

# 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

Cover: *Spring at Hall Ranch*, David Hirt  
*Women of Boulder County*, Wikimedia Commons  
*Sign Here*, Ann Cooper  
*Servant Ambassadors*, Pouria Montezari  
*Fire Adapted Trees*, Patrick Morgan  
*\*Uncredited photos from BCPOS Collection*

## NATURE DETECTIVES

Cindy Hutchins and Pam Sherman.  
Illustrations, Carol Tuttle

## EDITORS

Summer Alameel and Eva Lark  
*Suggestions and comments are welcome.*  
*Please contact us at [salameel@bouldercounty.gov](mailto:salameel@bouldercounty.gov).*  
*Non-credited articles are by the editors.*

## RECEIVE IMAGES ONLINE OR IN PRINT

In print: Contact us at [rrobles@bouldercounty.gov](mailto:rrobles@bouldercounty.gov) or 303-678-6222 to start a free subscription.

Online: Scan the QR code below using your smartphone or go to [boco.org/isubscribe](http://boco.org/isubscribe). Enter your email address in the space provided and you will receive four emails per year with the issue of IMAGES.



NOTE: To stop receiving the printed version, send an email to [rrobles@bouldercounty.org](mailto:rrobles@bouldercounty.org).

Volume 46, number 1



**Parks &  
Open Space**

# Women of Boulder County: The Remarkable Stories of Hazel Schmoll and Josephine Roche

by Tatum Figone & Eva Lark

Women's History Month offers an important opportunity for us to shine a light on the extraordinary legacy of women in our county. Among these remarkable figures, Hazel Schmoll and Josephine Roche stand out as visionary leaders who defied the conventions of their era. Their unique stories, though diverse in nature, serve as enduring sources of inspiration, symbolizing determination, resilience, and progress. Their lives also intersect with the work of Boulder County Parks & Open Space through both natural history interpretation and mining history.

## HAZEL SCHMOLL: A TRAILBLAZER IN ACADEMIA AND ENVIRONMENTAL CONSERVATION



Born in 1891 in the quaint town of Ward, Colorado, Hazel Schmoll emerged as a trailblazer in an era when gender roles were rigidly defined. Raised by community-involved parents, Schmoll's early life instilled in her a sense of responsibility and a commitment to making a difference. Her pursuit of education set her on an extraordinary path.

After completing the eighth grade in Ward, Schmoll ventured to Boulder to attend the State Preparatory School to continue her academic journey. Her excitement for knowledge led her to Vassar College in New York, where she became an outspoken advocate for women's suffrage. In 1917, she enrolled in the botany program at the renowned University of Chicago where she would earn her master's and doctorate degrees.



Columbines in bloom under aspen trees.

After pursuing higher education, Schmoll would return to Colorado to work with the State Historical and Natural History Society of Colorado and serve as the State Botanist from 1919 to 1935. Her contributions to botany and ecology elevated her to a position of distinction, earning her recognition in academia and the wider community. Beyond her scholarly achievements, Schmoll dedicated herself to educating the public about the wonders of the Colorado Rockies. In 1925, she was instrumental in the passing of the "Columbine Bill" which made it illegal to pick Colorado's state flower on public lands. After retiring, she would continue to lead natural history guided tours in her hometown of Ward well into her seventies.

## JOSEPHINE ROCHE: A VISIONARY IN SOCIAL REFORM



Josephine Roche, born in 1886 into an affluent Boulder family, was destined to defy convention. Instead of leading a life of privilege, Roche's upbringing ignited her passion for social reform and advocacy.

After completing a doctorate in social work from the University of Denver, Roche embarked on a lifelong commitment to various social causes. Her notable career included roles with the United States Children's Bureau, where she championed child welfare, and the United Mine Workers of America, where she fearlessly advocated for miners' rights and safety. In 1928 she shattered gender norms by taking the helm of the Rocky Mountain Fuel Company, becoming one of the first women to lead a major corporation in the United States. Under her leadership, the Rocky Mountain Fuel Company was the first western coal company to sign a union contract with its miners and pay them an unheard of \$7 per day wage.

Roche's dedication extended into government service, where she became the first woman police officer and deputy sheriff in Colorado. Her unwavering commitment to social justice led her to enter politics, including a failed 1934 Colorado gubernatorial bid. She would not run for office again, but she was rewarded for her support of Franklin Roosevelt with an appointment to assistant secretary of the U.S. Treasury. In 1948, she would once again champion labor rights by becoming the director of the United Mine Workers pension fund, a position she would hold until she was 85 years old.



Protecting your health. Josephine Roche, left, Assistant Secretary of Treasury, and Surgeon General H.S. Cumming, appear before the House Ways and Means Committee and reported that \$200 million is needed for state and federal health work.

The legacies of Hazel Schmoll and Josephine Roche are deeply ingrained in Boulder County. Schmoll's contributions to academia and ecology, and Roche's dedication to social reform, continue to shape the history of Boulder County and inspire new generations. These women exemplify the power of determination and the enduring impact of those who break boundaries. Their stories stand as a timeless testament to the triumph of women who were truly ahead of their time.



# Sign Here

by Ann Cooper

Sign a check. Sign a petition. Sign for a package. We don't think twice about scrawling our "John Hancock" and our signature proves we were there to do so. It's the same with animals — they leave a "signature." You may not see them as you walk open space trails or around your neighborhood, but even when animals are long gone, in the middle of the slow time of day for wildlife activity, you can find signs of lives lived. All it takes is an eye for the left-behind details that are a giveaway.

