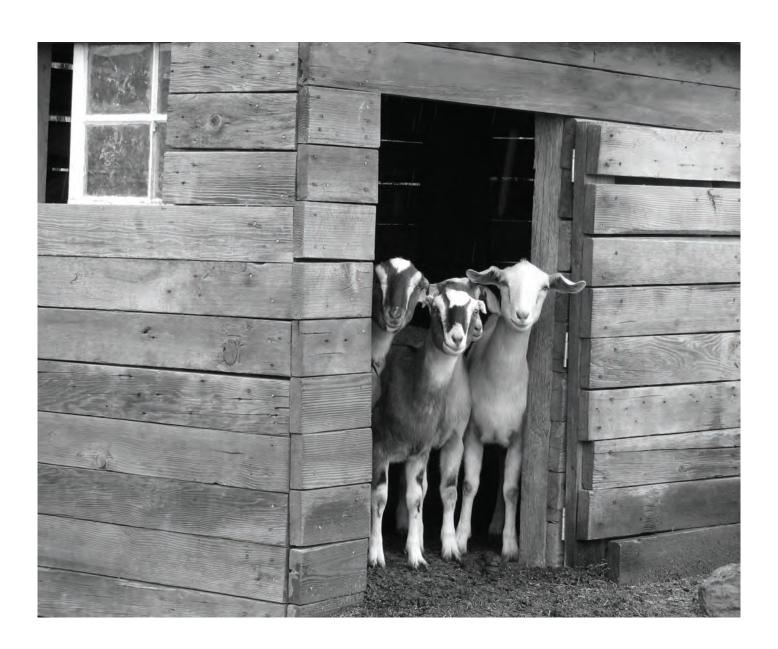


OF BOULDER COUNTY PARKS AND OPEN SPACE



spring 2013

Images

volume 35, number 1

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: Goats at the Agricultural Heritage Center. Photo by Jim Drew

PHOTOGRAPHS & ILLUSTRATIONS

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PRINTING

Boulder County Printing Department

EDITORS

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

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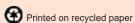
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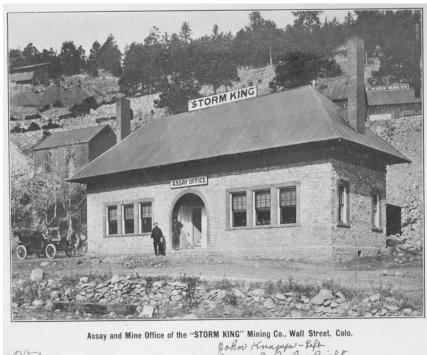
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Wall Street: A Hidden Gem



John Knapp - Seft James E. Bailey Right Photo

In 1857 gold was found in Cherry Creek, in present-day Denver, luring thousands of people to the Rocky Mountain region. One party, led by Thomas Aikens, departed from the stream of gold-seekers and camped near Red Rocks at the mouth of Boulder Canyon in 1858. That fall and winter they started prospecting Boulder, Four Mile, St. Vrain, and Sunshine creeks. In mid-January of 1859, while prospecting on Four Mile Creek, a significant amount of "color" was discovered. The digging, called 12 Mile Diggin's, was the beginning of the discovery of significant lodes and the discovery of the town of Gold Hill.

Experienced miners and people with golden dreams came west to find a new future. Some came west in search of job security and a good wage, others came for adventure or to fulfill their dreams of upward mobility. Many people did not see mining as permanent endeavor, but expected to get rich quick and move on to stable life. Prospectors and miners (often bachelors) filtered up Boulder County's canyons in "search of color." A few struck it rich and many survived on the dreams of getting rich. New camps and towns were established then disappeared with the boom and bust cycles of the mining industry. Wall Street is one of the camps that survived through the years, tucked away in a wide spot in Four Mile Canyon.

Wall Street History

The mining camp had its beginnings with the arrival of Gardner P. Wood around 1866 when the vicinity was known as Sugar Loaf, named after the prominent mountain in the area. As the years went by, two separate communities grew, one at the base of Sugar Loaf Mountain and one at the top.

In 1891, a disagreement began over where the post office would be located. During this four-year dispute, the mountaintop settlement was known as South Sugar Loaf and the base camp remained known as Sugar Loaf. Finally, in the winter of 1895, two post offices were operating and boardinghouse keeper Mary Collie convinced her neighbors to change their town's name to Delphi. This name wouldn't last for long. Charles W. Caryl appeared in Boulder County in the spring of 1897. "Caryl was outfitted splendidly always, had a fine carriage, and a set of blonde whiskers that were the envy of men everywhere." He worked fast, quietly, and Boulder County could only guess what he was up to. A newspaper reported: "What does it mean? A man named Caryl has bought the Collie place on Four Mile Creek and has fixed it up nicely. He has, so it is said, purchased and paid cash for some 40 mines and prospects on the other side of the creek... The neighborhood is to be known as Wall Street... The affair looks like a gigantic one. Mr. Caryl says very little, keeps his own counsel, and pays as he goes along. There is no telling what may be developed up there."

Caryl quickly established the Wall Street Townsite Company, the Nancy Gold Mining and Milling Company, the Wall Street Tunnel Company, and the Gold Extraction Mining and Supply Company. The town was platted under the name of Harry S. Badger, the superintendent of the mining and supply company.

From the spring of 1897 until the summer of 1899 Caryl's companies enlarged Mary Collie's boarding house creating the Wall Street Hotel, and built the Wall Street Mercantile and the Assay Office plus various cabins and storage buildings. On the 1899 Tax Roll, President Caryl of the Gold Extraction Mining and Supply Company owned all six blocks of Wall Street, nine structures, and 23 mines for a total taxable value of \$6,500.

Charles Caryl had a vision and must have been a charismatic speaker for he was able to convince many people (mostly New Yorkers) to invest in his grand plans, but his dream began to unravel in 1899 when Mrs. Mary Williams, a wealthy 70-year-old widow, filed a law suit saying she had been swindled out of \$130,000. Mrs. Williams died the following month. Caryl settled the suit out of court with the Williams' family heirs by giving them numerous mines and all of the Wall Street Townsite west of Third Street, which included the land on which the Assay Office sat.



At the Assay Office, visitors can see artificacts used during that time in history.

Interested in Hard Rock Mining?

Visit the Assay Office Museum

The building at this site served as both an assay office and family residence, and the museum depicts both functions.

Admission is free and all ages are welcome.

The museum is open 10:00am to 2:00pm on the third Saturday of the month, April through October.

Check Out the Virtual Hard Rock Mining Tour

Go online and explore the fascinating history of hard rock mining in Boulder County. The web-based tour explores the history of Boulder County's hard rock mining through historical and present-day photos, videos, oral histories and an interactive map that includes mining and milling sites, and the Switzerland Trail Railroad line.

Visit www.BoulderCountyOpenSpace.org/hrmt

In March of 1900 the newspapers reported that Charles Caryl was planning to build a \$100,000 mill at Wall Street, but his finances and plans were unraveling rapidly. By the end of 1902 Caryl had sold or lost most of his Wall Street property. A new Boston-based organization, "The Wall Street Gold Extraction Company," bought from the Williams estate: Caryl's Assay Office, the lots to the west, and the land marked "Reserved."

It took them 22 months to build their enormous mill on the land, and for a time Wall Street was the center of attention in the Boulder County mining districts. "Some [tourists saw] the mill illuminated at night by its hundreds of electric lights, providing such a beautiful evidence of new life and vigor to this section."

