learning about habitat, and working on our observation and identification skills. Bring lunch, drinking water, binoculars, a spotting scope, and a bird field guide if you have them. The tour is geared for adults and older children. Register by calling 303-678-6214 by Thursday, November 18.

## Nature Hikes for Seniors

Boulder County Parks and Open Space hosts a nature hike for seniors every month. Programs include information about an area's history, wildlife and current resource management projects. For more information, call 303-678-6214. Please call in advance if you plan to bring a large group, so we have enough naturalists at the program.

**Programs begin at 10:00am and end at noon.**

September 30	Walker Ranch Open Space (Meet at Meyers Homestead Trailhead)
October 28	Heil Valley Ranch Open Space (Meet at group picnic shelter near Lichen Loop Trailhead)
November 18	Rabbit Mountain Open Space

## Be a Volunteer Naturalist

If you enjoy exploring and sharing the natural wonders of Boulder County with others, become a Volunteer Naturalist with Boulder County Parks and Open Space!

As a volunteer naturalist, you'll co-lead nature hikes, present public slide and PowerPoint programs, and provide hands-on environmental field experiences for local groups.

Volunteering is a great way to learn more about your local open space. All volunteer naturalists participate in a 10-week training program. You'll learn about local history, geology, plants and ecosystems, forestry, wildlife and birds, agricultural lands and weed management, water resources, resource management activities, interpretive techniques and resources.

### Application Information

Participants must be at least 18 years old and attend all training sessions. Many of our requested programs are scheduled Monday-Friday during daytime hours, so applicants must have some ongoing weekday availability.

We're looking for people with a passion for nature, some knowledge of local natural history, and a strong desire to learn more and share their knowledge and enthusiasm with others.

**Application deadline is November 19.** Training will be held on Thursdays, 8:30am-4:00pm, January 13 through March 17, 2011 in Longmont. Please contact Larry Colbenson, Natural History Program Coordinator, at 303-678-6214 or lcolbenson@bouldercounty.org.

## Parks and Open Space is Online!

**Keep up with Parks and Open Space online. Don't miss a nature hike or indoor program!**

Sign up for a monthly email list of our events and programs!

1. Go to [www.bouldercounty.org/openspace](http://www.bouldercounty.org/openspace)
2. Click on **Hikes and Events** on the left side of the page.
3. Scroll to the bottom of the screen and enter your email address in the box to receive our listing of programs.

**Find Us On Facebook:** "Like" Boulder County Parks and Open Space to get the latest news.

**We're on Twitter:** Follow us from your Twitter account.

### Images Online

You can now receive *Images* via email! It will appear exactly as it does in print.

3 easy steps to sign up:

1. Go to [www.bouldercounty.org/lists/index.htm](http://www.bouldercounty.org/lists/index.htm)
2. Scroll down to Parks and Open Space and check the box next to **Images Magazine**.
3. Enter your email address at the bottom of the page and press the **Sign Up** button.

Optional – if you wish to stop receiving the printed version, please (please, please!) send an email to [swilliams@bouldercounty.org](mailto:swilliams@bouldercounty.org) so we can remove you from the mailing list. *This is very important so we reduce our use of paper!*

You will receive **ONLY 4** emails with the issue of *Images*.

Please note: *Images* is still available in printed version,

## Last Chance to Take a Tour of Boulder County Farms!

Boulder County Parks and Open Space, along with Colorado State University Extension, is conducting monthly tours to farms in Boulder County.

Tour participants learn about agricultural production systems and issues particular to open space lands. Guests travel in air-conditioned busses equipped with restrooms and an audio system. Drinks and snacks will be provided. Please wear sturdy shoes and dress for the weather.

Tours are not recommended for children under 12. Participating farmers will be available to answer questions.

The last tour is September 20, 5:00-8:00 pm.

**Registration for tours is required.** Register online at [www.bouldercounty.org/openspace/management\\_plans/cropland\\_policy/signup.htm](http://www.bouldercounty.org/openspace/management_plans/cropland_policy/signup.htm) or contact Jesse Rounds at 303-678-6271 or [croplandpolicy@bouldercounty.org](mailto:croplandpolicy@bouldercounty.org).



