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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: Moose at Mud Lake; photo by Vicki Braunagel

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Krummholz . . . . . Dave Powell, USDA Forest Service, Bugwood.org
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Illustrations: Michelle Durant

DISCOVER BOULDER COUNTY
Larry Colbenson and Sheryl Kippen

IN CLOSING
Karen Imbierowicz, Larry Colbenson, Michelle Bowie

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EDITORS
Rachel Gehr and Pascale Fried

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Comprehensive Plan Update: The Role of Parks and Open Space

by Justin Atherton-Wood

Since its official adoption in 1978, the Boulder County Comprehensive Plan (the Plan) has guided the work of the Parks and Open Space (POS) Department. And, to a certain extent, both the Plan and the department, established in 1975, have evolved side-by-side since that time. This remains the case today. Over the years the Plan has largely stood the test of time, subjected only to incremental changes limited both in context and focus, but now it is starting to look its age, so to speak. So, when the Boulder County Land Use Department launched a multi-year, multi-departmental effort in 2011 to update the Plan into a more contemporary and interconnected body of work, it was natural to involve POS staff. Together, we have collaborated closely on components of the Plan that POS staff have expertise in and on portions of the Plan that provide guidance for the policies and programs that Parks and Open Space has a role in developing and implementing. One such component is the Environmental Resources Element.

Long Term Vision

By way of background, the Plan was first developed "to respond to the widely accepted principle that the myriad of future land use decisions affecting the county's lands should be made in a coordinated manner." As such, one of the main purposes of the Plan is to provide a long-term vision for lands and resources in the county that would in turn guide decisions about land use, as well as guide the development and implementation of regulations, policies, and programs. Environmental resources such as wildlife, wetlands, natural areas, and ecosystems are of course an inextricable part of those lands and resources. And, the Environmental Resources Element is rooted by its first goal that states that these resources "should be conserved and preserved in recognition of the irreplaceable character of such resources and their importance to the quality of life in Boulder County."

Since its adoption, the philosophy of the Comprehensive Plan has remained that growth and development should be channeled to municipalities, agricultural lands should be protected, and the preservation of environmental, historic and natural resources should be a high priority in the decisions that the county makes. As defined by state statute, the Comprehensive Plan is an advisory document that is adopted by the Planning Commission – it has no regulatory authority in and of itself. Given the advisory nature of the Plan, other tools have been developed to carry out the goals and policies. These tools include a host of regulations, policies, and intergovernmental agreements that helped to shape a pattern of development in the county that is consistent with the vision outlined in the Plan. Primary among these tools are the Boulder County Land Use Code, the Open Space acquisitions program, and intergovernmental agreements (IGA). These tools are useful means for balancing the multi-faceted aspects of land use in the county such as safeguarding unique and distinctive environmental resources and guiding annexation and development in a coordinated manner.

This summer, the ERE team is spending time in the field assessing resources for designation in the Comprehensive Plan. Pictured here: team members take a closer look at a chorus frog, a Species of Special Concern, on the shore of a pond on the North Pointe property just east of Heil Valley Ranch. This area is being considered for designation as Critical Wildlife Habitat.

The Environmental Resources Element

In seeking that balanced approach, the Plan is organized into multiple thematic elements such as the Environmental Resources Element (the Element). Other elements include Open Space, Agriculture, Transportation, Housing, Solid Waste, and Sustainability. While each element looks at the county's lands and resources through a unique lens, relevant goals and policies from all of the elements are considered in policy development. At times, goals and policies may appear somewhat incongruent with one another, so trade-offs inherent in any proposal are given due consideration. This is apparent even in the Plan's goals. For example, Goal A.2 states that "existing communities should grow at whatever rate they consider desirable, within the limits of what is acceptable to the citizens of areas potentially affected by that growth, and to the citizens of the county, while preserving and improving the quality of life and the aesthetic and functional fitness of land uses within the county." In that goal alone, the many considerations and impacts that come to bear on any given land use decision are apparent.

After months of collaboration and public discussion, the updated language of the goals and policies of the Element was approved by the Planning Commission in June 2013. The ground-rules of the update were for staff to review the existing goals and policies in the Element, last amended in 1995, to identify those that were out of date, redundant or conflicting with other policies, and have led to the development of programs that have become a regular part of county operations and functions. After that analysis, staff proposed changes that reflect the primary objective of the update: to retain and sustain the core goals of the Plan while making it more reader friendly, concise, contemporary, and consistent. Over the course of the review, nearly 70 goals and policies were reduced to 27 goals and policies that will continue to serve as an enduring cornerstone of the vision set forth in the Plan.

Maps and Management

Concurrent of the update to the goals and policies, POS staff have also been involved in an in-depth effort to contemporize the map component of the Plan for the resources included in the Environmental Resources Element. These maps are the Natural Communities, Rare Plants, Riparian Corridors, and Critical Wildlife Habitats map and the Environmental Conservation Areas, Natural Landmarks & Natural Areas map. This effort also included an update to the Species of Special Concern, the lists of plants and wildlife that are of special interest and concern. At a more programmatic level, this guidance will continue to inform the work that Parks and Open Space does managing environmental resources on county-owned lands and in collaboration with other agencies, jurisdictions, and private land owners. It is anticipated that a public discussion of this component of the update will begin later this year.

If you are interested in reviewing the existing Boulder County Comprehensive Plan and learning more about the update process please visit our webpage at www.bouldercounty.org/property/build/pages/bccpupdate.aspx. There are two informative short videos and you may also sign-up for a listserv to be alerted to upcoming meetings and other opportunities to provide input on the development of the update.

Crooked Wood of the Alpine

by Sally Wier

The crest of the Colorado Rockies, the Continental Divide, is where the terrestrial merges with the ethereal. Land meets sky. These are the mountain margins where forces of wind, cold, and searing sunlight beat upon the land with power and intensity. Yet in a world dominated by rock, snow, and ice there may still be found patches of deep green intermixed with glints of silver. These are the gnarled and distorted trees known as krummholz. Embodying resilience and gentle strength in the face of alpine extremes, krummholz trees add texture and dimension to their harsh environment and beautify the margins of the mountain world.

The German word, krummholz, means "crooked wood" and the name could not be more apt for these asymmetrical, stunted, twisted, and contorted trees. Krummholz is not a distinct species of tree, but rather the form in which a variety of sub-alpine tree species manifest themselves when they grow on the limits of where life is possible. Along the Colorado Front Range, patches of krummholz are largely comprised of either Engelmann spruce or sub-alpine fir. Limber pine and lodgepole pine occur as well, though less frequently. Engelmann spruce and sub-alpine fir concentrate their growth between 9,300 and 11,000 feet of elevation and reach their upper limitations around 11,500 feet. This upper limit is the contour known as treeline; above it, survival is impossible for these plants.

Instead of rigidly opposing the powerful elements of the alpine, krummholz moves in response to the conditions to survive in the face of unlikely odds.

At treeline, elemental forces of nature are intensified. Life forms that live here must adapt to endure an endless onslaught of ripping and scouring winds, brutally cold temperatures, heavy snowfall, and potent sunlight that is no longer filtered through so many layers of atmosphere. The growing season is often only forty-five days long, the average temperature for the warmest month of the year (typically July) is a mere 50 degrees Fahrenheit, and snow can fly on any day of the year. These are the challenges despite which the krummholz survives.

Resilient to Extremes

To survive in these harsh mountain conditions, these trees must develop a resiliency to the environmental extremes surrounding them. This resiliency is born out of the gentleness and leniency of the trees towards conditions that would otherwise thwart them. Instead of rigidly opposing the powerful elements of the alpine, krummholz moves in response to the onslaught and in so doing gracefully, quietly and very effectively can survive in the face of unlikely odds.

The first way krummholz moves to survive is to lower itself. It grows in shrub-like and stunted forms, often reaching heights of only one to three feet. Secondly, the trees grow in asymmetrical forms and shapes in response to alpine winds. Growth on the windward side of a tree cannot survive the cold and desiccation and so new growth is predominantly found on the leeward side of the tree making the branches stick out like a flag in the breeze. Thus krummholz trees are often referred to as "flag trees" and commonly look like they have been pruned in the manner of a topiary or bonsai.

