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OF BOULDER COUNTY PARKS AND OPEN SPACE



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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: Fishing at sunrise at Walden Ponds Wildlife Habitat. Photo by Michael Lohr

PHOTOGRAPHS & ILLUSTRATIONS

Reynolds Ranch Meaghan Huffman
Thistle Joseph M. DiTomaso,
Univ. of California - Davis, Bugwood.org
Prescribed Burn Andrew Haffenreffer
Flagstaff Fire Nick Stremel
McDonald Cabin Carol Beam
Wild Turkeys Michael Bauer
Walker Ranch Event Rachel Gehr
Agricultural Heritage Center Michael Lohr

NATURE DETECTIVES

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DISCOVER BOULDER COUNTY

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Get on Board! Take an Agricultural Land Bus Tour

by Jennifer Kemp



Chartered buses take Ag Tour participants to three types of agricultural properties.

It is a warm summer evening at the Boulder County Fairgrounds when Boulder County Parks and Open Space staff prepares to welcome 95 participants on the July 2012 Ag Tour. The weekend before, nearly two inches of rain fell on the county, breaking the extremely hot and dry weather pattern of June, bringing a much needed break to the drought-stricken farmers in the area. The rain also brought a fair share of mud, causing more than a bit of concern that the large tour buses may get stuck out in the fields of the farms they are set to visit.

As participants arrive, they check in with staff and select a bus for the tour. While both buses include discussions of the county's open space program in general, the first bus will look more closely at local food issues, while the second bus will include a more in-depth discussion surrounding water rights and water usage along the Front Range. As with previous Ag Tours, participants on this tour will travel to three distinct types of agricultural properties to learn about diversified vegetable market farms, livestock operations and large-scale crop production systems that operate on Parks and Open Space properties. One tour participant expresses her excitement at finally being able to go on one of the tours, despite having lived in Boulder County for more than six years. Another explains that she recently moved to the area and can't wait to become more integrated into the county's farming community.

While the summer Ag Tours have become a mainstay of the growing season, with one tour scheduled each month between June and October, they originally grew out of the Parks and Open Space Department's efforts to develop a policy for managing agricultural crop land owned by the county, a process begun in 2009. As the county grappled with a variety of contentious issues such as whether to allow genetically-engineered crops, how to manage the use of various agricultural inputs and what types of pest management methods were acceptable, it became clear that the majority of the public had

little to no knowledge of what types of operations existed on the county's 25,000 acres of agricultural property. To address this knowledge gap, the department began hosting Ag Tours in the summer of 2010 with three goals in mind: 1) to educate the public about agriculture on open space through first-hand accounts by tenant farmers; 2) to showcase the beautiful and productive agricultural properties that are normally closed to the public; and 3) to allow staff to better understand the public's concerns with and interests in the agricultural resources program.

First Stop: Red Wagon Organic Farm

On the first stop of this evening's tour, participants are welcomed to Red Wagon Organic Farm by Wyatt Barnes. Wyatt, along with his wife, Amy Tisdale, started Red Wagon nine years ago on privately leased land near Valmont Road, property they continue to farm. In 2009, Wyatt and Amy successfully bid on a 1½ acre parcel of property with a house and entered into a long-term lease with the county to farm the surrounding 30 acres. From the back of a trailer stacked with hay bales, Wyatt explains the challenges of converting an old dairy farm into a productive market farm and shows off the first potato of the season to a round of applause. The soils in this particular area are very heavily clay-based, but the manure from the dairy has provided the right mix of composting material. Judging from the neat rows of vegetables, the farm is on its way to high productivity. Wyatt also discusses the challenges of maintaining a consistent supply of water to his vegetables under Colorado's complicated water laws. After a short walk down a path to view the fields and the hoop house, it is time for everyone to load back up on the buses for the next stop.