The \$150,000 mill was a failure, sold at a bankruptcy sale in 1907. It was dismantled for lumber and machinery to be used primarily in the U.S. Gold Corporation Mill on Sugar Loaf. It was from this company that the Bailey Family acquired the Assay Office in 1909. Even though Caryl's grand plan never came to be, and even though the Wall Street Gold Extraction Company Mill failed, many mines in the Wall Street area were successfully operated from the 1860s until the Gold Mine Closing Order (L-208) of 1942.

The Assay Office is the only structure in Boulder County built by Caryl, and the only building associated with the Wall Street Gold Extraction Company Mill, which has survived intact and virtually unchanged.

Visiting Wall Street today is a peaceful drive up a winding road. Most of the buildings from the mining days are lost; some may remain as part of a house or cabin. The assay office is one building that retains almost all of its character from the mining days due to the care of the Bailey family.

Coyote: Wildlife in in the City

by Christina Papastathis

The other night I woke up to the sounds of the yipping and howling of coyotes playing in the open space near my home. This time of year coyotes can be seen and heard in our open spaces, parks, and neighborhoods.

Coyotes are seen as either a menace or a marvel. Native Americans call them the smartest animal on earth. Considered to be one of the most adaptable animals on the planet, coyote pups that are born in urban areas are more likely to live into adulthood than those born in undisturbed areas.

According to mythology, the coyote is known as a "Trickster God," and is famous for his adaptability, ego, humor, insight, and mischievous playfulness. The coyote symbolizes the earth, duality and balance and he has the unique ability to present both sides of an issue.

In the wild, coyotes are less inclined to be visible when humans are present. Accustomed to being shot on site, they remain elusive to hunters. They have even reportedly dug up traps set to capture them and defecated on the contraptions.

Attacks: Causes and Prey

In populated areas, coyotes are less threatened by humans and have a menacing presence. Pets, especially cats and small unattended animals, are commonly attacked by coyotes, with approximately one report per month. According to Michael Seraphin of Colorado Parks and Wildlife, many attacks do not get reported. Cats and dogs can be attacked and killed in yards or while walking with their owner, though being close to a human can be a deterrent.

Coyotes have also been reported to attack adults, though attacks on small children are more common. However, attacks on people are rare; more commonly it is reported that coyotes will follow joggers out of curiosity or to protect their den of pups. Coyotes may be seen in yards and streets scavenging for garbage or searching for prey.

Attacks fall into five categories: defensive, rabid, pet related, investigative and predatory.

Coyote mating season is from January to March. Coyotes remain pregnant for 63 days before giving birth to a litter of three to 19 pups. One of the few monogamous animals seen in the wild, female coyotes begin breeding at approximately two years of age and the male can breed after his first year. During the winter, they feed during the day where food is easily found. Like all animals, coyotes are protective of their dens and pups and will behave much more aggressively if they are encroached upon.



Hazing

Colorado has been educating the public about how to cohabitate with coyotes and alter their behavior through hazing. Hazing retrains coyotes to avoid humans using techniques that deter the coyote from returning. One hazing technique is making loud noises until the coyotes retreat. It has proven to reduce aggressive behavior by coyotes as much as 75 percent since being implemented in Denver.

Though coyote attacks cause public alarm and outrage, a child is 207 times more likely to be attacked by a dog. Coyotes weigh between 20 and 45 pounds and will target small animals before children for prey. They are a vital part of the ecosystem reducing populations of mice, moles, prairie dogs, skunks and raccoons. They are middle manage-

ment predators, according to Mary Ann Bonnel, senior natural resource specialist in Aurora, who leads Aurora's successful aggressive hazing program

Whether you love them or hate them, coyotes are part of our urban and suburban ecosystem and are here to stay. They are adaptable, resourceful and quickly change their behavior to survive in any condition. Learning to coexist is key to the safety of people who have moved into what was once only coyote territory.

As I listen to the howls of the coyotes across the road, it sounds as if there are hundreds of voices praising the moon. In fact, it is more likely there are only a handful of coyotes, playing, frolicking and mating in the winter nights. The haunting sound brings me an impression of magic, a sense of being in the wild, and an appreciation for the beautiful, untamed area we live in.

If a coyote approaches you:

- I. Do not run or turn your back to them.
- 2. Make loud noises and clap your hands to scare them off.
- 3. Wave your arms to make yourself larger.
- 4. If attacked, fight back.
- 5. Throw things at them.

How to avoid coyote conflict:

- 1. Keep lids on your trash cans.
- 2. Do not leave pet food and water outside.
- 3. Keep pets indoors, particularly from dusk to dawn.
- 4. Cover your compost heap.
- 5. Keep your dog on leash while walking or jogging.
- When walking, jogging or hiking, wear a whistle to blow if approached by coyotes as a deterrent.
- 7. Fence your yard.

Open Space Planning

The Boulder County Parks and Open Space Department uses planning documents to outline appropriate uses of open space and guide natural resource management. These documents are updated (or amended) as new research, land acquisitions or management needs arise. Here is a list of current planning projects:

Cultural Resources Management Policy:

A draft policy is being created by staff and will be available for public review in the spring of 2013.

Grassland & Shrubland Management Policy:

The policy will provide comprehensive guidance for the management of grasslands and shrublands on properties owned by Boulder County. Once complete, the policy will provide a framework for consistent grassland and shrubland management and improve management efficiency.

Platt Rogers / Reynolds Ranch Management Plan Update:

These properties are located in upper Boulder Canyon and near Magnolia Road. Scoping for this plan is underway and will continue through the spring of 2013. We are working with the U.S. Forest Service to develop an approach for trail system planning in the Reynolds Ranch area to incorporate into the plan update.

St. Vrain Greenway Regional Trail:

The trail will provide a connection between the City of Longmont and the Town of Lyons through the St. Vrain River valley.

Walker Ranch Management Plan:

We are working to take the ideas and input from the open house held in November 2012 to develop a number of management alternatives. These alternatives will address the many different management areas for which the county is responsible. Once we have developed and approved these alternatives, the plan will be presented to the public for review and comment.

Want More Details?

You can sign up to receive email updates about management policies and plans at www.bouldercounty.org.

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 2012 study conducted by Paula Fornwalt of U.S. Forest Service, Rocky Mountain Research Station. Her project focused on the impacts of seeding and seeding plus mulching treatments on exotic plant invasion and native plant recovery following the 2010 Fourmile Canyon Fire.

Abstract: Following the 2010 Fourmile Canyon Fire, 170 ha (422 ac) of moderately and severely burned areas were seeded with a mixture of quick growing grass species to provide exotic plants with competition during the first few postfire years. Additionally, some seeded areas were also mulched for runoff and erosion control. We established a network of unburned (UNBURN), burned only (BURN), burned and seeded (SEED), and burned, seeded, and mulched (SEED-MULCH) plots to (1) quantify seeded grass germination and establishment, (2) assess the impacts of seed and seed plus mulch treatments on exotic plants, and (3) examine if native plant recovery is impacted by seed and seed plus mulch treatments. We found that the seeding treatments, both alone and in combination with mulching, had no impact on exotic plants during the first postfire year, probably because seeded grass and mulch cover were generally low. The native plant community also appears to be largely unaffected by the treatments at

this point in time. Our results provide Boulder County Parks and Open Space with scientific data on the effectiveness of postfire seeding and seeding plus mulching treatments at meeting treatment objectives in the first postfire year. In view of the considerable cost of postfire rehabilitation activities, we recommend that additional work be conducted over the next few critical postfire years so that longer-term trends can be identified.

Conclusions: Our results provide Boulder County Parks and Open Space with scientific data on the effectiveness of postfire seeding and seeding plus mulching treatments at meeting treatment objectives in the first year following application. We found that the seeding treatments conducted within the Fourmile Canyon Fire, both alone and in combination with mulching, appear to have had no impact on exotic plants during the first postfire year, probably because seeded grass and mulch cover were generally low. Fortunately, the native plant community also appears to be largely unaffected by the treatments at this point in time. In view of the considerable cost of postfire rehabilitation activities, it is important that future work be conducted on the effectiveness and the ecological impacts of these treatments over the short and long-term.