Strength in Numbers

The third and perhaps most surprising way krummholz moves to survive is not individually, but collectively. Krummholz usually grows in irregular and discreet stands known as "tree islands." By growing in these low, tight clumps, they find a degree of safety in numbers and are so closely linked that they literally move over the land. As trees on the windward side of a tree island are exposed to direct winds and cold temperatures they eventually succumb to the elemental extremes and die. However, as these trees accept the full brunt of the alpine's challenging climate they simultaneously protect the trees on the leeward side. These protected trees are thus able to establish themselves, grow, and even reproduce. As one edge of an island dies, the opposing side continues to expand. Though few krummholz trees produce seeds in this environment, the plants can expand their territory through a process known as "layering." When stunted branches make contact with the soil they can take root and the trees can, over time, effectively begin to travel and migrate over the landscape. Research done along Colorado's Front Range shows that tree islands can move several centimeters per year.

The alpine heights, the margins of where life is possible, the rocky skirts of the Continental Divide—this is the realm of the krummholz. Battered and bruised by relentless cold and wind, these trees endure. These trees of resilience, gentleness, and leniency stand beautifully, as Ann H. Zwinger and Beatrice Willard once said, as "battlescarred heroes in a kind of sylvan Valhalla."

Field Notes

A Day in the Life of the Manager of the Resource Management Division

Today I started out at Kenosha Ponds, a restored gravel mine that now hosts curlews, herons, bald eagles, yellow headed blackbirds, and many wetland plants. Plenty of birds, but also plenty of weeds, we need to address that. . . . . Then I visited the county's log storage facility in Longmont to see the wood from our forestry thinning project. This will be next year's biomass heat for the county jail and the parks buildings. Now I am answering emails from the U.S. Forest Service about a joint planning project. And before the day is through, I will answer a question from the public about acres of prairie dogs in our Habitat Conservation Areas.

As Resource Manager, I work with a division of 35 staff members whose job it is to manage our natural resources, the ones county residents voted to protect. We have plants and animals on open space properties that span ecosystems from the plains to the tundra. We steward habitat for rare bats, threatened plants and not-so-rare elk, hawk, mice and more. It is our duty to assure that our parks and open space properties provide all the necessary ingredients for these plants and animals to survive and thrive. A tall task, but we are up to the challenge.

The Resource Management staff includes plant ecologists, wildlife biologists, weed specialists, foresters, rangers, and education and outreach specialists. They conduct surveys to find out what is using this precious land. They are busy daily identifying and implementing restoration projects on our wetlands, forests and prairies. They engage the public on guided wildlife, flowers or geology tours, junior ranger programs or volunteer projects. In my daily work I get to review the restoration plans, visit the projects on the ground, or work on larger scale management plans that help direct our staff's future efforts.

Periodically I meet with colleagues at the City of Boulder, the U.S. Forest Service, and the Colorado Division of Parks and Wildlife. We discuss habitat protection across boundaries. Recently we met to determine what trails might impact a new golden eagle's nest. Who would educate the public about this special resource? When and how should the closure be in place? What happens next year if the eagles choose a different site? Working with other agencies whose mission is also natural resource protection is very rewarding.

Meetings and paper work are part of the job, but I love getting out into the field. I have been lucky enough to accompany our mountain lion researchers tracking a mountain lion. I recently accompanied staff visiting a new property in the mountains to purchase. Walking through the snow and along a beautiful creek, we discussed how the public will enjoy this property and how the resources can be protected well into the future. Indeed, I have the best job in the department!

-- by Therese Glowacki, who has been Division Manager for 14 years

Left: Therese Glowacki, along with resource staff Chad Julian and Bevin Carithers, look at forest health on Bald Mountain Open Space.
Right: A cougar tagged to be part of a research study.

Gentle Giant of Boulder County

by Karen Imbierowicz

This is a story of greatness, longevity and strength. For over 120 years, a special cottonwood tree made its home in an irrigation ditch running through property owned by Boulder County in Hygiene. In 1967, the tree was designated a national champion, the largest of its species, by the American Forests organization. Champion trees are measured using the American Forests calculation based on trunk circumference, height and average crown spread. The Hygiene Champion Cottonwood tree was nominated by Alegra Collister, a Longmont Audubon member, and until its demise in 2012 was recognized as the largest Plains Cottonwood in the registry. At its apex, this "Gentle Giant," as it became to be known, measured 112 feet tall with a 36 foot circumference!

In 1995, Boulder County purchased the property where the tree stands to protect the riparian corridor along the St. Vrain Creek. Special wildlife species found to thrive along this corridor include a 17-nest heron rookery, federally protected Preble's meadow jumping mouse, beavers and native fish which provide food for osprey, bald and golden eagles.

Vivienne Jannatpour, a Parks and Open Space employee, leans against the Champion Cottonwood.

A 45-Year Champion

According to the American Forests website "most champs are lucky to have a continuous run of more than five years." The Gentle Giant remained a champion for 45 years! However, in 2010, Boulder County Parks and Open Space staff began noticing the slow but steady decline of the tree and in 2011 the last growth was observed on the great tree. In March of 2012, forester Zach Price scaled the tree to determine if there was any live material. None was found. At this time, the department wanted to propagate the tree in hopes of continuing its legacy.

Recent core samples determined the tree was between 120 and 145 years old, another exceptional characteristic considering most cottonwood trees live about 70 years. Given that the tree has a girth wide enough to require 13 men holding outstretched arms to encircle it, a specialized long bore was needed to gather samples. These scientists used a 100-centimeter-long bore to obtain three core samples to determine the tree's approximate age (a special thanks goes to Jonathan Friedman of the U.S. Geological Survey and Jeff Lukas of the University of Colorado's Cooperative Institute for Research Environmental Sciences). The department decided to let the tree stand for as long as it will, harvesting wood when possible after it falls.

Continuing the Legacy

As part of the celebration of the tree, the department wanted to offer a few community organizations a Champion Cottonwood sapling. Because we were not able to harvest any live growth from the tree itself, we looked to nearby sprouts with the potential of being offspring or genetic clones of the Champion. To confirm the genetic match of the sprouts, we were fortunate to locate Dr. Matias Kirst, Professor of Quantitative Genetics at the University of Florida, Gainesville. Arborist Cathy Thiltgen collected samples of the dried leaves of the deceased cottonwood along with the living leaves of the sprouts to send to Florida for testing. Testing confirmed that the sprouts were genetically identical to the Gentle Giant, allowing us to move forward.

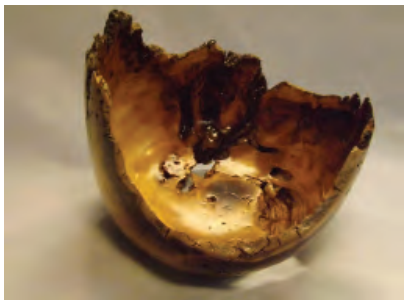
Sapling clones continue to be grown at the Colorado State University greenhouse and we plan to present these to a few community organizations who can offer a suitable environment for the young saplings to thrive so that the story of this Gentle Giant of Boulder County stretches into the future.

On a damp spring day in May 2013, smoke billowed from the trunk's hollow cavities. Local fire authorities extinguished the fire, but a massive limb (almost a third of the entire tree) split off and crashed to the ground further weakening the now fragile giant. This photo shows several crews responding to the fire.

Art Exhibition Celebrates Champion Cottonwood Tree

In the fall of 2012, our forestry team used a special crane to harvest a fallen branch that measured the same size as an average, fully-grown cottonwood tree. The wood was offered to select Colorado woodworkers to create artistic pieces for an exhibit. Nine artisans will display works including functional art, turned bowls, vases, furniture and folk art.

Exhibit Information: Longmont Museum, 400 Quail Road, from November 16, 2013 to January 19, 2014. For more details, visit the department's webpage at: www.BoulderCountyOpenSpace.org/woodwork



Clockwise from top: table by Chris Olberding; bookends by Tim Obrien; bowl by John Rexford

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 Rick Adams and Katelin Craven at the University of Northern Colorado in Greeley, Colorado. Their project focused on the effects on bats of forest structure changes caused by fire and human manipulation.

