

# IMAGES

NEWS   PROPERTIES   NATURE   HISTORY   EVENTS





# IMAGES

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

## PHOTOGRAPHS & ILLUSTRATIONS

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*Pika Illustration*, Roger Myers

## NATURE DETECTIVES

Katherine Young and Deborah Price

Illustrations, Roger Myers

## CALENDAR OF EVENTS

Larry Colbenson, Jim Drew, and Sheryl Kippen

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*Suggestions and comments are welcome.*

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Volume 40, number 4

# Partnership Initiative Celebrates 10th Anniversary

by Karen Imbierowicz

In 2018, Parks & Open Space celebrates the 10th anniversary of the Partnership Initiative. The program involves diverse businesses and organizations in the long-term stewardship of our parks and open space land through the annual participation in inspirational volunteer projects.

## A SEED WAS PLANTED

The Partnership Initiative was conceived in 2008 when our department's director met Brian O'Neil, the general superintendent of Golden Gate National Park in San Francisco who developed a partnership program to involve the community in long-term stewardship. That visit motivated Boulder County Parks & Open Space staff to expand our community partnerships beyond one-day group volunteer projects or individual volunteer opportunities to adding more long-term, ongoing projects for teams. The Partnership Initiative focuses on involving employees from businesses and members of organizations in the stewardship of our county land.

Today, we have over 50 groups committed to recruiting between eight and 40 members to engage in one of our high-quality and rewarding volunteer projects at least once annually. Over the last 10 years, our partners have contributed 40,000 volunteer hours—a value of almost one million dollars. More importantly, volunteers of all ages, from all parts of the county and beyond, and from a variety of different backgrounds have been involved in the many ways the department cares for its over 100,000 acres of open space and 110 miles of trails

## GETTING OUTSIDE

The careers of many of our partnership volunteers keep them indoors. Attorneys, executives, scientists, environmental consultants, students from middle school through graduate school, teachers, and other professionals report that it is a special treat for them to spend time outdoors building fences, thinning forests, and collecting seeds, among other projects. In some cases, these volunteers (who might not see each other in the course of a regular week) find themselves standing side-by-side, working together to plant a tree, construct a trail section, or engage in any number of stewardship tasks. They enjoy the guidance of our skilled volunteer coordinators who are experts at making the work educational, fun, and worthwhile.



Ten years of involving the public in annual stewardship projects has resulted in a constituency that understands and appreciates the work needed to care for our beloved public parks and trails. They care deeply for our open space and have a strong desire to protect it far into the future.

### THE PARTNERSHIP INITIATIVE TEAM

The success of the Partnership Initiative would not be possible without our talented and energetic volunteer coordinator team

which has grown from one and a half employees in 2008 to five team members today. Our team includes Ari Addes and Mike Rutter in the Recreation and Facilities Division, and Carrie Cimo, Shane Milne, and Amanda Hatfield in the Resource Management Division.

Boulder County Parks & Open Space greatly appreciates each and every partner and all of the work accomplished through their efforts!



### Learn More

To see a list of our partner businesses and organizations or for more information about how your organization can partner with us, please visit: [www.BoulderCountyOpenSpace.org/partners](http://www.BoulderCountyOpenSpace.org/partners).



Top photo: The Partnership Initiative was launched at the opening of the Picture Rock Trailhead in 2008.

Above: A partner organization helps with a planting project at Carolyn Holmberg Preserve at Rock Creek Farm.



# How Seeds Get Around

by Daryl Ogden

Every plant needs water, space, and sunlight to grow. Seeds dropped straight to the ground near adult plants face strong competition for these resources.

Some of the most inventive strategies used by nature to enhance survival have evolved to ensure plant seeds are dispersed in ways that enhance their chances for germination. These mechanisms vary from the simple use of gravity, wind, and water (singly or in combination) to move seeds, to the more complex adaptation of explosive pods that jettison seeds long distances.

## COMMON SEED DISPERSAL

### Wind Dispersal

Wind can carry seeds a long distance away from the parent plant depending on the size or weight of the seed. Plants like dandelions, milkweed, and cottonwood trees take advantage of tufts of hairs attached to their seeds called pappi. These pappi catch wind like little parachutes, allowing seeds to sail as far as 100 miles propelled by the wind.

Many conifers and deciduous trees like maple, sycamore, and ash have papery wings attached to their seeds that help them stay aloft in the wind long enough to move far away from the parent tree.

The Russian thistle bush dries out at the end of the growing season and separates from its roots, giving us the wind-blown tumbleweed famous in western cowboy films. Each time the dead plant bounces against an obstacle, some of its more than 200,000 seeds are scattered onto surrounding soil.

### Water Dispersal

This primary mechanism for moving seeds is more common to tropical and sub-tropical regions of the world. Large seed pods from coconut and mangrove trees can survive many miles of travel in water

before landing on distant sandbars and sprouting seedlings. Plants like cattails and willows that thrive in or near aquatic habitats produce seeds that first are dispersed by wind but can move in currents if they land in water.

## Biotic Dispersal

Animals of all kinds play important roles in distributing seeds. Mice, deer, squirrels, foxes, and bears eat seeds that travel through their digestive systems and excrete them in nutrient-rich scat piles throughout their habitats. Insects and bugs carry seeds that have fallen to nests where many of them sprout before they are utilized.