Some signs are obvious. Tracks in snow or mud are blatant indicators that a creature was there — but what creature? For that, you must peer at details of a single print or a complete trail of them disappearing into the distance. How big is the print? Do the toes show? Do the claws show? How wide is the print? How far apart are the tracks? Do they overprint themselves? Which direction are they going — and why?

Here you enter the realm of detection and possibly wild speculation! How long ago were the tracks formed? Hard to know! What was the animal doing? Finding food — are there signs? Going home — is there a runway? Escaping an enemy . . . the story you create may be evidence-based or pure fantasy, but either way taking — (not wasting) — time to study and speculate can enrich your outing. You can even track-watch on a sidewalk where some animal passed by when new cement was still wet. It can be a fun challenge when you are trying to coax kids to walk a little bit further!

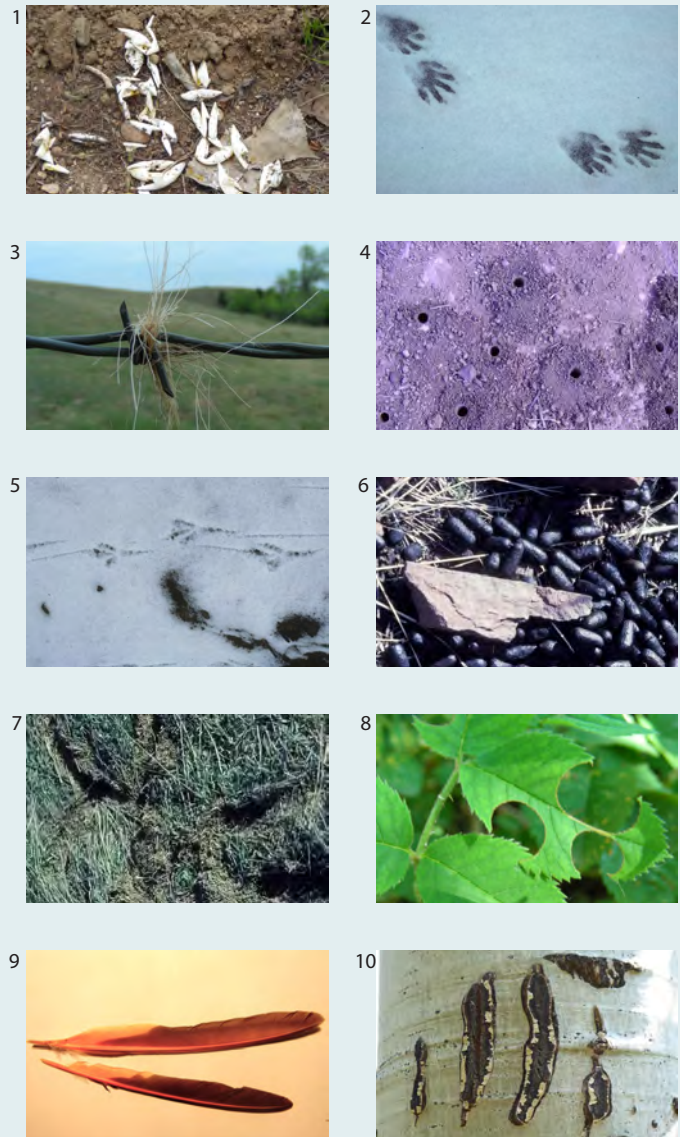
Many meal remnants lie waiting to be revealed. (Fast-food wrappers are not included!) Look for anything from bits of bone to fragments of shell, from chewed leaves to snapped branches. And there is always scat (poop) to indicate someone ate well. Perhaps the hair in the scat suggests a feast of rabbit? Or maybe that poop-like oval remnant is not scat at all, but an owl pellet that shows where an owl perched in the cottonwood above and coughed up a meal remnant containing indigestible bits of voles or mice?

As you focus on ever-smaller details, you may become aware of compacted earth that hints at a favorite dining place, or a faint trail that might lead to a hole, a home, and escape? The possibilities are endless.

Birds, too, may leave their signatures as they fly by, or try to evade predators. One or two feathers could hint at feather shedding during a molt. More feathers may point to a near escape, or, sadly, a calamity. Look carefully at any feathers you find; they have complex stories to tell. Are the feathers stiff and long-shafted (possibly tail or wing feathers) or are they small, fluffy, and flyaway (insulating breast feathers)? Do the colors or patterns suggest a familiar bird? Remember to leave the feathers where you find

them, fun for the next person to find and the legal thing to do. Feathers, nests, birds' eggs and all such artifacts are protected under the Migratory Bird Treaty Act, passed in 1918 in response to the massive exploitation of bird feathers to adorn women's hats. If you wish to remember your find, or look up its potential origin, take a picture!

Once you start looking, you'll find signatures everywhere. Maybe it's worth snapping pictures of all finds as you go, to compile a record of your day's outing, or a reminder to look up details when you get home . . . and just to get you started, what about these? (Answers below)



## Answer Key

1. Turtle egg shells, contents eaten
2. Raccoon tracks in snow
3. Fur caught in fence
4. Ground nesting bees
5. Magpie tracks
6. Deer scat
7. Vole runs
8. Leaf-cutter bee signs
9. Flicker feathers
10. Bear claw marks on aspen

# Servant Ambassadors

by Pouria Montazeri

A seasonal Education and Outreach staff member with Boulder County Parks & Open Space (BCPOS) is a multifaceted presence, seamlessly blending roles of educator, interpretive guide, steward of the natural world, hospitable host, naturalist, group facilitator, a touch of historian, and knowledgeable tour guide. While it can be viewed as a job — a fillable position that can be transformed into a career, or a way to meet various goals, at its essence, it transcends mere occupation — it's a calling. This vocation beckons individuals with diverse talents and interests, demanding a fervent passion.