Abstract: Few studies have quantified the effects of fire on the foraging patterns of bats and no studies have occurred in the western U.S. We compared usage by bats of burned and thinned forest sites as well as meadows to that of unmanipulated forest stands (control). Our data showed extensive use by bats of both burn areas, however, the burn site that had a perimeter of live trees was used most extensively and in terms of activity was equivalent to our meadow and forest plots. Burn 2 was centered in the large Overland Burn area and did not receive as much activity. However, in terms of bat biodiversity defined as species richness and species evenness, Burn 2 had the higher Shannon Index score. In comparative plots set in meadow, forest and thinned sites near Ingersol Quarry, Thinned and Meadow sites had similarly high bat biodiversity. Forest had much less, but this was because it was dominated by the gleaning specialist M. evotis that has established this area around the quarry as a major breeding grounds. We also report herein on the third year of our study on bat use of masticated forest sites, capture data from Ingersol Quarry and Plumely Canyon, a preliminary study on comparison of wet (Geer) versus dry (Plumely) canyons in terms of bat activity and insect biomass. In addition, we report on the 6th year of data acquisition from our PIT-tag reader in Geer Canyon.

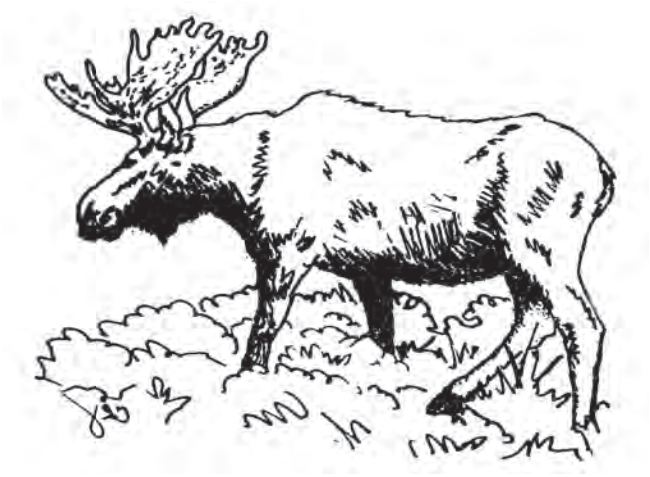
Conclusions: First year data on the use of Burn sites by bats showed differing patterns of use depending on whether or not the plots had live trees lining its perimeter. Burn 1 that had a treed perimeter had by far significantly higher bat activity than did Burn 2. These data suggest that having live trees in a given locale increases the use by bats significantly, likely due to nearby cover for avoiding predation by owls. However, counter intuitively, species diversity calculated by the Shannon Index showed that Burn 2 had greater evenness across species because Burn 1 was dominated by E. fuscus whereas Burn two had greater activity of myotis species that one would think would be more tied to having live trees nearby. More fine-grained analysis will be necessary as well as replication of data collection to fully discern these patterns. For plots associated with Thinned areas near Ingersol Quarry, we found that thinned areas had highest use and was essentially tied in biodiversity with the Meadow grid. Forested areas had lowest activity and diversity, but were the main foraging areas for myotis species, especially M. evotis. The area around Ingersol Quarry has the highest incidence and density of reproductive M. evotis colonies known to us in the Front Range region.

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

The Mighty Moose

by Francesca Giongo

I was hiking with my husband in Rocky Mountain National Park last fall. When we were coming down the Cub Lake Trail, I heard a noise in the bush. I turned to investigate the source of the noise and … I found myself almost face to face with a bull moose! The moose was just five feet from me. I backed away slooowly, and then stopped to get another look. Other visitors coming down the trail told us they also saw a cow and her calf.



We reported our sighting to the first ranger we met. I told him I was surprised by this encounter. I knew that moose were on the west side of the park, near Granby, but had not heard of them moving east. The ranger confirmed that sightings were becoming more and more common on this side of the park. Now mothers with calves can be seen grazing in meadows a couple of miles from Estes Park.

A Growing Population

This appears to be the story of moose in Colorado. From the initial introduction of 24 moose from Utah and Wyoming into North Park near Walden in 1978 and 1979, their population at last count has swelled to an estimated 2,300, with a 35 percent increase over the past two years. Nowadays moose sightings are becoming almost commonplace in the western part of Boulder County, including at Mud Lake and Caribou Ranch. I just saw my first moose at Caribou Ranch Open Space on the 4th of July!

Moose can be dangerous!

Moose are unpredictable and can be aggressive, especially males during mating season and females protecting their calves. Cows have been known to kill wolves, grizzlies, black bear, and people in defense of their calves! Colorado Parks and Wildlife recommend the following actions when encountering a moose:

- Moose are not frightened by people. They will stand their ground and might charge you.
- Watch for these signs of moose aggression: ears laid back, raised hairs on back and licking of the snout.
- Keep your dog on a leash. If approached by a dog, a moose will try to stomp it and can injure it severely.
- If a moose acts aggressively, look for an escape route. Slowly back away toward a safe location.
- If a moose charges, run away as fast as you can and put something large between you and the moose.

The moose (*Alces alces shirasi*) is the largest species in the deer family. On average, an adult moose stands 4.6 to 6.9 feet high at the shoulder. Bulls weigh 840 to 1,500 pounds and cows typically weigh 440 to 790 pounds. The head-to-tail length is eight to 10.4 feet.

A Drive for Salt

Moose is an algonquin term for "eater of twigs." They are herbivores, and consume a variety of plants and fruits. The vegetation mainly consists of forbs and other non-grasses, and fresh shoots from trees such as willow and birch. As much as half of their diet, however, consists of aquatic plant life, which provide the moose with the sodium they need. This need for sodium often drives moose to roadways in winter to lick the salt used as a snow and ice melter. (Other animals, like bighorn sheep, are also attracted to the road salt. Be careful when driving in the mountains in late winter and early spring!) Moose are attracted to marshes and river banks during warmer months because these areas provide suitable vegetation to eat and water to cool down and get rid of black flies. They are excellent swimmers and are known to wade into water to eat aquatic plants.

Moose breed from mid-September to early November. Males are polygamous and become very aggressive toward each other when competing for females. Calves are born in late May to early June. The number of calves produced depends on nutrition and population density. When populations are below carrying capacity, females have twins. This is currently happening in Colorado. Wildlife officers feel that the rate of twin births will go down as the population continues to increase.

Colorado Parks and Wildlife (CPW) intended to launch a study early this year outfitting five moose cows with radio collars to track their movements and habitat preferences. So far, they have been able to put a collar only on one cow due to inclement weather and other constraints. CPW resumed the study in August in order to collar 15 cows and five bulls.

What You Might *Not* Know about Moose

- Moose dive underwater to reach plants on lake bottoms—the only deer capable of doing so.
- One moose can carry 10,000 to 120,000 ticks.
- Moose antlers can weigh in excess of 50 pounds.
- In the Americas, moose injure more people than any other wild mammal. Worldwide, only hippopotamuses injure more.
- European rock drawings and cave paintings reveal that moose have been hunted since the Stone Age.

NATURE DETECTIVES

Fall 2013

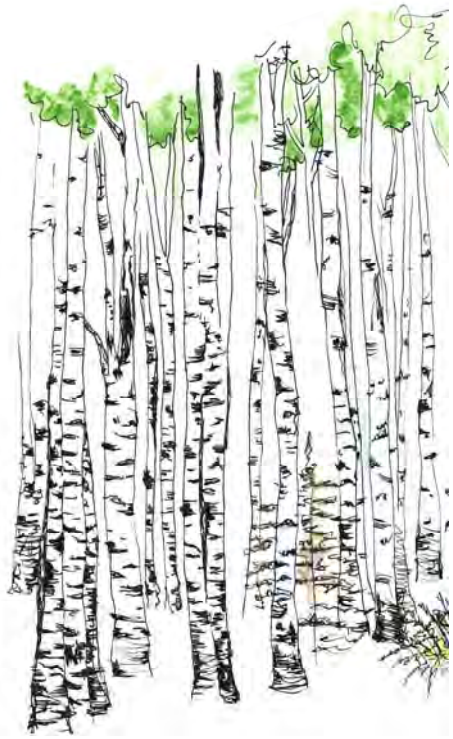
Awesome Quaking Aspen Trees

How lucky if we get to see a stand of aspen trees in the fall. The leaves shimmy in the breeze, and they shimmer like golden lights against a deep blue autumn sky. Even the sight of a single aspen tree with leaves beginning to blaze yellow-orange brings smiles. But perhaps the most interesting thing about aspens can't even be seen when you look at the trees.

Pull Out and Save

Aspens' truly amazing secret is hidden below ground. Unseen is the fact that some aspens are among the biggest organisms on earth. Bigger than elephants and whales.