Birds eat fleshy fruits to obtain the nutrient-rich pulp that surrounds the seeds, but the seeds themselves are usually excreted by the birds in feces dropped miles from the parent plant. The Clark's nutcracker flies up to 1,000 miles each year with its mouth full of pinyon pine or lodgepole pine seeds that it hides along the way, burying as many as 100,000 seeds in 30,000 different locations. Although the nutcracker is very efficient at locating these seeds when hungry, the ones it forgets often sprout.



Look closely and you can see seeds catching a ride on this fur of this black bear.



Other seeds are covered by attachments with sharp, spiked ends or barbs that cling tenaciously to fur, feathers, or pant legs and are transported away from the parent plant before being dislodged to the ground. Interestingly, the hooked spikes on the seed-containing fruits of the burdock plant served as the inspiration for Velcro.

### Explosive Dispersal

This is one of the most fascinating methods of seed dispersal. Plants in this category, like the parasitic dwarf mistletoe that grows on western conifer trees, produce seed pods that warp as

they mature and dry out. This warping creates spring-like tension on the pod sheaths which ultimately burst with enough force to ballistically launch mucous-covered seeds at 60 miles-per-hour for up to 50 feet. Orange jewelweed and scotch broom employ similar mechanisms to disject seeds away from parent plants.

So the next time you are angrily pulling cockleburs from your socks after a hike, chuckle a bit at the role you have played in a survival process that is millions of years old.

## From the Archives: In the Words of Carolyn Holmberg

*This year marks the 20th anniversary of the death of Parks & Open Space Director Carolyn Holmberg who passed away on September 17, 1998. The following is an excerpt from a guest editorial Holmberg wrote for the Longmont Times-Call in 1985, the 10th anniversary of the Boulder County Parks & Open Space Department.*

What is county open space? Why do we buy it? And what do we do with open space once we have it? Although the questions are asked less frequently than they were several years ago, a continuing dialogue between citizens and their government only makes the open space program more reflective of community values.

The Boulder County Comprehensive Plan defines open space as those lands intentionally left free from future development, and the lands which the citizens of Boulder County identified as most important for preservation are shown on the open space plan. Some are buffers between communities while others may have historical significance, a critical environmental resource, or perhaps be valued as natural landmark or for scenic quality. In all cases, the areas proposed as open space have been those which citizens believed to be worth saving for future generations.

When the county acquires open space, a decision must be made as to how the property will be used. In a few instances – Rock Creek Farm in southeast Boulder County and Hillside Estate in Niwot being the primary examples – the county has leased the land to a farmer. This, of course, necessitates limiting public access, but at the same time it reduces the county's maintenance obligation and generates additional revenue from the lease payments. Most open space lands lend themselves to passive recreational use by the public. Walker Ranch and Betasso Preserve both have large shaded picnic areas and hiking trails.

South Boulder Creek, through Walker, is a popular area for hiking as well as fishing. Walden Ponds, reclaimed gravel pits on 75th Street south of Lookout Road, provides some of the best wildlife habitat in Boulder County. One pond is reserved especially for use by senior citizens and handicapped persons.

In some respects it can be said that preserving open space is a present-day investment in remnants of the past for present and future enjoyment. As urbanization spreads, the prime farmlands, historic ranches, quality fishing streams, critical wildlife habitats, and rural lands between communities become lost—consumed by development which provides both public benefits and public obligations to supply government services. The open space program does not halt urbanization; it does single out for preservation of those areas where urbanization would result in the greatest potential for irreparable damage to Boulder County's quality of life. By protecting some of the values which currently comprise that quality of life, today's citizens can assure that the county's attractive residential environment will be maintained for the enjoyment of future generations.

*Note: The preservation of Boulder County's open space land began as part of the ethic of conservation that started in the 1970s and flourishes today. You can watch a 15-minute video about the founders of the program at [www.bouldercounty.org/departments/parks-and-open-space/founders-legacy](http://www.bouldercounty.org/departments/parks-and-open-space/founders-legacy)*



# Back from the Brink—Close to the Edge

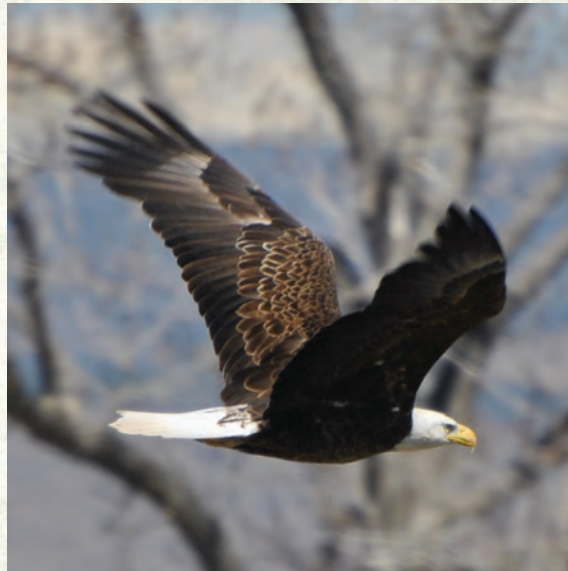
by John Reed Wier

The Endangered Species Act (ESA) created in the 1970s addresses an alarming loss of biodiversity. The ESA's primary goal is to prevent the extinction of imperiled plant and animal life, and also to recover and maintain those populations by removing or lessening threats to their survival.