People often express admiration for our role as we patrol the breathtaking open spaces and parks of Boulder County by saying things like, “What an amazing job you have!”, “Just look at the office where you work.” Or “You're so lucky.” And they could not be more right.



Education and Outreach staff on a hike. Left to right, Michelle Marotti, Andrea Van Sambeek, Tatum Figone, Tal Elmaliach, Amanda Hatfield and Carlos Lerma.

After all, how many jobs include encountering people in a state-of-bliss induced by various levels of phytoncides from evergreen trees, such as cedars, spruces, conifers, and pine, as well as oak trees? Phytoncides, airborne chemical compounds that plants produce to fend off bacteria, fungi, and insects, have remarkable effects. Absorbed through the olfactory glands, they bolster our immune system for days and reduce adrenaline and cortisol (stress hormones) which can alleviate anxiety and enhance immune function.

In fact, there are so many benefits to walking amongst trees. Trees are pivotal in fortifying the amygdala, a brain structure crucial for stress management. Their presence not only decreases stress levels but also alleviates rumination, mental fatigue, and confusion, contributing to a reduced risk of cardiovascular disease, depression, and anxiety. Beyond these physiological benefits, trees play a crucial role in the well-being of children with ADHD, as

exposure to nature has been shown to diminish symptoms associated with the condition. Movement not only boosts our oxygen intake but also enhances the efficiency of our lungs and heart in delivering oxygen to our bodies, regulating blood sugar, reducing blood pressure, and maintaining the optimal functioning of our arteries.



Pouria Montazeri revels in a simple leaf as he leads an educational hike.

The sheer joy and contentment derived from such gifts are bound to make anyone smile. Smiles are contagious and hold the power to uplift spirits, radiate positivity, and create a ripple effect of joy.



Tatum Figone leads a Shelter Talk for the Youth Corps.

The core of our responsibility is to serve as a bridge — present and supportive, yet unintrusive — between BCPOS' mission and the public, meeting everyone precisely where they are in their unique journey and relationship with the more-than-human world. This is achieved through deep listening and a sincere interest in each person as an integral part of the interconnected whole. Thus, staff members seamlessly navigate between staying rooted in their responsibilities and talents while attentively tracking the unique needs of individuals or groups. Through this delicate oscillation, a profound connection is forged, aiming to craft a positive and lasting memory for each individual — a potent balm for all hearts.



# What Do You Call A . . .

by Andrea Van Sambeek

What is the proper term for a group of ants? An Army. How about badgers? A Seat. Marmots? A Madness. More importantly, who exactly gets to decide on these names?

Collective nouns are a curious construction in the English language. Most of these words come from medieval times when the “proper” use of these terms was one way to separate the gentry from the peasants. In fact, books of etiquette included collective nouns of animals so that nobles could talk about a busyness of ferrets or an exaltation of larks without fear of misspeaking. One of the most influential of these toms was “The Book of St. Albans” written by Dame Juliana Berners in the 1400s. Its focus was on terms and knowledge needed for hawking, hunting, and heraldry.

Some group names were given because of superstitions surrounding particular animals. A murder of crows and an unkindness of ravens fall into this category. Both types of birds were considered ill omens and so their group names reflect this connotation.



A murder of crows.

Not all associative group names were quite so negative. A richness of martens was used because of the status and wealth of people who could afford marten fur. It was a sought-after commodity in Tudor times (1485- 1603) and was used to show social rank.



A richness of martens.

There is no governing body for English. Speakers create, edit, add, and subtract words simply by what they use. This democratic governance of the language keeps it fluid and ever-changing. Which can be frustrating for those looking for the “right” way to do things.

That’s how the collectives can change over time. For example, a charm of goldfinches was at first a chirm of goldfinches. Chirm is the noise associated with a group of small children or insects and was a commonly used term back in the 1400s. As the use of the word chirm faded, our word for a group of noisy finches switched over to the now more commonly used charm.



A charm of goldfinches.

Another group name that has changed both with the language itself, as well as with scientific findings is, a murmuration of starlings. At one point a group of starlings was referred to as a mutation rather than a murmuration. This is because people once thought birds shed a leg at the age of ten and then grew a new leg to replace it, hence the name, mutation. Once that notion was disproved, the group name changed accordingly.



A murmuration of starlings.

So, the next time you see a gaggle of geese, a flick of hares, a gang of elk, or a parliament of owls have a good think and decide if you have a better term for that group. Then, start putting that new word to good use. Convince some friends to use it as well and you may even start a language revolution.

# NATURE DETECTIVES

Spring 2024

## Watershed!

Can you answer this stumper question? *Where do you live?*

**Hint:** The answer is not your home address, but it *is* the same answer for everyone on earth, even though we live in different places.

**Hint:** The answer is not “planet earth.”

**Hint:** The answer has to do with water.

**Answer:** You, I, and everyone else live *in a watershed!* Every place on Earth is in a watershed. Some watersheds are really big and some are tiny. The tiny and medium-sized watersheds are nested in the biggest watersheds.



Pull Out and Save

## What on Earth is a Watershed?

Look at the picture above. When it rains, or when lots of snow melts, water falls on the mountain forest canyons in the western part of our county. Some of the water stays on the trees, some soaks into the soil . . . the rest of it flows downhill into the creeks that splash and tumble down to the plains. The land through which the water drains is called a watershed.