*Tour attendees learn about agriculture and visit with local farmers.*

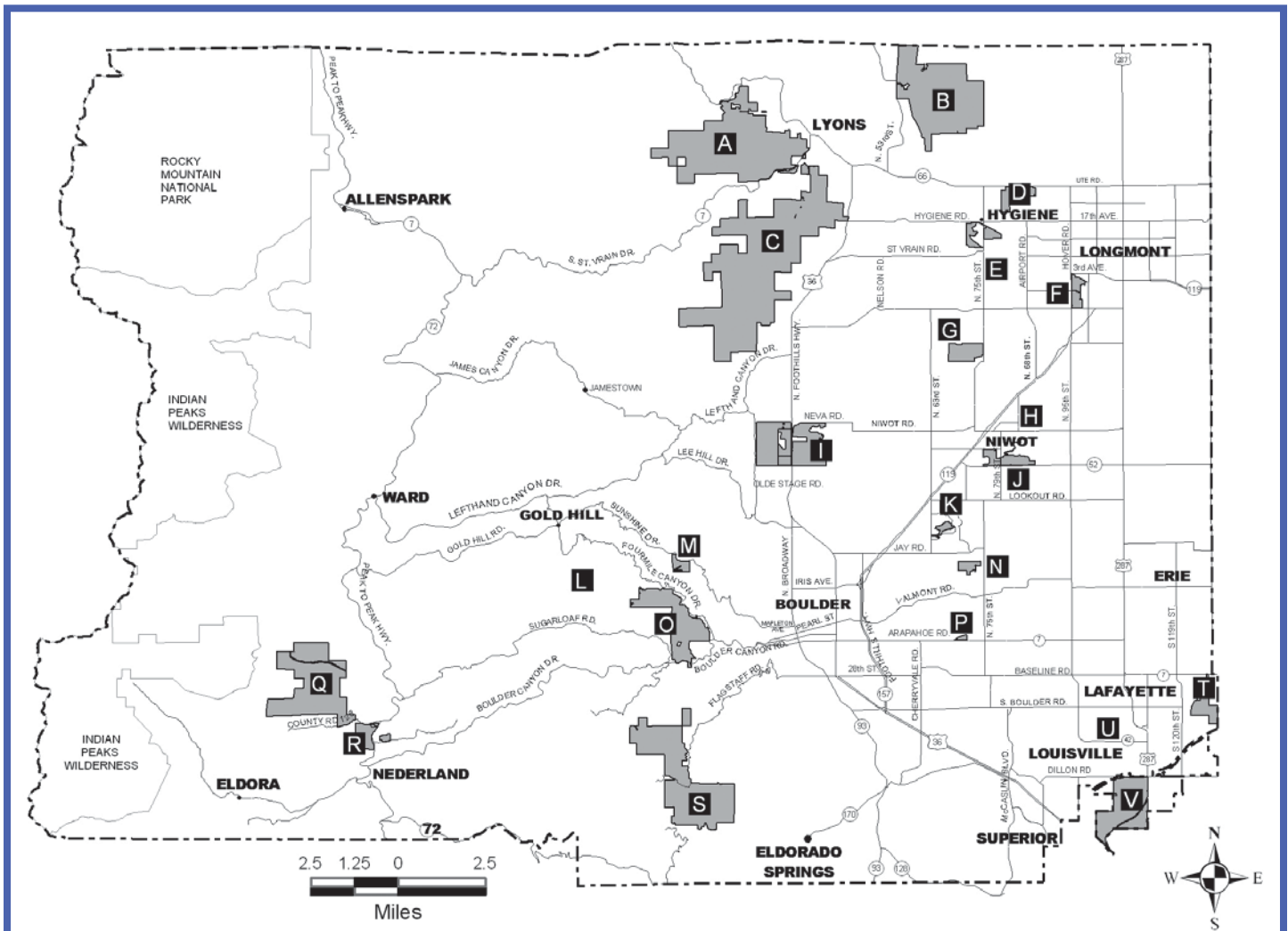




PARKS & OPEN SPACE DEPARTMENT  
5201 St. Vrain Road  
Longmont, CO 80503  
303-678-6200

[www.BoulderCountyOpenSpace.org](http://www.BoulderCountyOpenSpace.org)

PRSRT STD  
U.S. POSTAGE  
PAID  
BOULDER CO  
PERMIT NO. 485



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