Also in the 1970s, Boulder County created the Parks & Open Space Department, one of the first and largest open space programs in the country. Boulder County is where the Great Plains meet the mountains, hosting a great diversity of plants and wildlife habitats including species with threatened or endangered status. What has almost 50 years of ESA and open space protection done for biodiversity in Boulder County?

## A WILD SUCCESS

- A Center for Biological Diversity study found 93 percent of federally listed species were stabilized or improving since getting ESA protection and 82 percent were on track to meet recovery goals. When judged in the light of meeting the plan timelines for recovery, the ESA is remarkably successful despite significant underfunding of the law's vital measures and political attacks maligning the act itself.
- Here in Boulder County many of us thrill at the common sight of bald eagles and peregrine falcons. To have these species come back in numbers where you can see them on a regular basis is an amazing thing—these birds were on the brink of extinction!
- The U.S. Fish and Wildlife Service in June 2018 proposed removing ESA protections for the Colorado butterfly plant, a flower species that has made significant recovery thanks to this life-saving environmental law.
- The black-footed ferret was nearly driven extinct due to the elimination of prairie dog colonies by habitat destruction, shooting, and plague. It was thought extinct until 1964, extirpated from the wild in 1974, thought extinct again in 1979, then rediscovered in 1981. Due to specific recovery efforts, including the creation of a black-footed ferret breeding and reintroduction facility, this species is slowly recovering. Boulder County Parks & Open Space (BCPOS) is committed to being part of this recovery effort and is developing a plan towards the reintroduction of this species to open space.



- The U.S. Fish and Wildlife Service says a long-tailed mouse found only in Colorado and Wyoming will remain protected under the ESA. The agency, on June 18, 2018, rejected a petition filed by homebuilders and ranchers who argued the Preble's meadow jumping mouse shouldn't be protected.
- The State of Colorado and Boulder County have generated local protective laws, policies, and lists that complement the ESA.

## CLOSER TO THE EDGE

These efforts have saved hundreds of species from extinction, including some favorites like the bald eagle, but those success stories have been the exception rather than the rule. The list of endangered species has more than doubled in the past two decades as scientists survey more plants and animals, according to the International Union for Conservation of Nature. A "biological annihilation" of wildlife in recent decades means a sixth mass extinction in Earth's history is under way and is more severe than previously feared.

In Boulder County, there are 180 native species determined as sensitive, threatened, endangered, or extirpated on either county, state, or federal lists. The white-tailed jackrabbit, Canada lynx, Preble's meadow jumping mouse, river otter, American badger, Townsend

bat, porcupine, and black-tailed prairie dog are some of our local mammals of special concern.

Although 104,000 acres of BCPOS is protected, recent data shows that Boulder County's population grows by 10 new residents each day. Economic growth is taking an increasing toll on local land and species.

One level of truth seems to be, "things are getting better and better worse and worse faster and faster!" The ESA and inspired open space management are contributing to the "better and better," enhancing and protecting the larger body of life, bringing eagles and other precious life forms back from the brink...yet it is clearly not enough.

May we exceed the courage, inspiration, hard work, and dedication marshalled in the 1970s to ensure that as human population doubles in the next 50 years, a significant number of our species of concern will flourish as well. Supporting the ESA and open space helps!



# 100 Years Ago: The 1918 Flu Pandemic

by Robin Ecklund

2018 marks the 100th anniversary of the deadly influenza pandemic. A pandemic occurs when a new, deadly virus that the immune system has not encountered before spreads around the world. This influenza virus infected over 500 million people worldwide, killing between 50 and 100 million.

March 4, 1918 at Camp Fuston, Ft. Riley, Kansas began like any other day until the first soldier reported flu-like symptoms and was admitted to sick bay. Within two weeks over 1,100 men at Camp Fuston were hospitalized with thousands more sick in the barracks. The first wave of the 1918 Influenza Pandemic had begun.

American soldiers were being trained to fight as World War I continued to rage in Europe. It is likely that soldiers infected with the flu virus from Camp Fuston were transferred to other camps, spreading the disease. Modern transportation systems also hastened the outbreak. Infected soldiers and sailors traveled throughout the United States by rail and on to Europe amid crowded ships. They were housed in the close quarters of military camps further spreading the influenza. Not only did the allied countries receive help from the United States with the war effort, they got influenza! With the first wave, many were infected, but few died. Soldiers called it the “Three Day Fever.”

## THE SECOND DEADLY WAVE

The second wave of flu arrived in the summer of 1918 and was incredibly deadly. During August 1918, influenza killed 400,000 Americans. This influenza had become a true pandemic, attacking people as far away as Tahiti and India, and even the Arctic. Ten to 20 percent of those infected died. The virus affected not only the upper respiratory system but also went deep into the lungs, often leading to pneumonia. Surprisingly, this flu attacked those in the prime of life instead of targeting the very young and old. Young adults ages 21 to 29 were especially vulnerable. More American soldiers died as a result of the flu than by the war.

## IT CAME TO COLORADO

Colorado was not immune to the virus. Denver officials encouraged the use of face masks. Schools, theatres, churches, and other community events were closed or cancelled. Officials urged that the ill be quarantined so that sick room visitors would not spread the virus. People who had come to Colorado for the dry healing climate with respiratory ailments and miners with weakened lungs were especially at risk. Immigrant neighborhoods in Denver were hard hit. Over 3,000 Native Americans died in the Four Corners region of southern Colorado.