Why? Because it's the land around a creek that *sheds water* into that particular creek. Mountain ridges separate one watershed canyon from another. The Boulder Creek watershed in the south, the St. Vrain Creek watershed in the north, and the smaller Lefthand Creek watershed in the middle are our main watersheds in Boulder County. Each one of us in the county lives in one of these. Our creeks drain into the South Platte River, which wiggles its way through Denver and beyond. Every place on earth is in a watershed. Some are really big, and some are tiny. Every animal, insect, and human lives in one of them.



## Why Do We Need Watersheds?

All of us, from hummingbirds to hairy golden aster flowers to humans, depend on the water in watersheds for life and food. 80% of our wild animals and insects must drink from our creeks to live. Farmers and gardeners feed the water to crops such as carrots and corn so these veggies will grow up and feed the rest of us.

Power plants have used water to generate electricity and gold miners always needed water to pan for gold. Firefighters use water to put out fires. When the water level in the creeks is lower, at the end of the summer, kids have fun tubing down and playing in shallower, calmer areas in the creeks. What do you use water for? Could you live without it?



## What is Fast Water and Slow Water?

When creeks rush fast, water gets from the mountain forests down to the plains faster. Farmers, ranchers, and factory owners get it as soon as it melts in the spring. When creeks turn and twist, the water stays in the mountains longer. It forms pools and wetlands — it sinks down into the soil. It is easier for insects and animals to drink and bathe in slower-moving water. It is easier for plants to grow in slower water. Slow water means more wildlife, and more plants, too.

Beavers build dams that slow water down, create more pools and wetlands. People in our county are starting to help beavers come back for this reason. Most of the water still seeps down to the plains, it just does it slower, and some trickles down *through* the ground as well as in the creek above ground. There is still plenty of fast water for kayakers and farms. And these well-watered areas most often stay green and healthy, even during a big forest fire. Wildlife and plants in these well-watered areas are safe — they don't burn.



In the mountains, slow water also lets water make its way down, down through the ground, to replenish underground water storage areas called aquifers. These are natural, not made by humans. Aquifers can be really big or small, where water pools in spaces between underground rocks. Often that water is very clean. Storing water underground means it will not evaporate in our dry climate.



## Slower Water

Slower water, which flows downhill through the ground as well as on top of it, also means that there is less chance of flooding — instead of all the water rushing away on the surface, the soil is storing it and the soil is a really big storage area. We do have above-ground, human-made water storage in Boulder County. They look like lakes. They are called reservoirs. But if you compare reservoirs to aquifers worldwide, 100 times more water is stored in the ground of the whole world than in all the world's rivers and lakes!



## What About Floods?

Not very often, but once in a long while, such as in 2013, it rains and rains and rains and the creek has to carry more water than it can hold. It is as if you poured water into a cup that was already full and just kept pouring. That water has to go somewhere. If there is an apartment building by the creek, the flood waters will go there. If there is a nice wide natural area on each side of the creek, the water will go there.

In places where there are a lot of grasses, flowers, bushes, and trees growing on the riverbanks, their roots, stems, and leaves can help suck up the water, which slows flooding down. This helps keep the ground in place.

In places which are bare dirt or concrete with no or few plants, the water does not get slowed down and its rushing force can uproot the few plants or trees and wash away huge sections of land.

Boulder County knows this and makes sure there are lots of living plants sloping gently right down into to the water on our open spaces where the creeks run, helping to hold the creek banks in place.



## Activity: Sculpt a Watershed, Watch the Water!

Ask an older person to assist and play!

### To Start

Get a heap of sand and/or clay and/or dirt to sculpt with.

Any of these will do. If you have all of them, you can compare how the water flows and sinks in each. Choose one to start with.

### Sculpt a mountain canyon with a creek flowing through it.

- Make some parts of the mountainside steep and some gentle.
- Make parts of the creek bed turn-y and twisty and some straight.
- Make parts of the creek sides (the earth that contains the creeks) steep and some gently sloped.
- Put rocks (pebbles) and pretend bushes on some parts but not others.
- Make a beaver dam right on the creek bed.



### Things you can add:

- A road or a path alongside the creek, like the roads and paths along the creeks in the canyons in our county.
- Pine tree and other sturdy twigs in your canyon to make it look like a pine forest.
- Rocks around, in, and near the creek.
- Tiny play figures to be kayakers or people on the paths, or maybe put some houses near the creek.

**Now, take a watering can, fill it, and gently rain down some rain onto your mountainside and creek. Then make it rain harder . . . then a little harder . . .**

How does the water flow differently down the mountain and in the creek when the mountainside is steep? When it is gentle? When the creek bed is straight and narrow? When straight and wide? Turn-y and twisty? With a beaver dam or tree blocking the creek or part of it? When the banks of the creek are steep? When they are gently sloped?

How fast or slowly does the water sink into the mountainside when it is made of sand? Of clay? Of dirt? When there are rocks around the creek? When there are trees near the creek or far away?

Play with the force of water — make it fast, as a kayak racer would like, or slow, as a beaver would. Re-sculpt the landscape and see: what happens when the water is fast? When it is slow?

Have fun! Take a walk by one of our creeks before and after. Share what you learn with family or friends!



# Fire-Adapted Trees

by Patrick Morgan

The dry climate of Boulder County means that wildfires can be common, as many of its residents are aware. The behavior of these fires is shaped in part by the characteristics of certain trees, which have developed adaptations to this disturbance. Being able to identify the relationship that certain plants have with fire is essential to better understanding these fire-adapted ecosystems.