Second Stop: Niwot Farms

At Niwot Farms, John Schlager greets participants from the back of a truck attached to a mobile Auger Feed Mixer. John, who was the first farmer to lease and operate agriculture property from the county back in 1975, explains how the auger allows him to create the right ration of feed for his natural beef business. Everything that John grows on his property on Ogalala Road (and on other parcels of leased, county-owned land) is used to feed his cows. As tour participants walk out to the cattle feed lots, John describes the impact of this year's drought on his business. Unlike a typical year, John has had to bring his cow-calf pairs back to the feedlot two months earlier for weaning, as the pastures where they normally graze are burning up and not providing the amount of nutrition needed by the young calves. In summing up his relationship with the county, John describes himself as very lucky to have had the chance to grow as a farmer and rancher in such a supportive environment. Learning how conscientious John is about how his cows are treated and how his business operates, it is clear that the public is lucky to have him as a steward of public lands.

Final Stop: Farm of Jules Van Thuyne

On the final stop of the tour, participants exit the buses to a view of a huge center pivot sprinkler slowly making its way around Jules Van Thuyne's field of sugar beets and corn located on his farm at Niwot Road and Highway 287. Standing on the back of a pickup truck next to a large combine, Jules explains how he used a strip till method to plant his sugar beets this season, which allowed him to avoid plowing, disking and heavily tilling the field prior to planting. This method has allowed Jules to use far less water and fuel to plant his sugar beet crop. Combined with the efficiencies of the center pivot, the sugar beets on this particular field look healthy and vibrant. However, despite these efficiencies, Jules puts the reality of farming during an extreme drought year into context for everyone listening. As he explains, "This past June was an extremely hot and dry month with really hot winds. I love a good challenge, and it is why I love to farm. But this past June really pushed me to my limits." Considering that Jules has been farming for the last 32 years, his statement has a clear impact on the crowd.

Stewards of Agricultural Lands

The Ag Tours have proven to be extremely popular and are now an integral part of Parks and Open Space's education and outreach efforts. The tours provide a venue for the public to create a relationship to the farmers and ranchers who steward the many thousands of acres of beautiful agricultural properties that are owned by the county. These direct relationships between producers and the public will enrich future discussions of how to manage these properties, and provide an increased level of respect for all who enter into those discussions. More importantly, the tours are fun! As one participant noted on the post-tour survey, "Loved seeing the farm equipment up close. This tour rocks! Just realized this is only a drop in the knowledge bucket."

Join us on a fall Ag Tour!

Dates:

Tuesday, September 11th from 5:15pm to 8:30pm

Saturday, October 13th from 12:45pm to 4:00pm

Buses leave promptly from the Boulder County Fairgrounds, 9595 Nelson Road in Longmont.

Tours cost \$5 per person. Details and registration are at <http://2012agtours.eventbrite.com/>.

Note: The tours are not recommended for children under the age of 12.

A Recipe for Balancing Conservation and Recreation

by Justin Atherton-Wood

Our mission at Boulder County Parks and Open Space is to conserve natural, cultural and agricultural resources and provide public uses that reflect sound resource management and community values. This mission is derived from the Boulder County Comprehensive Plan, commonly referred to as “The Comp Plan.” When it was first adopted in 1978, the Comp Plan provided some broad guidance for the work that Parks and Open Space does to conserve the irreplaceable and unique resources that are characteristic of the more rural portions of unincorporated Boulder County. One tool that the Comp Plan identifies for protecting such resources is the acquisition of lands that possess these characteristics and resources. The Comp Plan also calls on the county to develop a plan for such county-owned lands that would describe how the land would be managed. These are called management plans.

The Comp Plan further details the role that open space lands can have in providing for passive recreation. But, it *also* says that such activity should not be to the detriment of the resources that the acquisition was made to protect. The work of our management plans is to inventory and understand the valuable resource present on a given property. And, through an interdisciplinary process, identify a combination of management actions, priorities and strategies to best perpetuate the irreplaceable resources and resource values present on that property while also providing for compatible recreational and educational activities.