If you want to read the full report, or other funded research, visit the department's website at www.bouldercounty.org/os/culture/pages/posresearch.aspx

What's Behind the Folklore?

by Carey Mott

Ever seen a sunrise in the early morning hours, before anyone else is awake, and the sun and the sky greet you? Ever stood on a mountain and stared into the clouds and found yourself face to face with a terrible dragon or an adorable pig floating across the sky? To earlier sailors, farmers, and townspeople, these beautiful vistas and serene days were not just gifts of nature, they were tools and could often be just as comforting and entertaining as they could be terrifying.

Before the invention of the mercury barometer in the 17th century, people needed a way to share what

they learned of weather systems. They did so with adages and proverbs that are still well known today.

For instance, most know *Red sky at night, sailor's delight, Red sky at morning, sailors take warning*. Weather systems usually travel from the golden shores of western America, across the plains, and dump their remaining pressure in the east. Those beautiful mornings when the sun rises over Kansas occur when the sun illuminates the undersides of clouds coming from the west. If the morning sky is red, there are clear skies to the east. However, if the *evening* sky is red, sunlight must have a clear path to the west.

That pinkish streak across the sky at twilight is called the Belt of Venus. When the sun is rising or setting, the light must pass through this thick atmosphere and in doing so it scatters the shorter wavelengths of the visible spectrum. Since red is the strongest wavelength of the spectrum, the mornings and evenings can often be laden with this breathtaking indicator of fair or inclement weather.

When a halo rings the moon or sun, rain is approaching on the run. A halo around the sun, known as a solar halo, or around the moon, known as a lunar corona, is an indicator of an active weather system moving in. The refraction of the light by ice crystals at high-altitudes creates a ring, or halo, around the celestial bodies.

No weather is ill, if the wind is still. High-pressure areas are regions of descending air and therefore discourage any weather phenomenon such as clouds, wind, or rain. The phenomenon known as "calm before the storm" occurs when a large thunderstorm cell to the west updrafts the westerly surface wind before it arrives. However, the storm can almost always be seen by looking to the west.

While the sky has its fair share of weather indicators, it didn't take long for man to realize that the animals they domesticated knew more about the weather than they did. Farmers watched their cows turn their backs to the wind and witnessed a storm arrive from the east shortly after.



Clouds loom over the Ludlow property.

They then concluded that,

A cow with its tail to the West makes the weather best; a cow with its tail to the East makes the weather least.

Only a strong weather system could push east against the normal westerly weather patterns. Gulls remain grounded when the wind blows too hard, and birds frequent domestic feeders as a storm approaches.

However, due to geographical differences including proximity to large bodies of water or mountain ranges, different countries have adopted different adages. For instance,

those in the Southern Hemisphere experience the opposite direction of weather systems than those in the North, and therefore all of the common adages of the north must be reversed to their opposite in regards to the south.

Of course, some lore is indeed tale. Sadly, the groundhog does not predict the duration of winter, nor do onion skins. Beyond the chance predictions that may occur, March doesn't come in like a lion and leave like a lamb with any reliability, and rain won't clear by eleven if it starts before seven.

But some of the most unlikely tales have turned out to be plausible. Medical studies have proved that, "a coming storm, your shooting corns presage, and aches will throb, your hollow tooth will rage." Indeed, a drop in atmospheric pressure dilates blood vessels and exacerbates bodily pains.

Throughout history, tales and stories have often carried valuable lessons with them. The adages and proverbs of weather lore hold some truth and are still used today. With on-demand weather, barometers when we need them, and the ease of predicting weather weeks or even months ahead, we have no need to use the clouds or the animals for what they once were. But if you've ever watched the sun rise over Kansas or seen it set behind the Rockies, or gazed up into the clouds to discover the fantasies they hold, you're seeing nature just as those generations before us saw it.

Growing up in the east, summers were hot and humid and nights were always spent drawing what little draft there was from the open window, letting the crickets sing you to sleep. We knew it was hot, but did you know that you can actually tell the temperature from the cricket's chirps? If you count the chirps for 14 seconds and then add 40, you will have a rough idea of the temperature (in Fahrenheit) wherever in the woods that cricket is chirping.

Field Notes

A Day in the Life of a Wildlife Specialist

I needed to go to Heil Valley Ranch to relocate several transect points for some monitoring. Transects are marked-off plots where we check for signs that Abert's squirrels have been present and feeding.

I have 32 points that mark the starting corner of transects that examine Abert's squirrel use of forest stands. These transects detect feeding sign in forest stands that are or will be subject to forest treatments (thinning). We are trying to learn how the intensity/extent of the treatment affects the stand's suitability as squirrel habitat. The corners are marked with a t-post adorned with two strips of black/pink striped flagging. Even with a GPS unit, a lone t-post in the woods is difficult to see without the fluorescent, fluttering, flagging.

I brought along our new Real Estate Division Manager, Janis Whisman, to give her a bit of a property tour, a breath of fresh air, and some time away from the desk. The portion of Heil Valley Ranch that we checked is also adjacent to U.S. Forest Service, two small private parcels, and three different pieces of conservation easement. The area is also adjacent to the Overland Fire of 2003. One of the transect points is in a burned-over area.

We parked near the resident ranger's home and trekked around to the six different posts. Along the way we encountered Apple Spring, Double Spring, Ford Spring, Geer Creek, and Elk Spring—each of which has its own little story and issues. I was navigating by faulty memory and a map, but we found each of the points/posts. We even found the one in the forest stand with no landmarks except my feel for the old roadbed. They all look remarkably different with the new flagging attached.

We were nearly finished, finding plot numbers 26 and 27 when we heard a helicopter. Helicopters are not allowed to land on open space and there are nesting raptors in the area that don't need low-level disturbance. We proceeded to watch this helicopter fly low along the ridge in lower Lefthand Canyon, above a golden eagle nest on City of Boulder open space, make a landing, and then proceed over our heads into the tangled ownership to the north of us. It landed again, probably on private land, and then headed out to the plains, passing near our prairie falcon evrie.

We got a description and some photographs to try to identify the pilot, since pilots need to know where they can fly without causing disturbance and where they can land (or not). We were later able to talk to this pilot and explain the situation. This incident also hastened a project we already had begun, detailing sensitive airspace. We're making a map to give to the local airport managers so that they can issue a Pilot's Advisory for pilots to respect this airspace, to avoid the possibility of collision with a large bird, and to explain that they might be breaking the law should they cause a nest failure. That was the last bit of excitement before we made our way back to the truck—at least it was downhill!

Photos from left: Dave Hoerath trains volunteers to monitor for signs that Abert's squirrels are feeding.

Abert's squirrels eat primarily parts of ponderosa pine. The inner bark of the tips of branches are full of nutrients and they also eat the high-protein seeds of mature pine cones, biting off the leaf-like bracts to get to the seeds around the center of the core.

Volunteers look through a transect near the Lichen Loop area at Heil Valley Ranch Open Space.







Article by Dave Hoerath, one of four department wildlife specialists.

It's a Duck - No, It's a Loon - No, It's a Grebe!

by Francesca Giongo

Loons and grebes are diving waterbirds that might be confused with ducks. However, they belong to different orders. Ducks are all in the order *Anseriformes*, loons are in the order *Gaviiformes* and grebes in the order *Podicipediformes*.