## TYPES OF ADAPTATIONS

Plants that have adapted to tolerate fire are called pyrophytes. Some have even evolved to encourage fire through various means, these are known as active pyrophytes. Plants that have developed adaptations to resist major damage from a fire are known as passive pyrophytes. These two groups respond differently to varying degrees of fire intensity and severity.

One group of pyrophytes are known as resisters. These plants can survive low to moderate intensity fires due to their adaptations that prevent fire from damaging their living tissues. A great example is the ponderosa pine (*Pinus ponderosa*). This tree is well adapted to dry conditions and periodic wildfires. One adaptation that they have is a thick, corky bark, which helps protect the inner tissues from heat damage. They also possess a self-pruning strategy in which they shed their lower branches over time. This prevents a surface fire from moving up the tree to the crown, where most of the living needles are. The last tool they possess is a deep root system. During a fire, the surface roots of the tree may be killed, but the deeper roots will survive and continue to provide the tree with nutrients.

Another group is known as sprouters. As the name suggests, these species re-sprout from their roots after a burn. When a fire moves through an area, it removes older and decaying vegetation, which gives the new plants more room to grow. It may cause damage to the parent plant, but the new shoots can take advantage of the nutrients in the soil after a burn. One of the most familiar sprouting species is the quaking aspen (*Populus tremuloides*). Aspens have a shared root system that shares nutrients between different ramets, which are the individual “trees” in an aspen grove. This shared root system enables aspens to take over a burn area quickly.

The group known as seeders has a unique relationship with fire. This group often holds its seed in the cones until high temperatures (often wildfire) open cone scales and release the seed. This is known as serotiny. An example of a serotinous tree is the lodgepole pine (*Pinus contorta*). Lodgepole pine forests can be very dense and are susceptible to high intensity fires, known as stand replacement fires. This refers to a fire that is lethal to most above ground vegetation thereby setting the stage for a new forest to grow. As fire moves through lodgepole forests, many serotinous cones are opened and the seeds can take advantage of nutrient rich soils and abundant sunlight.

Wildfires cause a tremendous disturbance in any ecosystem. From a human perspective, it often seems like the landscape has been destroyed. To the pyrophytic plants that have developed adaptive responses to fire, however, these disturbances are simply a fact of life for them. Some can resist the damages that come with a burn, while others use the heat to either expand its territory or bring forth the next generation. By coming to an understanding of the role that fire has in the life cycle of these trees, the people of Boulder County can adapt themselves to these ecosystems and create resilient landscapes for future generations of our own.



Ponderosa pine. Note the burn scar at the base of the tree. Mature ponderosas are well-adapted to resist fire.



Lodgepole pine cones. These seed cones are sealed with resin and need intense heat to open and release their seeds.

# Calendar of Events

Registration is required unless otherwise noted. Children must be accompanied by an adult. NO PETS, PLEASE!



## DISCOVER HARNEY-LASTOKA OPEN SPACE

Saturday, March 16, 1-3 p.m.

Harney-Lastoka Open Space, Louisville

Adult Program (Ages 13 & older)

Come discover Harney-Lastoka Open Space! Whether you have visited many times, or this is your first visit, this program will reveal a Harney-Lastoka that you have never known. While taking a flat, 1.2-mile hike, we'll tell stories, share fun facts, and explain the unique natural and cultural history of this open space property and development buffer located between Lafayette and Louisville.

## CRADLE IN THE CANOPY: UNVEILING THE SECRETS OF BIRD NESTS

Saturday, March 23, 1-3 p.m.

Pella Crossing, Longmont

All Ages Welcome

Bird nests range from a scrap on the ground to intricately woven hanging baskets. Join volunteer naturalists for an easy end of winter walk in search of some of these diverse structures created by amazing avian architects.

## AMAZING GRASSES OF BOULDER COUNTY

Tuesday, March 26, 6:30-7:30 p.m.

Lyons Regional Library, 451 4th Ave., Lyons

Adult Program (Ages 13 & older)

Boulder County supports an amazing variety of grasses. The grass family is one of the most important and common plant families, yet grasses are often overlooked because some don't regard them as very showy. But look closely and you'll develop a new appreciation for these beautiful plants! Grasses provide critical food for people and wildlife, prevent soil erosion, and are heroes in the fight against climate change. Register with the Lyons Regional Library at [boco.org/AmazingGrasses](http://boco.org/AmazingGrasses).

## WAKING UP IN NATURE: A MINDFULNESS HIKE TO GREET SPRING

Saturday, April 6, 10 a.m.-noon

Heil Valley Ranch, Boulder

All Ages Welcome

Springtime is a time of great awakening in nature. Hibernating animals shake off their deep slumber, trees and shrubs loosen up and start their new growth cycle, babies are born, and plants begin to flower. Join us on a mindfulness hike in nature as we embrace the great awakening and observe how nature begins to shift and stretch before our eyes.

## FOLLOWING THE FLOCK: WELCOMING SPRING'S MIGRATING BIRDS

Wednesday, April 10, 8:30-10:30 a.m.

Lagerman Agricultural Preserve

Adult Program (Ages 13 & older)

Join volunteer naturalists on a birdwatching experience along Lagerman Reservoir in search of early spring migrating birds including waterfowl, shorebirds, and songbirds. Learn about the amazing endeavor that is migration and how these mighty flyers can make the treacherous journey that is often miles and miles long.