A Recipe for Balanced Uses

Much of the time, these resource values and recreational activity easily complement, or at least coexist with one another on a property. However, there are times when the cohabitation is not so easy. By creating a management plan, we work to identify the appropriate “recipe” to balance conservation and other uses.

At any given time, our staff is in the process of developing and/or updating multiple management plans for our wide and varied properties. Right now, I am part of the team in the middle of a multi-year process of updating our management plan for the group of properties that includes Reynolds Ranch on Magnolia Road just outside of Nederland. In all, there are more than 16 properties in the planning area consisting of nearly 2,000 acres of land. There are a great variety of resources



Reynolds Ranch is a property near Nederland.

es on these properties that include unusual habitat and riparian areas, ranch lands used to raise local beef, and a log cabin that is one of the oldest standing structures in the county. These lands also provide opportunities for hiking, biking, sightseeing, fishing and other activities that draw thousands of local and regional visitors each year.

The management planning process is important because it gives Parks and Open Space the chance to assess the resources on our properties and also to talk with users and neighbors about their concerns, needs, and desires

related to the property. The process gives us, as land managers and public servants, a chance to see how new needs and desires could be met on this property in a manner compatible with the resource management objectives for the property and in ways that were not necessarily apparent during the development of previous plans. It also gives us a chance to work with neighboring land managers to see if there are new ways to work together to better meet the missions of our agencies.

Plans for Reynolds Ranch

In the Reynolds Ranch area for example, we are looking at how the so-called “Blue Dot” and “Boy Scout” trails can provide good connectivity and a high quality recreational experience for local and regional users given the interconnected nature of the system with the trails on adjacent lands managed by the U.S. Forest Service. From a user perspective, this ownership pattern may not seem to have a big effect on the ground. In reality, however, it is a big management challenge that we endeavor to resolve through the process of updating our management plan and working with the Forest Service toward a shared vision for adjoining properties. We are in it together.

We also work together as a department to develop a shared vision for parts of the property where different resources utilize the same landscape. For instance, Reynolds Ranch is currently grazed by cattle which provide beef to a local restaurant. Ranching of this landscape has been virtually continuous since the lands were homesteaded in the 1860s. Few such operations remain in Boulder County, so preservation of this historic agricultural use of this property is consistent with the mission of Parks and Open Space both as an agricultural resource and as an historic/cultural resource. By the way, the historic cabin I mentioned is the cabin that was constructed on the property

around 1865 for one of the original owners of the property, “Newt” Hockaday. Reportedly, Mr. Hockaday raised hay on this property that was then sold to mine operators in the Central City area, who fed the hay to the mules that were used in the mines as work animals.

Preserving Historic Uses

An additional aspect of this landscape is the important natural resources present. The mission of Parks and Open Space also includes the conservation of these resources. The historic ranch landscape is composed of a series of four meadow areas carved out of the surrounding forest, each supported by a spring or other water source that is important for livestock and local wildlife. One of these water sources is Giggey Lake, a spring-fed lake and wetland. This lake has been identified by the Colorado Natural Heritage Program as a “Potential Conservation Area”

because it provides habitat for important flora and fauna. This area is also an important migration corridor for elk. Needless to say, the resources are very interconnected.

So, as we work together to develop these management plans, we seek to identify strategies on the ground that can balance the various components of our mission and the inter-related resources that make a place what it is. It is not necessarily an easy proposition. At Reynolds Ranch we are striving to perpetuate an historic ranching landscape that also supports elk migration and other local habitat. At the same time, we will look for ways to provide opportunities for the public to experience and enjoy this open space and perhaps learn something new about Boulder County!

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 2010 study conducted by Katrina Loewy, M.S. candidate at the University of Denver. Her research project focused on host plant choice in fall webworms.