Some say that this influenza was no more virulent than other strains of flu, but felt that special circumstances accounted for the huge

number of fatalities. It is true that in the United States, many doctors and nurses were serving in the military, leaving overcrowded hospitals understaffed and unable to cope with the huge numbers of ill people. With little professional care, malnourishment of patients was common. As the disease spread across the U.S. so did fear. People were reluctant to care for sick friends and relatives, fearful that they too would come down with the disease.

Toward the end of 1918, the third wave of influenza began. Much to the relief of all, this was a milder form of the disease and passed quickly.

The deadly Influenza Pandemic of 1918-19 killed between 500,000 and 650,000 Americans. The epidemic lasted 15 horrific months, and then receded as quickly as it had come.



**Top photo:** Demonstration at the Red Cross Emergency Ambulance Station in Washington, D.C.

**Below:** Men wore masks to avoid the flu at a U.S. Army hospital.

## DISCOVER BOULDER COUNTY

# Calendar of Events

especially for  
seniors

### HIKE FOR SENIORS

Thursday December 27, 10 a.m.-noon

Ron Stewart Preserve at Rabbit Mountain, NE of Lyons on north 55th Street, meet at group shelter  
Join volunteer naturalists to learn about this area's geology, as well as history, plants, and wildlife. For more information, please visit [www.BoulderCountyOpenSpace.org](http://www.BoulderCountyOpenSpace.org), or call Larry Colbenson at 303-678-6214.

great  
for kids!

## Winter Heritage Day at Walker Ranch Homestead

Sunday January 27, 1-3 p.m.

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

What did pioneer settlers do in the winter? Learn about typical winter chores and indoor games when you explore the Walker Ranch Homestead. You'll see a working demonstration in the blacksmith shop and smell food being prepared on the wood-burning stove. Be prepared for cold, windy weather and to walk in snow. Please note: Dogs are not permitted at the site. For information, contact Sheryl Kippen at [skippen@bouldercounty.org](mailto:skippen@bouldercounty.org) or 303-776-8848.



### PRAIRIE WINTER HIKE

Sunday January 6, 1-3 p.m.

Near Broomfield. Space limited. Location provided to those registered.

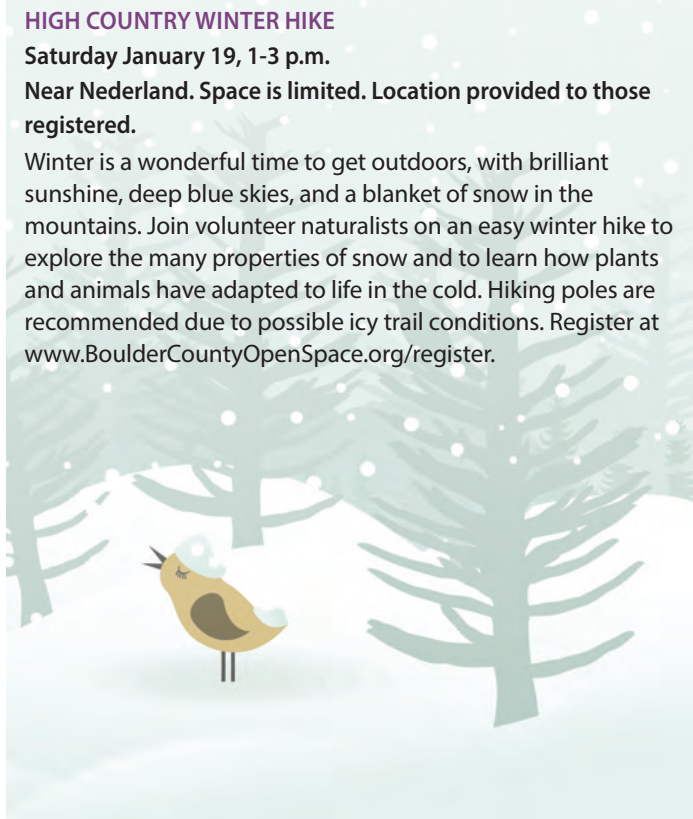
Learn how grassland and wetland wildlife respond and adapt to winter on the prairie along the Colorado Front Range. Volunteer naturalists will lead this easy walk to explore and learn about the different winter strategies employed by wildlife that migrate through or live year-round in prairie ecosystems. Register at [www.BoulderCountyOpenSpace.org/register](http://www.BoulderCountyOpenSpace.org/register).

### HIGH COUNTRY WINTER HIKE

Saturday January 19, 1-3 p.m.

Near Nederland. Space is limited. Location provided to those registered.

Winter is a wonderful time to get outdoors, with brilliant sunshine, deep blue skies, and a blanket of snow in the mountains. Join volunteer naturalists on an easy winter hike to explore the many properties of snow and to learn how plants and animals have adapted to life in the cold. Hiking poles are recommended due to possible icy trail conditions. Register at [www.BoulderCountyOpenSpace.org/register](http://www.BoulderCountyOpenSpace.org/register).