## BIRDING THROUGH THE SEASONS SLIDESHOW PROGRAM

Tuesday, April 16, 6:30-7:30 p.m.

Lafayette Public Library, 775 Baseline Rd., Lafayette

All Ages Welcome

Join volunteer naturalists to learn about birding year-round in Boulder County. This program will explore where to find and how to identify some of our local and migratory birds and introduce you to an amazing range of ecosystems and habitats.

## NATURE DETECTIVES IN THE FIELD: RAIN DROP RACING - FOLLOWING OUR WATER'S PATH

Friday, April 19, 10 a.m.-noon

Ron Stewart Preserve at Rabbit Mountain

Families (Ages 6 & older)

A cloud hovers above, ready to unleash. The first couple drops come racing down, hitting the ground around your feet. Soon after, a rush of water comes flowing down. Using activities and games, we will explore where our water comes from. We will learn about water's properties and watershed dynamics and get a better understanding of what happens to rain and snow on the landscape. This program is geared toward children ages 6-8, but all are welcome.

## SCALES ON THE TRAIL: DEMYSTIFYING THE RATTLESNAKE

Sunday, April 28, 1-3:30 p.m.

Ron Stewart Preserve at Rabbit Mountain

All Ages Welcome

Watch your step! Join volunteer naturalists on a moderate trek through prime rattlesnake habitat and learn about these often misunderstood and feared creatures. Meet at the shelter to share in a discussion about rattlesnake habitat and behavior and learn things you'd never imagine through seeing and feeling. You'll walk away feeling more comfortable about sharing open space with these scaly friends.



## BIODIVERSITY IN BOULDER COUNTY: PAST, PRESENT & FUTURE

Friday, May 10, 6:30-8 p.m.

Parks & Open Space Building, 5201 St. Vrain Rd., Longmont  
Adult Program (Ages 13 & older)

Join volunteer naturalists as we explore the evolution of biodiversity in Boulder County over time. What plants, animals, birds, and insects were present in 1720, 1820, 1920, 2020? How do these changes compare to biodiversity evolution over much longer periods of time on the front range? What animals, plants, and life forms might we experience on a hike in 2120? How might we respond to these unprecedented changes and help protect, or even restore, some of our 'more than human kin' that share our Boulder County home?

## A BUTTERFLY'S LIFE SLIDESHOW PROGRAM

Saturday, May 11, 2-3:30 p.m.

Louisville Public Library, 951 Spruce St., Louisville  
All Ages Welcome

Are you curious about butterflies or ever wondered where monarchs go during their incredible migration? Join volunteer naturalists for a beginner's guide to our colorful local butterflies. This slide program will review the amazing life cycle of butterflies, and will cover basic information on behavior, host plants, identification tips, and more.

## CAMINATA CON MAMÁ: BILINGUAL WILDFLOWER HIKE

Sunday, May 12, 1-3:30 p.m.

Bald Mountain Scenic Area, Boulder  
All Ages Welcome

Siempre hay flores para aquellos que quieren verlas. Join us for a moderate 1.5-mile wildflower hike to celebrate Mother's Day. We will saunter along the trail in between Ponderosa Pines in search of early bloomers. Come look for yourself as bilingual naturalists help you learn about and identify the unique vegetative biodiversity you will find in Boulder County.

bilingual program!

## Senior Fish-off



Friday, April 26, 6:30-10 a.m. Wally Toevs Pond at Walden Ponds Wildlife Habitat, 75th St., between Valmont Road and Jay Rd., Boulder

The trout have fattened up and are biting! Prizes will be awarded for heaviest rainbow trout, most experienced (oldest) angler, best fishing hat, and first to catch the limit.

- Open to seniors 65 years and older.
- All anglers must sign in — no fishing before 6:30 a.m.
- Valid 2024 Colorado fishing license required.
- Live bait and artificial flies/lures permitted — bring your own fishing gear.
- Wheelchair-accessible fishing pier is available.

For more information, contact Michelle Marotti at [mmarotti@bouldercounty.gov](mailto:mmarotti@bouldercounty.gov) or 303-678-6219.

## LIVING UNDER THE WATER! KIDS PROGRAM

Saturday, May 18, 9-11 a.m.

Stearns Lake at Carolyn Holmberg Preserve, Broomfield  
Families (Ages 6 & older)

We enjoy watching the many critters that live near and on the water, but what about what lives under the water? Join us as we explore the critters that live in ponds like snails, nymphs, and fish. We will be pond dipping using nets and dissecting plant parts to explore how these amazing plants and animals live under the water. This program is geared toward children ages 6-8, but all are welcome.

## ASSAY OFFICE MUSEUM OPEN HOUSE

Saturday, May 18, 11 a.m.-3 p.m.

Assay Office Museum, 6352 Fourmile Canyon Dr., Boulder  
All Ages Welcome

Stop by the unique Assay Office Museum on this open house day. Learn about assaying, hard rock mining, and the families in the area from long ago. Registration not required.

## FOOTHILLS ECOLOGY HIKE

Sunday, May 19, 10 a.m.-12:30 p.m.

Heil Valley Ranch, Boulder  
Adult Program (13 & older)

The different sandstone formations that form the tapestry of landforms we find in many parts of the foothills tell a story. Explore how uplift, erosion, and time have uncovered these natural beauties and the unique nature these areas hold. Bring along hiking poles and sturdy boots as you hike up the trail with volunteer naturalists to observe the hogbacks and valleys from above.

## FUN ON THE FARM: HOW DOES YOUR GARDEN GROW?

Friday, May 24, 9:45 – 10:30 a.m.