Loons and grebes share some features and adaptations. Being excellent divers, their feet are positioned far back on their body. This adaptation helps propel them underwater, but also requires lengthy take-offs and makes them clumsy on land. They sit much lower on the water than ducks, with their bellies submerged. These birds are all hunters, feeding on aquatic invertebrates, amphibians, and fish, depending on their size. Different from ducks, male and female loons and grebes have identical plumage. Their chicks are precocial—meaning they are able to swim and dive as soon as they are born.

The common loon is the only species of loons that we see in Colorado, and only during migration. The name "loon" refers to the bird's clumsiness on land, and is derived from Scandinavian words for lame, such as Icelandic "lúinn" and Swedish "lam." Common loons are large birds with rounded heads and dagger-like bills. Adults can range from 24 to 40 inches in length with a four to five foot wingspan. Unlike most birds, loons have solid bones that make them less buoyant. They can blow air out of their lungs and flatten their feathers to expel the air within, so they can dive quickly and swim fast underwater. They can dive as deep as 200 feet.

In breeding plumage the common loon sports a black head, white underparts, and a checkered black and white back. The male defines his territory through yodeling. Loon calls have been defined as alternately "haunting," "beautiful," "thrilling," "mystical" and "enchanting." A hungry loon family (parents and their two chicks) can eat about a half-ton of fish over a 15-week period.

Grebes are a widely distributed order of small to mediumlarge birds. Their large feet have broad lobes on the toes and small webs connecting the front three toes. The hind toe also has a small lobe. Bills vary from short and thick to long and pointed, depending on the diet. In Colorado, most species are migratory.

When preening, grebes eat their own feathers and then feed them to their young. The function of this behavior is uncertain, but it is believed to assist with pellet formation and reduce their vulnerability to gastric parasites.

Most grebes have distinctive breeding plumages, often with conspicuous head markings, and perform elaborate display rituals. The young are often striped and are carried on the backs of the adults when they first hatch.

The pied-billed grebe is a small, stocky, and short-necked bird, 12 to 15 inches in length, with a wingspan of 18 to 24 inches. It is mainly brown, with a darker crown and back. The short, blunt bill is a light grey, encircled in summer by a broad black band (hence the name). This grebe is solitary, rarely

spending time in flocks, and can be seen year-round. In the 19th century these grebes were hunted for their thick and soft feathers, which were used as decorations on hats and earmuffs.

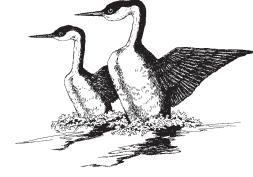
The eared grebe is 12 to 14 inches in length and can be found on every continent except Australia and Antarctica. It owes its name to the fact that its breeding plumage has an all-black neck and a striking spray of golden plumes on each side of the head. This grebe is essentially flightless for most of the year (9 to 10 months), the longest flightless period of any bird in the world capable of flight. It avoids flying at all costs, reserving long distance flight exclusively for migration. The eared grebe migrates only at night. Because of the length of its fall staging, its southward fall migration is the latest of any bird species in North America.

The western grebe (*Aechmophorus occidentalis*) is the largest North American grebe. It is 22 to 30 inches long, and its wingspan is 31 to 40 inches. It is black and white, with a long, slender neck and red eyes. Western grebes nest in colonies of hundreds on large inland lakes in western North America. They have a spectacular courtship display, known as "rushing." Two birds turn to one side, lunge forward in synchrony, their bodies completely out of the water, and race across the water side by side with their necks curved gracefully forward, making a loud pattering sound with their feet. Like the pied-billed grebe, the western grebe was extensively hunted in the 1900s for its silky white breast and belly feathers, used in clothing and hats.

The Clark's grebe (*Aechmophorus clarkii*) is a white-faced version of the western grebe, with which it shares similar features, body size (22 to 29 inches), behavior and habitat. The name honors John Henry Clark, a 19th-century American surveyor who was also a naturalist and collector. The western grebe has black around the eyes and a straight greenish-yellow bill whereas the Clark's grebe has white around the eyes and an up turned bright yellow bill. The genus name *Aechmophorus* comes from the Ancient Greek words "aichme," meaning spear, and "phoros," meaning someone who bears things around; it refers to these birds' long, dagger-like beak, used to spear prey.

If you want to see loons and grebes this spring, you'll likely find them at
Walden Ponds
Wildlife Habitat
and Pella Cross-

ing. Happy birding!



NATURE DETECTIVES

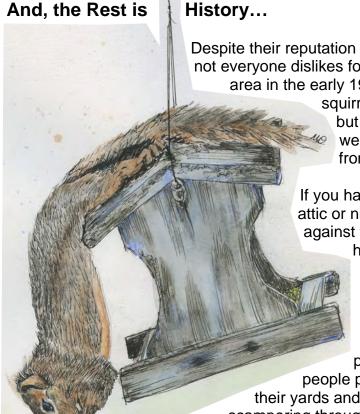
Funny Fox Squirrels: Two Pounds of Mischief

Bam, bam, bam! A fox squirrel was slamming its back against the bottom of the bird feeder. The feeder was encircled with wire in an attempt to exclude hungry squirrels. Yet at each thump, a bit of seed tumbled to the

ground, reward for the squirrel's problem-solving skills. How can a rodent with a brain 4x smaller than a house cat's be so smart? Watching squirrels is watching thinking in action.

The fox squirrel shares reddish fur and fluffy tail with its namesake, the red fox, but this twenty-inch rodent also shares a reputation for out-smarting or out-foxing people in its quest for food and shelter. Whether they are hanging by their back toes or making death-defying leaps, fox squirrels can be funny and entertaining to watch.





Despite their reputation for being a nuisance in yard and garden, not everyone dislikes fox squirrels. Some people who lived in this area in the early 1900's missed seeing these clever tree

squirrels that were common in the Eastern U.S. but absent from the plains grasslands and west. So a few people brought fox squirrels from "back home" and the squirrels thrived.

If you have a pesky squirrel trying to invade your attic or nibbling your garden, don't carry a grudge against those historic squirrel re-locators. As

human settlements controlled flooding and fire, more trees grew along rivers and streams, slowly forming a trail of new, wooded habitat from the east coast to the foothills of the Rocky Mountains. Fox squirrels simply followed the tree path westward. And as towns spread,

people planted gardens and a variety of trees in their yards and city parks. Soon fox squirrels were scampering through the branches.

Tree Top Acrobat

Fox squirrels are fit for a life around trees. They can dash among the branches and scramble up and down the trunks with agility. Trees give them safety from predators and shelter from all weather.

Squirrel feet are key to their speed in the trees. They have four long toes on each front foot and five long toes on each back foot. At the ends of the toes are long curved claws. Their front paws can grab and hold things much like our hands can grasp. Their back paws can turn almost backwards to grip when they climb down headfirst or hang by their back toes to reach a tempting treat.

Escaping Danger

The first defense for a fox squirrel is to freeze. Motionless, it assesses the danger. It might flick its tail a few times in warning. If the danger is real, it's time to flee to the trees. A squirrel might give alarm barks from a high perch. It might hide, flattened against a trunk or branch or inside its nest.

Fox squirrels have big eyes that look almost as big as their ears. They see well even in dim light.

comes to seeing danger approaching. Because their eyes are on the sides of their heads, fox squirrels can see a wide view from in front of their

bodies to almost totally behind

Eye placement is a big help when it

them.



Like all rodents, fox squirrels have front teeth built for gnawing and powered by strong jaw muscles. They can use their teeth to nibble delicately

on a seed, or they can chisel their way into hollow trees to make their homes.

Rotten trees are scarce so some squirrels gnaw their way into attics to find lodging.

Squirrel tails are more than stylish accessories. Held overhead, a tail is an umbrella or a sunshade. It is a fluffy blanket in cold weather. In a leap, a tail helps the squirrel balance, and in a fall it can function a bit like a parachute. And for communication between squirrels, tails are sign-language tools.