A single aspen plant can actually grow so big it covers several acres in size. And, it might stay alive for thousands of years! But you can't tell it is a giant plant unless you see the roots connected underground. Sometimes you can't see any part of the aspen above ground. For much of its life, an aspen might exist only as living roots.



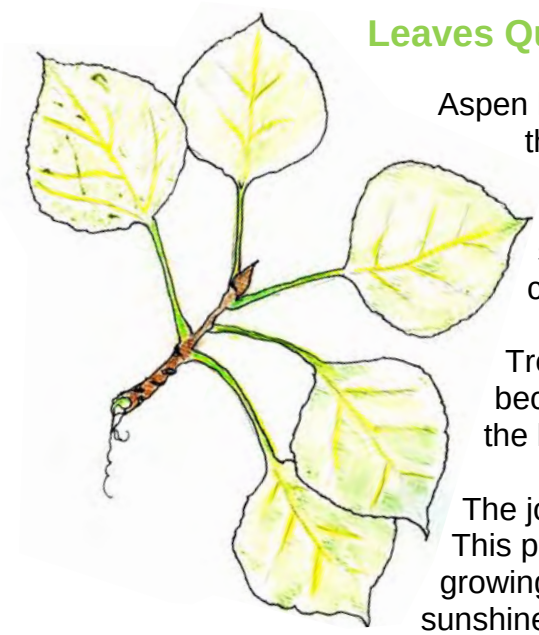
Roots Galore

Of course, it is not one tree trunk that grows into a giant. The base of a giant aspen is a huge root system that sends up many sprouts (called **clones**). The roots spread out from a parent tree, and its clones grow into look-alike trees surrounding the parent tree.

Roots first grow down from a single seed and a shoot grows up from the same seed. A healthy shoot continues growing into a tree. Over time the roots grow and grow, spreading farther and farther away from the parent tree. Here and there on the roots, new shoots, the clones, continue to sprout. The clones grow up into thick trunks like the parent tree. Above ground, the clones look like a stand of individual, single trees.

The dirt hides the secret that all those trees are connected with one root system. And when conditions are right it can eventually grow BIG.

Leaves Quake for Sunshine



Aspen leaves quiver because of the way they are attached to the leaf stems. Each round or heart-shaped leaf is very flat and the little leaf stem is flat and sits perpendicular to the leaf. The lightest puff of air will hit either the flat stem or the flat leaf, keeping each leaf in an almost continual flutter.

Trembling allows leaves a little more time in the sunshine because individual leaves are unshaded for split seconds as the leaves above them quake.

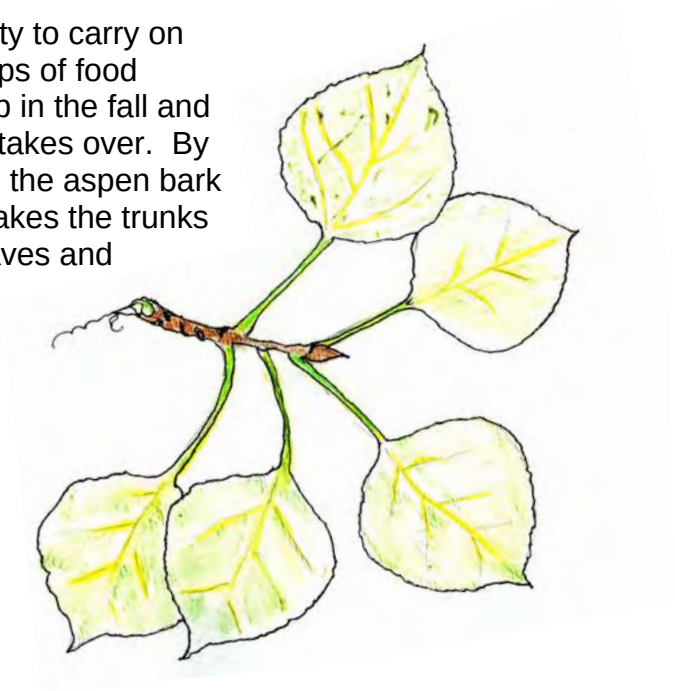
The job of the leaves is to use sunlight to produce plant food. This process of making the sugary food that plants need for growing is called photosynthesis. Photosynthesis takes sunshine and water plus carbon dioxide from the air. Photosynthesis gives off oxygen, which plants don't need, so it is released into the air. We release carbon dioxide into the air when we breathe. You could say the plants are helping us and we are helping the plants.

Aspens thrive in the mountains where the growing season is short. In the montane and subalpine zones, spring warmth comes later than at lower elevations and cool fall air arrives earlier. That means less time for leaves to grow and perform their job. Quaking allows them to get more sunshine during the limited days of summer.

Trunks Have Tricks Too

Perhaps because aspens flourish in the mountains where fall comes soon, aspen trunks have a few tricks of their own as tricky as quaking leaves.

The bark on aspen trunks has the unusual ability to carry on photosynthesis. During the summer, the champs of food making are the leaves, but after the leaves drop in the fall and until new leaves form the next spring, the bark takes over. By providing food for the tree when leaves cannot, the aspen bark helps the trees grow faster. Photosynthesis makes the trunks take on a pale greenish color. Green in the leaves and trunk is from chlorophyll, a necessary chemical part of photosynthesis.



Young aspen trunks feel soft, like velvet. If you rub your hand over the bark, white powder rubs off. The powder is dead cells shed by the bark. Maybe the white powder helps protect the young trunks from the intense high-altitude, winter sun.
Some say the white powder can make an emergency sunscreen for people too.

Bark Scars and Other Animal Signs

As aspen trees grow, lower branches, shaded from above, die and drop off. Where the limbs grew, dark scars develop that have the shape of big human eyes. Other scars of all shapes are evidence of injuries to the tender bark.

Aspens are our only leafy mountain trees that don't need to live near lakes or streams so aspen forests provide important wildlife habitat in other spots. The trees supply food and shelter to critters whose activities leave lots of scars. Scars mark where male elk, deer or moose polish their antlers. Scars form where hungry animals scrape off bark with their teeth or where bears reach high to claw territory warning signs.

Caterpillars eat the leaves, pocket gophers nibble on roots, and elk, deer, moose, bears, porcupines and rabbits eat the nutritious bark. One beaver can eat 20 aspen trees a year. Many birds and squirrels eat the spring buds. Lots of mammals chomp on young sprouts. Aspens are a food source for fungi and bacteria and insects, too.

Birds called sapsuckers hammer holes in the bark to make sap-drip traps for insects. Other birds such as hummingbirds often steal the sapsucker's meal of stuck bugs. Woodpeckers excavate out large cavities for nesting, and those become homes for bluebirds, wrens, nuthatches and chickadees the next nesting season. Other birds build nests among the branches.

Pioneer or Successor

Little wonder that individual clones are short-lived. In a stand of aspen, tree trunks also may be burned to the ground, blown or chopped down or die of disease or old age. Many are lucky to survive 20 years, but the tree continues to send up new little clones as long as the roots are alive and healthy.

Other plants flourish in the filtered sunlight beneath aspens. Baby pine, spruce and fir trees find living conditions ideal in the aspen forest. These conifers will grow tall and some day shade out the aspens. Healthy aspen roots can continue to thrive, protected in the soil, even when it is too shady for its sprouts to survive.

If insects kill the tall conifers, or an avalanche, wildfire or logger cuts them down or a pond dries into a meadow, **it is aspen time again**. Aspen seeds can take root. Maybe up will pop new clones, like new legs or arms, sprouting from aspen roots that had been hiding, waiting for the right moment to reveal their secret existence.