Abstract: Fall webworms (*Hyphantria cunea* Drury) rank among the most generalist lepidopteran larvae and feed on hundreds of plants worldwide. However, they often exhibit local specialization; in Colorado, for instance, *H. cunea* are unequally distributed among about 20 woody host plants. The aim of my project is to explain the pattern of host tree choice in Colorado by quantifying the relative impacts of different selection pressures. First, *H. cunea* may prefer hosts that deliver the greatest nutritional benefit. To test this possibility, I am assessing bottom-up selection pressure by measuring pupal weight and larval feeding efficiency on local hosts. Another bottom-up selection pressure arises from the availability of hosts. Adult female *H. cunea* moths have limited time to deposit their eggs, and may prefer the most readily available trees. In order to test this possibility, I am establishing transects around utilized host trees to calculate the abundance of potential hosts. Finally, *H. cunea* could preferentially choose hosts that confer more safety from their natural enemies. I am measuring top-down selection pressure by recording the parasitism rate of fall webworm larvae on different host plants. The results of my research will help us to understand the mosaic of ecological processes behind insect specialization.

Preliminary Conclusions and Future Directions: The preliminary analysis supports both plant quality and parasitism rate as driving factors for host selection by *H. cunea* on the Front Range. Host plants feeding the heaviest pupae, like

narrowleaf cottonwood and choke cherry, were the most commonly used (abundance analysis ongoing), and had the shortest larval development times, but also had the highest parasitism rates. Host plants with lighter pupae, like alder and crab apple, also had lower parasitism rates. That apparent trade-off suggests that *H. cunea* select lower quality hosts to avoid natural enemies, but further research is necessary for confirmation. I mentored five University of Denver undergraduate lab members on this project, and several have designed and partially executed their own *H. cunea* experiments. It is likely that one or several lab members will apply for a permit to continue research on *H. cunea* either summer 2012 or the following year.

Call for 2013 Studies

The department is currently accepting proposals for 2013 funding. Two categories will be awarded -- grants up to \$5,000 and grants up to \$10,000. The deadline for proposals is January 24, 2013. Department staff have identified priority needs for research including these topics:

- Evaluation of integrated noxious weed management techniques.
- Determine the breeding success of great blue heron nesting colonies in Boulder County, habitat utilization during chick rearing and information on where adults are foraging and prey types.
- Investigate raptor use of prairie dog colonies and design survey methodology to include urban, exurban and remote open space properties.
- Preferences of older adults for recreational amenities on open space lands.

Other research proposals will be accepted. Visit the department’s website at www.bouldercounty.org/os/culture/pages/posresearch.aspx for a full listing of research topics and proposal guidelines.

A Prickly Subject

by Frances Boulding

Thistles are Eeyore's favorite food. Only a miserable make-believe donkey could love such a mischievous prickly plant, right? Thistles, like Eeyore, are so misunderstood.

The Thistle War

Thistles may be the world's most hated plants. Anyone who has managed noxious weeds has a thistle story. Most stories sound somewhat like a hero recounting the days when he fought some atrocious invading army. My own story is no different. I remember a sweltering morning years ago... armed with a chainsaw, I confronted a field of musk thistle. Each thistle soldier stood taller than me and when I bent over to slice through the thick stem I had to spin away as the plant fell or risk the wrath of spines brushing my arm. At the end of the day the field was strewn with fallen thistles. After most battles the slain stay dead, but some of the thistles had gone to seed so I knew the thistle soldiers would rise again. Not all thistles, however, are so menacing.

What is a Thistle?

Colorado has 21 species of native thistle and only six non-native species. The word "thistle" derives from an Old English term for a large group of undesirable plants. Any prickly weed is often called a thistle, but not all thistles are weeds. Most plants called thistles are of the genera *Cirsium*, *Carduus*, or *Onopordum*. All the native thistles in Colorado are a species of *Cirsium* and have deeply lobed prickly leaves with disk flowers.

Native Thistles of Boulder County

Floodman's thistle (*Cirsium floodmanii*) is found in the eastern plains of Boulder County, typically in moist meadows or flood irrigated pastures. It has deep purple flowers and creeping roots. It can easily be confused with Canada thistle, one of the most common invasive species in similar habitats.