### 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](mailto:lcolbenson@bouldercounty.org).



# NATURE DETECTIVES



Winter 2018

## Pikas Squeak and Scurry on Rocky Slopes

Guinea-pig-sized mammals called pikas scurry among tumbled rocks in high mountain meadows. Despite their little rounded ears and squeaky calls, pikas are not related to mice or guinea pigs. Pikas are the smallest cousins of rabbits and hares.

Although pikas are cute and pint-sized, these furry critters are tough and well adapted to their rocky alpine habitat. They thrive in cold, snowy and windy places at elevations higher than trees can grow.



Scientists are investigating what will happen to pikas as earth's changing climate causes different weather conditions in the alpine tundra. Hotter summer temperatures and less winter snow could be a double whammy against survival for pikas.

### “Hay” Piles for Munching

Right now, it is winter and **this** pika is hungry. He scrambles up his tunnel through the snow pack to a stockpile of plant material he gathered during summer and early fall. His pile of twigs, grasses, leaves and berries is stashed under a rock overhang to help keep it dry. In this shelter, he munches on some dried leaves at the edge of his “haystack.” Between bites he watches for any weasel on the prowl for a pika meal.

### Snoozing Below the Snow

Once pika's hunger is satisfied, he will return to his den in the talus. Talus is a rockslide full of rocks that bounced, rolled and slid down a mountain or got pushed by a glacier. The jumble of boulders and broken rocks creates protective overhangs and spaces for escape tunnels and dens. It's a perfect pika home site.





## Winter Grazing

Pikas nap in winter but they do not hibernate. This pika will snooze and snack all season, insulated from the coldest temperatures by a deep snowpack.

On warm days, pikas nibble plants under the snow and graze lichens off rocks. Their front teeth are always growing and are worn down by all the tough chewing. Hay piles are insurance that pikas will have enough to eat all winter.

## Make Haystacks While the Sun Shines

Pikas start gathering flowers, twigs, bark, pine needles and other plant material in the summer. By fall they kick into high gear to build as many as three or four hay piles. Some large haystacks would fill up the basket of a typical grocery cart. A pika may make 14,000 round trips to the meadow to gather just one hay pile!



As they harvest vegetation, pikas scurry to lay each mouthful out in the sun to dry. Dried plants are more edible all winter than a slimy pile of vegetation that molds instead of drying. Sun-dried plant materials are added to a hay pile one mouthful at a time. Pikas build their haystacks in the shelter of the talus.



Neighbors will steal each other's stored food so pikas mark their stockpiles with urine and feces. Like all rabbits, they have two types of feces. They eat some of their partially digested soft feces for the nutrition left in the oval-shaped pellets. They don't eat the tiny, hard balls of completely digested feces.

## A Pika Colony Is Busy with Racing and Chasing

Individual pikas stake out a territory that has talus just right for runways and dens. A nearby meadow with flowers and shrubs for dining and harvesting is also a requirement.



Pikas mark their territory with urine and feces just like they mark their hay piles. They also rub their chins on surrounding rocks to spread scent from their cheek glands. With sharp barks they warn others in the group to back off from their territory or from a hay pile. If barking doesn't work, they will chase off intruder pikas and sometimes fight them. The colony is noisy with warning squeaks and alarm calls and other chatter. Their various calls are loud for such a little critter.



Despite living near each other, pikas aren't social. The only time individuals tolerate each other is when males and females pair up during mating season. The chosen mate is usually a next-door neighbor because neighbors recognize each other's familiar scent and voice.



## Safety in Numbers

Although pikas don't hang out with each other, individuals sound alarm calls to warn the whole colony when a predator appears. Pikas avoid being eaten by coyotes, pine martens, hawks and eagles if they can escape into their secure rocky runways in time. The first sharp-eyed pika to see an enemy squeaks a warning bark that is echoed by other pikas in the group as they all dash for safety.



Coyote



Weasel

The most dangerous pika predator is the weasel. Slim-bodied weasels slip easily through narrow spaces in the talus. The pika colony is typically silent as they scramble to escape an approaching weasel. No pika wants to draw the weasel's attention to its hideout with a squeak.

Camouflage may be a pika's best defense against becoming a predator's meal. Gray-brown pikas have a small round shape and are the color of lichen-covered rocks. One of their nicknames is *rock rabbit*. The tiny pikas are difficult to spot until they move or squeak. They only weigh as much as a half-cup of water!



## Rock Rabbits Don't Hop

Pikas can scurry fast, but despite being in the rabbit family, they seldom jump. Their furry footpads help keep them from slipping on slick rocks as they run.

Pikas are most active around their territory in the mornings, late afternoons and early evenings during warm months. When they are not gathering plant materials or nibbling plants in the meadow, they spend time basking in the sun. They retreat to the cool shelter of the talus when the day gets hot.

## New Members for the Colony

Female pikas usually give birth to three babies in a grass and fur lined den sometime between late spring and summer. The young are born blind and totally helpless. Dad pikas have no role in parenting, but the babies grow fast on their mother's milk. Their mom has to spend a lot of time in the meadow eating to have enough energy to feed her quickly growing offspring, but she sprints back to feed her babies every two hours. In one week the little pikas can walk and by six weeks young pikas are off and searching for their own space in the colony.

Young pikas born earliest in the summer have the best chances to secure a territory and make hay piles before cold weather arrives.

If pikas avoid disease, starvation, predators, overheating or freezing, they may live five to seven years.