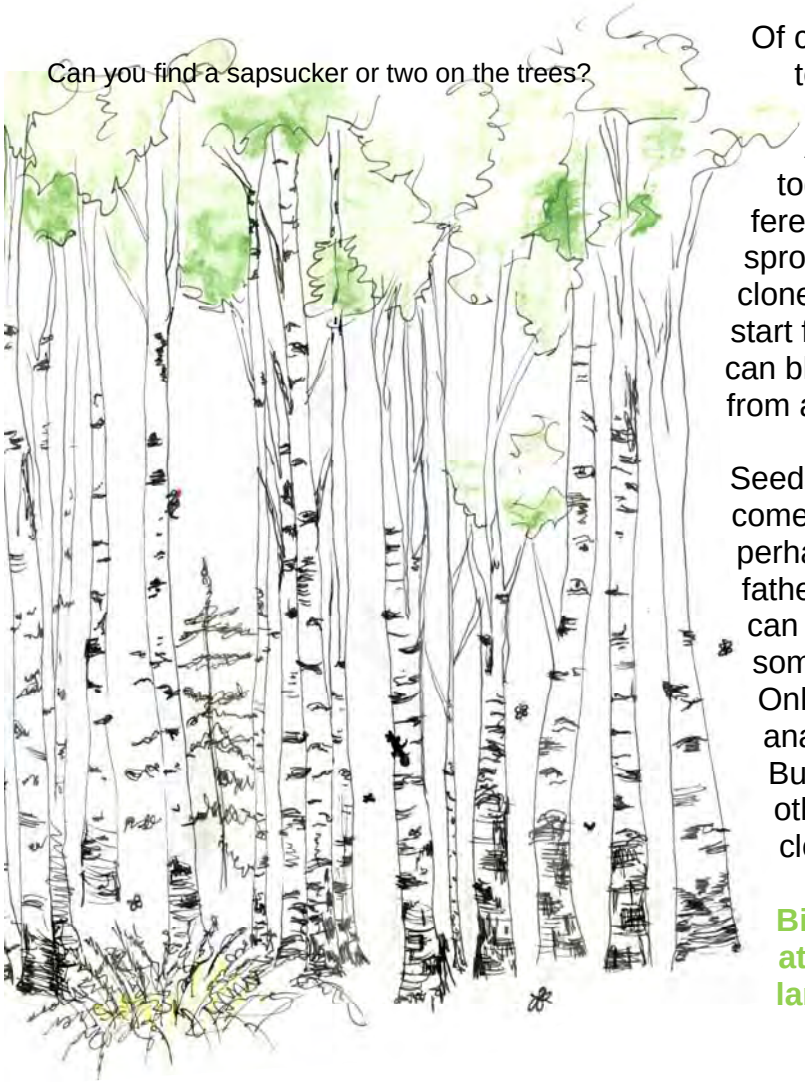
Make Up a Tree Story

Watch an aspen tree and let your imagination go wild. Does your aspen have any eye-shaped scars? Maybe your make-believe story will be about something your aspen saw that scared it so much its leaves began to quake…. Or, maybe your story will be more realistic and you can write about animals that find a home in or near your aspen tree. Write on….

Aspen Tree Nature Detective

Study the scars on the trunk. Any clues to how it was injured? Any tooth marks? Are scars at deer height off the ground? Any holes? Do you think your tree is young or old? What color is the trunk? Does any white powder come off on your hand when you rub it? Do you think your tree is healthy or sick? Any signs of insects? Do you hear any animals around your tree?

Do you think your tree is part of a group of clones? Do the trees look alike? Are the leaves the same? If you study your tree group throughout an entire year, you can watch to see if they all put out their fuzzy, caterpillar-shaped catkins in spring at the same time or if they all leaf out at the same time or turn similar fall colors at the same time or drop their leaves at the same time.



Can you find a sapsucker or two on the trees?

Of course you can't <u>really</u> tell if your trees are clones on one root system even if they appear identical. An aspen patch can have trees mixed together that belong to two or more different root systems. Single trees that sprouted from other seeds can be next to clones, too. Each root system gets its start from a different seed. A fuzzy seed can blow in from a mile away or float down from a nearby aspen tree.

Seeds for your aspen stand might have come from the same mother tree, and perhaps were pollinated by the same father tree. Trees with similar genetics can look very similar, kind of the way some kids in a family can look a lot alike. Only a scientist who does genetic analysis can tell for sure. But if a tree looks different from the others, you can be pretty sure it is <u>not</u> a clone of the others.

Bicycle the Meyers Homestead Trail at Walker Ranch to check out the large aspen grove there.

Coal Creek and Rock Creek Trail – Eastern Link Now Open

by Kristine Obendorf

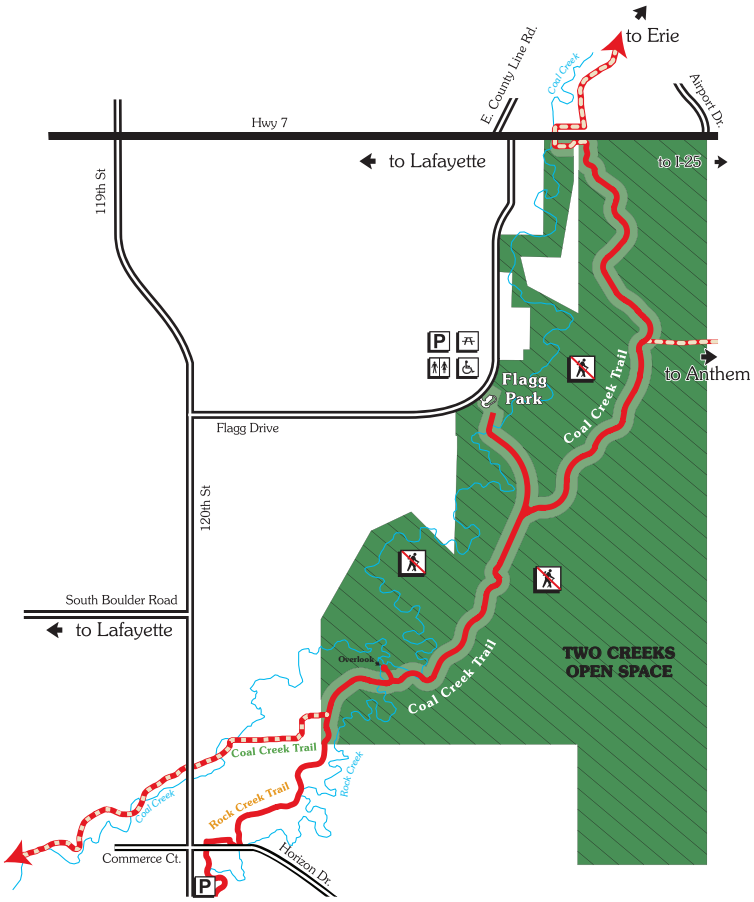
Boulder County's Transportation and Parks and Open Space Departments, the Town of Erie, City of Lafayette and Great Outdoors Colorado have announced that the easternmost link of the Coal Creek Trail connecting the Rock Creek Trail to both Lafayette and Erie is now open.

Trail Highlights

This new section adds four miles of multi-use trail extending from the terminus of the Rock Creek Regional Trail near Majestic Drive in Lafayette to Erie's Spine Trail near Vista Parkway. Trail enthusiasts can enjoy overlooks at the confluence of Coal and Rock Creeks and at the Erie Municipal Airport. The trail also has linkages to Flagg Park and the Anthem neighborhood in Broomfield. This highly anticipated multi-use trail provides a connection for pedestrians, bicyclists and commuters between Erie and Lafayette, and adds an additional two miles of trail for equestrians.

The entire Coal Creek and Rock Creek trail system will be 27 miles long connecting the communities of Boulder, Superior, Louisville, Lafayette, Erie and Broomfield. The last 1.2 miles slotted for completion are located near US 36, within the City and County of Broomfield.

The southern portion of the trail traverses through Two Creeks Open Space, providing scenic vistas, urban buffers, preservation of riparian resources and wildlife habitat, recreation opportunities and ensures the continuation of agriculture in the local area. The northern portion of the trail meanders along Coal Creek and provides a close-up view of the wildlife within a riparian habitat.



A Cooperative Effort

Boulder County worked with the Town of Erie, City of Lafayette, the Boulder County Parks and Open Space Foundation and Great Outdoors Colorado to secure funding to complete the easternmost link of the Coal Creek / Rock Creek Regional trail system. The majority of the land provided for the trail is from the City of Lafayette, Boulder County Open Space and Town of Erie. Broomfield also contributed funds to add a trail link to Anthem and additional funding for other improvements in the area.

Oasis on the Prairie

Along the new trail section, you will go by the confluence of Coal Creek and Rock Creek. These small creeks, and others along the Front Range, are starting points for a network of watersheds that carry water from the eastern slope of the Rockies to the Gulf of Mexico. From the confluence east of 120th Street, the two creeks flow eastward as Coal Creek, then join Boulder Creek which flows into progressively larger rivers, finally reaching the Mississippi River and the Gulf of Mexico.