Boulder County Fox Squirrel Cousins

Chickarees or pine squirrels are noisy residents of mountain forests. Their scolding chatter makes these small squirrels easy to spot.

Tassel-eared, Abert's squirrels are shy, quiet residents of Ponderosa forests and are tricky to find. They are fox squirrel size but their ear tufts make them look a little bigger.

Searching for Food

Besides birdseed, fox squirrels search out many different foods, mostly from plants. They chomp tree buds, leaves, tender twigs and flowers. Spring brings the opportunity to add birds' eggs and baby birds to the menu. Fruits and nuts are consumed as soon as they ripen. Surplus nuts are buried here and there to be sniffed out and dug up in the dark of winter when most eatables are scarce. Fox squirrels spend a lot of time on the ground in all seasons hunting for food. A good sense of smell helps them find hidden edible tidbits.

Nesting

Nothing provides better shelter than a dry hole in a tree. Suitable trees are in short supply so most fox squirrel nests are leaf and twig constructions balanced on a stout fork of a tree and usually high off the ground. The squirrel builds up layers of leaves, pine needles, twigs, bark bits and sometimes found trash. Once there is a good pile, the squirrel hollows out a bedroom chamber and lines it with softer material like grass and shredded leaves.

Squirrels spend nights in their nests and will stay there all day when the weather is especially

cold or miserable any time of year. Squirrel moms build nests to house their babies.

Baby Time

Usually in spring and again in summer, an adult female squirrel will give birth to two or three babies. Looking like naked rats, newborn squirrels are born without fur and with mouse-like tails. When mom leaves the nest, she covers them with leaves.

Danger for babies can be hungry magpies, red-tailed hawks, raccoons or snakes.

By their five-week birthdays, little squirrels have fur and can see and hear. By ten weeks they no longer get their nutrition

in or can a sition

from mom's milk. They will be on their own when they are three or four months old.

A lucky squirrel could live a dozen years if it escapes cars, great horned owls, dogs, cats, foxes, coyotes, hunters and disease. Five or six years is typical fox squirrel survival in the wild, but many will die before they are a year old.

Observing Squirrels

Fox squirrels are good subjects for nature detecting because they are fairly easy to find and fun to watch and study. If you don't have a squirrel outside your window, visit a park and look for bulky leaf nests high in trees as a sign that fox squirrels live nearby. Find a comfortable place to sit quietly. Sitting in the shade makes it harder for squirrels to see you. Squirrels are usually most active mid-morning and mid-to-late afternoon.

If a squirrel runs to the other side of a tree trunk, wait a few minutes then try throwing a pebble or twig beyond the tree to see if you can fool the squirrel into coming back to your side.

You might record your observations in a journal or snap photos. You could note the date, the weather, and what you see and hear.
What was the squirrel doing? Did it watch you?
Did it chatter or bark or flick its tail?

WARNING: Always remember squirrels are wild animals and can carry disease or fleas. Don't touch a dead squirrel or try to pick up a sick or injured one.

Good Things About Squirrels

Fox squirrels are wildlife clowns whose acrobatic stunts entertain us. Little do they know they are the subjects of hilarious wildlife photos in magazines and newspapers.

Whether as predators or as prey, fox squirrels are also part of complex natural food chains. And, they are sometimes tree planters. Nuts buried by fox squirrels and forgotten often sprout to become new trees.

Click to Find the Nature Detectives Library

Past Nature Detectives articles are in the Nature Detectives online library. You can search over 80 articles by key word or phrase. Just go to: http://www.bouldercounty.org/os/culture/pages/natdetect.aspx Click on *Nature Detectives*

Click on **Nature Detectives Library** in the wide blue stripe.

For more information about squirrels, see the program listed on page 13.



Full Menu of Volunteer Opportunities

Winter is fading away—temperatures are warming and sunlight lasts a bit longer each day. It's a perfect time to think about volunteering with the Boulder County Parks and Open Space Department. Choose from nature, cultural history, ongoing and one-day projects. There are many opportunities to get outdoors and give back to the community—and we can't forget—having fun!

Tour Guide at the Agricultural Heritage Center

Volunteers teach visitors about agricultural life between 1900 and 1925, when local families prospered as farmers and witnessed the coming of the Modern Age. Volunteer tour guides are needed for both weekday and weekend tours. The application deadline is March 20. Training will take place on March 30. Contact Jim Drew at 303-776-8688 or jdrew@bouldercounty.org for details.



A volunteer gives a tour to a school group at the Agricultural Heritage Center.

Forestry Crew Leader

Volunteers are needed to lead small forest restoration projects to help maintain healthy tree density and diversity, and improve wildlife habitat. Your efforts will also reduce wildland fire hazards and prepare areas for controlled burns. Crew leaders must be 18 years or older, attend a one-day training session on April 6, and commit to leading three forestry projects during the year. Application deadline is March 29. For more information and an application, contact Shane Milne at 303-678-6089 or smilne@bouldercounty.org.

Trail Crew Leader

Do you ride, hike or run on Boulder County's trails? Volunteers are needed to lead trail construction and maintenance projects. Work with other trail users, gain leadership experience, and provide a worthwhile service to your community. Volunteers must be 18 years or older, attend a two-day training on April 27 and 28, and commit to working a minimum of two trail projects between May and October. Application deadline is April 19. For information and an application, contact Fletcher Jacobs at 303-678-6344 or fjacobs@bouldercounty.org.

Natural Resource Monitors

Get outdoors while collecting important scientific data about wildlife, agricultural lands, forests, native plants, and noxious weeds. We are looking for people who have experience collecting field data, a background in natural resources, and familiarity with scientific protocol. For more information and an application, contact Michelle Bowie at 303-678-6219 or mbowie@bouldercounty.org.

One-Day Work Projects

We also have one-day projects. These are just a couple of projects among many offered this spring.

Participate in Earth Day on April 20: Join wildlife biologists as we protect prairie dogs and the species they support! A large fence must be built east of Rabbit Mountain to contain prairie dog migration to one area, protecting the agricultural integrity of a neighboring farm.

Celebrate Mother's Day on May 12 & 15: Plant flowers at the Boulder County Fairgrounds in Longmont while enjoying views of Longs Peak. Work with other volunteers to make the fairgrounds look beautiful. This is a great family-friendly event.

For more information and to register, visit the POS web page at www.BoulderCountyOpenSpace.org/Volunteering.



Seed Collection Crew Leader Training

Parks and Open Space is partnering with Wildlands Restoration Volunteers to train volunteers to lead native seed collection projects. Volunteers who would like to become crew leaders must attend an all day training in June. The specific date and times are still to be determined. For an application and more information, please contact Erica Christensen at 303-678-6329 or echristensen@bouldercounty.org.

Fire Restoration and Rehabilitation

by Barb Kirchner

Fires in Colorado have been big news the last few years. Almost everyone has seen pictures of a fire and of the landscape afterwards. The effect of fire on vegetation and structures is fairly obvious—but what about the land beneath the trees and houses? Fire affects soil in many ways, but this isn't something we can see so well with the naked eye. So let me define three technical terms:

Hydrophobic soils: When an area is burned, soil on the surface can be "melted." When this soil cools, its chemical structure has been changed so that the surface repels water; these soils are called hydrophobic.

Hydrophobic soils repel water, which means that rain and snow melt do not sink into the ground (reduced infiltration rate) but instead run downhill. These downhill flows cause many problems, from mudslides to contamination of reservoirs, not to mention loss of substrate for new vegetation. While this effect is short-lived, it can be disastrous in the first year after a fire.