Young pika looking for its own space



## “Ears” to You!

On the pika drawing, cover its ears with your fingertips and imagine it with long ears – now it looks like a rabbit! Ears allow all species of rabbits to hear well, but their ears also help regulate their body temperature. Rabbits can't pant or sweat so their ears help them shed heat and keep cool. Jackrabbits that live on hot, open prairies have the longest ears in North America. Pikas live where it is cold, and their small ears reduce heat loss to help keep their bodies warm.



We don't have long ears, but our arms are long. Think about being outside on a cold day. Hugging your arms close to your body helps you to stay warm. If you get hot, you might spread out your arms or even wave them to cool off.

## Hearing Danger

For small animals like pikas, hearing is important for avoiding predators. They need to listen for sounds all around them. Most animals with large ears can flex their ears in different directions to hear sounds better. Even though pika ears are small, they still have pretty big ears for such a little animal.

Try this: cup your hands behind your ears with your fingers facing forward. Listen to sounds in front of you, and then move your hands around to see what sounds you capture with your animal ears.



Yellow-bellied marmot

## Neighbors May Be Alarming

Pikas share their talus habitat with other mammals such as marmots. Each species has its own alarm calls, but the neighbors in the talus also pay attention to each other's calls to avoid being surprised by a weasel or other predator.

To read more about weasels and marmots in Boulder County go to the Nature Detectives page at <https://www.bouldercounty.org/open-space/education/nature-detectives/>. Find the **Nature Detectives Library** half way down the page and search for *weasel* to see the 2006 article, *Who Are You Calling a Weasel?* And search for *marmot* to see the 2016 feature, *Sweet Dreams, Yellow-bellied Marmot*.



## We Eat Dried Plants Too

Pikas dry their food so it doesn't rot and will last through the winter. Look in your kitchen to see if you can find herbs like parsley, sage, rosemary or basil. Most likely these are dried and don't look much like the plants they came from.

What other things do you eat that are dried?  
What are other ways to preserve food?



Text by Katherine Young and Deborah Price  
Illustrations by Roger Myers



## Calendar of Events

### TRICKSTER TALES HIKE

Saturday February 2, 1-3 p.m.

Near Lyons. Space is limited. Location provided to those registered.

Coyotes live throughout most of North America and coyote tales are found in many native cultures. Join volunteer naturalists for a moderate hike to learn more about this clever, adaptable character. Hiking poles are recommended due to possible icy trail conditions. Register at [www.BoulderCountyOpenSpace.org/register](http://www.BoulderCountyOpenSpace.org/register).

great  
for kids!

### NATURE DETECTIVES: LET'S HEAR A SQUEAK FOR PIKAS!

Tuesday February 12, 3:30-5 p.m.

Near Longmont. Space is limited. Location provided to those registered.

Tiny pikas are related to rabbits, but they are well-equipped to survive the harsh alpine tundra. Discover how these little critters store food, avoid danger, and thrive in the cold climate through stories, photos, and hands-on activities. For ages 5-10 with an accompanying adult. Register at [www.BoulderCountyOpenSpace.org/register](http://www.BoulderCountyOpenSpace.org/register).



### SIGNS OF LIFE—WILDLIFE & WINTER HIKE

Saturday February 16, 1-3 p.m.

Near Nederland. Space is limited. Location provided to those registered.

Join volunteer naturalists for a hike in the high country to look for signs of wildlife activity, including tracks, scat, feathers, fur, and browse marks on trees. We will also learn about the many ways that wildlife survives winter in the Rocky Mountains. Ski or hiking poles are recommended due to possible icy trail conditions. Register at [www.BoulderCountyOpenSpace.org/register](http://www.BoulderCountyOpenSpace.org/register).

## Junior Ranger Adventures

Winter Olympics

Saturday March 2, 11 a.m.-1 p.m.

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

Registration required.



Calling all snow-loving kids! Blizzards, snow drifts, frozen lakes, and icy trails are all part of the wintertime outdoor experience. The Boulder County Parks & Open Space rangers want to help you be safe and prepared for all the adventures the cold weather can bring. Your winter adventure day will include ice safety, building a snow shelter, and learning winter survival skills. Then warm up by the fire with hot cocoa and s'mores! Be prepared for the weather by wearing warm clothing (snowsuits and snow boots are highly recommended) a winter hat, and gloves.

Junior Ranger Adventures is perfect for kids ages 5-12, but all family members are welcome. An accompanying adult must be present. If you have questions, contact Ranger Erin Hartnett at 303-678-6211 or [ehartnett@bouldercounty.org](mailto:ehartnett@bouldercounty.org). Register by March 1 at [www.BoulderCountyOpenSpace.org/register](http://www.BoulderCountyOpenSpace.org/register).



## BIRDS OF PREY SLIDE SHOWS

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

Louisville Public Library, 951 Spruce Street

—and—

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

Lafayette Public Library, 775 West Baseline Road

Learn how to recognize birds of prey, or raptors—hawks, eagles, falcons, and owls—in the winter skies above Boulder County. During this slide presentation, you'll observe and 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 15, 9 a.m.-noon

Saturday January 12, 9 a.m.-noon

Saturday January 26, 9 a.m.-2 p.m. (extended tour)

Saturday February 9, 9 a.m.-noon

Saturday February 23, 9 a.m.-2 p.m. (extended tour)

Space is limited. Location provided to those registered.