The natural landscape east of the Front Range is primarily one of open grasslands and a dry climate. It is no wonder that the most diverse plant and animal life exists in places near water, known as riparian areas. Looking around, you'll see the trees, shrubs, grasses and other vegetation that provide food and shelter for the numerous animals drawn to this water source. Birds such as great horned owls, red-tailed hawks, western meadowlarks and northern flickers forage and nest throughout the riparian corridor. Mammals such as red foxes, coyotes and raccoons hide and hunt in the vegetation along the banks of the creek.

Growing Up in Youth Corps

by Sean Durgee

To this day I look back on my first summer with the Boulder County Youth Corps (BCYC) and shake my head… manual labor in the hot Colorado summer sun, paying $5.30 an hour. While I may shake my head, a smile is sure to ensue, for my BCYC experience has been the best work-affiliated opportunity I have encountered to this day.

Introduced to BCYC back in 2005 after seeing a flyer posted at my school, I was an ambitious 14 year-old with a great desire to start earning money. But the BCYC offered more than just money—it offered a position outdoors. Being an outdoor enthusiast, I couldn't turn this job down.

Visible Results

That first summer was rather rough, but extremely rewarding. Working for the Lafayette team, our summer included a wide variety of projects in Colorado's infamous changing weather. Our team stained bridges, constructed trails, landscaped and weeded. Weeding and plant maintenance has been a HUGE part of my experience with BCYC. Close your eyes and picture fields of various noxious weeds. Then picture a 10-member team surrounded by orange plastic bags in the middle of a weed-free field. One of the greatest feelings that I continuously encountered in Youth Corps was that of achievement. Having grown up in Lafayette it was grand to be able to bike around Lafayette and show friends and family our team's accomplishments.

I enjoyed that first summer so much, I came back to work another two summers with the Lafayette team. Both summers taught me even more about team dynamics and the importance of maintenance. My fourth year as a corpsmember, I made the decision to transfer to the Housing team in Louisville. I made some great friendships that continue today. That summer also showed me how tedious some projects can be, how to cope with frustration and moreover how to inspire and motivate. I am grateful for BCYC Program Manager Judy Wolfe's encouragement and team transfer. If it wasn't for that summer, I may not have pursued the position of Assistant Team Leader (ATL) the following summer.

One of the most fascinating things I took away from that summer working for the Facilities team was an understanding of how various irrigation systems work and teaching those new skills to my corpsmembers.

Assuming Leadership

That first summer as an ATL also posed some challenges. It was rather intimidating from time to time being in the ATL position because of the small age difference between me and the corpsmembers. Although challenging, I was able move beyond this due to the fantastic relationship I had with my Team Leader (TL) and the confidence she instilled in me. Able to take what I learned that summer I built further on that with another two summers as ATL on the Facilities team. One of the most underrated components that I think TLs and ATLs can take from the program is the element of growth. Having completed three summers as an ATL, the improvements in corpsmember's work ethic from summer to summer was remarkable to see.

I give the BCYC and all those involved many praises, especially the team leaders and sponsors. I have grown up with the Youth Corps as the backbone of my work experience and I am truly happy that this was my first job—it has given me work ethics and leadership skills that I utilize all the time now. If one has the opportunity to participate in this program, do it! I can't emphasize enough how rewarding this program can be if one wants to better themselves and their community.

A journey of eight years: The top photo shows Sean Durgee during his first year as a corpsmember in 2005. Below, in 2013 Sean is an Assistant Team Leader giving direction to a corpsmember on the Lafayette team.

Discover Boulder County

A CALENDAR OF NATURAL AND CULTURAL HISTORY EVENTS

Bears in Our Backyard
Sunday, September 15; 10:00am to noon
Bald Mountain Scenic Area; 5 miles west of Boulder on Sunshine Canyon Drive (Mapleton Ave. in Boulder city limits)
As summer winds down, black bears gorge on berries and other food preparing for their long winter sleep. How much do bears need to eat before hibernation, and what are their chances of survival? What would you do if you encountered a bear on the trail, and how do you bear-proof your backyard? Get answers to these questions and more while hiking on a moderate 1.5-mile trail.

I Spy Critter Clues
Wednesday, September 18; 10:00am to 11:00am
Betasso Preserve; Boulder Canyon (Hwy 119) to Sugarloaf Road; follow signs to Betasso Preserve; meet at group shelter
The nature detectives are on the prowl! Help volunteer naturalists search for evidence of who lives in the woods. We'll look for tracks, scat, nests, bones, and antlers of the animals that live here. This program is geared toward preschool children, but siblings are welcome.

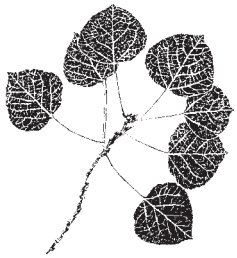
Grassland to Glacier Hike
Saturday, September 21; 10:00am to noon
Mud Lake Open Space; 2 miles north of Nederland on County Road 126; meet at parking lot kiosk

Boulder County is a dramatic landscape, supporting a diversity of biological life zones. These life zones have no precise boundaries and blend into each other as you move from the prairie to the peaks. Join volunteer naturalists on an easy one-mile hike to explore the montane life zone where we'll watch for signs of wildlife. Wear clothing and shoes/boots suitable for weather conditions at 8,500 feet.

Rattlesnake Hike
Sunday, September 22; 10:00am to noon
Rabbit Mountain Open Space; NE of Lyons on north 55th Street; meet at group picnic shelter
As summer winds down and fall approaches, rattlesnakes become more active as they prepare for hibernation. Enjoy a moderate 1.5-mile hike led by volunteer naturalists who will share information about rattlesnakes' habitat, ecology, behavior, and how to be safe in rattlesnake country.

The Geologic History of Boulder County
Monday, September 23; 7:00pm to 8:30pm
Longmont Public Library, Meeting Rooms A & B, 4th Avenue and Emery Street, Longmont
The geologic history of Boulder County's remarkable landscape goes back over 1.7 billion years. Ever wonder where the rocks came from, what the earth was like back then, or how the ancestral and present-day Rockies formed? Join geologist and volunteer naturalist Sue Hirschfeld for this slide program to read the story in the rocks and interpret the local landscape.

Oh Deer, Elk and Moose!
Saturday, September 28; 10:00am to 1:00pm
Caribou Ranch Open Space; 2 miles north of Nederland on County Road 126; meet at parking lot kiosk
Join volunteer naturalists for a 3-mile hike in the high country and look for signs of three members of the deer family—mule deer, American elk and moose. Please bring clothing and hiking shoes/boots suitable for weather conditions at 8,500 feet.



Quaking Aspen Hike
Sunday, September 29; 10:00am to noon
Mud Lake Open Space; 2 miles north of Nederland on County Road 126; meet at parking lot kiosk
Learn more about the aspen, the most widely distributed tree in North America. We'll hike about two miles round-trip at 8,500 feet through conifer forest, meadows, and aspen groves. Along the way, we'll discuss the importance of aspen to wildlife, response to fire, and threats to its health. We might even hear the eerie sounds of bugling elk!

I Sit Listening to the Wind: A Woman's Encounter with Herself and Nature
Saturday, October 5; 9:30am to noon
Meeting location provided to registered participants
Join volunteer naturalist Louise Alderson for a contemplative walk in nature. Using passages from the book *I Sit Listening to the Wind*, by Judith Duerk, you will experience the rhythm of nature and personal reflection and growth. Be prepared for a moderate 1-mile hike. For women of all ages; register by emailing lcolbenson@bouldercounty.org, or calling 303-678-6214 by Thursday, October 3.

Discover Boulder County

A CALENDAR OF NATURAL AND CULTURAL HISTORY EVENTS

On the Wing: A Birds-Eye View of Boulder County Weather
Tuesday, October 8; 7:00pm to 8:30pm
George Reynolds Branch, Boulder Public Library, 3595 Table Mesa Drive, Boulder; additional parking is available across Table Mesa Drive in the King Soopers parking lot
Join volunteer naturalist Phil Ecklund for a look at Boulder County's unique weather from the perspective of a glider pilot. From soaring thunderheads to "flying saucer" clouds and powerful winds off the Continental Divide, the weather is anything but predictable along the Front Range. Phil will share his years of experience in observing and flying through Colorado's changeable weather with in-flight and time-lapse images.