Erosion: Loss of vegetation after a fire typically results in erosion, especially on slopes. Erosion is affected by slope, aspect, rate/amount of precipitation, and soil texture, as well as the type of vegetation and how long it takes to regenerate. Erosion may occur as a result of precipitation or high winds in the burned area.

pH: Fire can also affect the pH (acidity/alkalinity) of soil. Many elements which were previously in a bound state can be released in elemental or radical form. These released elements may be available to be taken up by a plant for new growth. Some positive ions (called cations) are left behind as ash. When this ash leaches into the soil, it can release hydrogen ions and increase the pH. This is important because a higher pH is conducive to increased nutrient cycling, nitrogen and phosphorus in particular, which is critical for plant regeneration.

What Do We Do After a Wildland Fire?

After a large wildland fire, areas are selected for erosion control and mitigation. Mulching can be a temporary, partial replacement for lost soil and vegetation. Like vegetation, mulch can keep soils from being eroded by wind and rain. It will eventually degrade and become part of the substrate. Also like soil, it can provide a base for new plants to grow. One trend these days is to use wood straw instead of conventional straw. Wood straw is manufactured mulch, unlike straw mulch. Wood straw can be manufactured from beetle-killed trees, which we have plenty of these days! Individual "straws" are approximately three to six inches long. When this

mulch is applied to an erosion-prone area, the structure of the shredded wood causes the individual straws to become locked together, making a mat. When straw mulch is applied, it makes a similar mat, but the individual straws don't have the same kind of mechanism to provide equivalent structural stability. Additionally, wood mulch also breaks down much more slowly than straw mulch.

Wood mulch also has the advantage of being significantly heavier than conventional straw mulch, making it less prone to erosion. For the Fourmile Canyon area restoration, and now for the High Park restoration, mulch has been applied by helicopter in remote areas. Lightweight straw mulch tends to scatter more when dropped, making it difficult to target an area and get consistent coverage. Heavier wood straw tends to fall relatively straight down, so it's easier to target.

Mulch can also help control the opportunistic weeds that show up in the denuded areas. Conventional straw can oc-

casionally be contaminated with weed seeds, even introducing new weed species. Wood straw is much less likely to contain contaminants.

Wood straw is a newer product, and is still being evaluated. While it appears that there are some significant advantages of wood over conventional straw, it is also more expensive. Continued research will help determine the best types of mulches for restoration use.

Another question to be considered is the aerial application of red slurry fire retardant, which has become very common. Slurry is a combination of mostly water and fertilizer, plus a red dye which makes it visible. Slurry is not intended to put out a fire, but rather to slow it down. It coats plant surfaces and decreases the rate of combustion, helping firefighters to control the spread of the fire. Afterwards, the water evaporates and the fertilizer is left behind to provide nutrients to the growing plants. In California, farmers have asked for unused slurry to be dropped on their fields as the planes return to base. While some claim that slurry has caused fish kills and

as the planes return to base. While some claim that slurry has caused fish kills and other problems, research is ongoing.

Given the number of fires we've had recently, and the hot dry conditions we've been experiencing, we'll have many more chances to evaluate restoration techniques. Newer, more ecofriendly products are becoming available, and research continues on the best methods of application. To learn more, visit the county's dedicated Fourmile Canyon Fire webpage at www. bouldercounty.org/property/forest/pages/4milelandrehab.aspx. Organizations such as Wildlands Restoration Volunteers and Volunteers for Outdoor Colorado conduct restoration projects every year. Volunteer for one and find out for yourself!



A helicopter takes off from the staging area with a load of mulch to drop on areas affected by the Fourmile Canyon fire.

A CALENDAR OF NATURAL AND CULTURAL HISTORY EVENTS

Wildflower Hikes and Slideshows

Spring Wildflower Slide Programs

Thursday, April 4; 7:00pm to 8:30pm Longmont Public Library, Meeting Rooms A & B 4th Avenue and Emery Street, Longmont

Tuesday, May 14; 7:00pm to 8:30pm George Reynolds Branch, Boulder Public Library 3595 Table Mesa Drive, Boulder

Join volunteer naturalists for a slide program to kick off the spring wildflower season! Learn about wildflowers, where and when to look for them, and facts about our native plants.

Spring Wildflower Hikes

Wildflower Hike at Legion Park Sunday, May 5; 10:00am to noon Legion Park Open Space; east Boulder on Arapahoe Road, 0.5 mile west of 75th Street

Join volunteer naturalists for a leisurely spring stroll through the pinyon and ponderosa pines at Legion Park. This park is a wonderful place for early season wildflowers.

Wildflower Hike at Rabbit Mountain Saturday, May 18; 10:00am to noon Rabbit Mountain Open Space; NE of Lyons on north 55th Street; meet at group picnic shelter

The transitional foothills zone is home to Easter daisies, Nuttall's violets, Pasque flowers, spring beauties, cacti, and more. Join volunteer naturalists for a moderate 2-mile hike that will take you from grassland to ponderosa pine and mountain mahogany shrubland in search of early bloomers.

Wildflower Hike at Heil Valley Ranch

Saturday, May 25; 10:00am to noon Heil Valley Ranch; North of Boulder off Lefthand Canyon Drive; meet at group picnic shelter

Join volunteer naturalists for a wild-flower hike in the beautiful foothills. We will hike a leisurely 1.5-mile loop in search of spring wildflowers.



Chickens in Your Backyard Saturday, March 2; 11:00am to 12:30pm Agricultural Heritage Center; 8348 Ute Hwy 66, west of Longmont

Are you thinking about raising chickens? Learn about caring for chickens, housing and space requirements, handling chicks and older birds, common ailments and more. This is an outdoor program so please dress for a likely crisp almost-spring Colorado morning. All ages are welcome.



Birds of Prey Driving Tour Saturday, March 9; 10:00am to 1:00pm Registration is limited; meeting location will be provided to registered participants

Join volunteer naturalists for a driving tour of the best areas to view birds of prey. We will carpool from our meeting place searching for raptors, learning about habitat, and working on our identification skills. Bring lunch, binoculars, spotting scope, and bird field guide if you have them. The tour is geared for adults and older children. Register by emailing lcolbenson@bouldercounty.org, or calling 303-678-6214 by Thursday, March 7.

Whoo are the Owls?

Wednesday, March 13; 7:00pm to 8:30pm Lafayette Public Library; 775 west Baseline Road, Lafayette

Owls have been regarded with fascination throughout history and across many cultures. To some people they are symbols of wisdom; to others they are 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 learn about these fascinating creatures, and their adaptations that make them such expert hunters.

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A CALENDAR OF NATURAL AND CULTURAL HISTORY EVENTS

The Hidden World of Bird Nests
Saturday, March 16; 10:00am to noon
Walden Ponds Wildlife Habitat Area;
75th Street between Valmont Road
and Jay Road; meet at group picnic shelter near Cottonwood Marsh

Bird nests appear in a variety of forms.
Join volunteer naturalists for an easy walk in search of these structures created by avian architects. We will also talk about breeding bird behavior you may see this spring in a wetland habitat. Bring binoculars and bird field guide if you have them.

Forest and Fire Ecology Hike
Sunday, March 17; 10:00am to noon
Bald Mountain Scenic Area; 5 miles west of Boulder on Sunshine Canyon Drive (Mapleton Ave. in Boulder city limits)
Join volunteer naturalists for an easy one-mile hike to learn about the role of fire in ponderosa pine ecosystems, and forest management practices that can lessen the effects of wildfires.

about the role of fire in ponderosa pine ecosystems, and forest management practices that can lessen the effects of wildfires. You will also see evidence of the 2010 Fourmile Canyon fire, learn about rehabilitation efforts that have been employed, and observe how the landscape recovers.