Join volunteer naturalists for a driving tour of some of Boulder County's 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 our observation and identification skills. Bring water, a snack or lunch, binoculars, spotting scopes, and a bird field guide if you have them. For ages 10 and older with an accompanying adult. Register at [www.BoulderCountyOpenSpace.org/register](http://www.BoulderCountyOpenSpace.org/register).

## Never Miss a Program

Throughout the year Boulder County Parks & Open Space offers many programs each month.

There are many ways to keep up-to-date on our hikes and programs.

### Online:

Visit [www.BoulderCountyOpenSpace.org/events](http://www.BoulderCountyOpenSpace.org/events) for a listing of programs.

### Email:

Sign up to receive one email per month listing our events. Visit [www.BoulderCountyOpenSpace.org/events-email](http://www.BoulderCountyOpenSpace.org/events-email) to sign up.

### Images Magazine:

Did you pick up this issue of Images at a program or other outlet and would like to subscribe? You can subscribe to Images online or via mail so you don't miss an issue.

- Images by mail: Subscriptions are free to Boulder County residents. Contact us at [swilliams@bouldercounty.org](mailto:swilliams@bouldercounty.org).
- Images online: Visit [www.BoulderCountyOpenSpace.org/images](http://www.BoulderCountyOpenSpace.org/images) and enter your email address in the space provided. You will receive only four emails per year with the issue of Images.



## Suit Yourself!

## Request a Program for Your Group



Any group (school classes, boy scout troops, summer camps, senior groups, book clubs etc.) can request a history or nature program.

Whether you would like a classroom visit, field trip to a county open space property, or a museum program, let us create a program tailored to your group.

We do request 4 weeks notice for scheduling, and we take reservations up to one year in advance.

### Contacts for program requests:

Nature programs:

Larry Colbenson, [lcolbenson@bouldercounty.org](mailto:lcolbenson@bouldercounty.org) or 303-678-6214

History programs:

Sheryl Kippen, [skippen@bouldercounty.org](mailto:skippen@bouldercounty.org) or 303-776-8848

Agricultural Heritage Center programs: Jim Drew,

[jdrew@bouldercounty.org](mailto:jdrew@bouldercounty.org) or 303-776-8688



## Accepting Small Grant Proposals

Each year, the Boulder County Parks & Open Space Department awards small grants for research and biological inventories on Boulder County open space lands. These research projects and inventories provide valuable data to monitor management practices and improve resources and park visitor experiences. The deadline for proposals is **Monday, January 14, 2019**.

- Grants are awarded up to \$10,000
- Preference will be given to proposals that address the priority research topics, but all proposals will be considered.
- We strongly encourage you to contact appropriate staff members to discuss research topics in advance of the deadline.

Research proposal requirements, priority research topics and past research project reports can be found on the department's webpage at [www.BoulderCountyOpenSpace.org/research](http://www.BoulderCountyOpenSpace.org/research).

## See Behind the Scenes: Parks & Open Space Advisory Committee Meetings

Want to learn more about Boulder County Parks & Open Space? Visit a meeting of the Parks & Open Space Advisory Committee (POSAC).

This committee reviews proposals and advises Parks & Open Space staff, Boulder County commissioners, and the Boulder County Planning Commission on open space issues, new land acquisitions, and the management of existing properties.

Public participation during meetings is encouraged, and limited to a maximum of five minutes on any one issue. If you need special assistance to attend a meeting, please contact Human Resources at 303-441-3525 at least 48 hours before the scheduled event.

Sign up to receive the agenda for upcoming POSAC meetings at [www.BoulderCountyOpenSpace.org/posac](http://www.BoulderCountyOpenSpace.org/posac).

### UPCOMING MEETINGS:

- Thursday December 20, beginning at 6:30 p.m.
- Thursday January 24, beginning at 6:30 p.m.
- Thursday February 28, beginning at 6:30 p.m.

Boulder County Courthouse, Commissioners' Hearing Room,  
1325 Pearl Street, Boulder

## Critter Snap: Citizen Science

Critter Snap is your chance to be a citizen scientist. Volunteers for this program view wildlife photos collected on Parks & Open Space properties and help categorize them.

The photos offer a glimpse into the world of wildlife right here in Boulder County.

Our camera surveys contribute to the baseline knowledge gathered for properties currently closed to the public for management review, conservation concerns, new acquisition status, and other special projects.

It's easy to participate. You can access the wildlife photos from your home computer, and there is no required amount of time you need to spend. And you don't have to be a wildlife expert to contribute. As you identify animals in the photos, you have many choices and help and are asked to make your best guess.

Visit <https://www.BoulderCountyOpenSpace.org/wildlife> then click on Critter Snap.



A bobcat caught prowling by one of our hidden open space cameras.

## Support Colorado's Endangered Wildlife on Your Tax Return

Help threatened and endangered wildlife with a voluntary contribution through the "nongame and endangered wildlife cash fund" on your Colorado tax returns this year.

The voluntary contribution on your Colorado tax form supports wildlife rehabilitation and preservation of threatened and endangered species in the state through Colorado Parks and Wildlife programs.

Funds go to projects that manage or recover wildlife including birds of prey, lynx, river otter, black-footed ferret and others. The nongame and endangered wildlife cash fund will also help to support wildlife rehabilitation centers that care for injured and orphaned wildlife ranging from the Colorado chipmunk to the great blue heron.