Geology and Landforms of Hall Ranch
Saturday, October 12; 9:00am to 1:00pm
Hall Ranch Open Space; one mile west of Lyons on Highway 7; meet at group picnic shelter near the upper parking lot
Join geologist and volunteer naturalist Roger Myers and others to explore the geology and landscape of Hall Ranch. This moderately strenuous 4-mile hike (roundtrip) covers over 1.7 billion years of geologic history. We'll have lunch at one of the highest elevation prairie dog towns in Boulder County. Wear hiking shoes or boots, dress for the weather, and bring water, lunch, and binoculars if you have them. This hike is geared to adults.

Bears in Our Backyard
Sunday, October 13; 10:00am to noon
Heil Valley Ranch; North of Boulder off Lefthand Canyon Drive; meet at group picnic shelter
As summer winds down, black bears gorge on berries and other food preparing for their long winter sleep. How much do bears need to eat before hibernation, and what are their chances of survival? What would you do if you encountered a bear on the trail, and how do you bear-proof your backyard? Get answers to these questions and more while hiking on a moderate 1.5-mile trail.

Three Years after the Fourmile Canyon Fire
Saturday, October 19; 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 a moderate one-mile hike to learn about the natural role of fire in ponderosa pine ecosystems, and forest management practices that lessen the effects of wildfires. You will see evidence of the September 2010 Fourmile Canyon fire, learn about rehabilitation efforts that were employed, and observe how this ecosystem has recovered so far.

Whoo are the Owls?
Wednesday, October 23; 7:00pm to 8:30pm
Louisville Public Library, 951 Spruce Street, Louisville
Owls have been regarded with fascination throughout history and across cultures. To some they are symbols of wisdom, to others, harbingers of doom. Over half of the owls recorded in the U.S. have been seen in Boulder County. Join volunteer naturalists to explore these creatures of the night, and learn about the diversity and special adaptations that make them expert hunters.

Clever Corvids
Saturday, October 26; 10:00am to noon
Betasso Preserve; Boulder Canyon (Hwy 119) to Sugarloaf Road; follow signs to Betasso Preserve; meet at group picnic shelter
Ravens, crows, jays and magpies are intelligent and gregarious birds found throughout Boulder County. Join volunteer naturalists for an easy 2-mile hike to learn about their natural history and ecology, and also hear stories about these clever birds.

Story in the Rocks Hike – Our Changing Landscape
Saturday, November 2; 10:00am to noon
Heil Valley Ranch Open Space; North of Boulder off Lefthand Canyon Drive; meet at group picnic shelter
Join volunteer naturalists for a 1.3-mile moderate hike along the Lichen Loop Trail to learn how this scenic landscape has changed over time. Tales told in the rocks span over 200 million years, from ancient sand dunes to tidal flats to riverbeds where dinosaurs roamed. The rocks determine the shape and ecology of the present landscape, and plants and wildlife we find here.

Birding Boulder County through the Seasons
Wednesday, November 6; 7:00pm to 8:30pm
Longmont Public Library, Meeting Rooms A & B, 4th Avenue and Emery Street, Longmont
Join volunteer naturalists Vicki Braunagel, Cathy Cook, and Leslie Larson to learn about birding through the seasons, and explore where to find and how to identify some of the birds that call Boulder County home. You will hear about the many challenges that birds face and how they adapt.

Discover Boulder County

A CALENDAR OF NATURAL AND CULTURAL HISTORY EVENTS

Wildlife and Winter Hike
Saturday, November 9; 10:00am to noon
Mud Lake Open Space; 2 miles north of Nederland on County Road 126; meet at parking lot kiosk
Join volunteer naturalists for a hike to learn about the many ways animals prepare for and survive winter. We'll talk about wintering strategies including migration, hibernation, and other adaptations. We will also look for signs of wildlife activity, including tracks, scat, and browse marks on trees and shrubs. Wear clothing and footwear suitable for a moderate 2-mile hike above 8500 feet.

Snoods and Caruncles – Wild Turkeys of Boulder County
Saturday, November 16; 10:00am to 11:30am
Sandstone Ranch Visitor Center; south of Highway 119, one mile east of Weld County Road 1.
Join volunteer naturalists Sharon Bokan and Gene Kraning as they share information about identification, ecology, and behavior of the iconic wild turkey. You'll learn about the turkey's habitat and foods, amazing recovery from over-hunting, and where you might find these unique birds.

All Programs

All ages are welcome unless otherwise noted. NO PETS PLEASE! Be prepared for fall temperatures. For information about these programs, or to arrange a volunteer-led program for your group, please call 303-678-6214.

Birds of Prey Slide Program
Thursday, November 21; 7:00pm to 8:30pm
George Reynolds Branch, Boulder Public Library, 3595 Table Mesa Drive, Boulder; additional parking is available across Table Mesa Drive in the King Soopers parking lot
Join volunteer naturalists and learn how to recognize birds of prey—hawks, eagles, falcons, and owls—in the skies above. During this slide presentation, you'll learn how to distinguish between different raptors by identifying field marks, behavior, location, and time of year.

Birds of Prey Driving Tour
Saturday, November 23; 10:00am to 1:00pm
Registration is limited; meeting location will be provided to registered participants
Join volunteer naturalists for a driving tour of some of Boulder County's best areas to view birds of prey, or raptors. We will carpool from our meeting place searching for raptors, learning about habitat, and working on our observation and identification skills. Bring lunch, drinking water, binoculars, a spotting scope, and bird field guide if you have them. The tour is geared for adults and older children. Register by emailing lcolbenson@bouldercounty.org, or by calling 303-678-6214 by Thursday, November 21.

Nature Hikes for Seniors

Enjoy a guided 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.
Programs begin at 10:00am and end at noon.

September 26 - Walker Ranch Homestead (Meet at Meyers Homestead Trailhead)

October 31 - Heil Valley Ranch Open Space (meet at shelter near Lichen Loop Trailhead)

November 21 - Rabbit Mountain Open Space

Discover Boulder County

A CALENDAR OF NATURAL AND CULTURAL HISTORY EVENTS

Cultural History Events

Let's Talk Chickens
Three dates: Sunday, September 15; Sunday, October 13; and Saturday, November 2; 1:00pm to 3:00pm
Agricultural Heritage Center, 8348 Hwy 66, Longmont
Join volunteer Barb Kirchner as she shares experiences and lessons learned from raising her own chickens. Learn why chickens have been popular as pets and livestock for centuries and how they are suited to your backyard today. Learn how to walk, talk, and act like a chicken. Bring your kids and questions to this informal drop-in hen party!

Play Ball! Vintage Baseball Clinic
Saturday, September 21; 5:00pm to 7:00pm
Walker Ranch Homestead, 7701 Flagstaff Mtn. Rd. Boulder
Come out and join the Walker Ranch Boys as they prepare to take on the Denver and Rio Grande Reds the following weekend. This will be a fun baseball skills clinic and a short practice game for all ages and genders. In the 19th century, "ballists" (players) didn't use baseball gloves, but feel free to bring yours if you wish. No registration is required. For more information, please contact Craig Sommers at csommers@bouldercounty.org. Youth under age 18 must be accompanied by an adult guardian prepared to sign a risk/release waiver.

Morse Code is Alive and Well
Saturday, September 28; 4:00pm to 5:00pm
Agricultural Heritage Center, 8348 Ute Hwy 66 in Longmont
Before the internet, cellphones and party lines, there was the radiotelegraph. This method of communication allowed messages to be sent over long distances using a series of dots and dashes. Join cultural history volunteers and ham radio operators Earle Cate, N0ISB, and Tom McMichen, K0KUA, for a brief discussion of the history of radiotelegraphy and a demonstration of message sending using wireless transceivers and old-fashioned code keys. We'll even have a practice key available for you to try out without actually being "on the air."

Autumn Heritage Day at Walker Ranch Homestead
Sunday, September 29; 10:00am to 3:00pm
Walker Ranch Homestead; 7701 Flagstaff Mountain Road, approximately 7 miles west of Boulder on Flagstaff Road
Come see how autumn was spent on a working ranch in the late 1800s. Costumed volunteers will demonstrate the chores necessary to get the ranch ready for winter, such as root-cellaring, sausage-making and doing laundry with a washboard and wringer to name a few. Visit the blacksmith as he makes hinges, nails, and other hardware needed around the ranch, attend a one-room school session, and attend a program on The Walkers' household. There will also be guided tours of the homestead. A highlight of the autumn event is the vintage "base ball" game that will begin at noon! For more information, email skippen@bouldercounty.org. Please note: Dogs and bicycles are not permitted on the site.