Spring Has Sprung! Saturday, March 23; 10:00am to noon Heil Valley Ranch; North of Boulder off Lefthand Canyon Drive; meet at group picnic shelter

What's blooming? Who's singing? Who's having babies? How are these springtime events connected and what does the position of the sun in the sky have to do with it? Join volunteer naturalists on a leisurely, 1.5-mile hike and celebrate the beginning of spring by looking and listening for signs of new life. Learn the importance of the sun at equinox in linking and timing these vibrant displays of new beginnings.

The Geologic History of Boulder County Wednesday, March 27; 7:00pm to 8:30pm George Reynolds Branch, Boulder Public Library; 3595 Table Mesa Drive, Boulder; additional parking available across Table Mesa Drive at King Soopers

The geologic history of Boulder County goes back over 1.7 billion years. Ever wonder where the rocks came from, how they formed, or what the earth was like back then? Join geologist and volunteer naturalist Sue Hirschfeld for this slide program and learn how to read the story in the rocks and interpret the landscape that has developed in Boulder County.

Spring Awakening—Bears in our Backyard Saturday, March 30; 10:00am to 11:30am Betasso Preserve; Boulder Canyon (Highway 119) to Sugarloaf Road; follow signs to Betasso Preserve; meet at group picnic shelter

Black bears have always been a part of our landscape. In springtime, as daylight hours get longer and air temperatures warm, black bears and their cubs emerge from winter dens. Join volunteer naturalists to explore how bears survive winter and become active again in spring. We'll also learn how to live safely in bear country. Wear hiking shoes if you wish to hike the trails before or after the program.



All About Beavers
Saturday, April 6; 10:00am to noon
Walden Ponds Wildlife Habitat Area; 75th Street between
Valmont Road and Jay Road; meet at group picnic shelter
near Cottonwood Marsh

The beaver is one of nature's most accomplished engineers. They build lodges, dam streams, and modify the environment to create their habitat. Beavers have periodically taken up residence at Walden Ponds, and left some of their handiwork behind. While beavers are most active at night, we'll see signs of their work in felled shrubs and trees, and old lodges. We'll also learn about beaver babies, how beavers make their living, and how they survive through the winter.

Isabella Bird's Visit to Colorado Sunday, April 7; 11:00am to noon Walker Ranch Homestead; 7701 Flagstaff Rd, about 7 miles west of Boulder

Isabella Bird was a traveler and a writer, author of *A Lady's Life in the Rocky Mountains*. She had a wonderful ability to describe her surroundings in great detail so that one feels as if they were there. Come hear about Isabella's lively adventures on her first trip to Estes Park in 1873, her arduous climb of Longs Peak, and her romance with the rogue, Rocky Mountain Jim.

A CALENDAR OF NATURAL AND CULTURAL HISTORY EVENTS

Pella Crossing: History and Habitat Saturday, April 13; 1:00pm to 3:00pm Pella Crossing Open Space; about 1 mile south of Hygiene on the east side of North 75th Street

Join volunteer naturalists Joyce Costello, Barbara Preese, and Marsha Williams to learn about past and present residents of Pella Crossing. Learn about the agricultural and mining history of this area, and development of the ponds for wildlife habitat. We will also keep an eye out for evidence of birds and other wildlife.

Rattlesnake Hike

Sunday, April 14; 10:00am to 12:30pm Rabbit Mountain Open Space; NE of Lyons on north 55th Street; meet at group picnic shelter

Enjoy a moderate 2-mile hike to learn about this fascinating reptile. Volunteer naturalists will lead this hike and share information about the western rattlesnake, including habitat, ecology, behavior, and how to be safe in rattlesnake country.

The Mystery of Bird Migration Slide Program Thursday, April 18; 7:00pm to 8:30pm Louisville Public Library; 951 Spruce Street, Louisville

Some birds are seen here all year, some only in summer or winter, and some only in spring or fall. Why do birds make seasonal journeys, how do they know when to go, and what brings them back year after year? Join volunteer naturalists Larry Arp and Vicki Braunagel to explore these and other mysteries surrounding the world of bird migration.



The Mystery of Bird Migration Bird Walk Saturday, April 20; 8:00am to 10:00am Walden Ponds Wildlife Habitat Area; 75th Street between Valmont Road and Jay Road; meet at group picnic shelter near Cottonwood Marsh

Join volunteer naturalists Larry Arp and Vicki Braunagel to explore the joys of bird watching during prime migration season! They will share tips for recognizing different types of birds. This beginning-level bird-watching trip will focus on practicing observation skills to help with bird identification. Be prepared for a slow-paced walk of up to 2 miles. Bring binoculars and a bird field guide if you have them.

Cultural History Happenings

Spring Heritage Day at the Walker Ranch Homestead Sunday, April 28; 10:00am to 3:00pm Walker Ranch Homestead; 7701 Flagstaff Mountain Road, approximately 7.5 miles west of Boulder on Flagstaff Road

Spring is the beginning of many new things—garden planting, repairing buildings, bringing baby animals into the world—that was true for ranch families in the Victorian days, too. Join us at the Walker Ranch homestead for a peek into pioneer living in springtime. Smell what's cooking in the log house, chat with the blacksmith, and do hands-on old-fashioned activities with costumed volunteers.

Crafts and Trades of Olden Days Sunday, May 19; 10:00am to 3:00pm Agricultural Heritage Center; 8348 Ute Highway 66, west of Longmont

If you were a pioneer settler and there were no stores in the area, how would you get the things you needed for your family? Learn about old fashioned jobs and the traditional arts and crafts that went into making what was needed for life down on the farm. See blacksmithing in action, and try your hand at candle-dipping and working with a drop spindle!



Visitors enjoy watching the blacksmith at work during the Crafts and Trades of Olden Days event.

Tree Squirrels of Boulder County Saturday, April 27; 10:00am to noon Heil Valley Ranch; North of Boulder off Lefthand Canyon Drive; meet at group picnic shelter

Tree squirrels are some of our most watchable wildlife. Adaptable fox squirrels live in our neighborhoods. Abert's squirrels are picky about where they live, and the chickaree is our smallest, noisiest tree squirrel. Join volunteer naturalists to learn about squirrels and watch for signs of other wildlife.

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A CALENDAR OF NATURAL AND CULTURAL HISTORY EVENTS

I Spy Beaks and Feet!

Tuesday, April 30; 10:00am to 11:00am

Pella Crossing Open Space; about 1 mile south of Hygiene on the east side of North 75th Street

Birds eat a lot of different foods—seeds, insects, fish, and other animals. Join volunteer naturalists to learn how a bird's beak and feet help them find and eat their favorite foods. We will watch for birds and find out where they live, eat, and have babies. This program is for preschool children and their families.

Geology of Rabbit Mountain

Saturday, May 4; 9:00am to 1:00pm

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

Volunteer naturalist Dick Pratt and others will lead a moderate 3-mile hike to learn about the interesting geology of the area. We'll also keep our eyes out for spring wildflowers, soaring raptors, and wildlife. Bring lunch, closed-toed shoes, and binoculars if you have them. This program is geared for adults.

Images of Nature—Digital Photo Hike

Saturday, May 11; 9:30am to Noon

Walden Ponds Wildlife Habitat Area; 75th Street between Valmont Road and Jay Road; meet at group picnic shelter near Cottonwood Marsh

Join volunteer naturalists on a guided photography walk to learn how to capture the best of the outdoors on camera. We will discuss basic composition techniques for photographing wildlife and landscapes, as well as camera basics and tips on how to take better photos. All skill levels are welcome! Bring your digital cameras, sunscreen and plenty of water. We will shoot for about 2 hours before meeting at the picnic shelter to discuss photos from the day.