Agricultural Heritage Center, 8348  
Highway 66, Longmont  
Ages 5 and under

Learn about animals, plants, and agricultural life. Program includes a short story time, hands-on activities, and a take-home craft. Afterwards, explore the farm. Children must be accompanied by an adult. Registration not required.



## THE MYSTERY OF BIRD MIGRATION SLIDESHOW PROGRAM

Tuesday, May 28, 6:30-7:30 p.m.

Lyons Regional Library, 451 4th Ave., Lyons  
Adult Program (Ages 13 & older)

Join volunteer naturalists in exploring the mysteries surrounding the world of bird migration. Why do birds migrate? Why some and not others? Come find the answers to these questions and more as we talk about where you can observe birds in migration.

## HIKES FOR SENIORS

### WELCOME SPRING! UNDERSTANDING THE EQUINOX

Thursday, March 21, 1-3 p.m.

Pella Crossing, Longmont

Easy Hike. Spring forward and join us for a leisurely walk around the ponds at Pella Crossing where we will look for signs of spring's return. Join volunteer naturalists in exploring the phenomena of the spring equinox and what makes spring the great awakening that it is.

### NATURE'S NURSERY: CALVING COWS AND LIFE CYCLES OF THE UNGULATES

Wednesday, April 24, 1-3 p.m.

Mud Lake, Nederland

Easy/Moderate Hike. Join us on a wondrous journey into the heart of spring, where nature unfolds its most intimate and powerful chapter: the miracle of life. Step into the secret world of newborn fawns and calves and learn about the tender bond between mothers and their wobbly-legged offspring.

### A MICROWORLD: WILDFLOWERS & POLLINATORS

Thursday, May 30, 10 a.m.-noon

Walker Ranch Meyers Gulch Trailhead, Boulder

Moderate Hike. Wildflowers are blooming and showing their bright colors. Purples, yellows, whites, and reds dot the hillsides and valleys at higher elevations. Bask in the natural beauty that sprouts from the ground. Find these flowers along the trail as volunteer naturalists share stories and uses for some of our native plant species and learn more about their special relationships with the pollinators and insects that make up their micro-community.

## HAMMERING ON THE FARM

Saturday, April 6, 10 a.m.-noon.

Friday, May 3, 10 a.m.-noon.

Saturday, May 18, 10 a.m.-noon.

Friday, May 31, 10 a.m.-noon.

Agricultural Heritage Center, 8348 Ute Highway 66, Longmont

Drop by anytime from 10 a.m. to noon to watch the blacksmith work his craft. Listen to the clang-clang-clang of the hammer and the hum of the coal forge blower. Learn about blacksmithing tools such as hammers, tongs, anvils, swage blocks, and more. All ages welcome. Registration not required.



## VOLUNTEER WITH BOULDER COUNTY PARKS & OPEN SPACE

Did you know that we rely on volunteers to improve our open spaces, protect wildlife habitat, provide public programming, and share the history of Boulder County with the public? Our volunteer opportunities range from one-time to ongoing and all skill-levels are welcome.

Learn more and get involved at

[boco.org/  
BCPOSvolunteer](http://boco.org/BCPOSvolunteer)



Sign up to receive volunteer emails at

[boco.org/  
VolunteerEmails](http://boco.org/VolunteerEmails)



## NIGHT PROGRAMS

Join volunteer naturalists for a one-mile round-trip hike on an easy trail. Together we will discover the amazing mysteries of our night sky. Bring water, close-toed hiking shoes, and a flashlight. Space is limited.

### ASTRONOMY: OUR MOON

Friday, March 15, 7-9:30 p.m.

Ron Stewart Preserve at Rabbit Mountain

All Ages Welcome

Let's talk about our moon! We'll discuss its craters and mountains, human interactions and its interactions with the sun and earth creating solar and lunar eclipses.

### ASTRONOMY: WHAT'S IN A NAME?

Friday, April 12, 7:30-10 p.m.

Ron Stewart Preserve at Rabbit Mountain

All Ages Welcome

Stars and planets have many names associated with mythology and sometimes just a number. Learn more about some of the stories and science of star names.

### ASTRONOMY: NIGHT SKY NEIGHBORS

Friday, May 3, 7:30-10 p.m.

Ron Stewart Preserve at Rabbit Mountain

All Ages Welcome

We wish upon falling stars and worry about asteroids in the neighborhood. Learn more about what a meteor shower is and what we are learning about "local" asteroids.



## Now Hiring Seasonal Positions Work Outdoors & Get Paid

**Rangers**  
**Youth Corps**  
**Trails**  
**Forestry**  
**Facilities**

**Plant Ecology**  
**Education & Outreach**  
**Wildlife**  
**Grounds**  
**Agriculture**

**Join Us!**

**[www.BoulderCounty.org/jobs](http://www.BoulderCounty.org/jobs)**

## Caribou Ranch Annual Closure April - June

This annual spring closure from April 1 through June 30 protects spring migratory birds, overwinter elk survival, and elk calving and rearing activities. Please respect wildlife needs for solitude.

Migrating from lower elevations, the local elk herd arrives every spring. Females calve on the property and remain until June or July, when they move to higher elevations.

Parks & Open Space strives to find a balance between providing recreational activities and protecting wildlife habitats and natural resources.

Violators of the closure can be fined up to \$300 by the resident ranger and county sheriff deputies who patrol the open space property.



## Agricultural Heritage Center Opens April 5



Come to the farm! Enjoy the rural setting and learn about the agricultural history of Boulder County. The farm includes two barns with exhibits, a milk house, and a furnished 1909 farmhouse.