Ghost Towns of the Rockies: Presentation and Book Signing
Sunday, September 29; 4:30pm to 5:30pm
Nederland Mining Museum, West 2nd St, Nederland
Thrilling, exciting, spooky! Preethi Burkholder, author of *Ghost Towns of the Rockies*, presents fun-filled stories and photos from days gone by. The ghost of Annabelle Stark of St. Elmo, Colorado, and the Silver Panic of 1893 are only some of the stories you'll hear. Autographed books will be available for purchase at the event, and there will be a book-signing following the one hour program. Email kzullo@bouldercounty.org for more information.

Hard Rock Mining Tour
Saturday, October 5; 10:30am to 1:30pm
Meeting location will be provided to registered participants
Tap into the towns, tools and characters of local hard rock mining heritage by visiting mining sites of years gone by. A more precise tour agenda will be available two weeks before the tour at the online registration. The tour is free and open to ages 10 and up. Some walking is required. Register online at www.BoulderCountyOpenSpace.org/register, or call 303-776-8848.

"Land Through the Lens" Prints and Notecard Sets Available

Two of the images available as notecard or print.

On the left is "Heads or Tails" by Milos Verdon Tomajko.

The photo on the right is called "Late Spring Snow" and was taken by David Bahr.

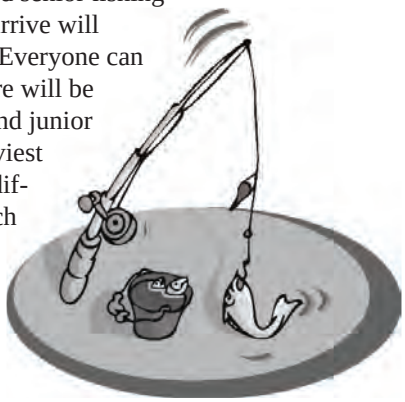
Limited edition select prints and notecards are available for purchase from the "Land through the Lens" photography show held at the Dairy Center this past March.

Visit: **www.bouldercountyopenspace.org/photoshow** and click on Land Through The Lens Print Sales for more information.

A portion of the proceeds will benefit the Boulder County Parks and Open Space Foundation. Decorate your home or office while helping to keep our county public lands beautiful!

Junior and Senior Fishing Derby Takes Place Saturday, October 12

Dust off those fishing rods and invite a kid to go fishing at Boulder County's junior and senior fishing derby. The first 10 kids to arrive will receive a free fishing pole. Everyone can enjoy some snacks and there will be prizes given to the senior and junior pair who can catch the heaviest trout, have the largest age difference, and are first to catch the limit.



The derby takes place Saturday, October 12th at your leisure from 9:00am to 12:00pm at Wally Toevs Pond (at Walden Ponds on 75th Street between Jay Road and Valmont).

This event is open for fishing to all seniors 64 years and older with a valid Colorado fishing license and kids 15 years and younger, but everyone is welcome to watch and enjoy the fall weather.

Event takes place rain or shine!

The pond is stocked with rainbow trout – artificial and live bait are both permitted at the Wally Toevs Pond.

For more information please contact Michelle Bowie at 303-678-6219 or at mbowie@bouldercounty.org.

Time to Apply: Volunteer Naturalist Training Program Now Taking Applications

We are now accepting applications for the 2014 Volunteer Naturalist training class. We are looking for people with a passion for nature, some knowledge of local natural history, and a strong desire to learn more and share their knowledge and enthusiasm with others.

Volunteer naturalists lead interpretive nature hikes in county parks, present public natural history slide programs, and provide hands-on environmental field experiences for Boulder County schools.

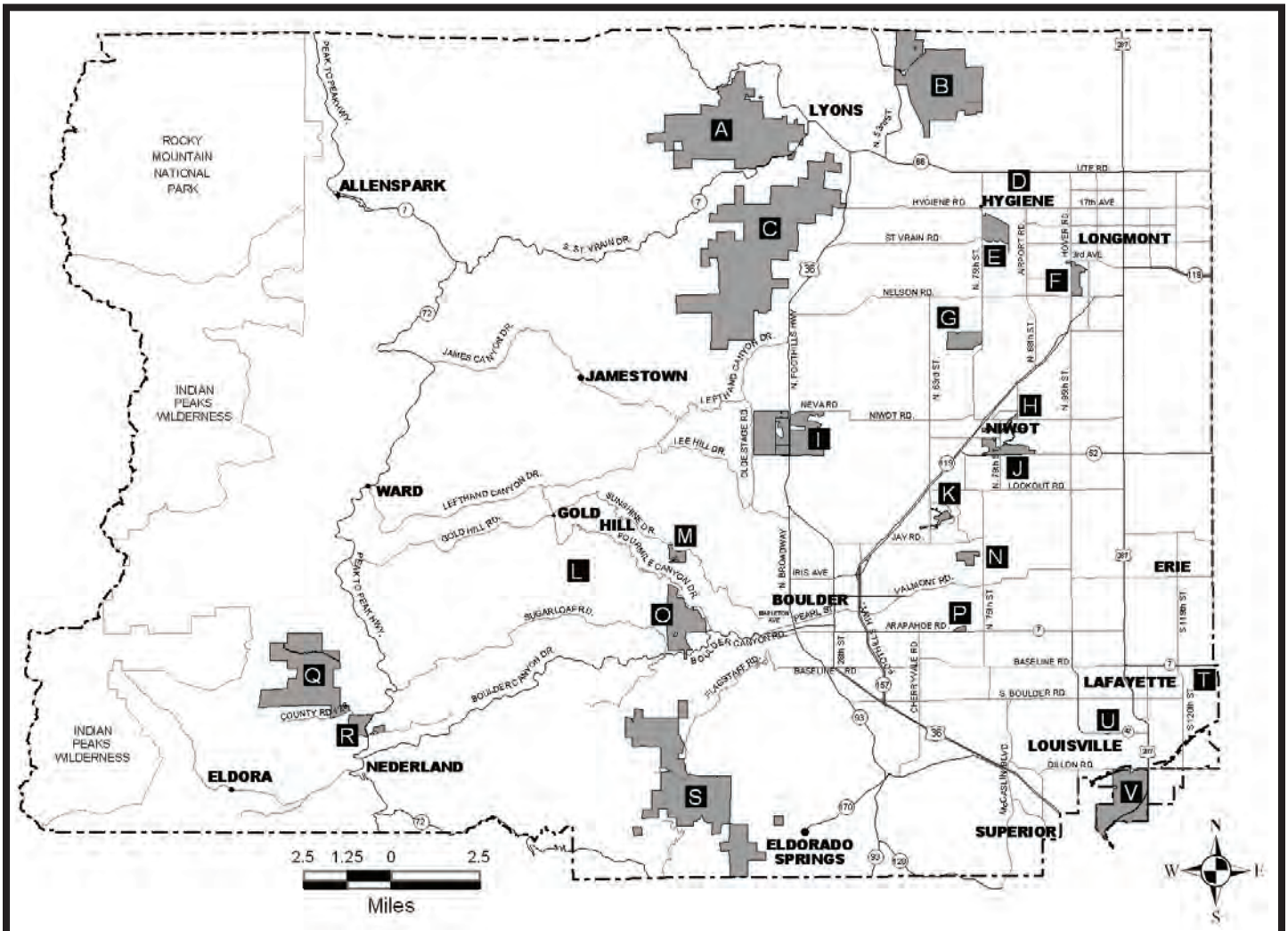
Training Information: A 10-week training program is required. Training includes an overview of the department including history, mission, and resource management; Native American history; geology; plants and ecosystems; forestry; wildlife and birds; interpretive programming and resources. Training classes take place on Thursdays, January 9, 2013 through March 13, 2014 from 8:30am to 4:00pm in Longmont.

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

Please Contact: Larry Colbenson at 303-678-6214 or lcolbenson@bouldercounty.org for information. Application deadline is November 22, 2013. Since there is limited space in the training course, all applicants will be interviewed.

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

www.BoulderCountyOpenSpace.org



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