Nature Hikes for Seniors

Enjoy a nature hike for seniors every month. 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. **Hikes are from 10:00am to noon.**

Thursday, March 28, Agricultural Heritage Center at the Lohr/McIntosh Farm

Thursday, April 25, Heil Valley Ranch Open Space (meet at the group picnic shelter near the Lichen Loop Trailhead)

Thursday, May 30, Betasso Preserve (meet at the group picnic shelter near the trailhead)

Fishing Derby—For Seniors Only

Friday, April 26 from 6:30 a.m. to 10:00am at Wally Toevs Pond located at Walden Ponds Wildlife Habitat on 75th Street between Jay Road and Valmont Road.

Boulder County and Broomfield County seniors (64 years and older) are invited to participate in Boulder County's annual fish-off.

After the fishing derby, awards will be given for the heaviest trout, most experienced (oldest) angler, and best fishing hat. And don't miss the fish-fry picnic following the event.

- The pond is stocked with rainbow trout artificial and live bait are permitted at the Wally Toevs Pond.
- If you like, bring your own lawn chair.
- The fishing pier is wheelchair accessible.
- Participants must have a valid Colorado fishing license.

Join us Rain or Shine!

The fish-off will take place regardless of the weather. **For more information:**

Please contact Michelle Bowie at 303-678-6219.



Fossils and Flowers Hike Sunday, May 12; 9:30am to noon

Meeting location will be provided to registered participants.

Join volunteer naturalists Megan Bowes and Sue Hirschfeld for a short, moderately-strenuous hike to explore a landscape created by folding and faulting as the Rocky Mountains uplifted 65 million years ago. You will see fossilized evidence of the Cretaceous seas that once inundated this area, as well as early blooming wildflowers. Register by emailing lcolbenson@bouldercounty.org, or by calling 303-678-6214 by Thursday, May 9.

A Butterfly's Life

Thursday, May 23; 7:00pm to 8:30pm

Lafayette Public Library, 775 west Baseline Road, Lafayette

Are you curious about the life cycle and behavior of butterflies? Have you wondered where monarch butterflies go during their migration? Join volunteer naturalists for a beginner's guide to butterflies. This program reviews the life cycle of butterflies, and covers basic information on behavior, host plants, identification tips, and the monarch migration. We'll also share facts about the connection between plants and butterflies and talk about when and where to look for those "flying flowers."

Photo Exhibition: Land Through the Lens

Please join us at the Dairy Center for the Arts, Polly Addison Exhibition Space for the "Land Through the Lens" juried photography exhibit. The show features Boulder County Parks and Open Space properties, flora, and fauna and will include 109 photographs by 57 photographers.

The exhibit opening will feature Artists' Talks on Friday, March 8, 4—5pm and a reception from 5–7pm. The Dairy Center; 2590 Walnut Street, Boulder, CO. For more information please contact 303-440-7826, thedairy.org or www.bouldercountyopenspace.org/photoshow. The exhibit runs through April 19.

A big thank you to the following businesses for their support of this event: American Recreation Products, Boulder Digital Arts, Boulder Fastframe, Bryan Maltais Photography, Dan Ballard Photography, Grant Collier Photography, KBCO Radio, Mike's Camera, Mike Lohr Photography, Piece, Love & Chocolate and REI.



Photo by Doug Grinsberg

Get Muddy

Check for updated trail conditions at our website, www.BoulderCountyOpenSpace.org.

When trails are muddy, please:

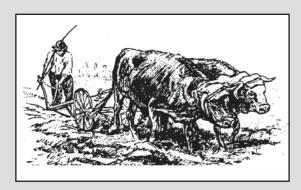
- Use a trail before 10am
- Visit another park that has hard-surface trails
- Stay on the trail—go through the mud. Shortcutting switchbacks and bypassing mud puddles greatly increases erosion, widens trails and destroys vegetation.

Pick the Right Trail

In wet conditions, consider using hard-surface trails at lower elevations like Coal Creek Trail, Boulder Creek Path or the St. Vrain Greenway Trail.

Travel through mud, not around it! Boots, bikes and horses clean fast, but trails take years to heal.

Come Out to the Farm!



Come visit the Agricultural Heritage Center for a glimpse into the history of agriculture in Boulder County and enjoy the rural surroundings.

Site Highlights

- · Two barns
- Milk house
- Blacksmith shop (in use during special events)
- · Livestock on site April through October
- Farmhouse furnished with period furniture
- The big red barn contains interactive exhibits for all ages to enjoy—including a real tractor cab!

Schedule

The center will be open every Friday, Saturday and Sunday from 10:00am to 5:00pm, from April through October. Admission is free.

Tours of the site are offered on Fridays, Saturdays and Sundays at 11:00am. Groups can also arrange special tours of the site year-round.

The center is located at 8348 Ute Highway 66, west of Longmont. For additional information or to schedule a group tour, call 303-776-8688 or visit the department's website www.BoulderCountyOpenSpace.org.

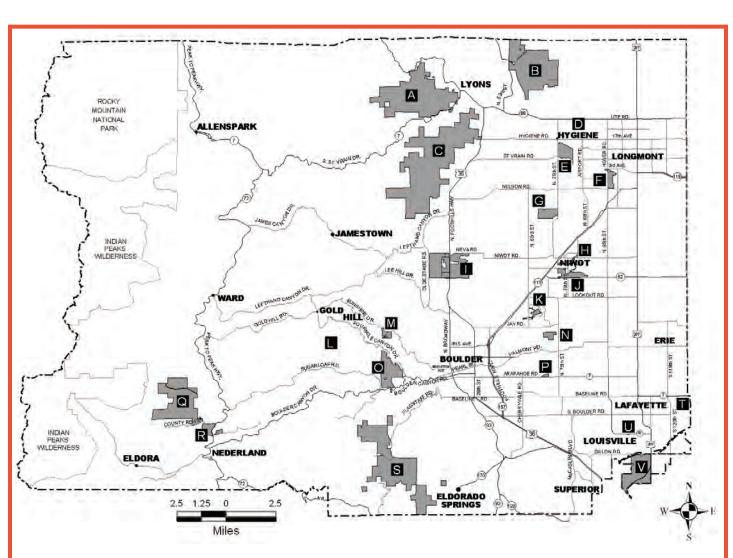
Open Space Employment Opportunities

The Boulder County Parks and Open Space Department is looking for temporary employees. Most of these seasonal jobs are for the summer months, but some start in spring and end mid-fall. These jobs are great opportunities for new college graduates. Seasonal employment can often be an important step in securing a full-time job in the competitive public land management field. These jobs are also great for retirees who have talents they'd like to share for just a few months! Positions include plant ecologists, tree care, water resources, wildlife technicians, mowing operators, invasive plant technicians, agricultural technicians, trail workers, Boulder County Fairgrounds workers, and Youth Corps team leaders. Visit Boulder County's website at www.BoulderCounty.org for details and an online application.



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- A. Hall Ranch
- B. Rabbit Mountain
- C. Heil Valley Ranch
- D. Agricultural Heritage Center at Lohr/Mcintosh Farm
- E. Pella Crossing
- F. Boulder County Fairgrounds
- G. Lagerman Reservoir

- H. Lefthand Valley Grange
- I. Beech Open Space
- J. Niwot Loop Trail
- K. Twin Lakes
- L. James F. Bailey Assay Museum
- M. Bald Mountain Scenic Area
- N. Walden Ponds Wildlife Habitat
- O. Betasso Preserve

- P. Legion Park
- Q. Caribou Ranch
- R. Mud Lake
- S. Walker Ranch
- T. Flagg Park
- U. Coal Creek Trail
- V. Carolyn Holmberg Preserve at Rock Creek Farm