Wavyleaf thistle (*C. undulatum*) has a single purple or cream colored flower and grayish highly lobed leaves. This plant can be found in canyon bottoms, foothills, and sagebrush communities, and is the most common native thistle found in the outwash fans and foothills of Boulder County.

Yellowspine thistle (*C. ochrocentrum*) has solitary purple, pink, or cream colored flowers with densely leafy stems and prominent yellow spines on the leaves. This plant is found in dry sites between 3,500 and 9,000 feet and often grows in clumps.

Fewleaf or fringed thistle (*C. centaureae*) has white flowers with no spine on the phyllaries (small leaflike structures on the



Wavyleaf thistle is one of several species of thistles native to Colorado.

flower head) and a reddish stem. This plant is found in the montane and sub-alpine areas of Boulder County growing up to 10,800 feet in areas such as the Peak to Peak Highway, upper Lefthand Canyon and Sugarloaf. It is also very common in Rocky Mountain National Park.

Mountain thistle (*C. scopulorum*) has massive, fluffy, yellow or white nodding flower clusters. This thistle is typically found growing above treeline in tundra and boulder fields.

All of these native thistles are valuable to native plant communities. Birds eat the seeds and use the seed down to

line their nests. Butterflies and bees thrive on the nectar. Honey produced by bees that pollinate thistles is particularly delicious. Mountain goats eat the stems, prickles and all. Native thistles have also been valued by people throughout history. *Cirsium* species were once used to treat swollen veins. The word, "Cirsium" is derived from the Greek word, "kirsos," which means swollen vein. Native Americans and western explorers cooked the roots of some native thistles like a vegetable. I have even found recipes for cream of thistle soup and thistle pancakes.

How to Tell the Good from the Bad

The simplest way to distinguish native thistles is their proximity to other thistles. Native thistles tend to be interspersed with other plants, while invasive thistles often form dense patches. Similarly, if the thistle is eye level with you, it is probably invasive. Color is another important indicator. White flowers generally indicate native thistles while purple flowers generally indicate invasive thistles. Every rule however has an exception. Wavyleaf and yellowspine native thistles can have purple flowers and yellowspine will grow in patches.

All kinds of bugs eat thistles and local bugs keep native plant populations in check. Bugs eat the invasive plants as well. The seedhead weevil (*Rhinocyllus conicus*) was introduced in the U.S. to control invasive thistles, but now native Colorado thistles are at risk from the hungry weevil. Another insect that specializes in thistle-eating is the tortoise beetle (*Cassida rubiginosa*). This bug was also purposefully introduced to control invasive plants and can now be found on a variety of introduced and native thistles in Boulder County. The beetle larvae have a remarkable defense mechanism. They spool their feces around forked tails creating a toxic fecal shield also known as a turd truncheon!

Next time you see a thistle, take a close look. Is it native? Are there any bugs? You may be tempted to taste the prickly delight ...but don't! Eeyore would be very upset if he had to share.

Step Right Up: Volunteer Opportunities

Have a few hours? A few days? Whatever amount of time you have to spend volunteering with Boulder County Parks and Open Space, we have an opportunity for you. These programs are currently recruiting, but every season brings new ways to be involved and the start of new volunteer opportunities. Visit www.BoulderCountyOpenSpace.org and click on "Get Involved" to learn more.

Volunteer Naturalist Training Program

We are now accepting applications for the 2013 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 10 through March 14, 2013 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 16, 2012. Since there is limited space in the training course, all applicants will be interviewed.



A volunteer naturalist leads a program at a school.

National Public Lands Day September 29 at Hall Ranch

Enjoy being outside on a fall day helping to improve the open spaces we enjoy. Volunteers will use hand tools to help re-route sections of trail as well as perform any general trail maintenance that may be needed. The day will start with a light breakfast, then we will split into crews and be shuttled to the various project sites. Volunteers and staff will meet near Lyons. Specific project information will be sent out closer to the project date upon registration.