There are also animals on site including chickens, pigs, sheep, and other critters.

**Hours:** open every Friday, Saturday, and Sunday, 10 a.m.-5 p.m. April through Oct.

**Admission:** Free

**Location:** 8348 Ute Highway 66, Longmont

**For additional information visit [boco.org/ahc](http://boco.org/ahc)**

## Get Muddy!

### Why Should I Get Muddy?

Wet ground is fragile. Winter snows and spring rains saturate and soften the ground, making it very susceptible to recreation impacts.

### When trails are muddy:

- Use before 10 a.m.
- Visit another park that has hard-surface trails

### Stay on the trail and go through mud.

Shortcutting switchbacks and bypassing mud puddles greatly increases erosion, widens trails, and destroys vegetation.

Boots, bikes, and horses clean up fast, but trails take years to heal.

### Before you go:

- Check trail conditions
- Visit [boco.org/trails](http://boco.org/trails) for current trail conditions

### Pick the Right Trail

In wet conditions, use hard-surface trails at lower elevations, such as:

- Coal Creek Trail
- Boulder Creek Path
- St. Vrain Greenway Trail

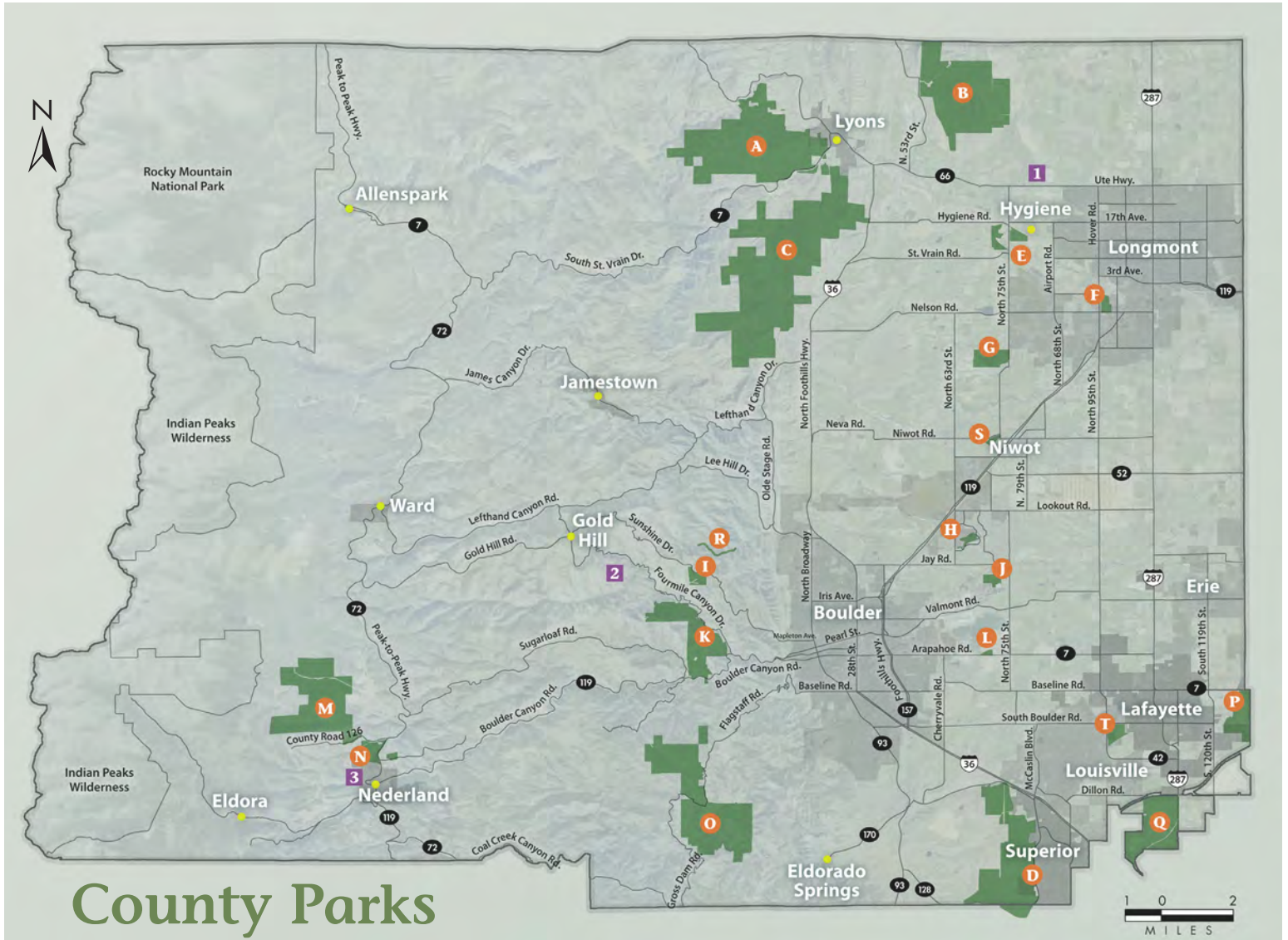




## Parks & Open Space

5201 St. Vrain Road, Longmont, CO 80503

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



# County Parks

- |  |  |   |  |
|--|--|---|--|
| <b>A</b> Hall Ranch                              | <b>F</b> Boulder County Fairgrounds    | <b>L</b> Legion Park                                  | <b>R</b> Anne U. White                       |
| <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> Flagg 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             |