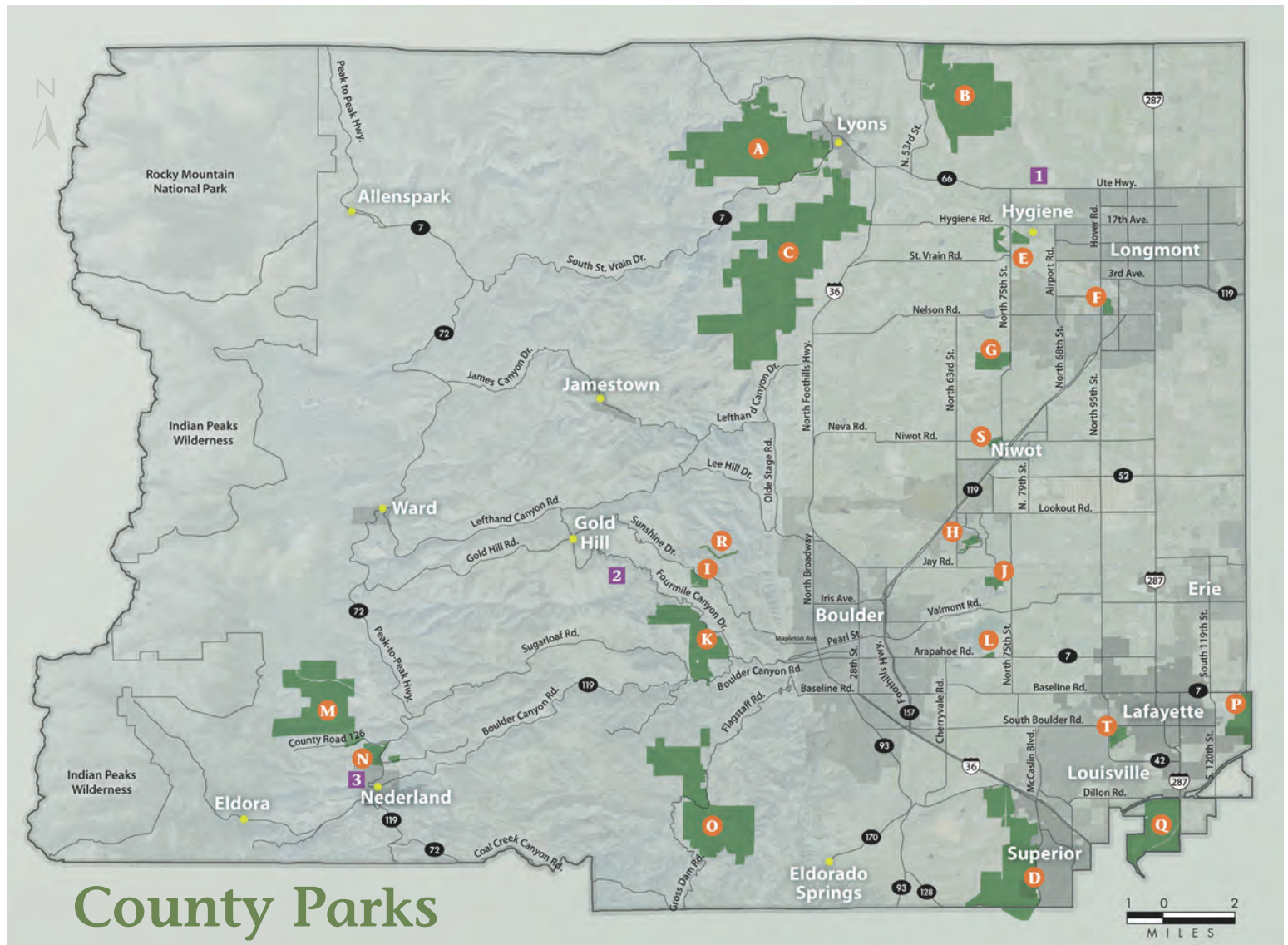


## Parks & Open Space

5201 St. Vrain Road, Longmont, CO 80503

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

303-678-6200



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|--|--|---|--|
| <b>A</b> Hall Ranch                              | <b>F</b> Boulder County Fairgrounds    | <b>L</b> Legion Park                                  | <b>R</b> Anne U. White (closed)              |
| <b>B</b> Ron Stewart Preserve at Rabbit Mountain | <b>G</b> Lagerman Reservoir            | <b>M</b> Caribou Ranch                                | <b>S</b> Dodd Lake                           |
| <b>C</b> Heil Valley Ranch                       | <b>H</b> Twin Lakes                    | <b>N</b> Mud Lake                                     | <b>T</b> Harney Lastoka                      |
| <b>D</b> Coalton Trailhead                       | <b>I</b> Bald Mountain Scenic Area     | <b>O</b> Walker Ranch                                 | <b>1</b> Agricultural Heritage Center        |
| <b>E</b> Pella Crossing                          | <b>J</b> Walden Ponds Wildlife Habitat | <b>P</b> Flagstaff Park                               | <b>2</b> James F. Bailey Assay Office Museum |
|  | <b>K</b> Betasso Preserve              | <b>Q</b> Carolyn Holmberg Preserve at Rock Creek Farm | <b>3</b> Nederland Mining Museum             |