Minimum age is 12 with adult supervision. This project runs from 8:00am to 1:00pm. To register, visit: www.BoulderCountyOpenSpace.org/wildwork or call Fletcher Jacobs at 303-678-6344.



Volunteers help with trail maintenance at Hall Ranch.

Citizen Ranger Corps

Do you enjoy spending time outdoors on the trails? If so, consider volunteering with the Citizen Ranger Corps.

Volunteers are welcome to hike, bike, or ride a horse exploring some of Boulder County's most scenic open spaces while providing park visitors with information about cultural and natural history, recreational opportunities, facilities, and regulations. Volunteers will also be trained to lead and assist staff with work projects, visitor studies, community outreach and education and wellness hikes.

Trainings include wildlife forensics, winter survival training, visitor studies research, principles of education and outreach, emergency animal evacuation center training, and more.

Trainings take place the first Saturday of every month from October to May. Volunteers are also required to patrol at least 24 hours in a calendar year and participate in 4 special assignments. Application deadline is Saturday September 15th.

For more information and an application, contact Michelle Bowie at mbowie@bouldercounty.org or 303-678-6219.

Field Notes

A Day in the Life of a Forester

A typical day for me starts at 7:00 am out at the Open Space and Transportation Complex in Longmont where my office is located. But today is not a typical day. Today is Wednesday June 27th, the day after the Flagstaff Fire started. By 7:00 am our crew was already headed up Flagstaff Road for what was to be a very long day. Instead of preparing for a full day in the field with my regular job duties of project planning and management, I was in a caravan of fire trucks trying to navigate the narrow windy roads around the fire. At least we had a good breakfast this morning before our 6:00 am briefing.

On a normal day, by the early morning I am up at Heil Valley Ranch to check on the progress of a recent restoration project. The thinning portion of the project is complete and we are currently working on removing the activity fuels (slash) and the weeds from the unit. Today I will have to leave the project in the capable hands of the crew leader as by this time my hand crew is just finishing our hike up to the fire perimeter where we will start digging line. I have been assigned to Division Alpha as a Squad Boss for one of the hand crews. Our objective for the day is to dig line from the Alpha/Zulu division break to the Alpha/Bravo division break so the west flank is contained.

It is early in the afternoon now, the sun is out again and it is hard to motivate after lunch. Our crew is half-way to the

division break with our containment line. We spent the morning digging line down into a drainage bottom and are working to reach the ridge top before the end of the day. Helicopters and air tankers have been circling all morning dropping water on hot spots and reinforcing retardant lines on the perimeter. Usually my afternoons are spent up at Hall Ranch working on a small portion of a larger restoration project south of the Nelson Ranch. Rather than have a large machine thin lots of acres, this project is being implemented by hand. All of the trees have been cut by hand (with a chainsaw) and removed by hand (with an ATV). The crews I oversee on the project are nearing the end of the project which will culminate in our public firewood sale later this year!

By 4:30pm I typically am back at our shop getting ready for the next day. I have GIS data to download, tools to sharpen and organize and equipment to fix. Not today. It seems each time our hand crew gets near the top of the ridge, the lightning chases us back down the hill. There are still 2 ½ hours left in our shift and we have nearly completed our containment line. With a break in the weather we hike back up the hill. Once we have completed our line we will mop up any hot spots near the perimeter before we head back to the Incident Command Post for dinner around 9:00. With any luck I will be able to clean off all the ash before I crawl into bed by midnight. I hope tomorrow is a normal day!



Clockwise from top left:

Foresters at Hall Ranch on a prescribed burn.

A photo taken through the haze of smoke as firefighters from several local agencies work to contain the Flagstaff Fire.

Author Nick Stremel leads a volunteer naturalist training about forestry.

Author Nick Stremel is a Resource Technician with the Forestry/Fire Team.

NATURE DETECTIVES

Fall 2012

Eye to Eye with a Praying Mantis

Most insects seem to pay no attention to humans unless they are scurrying away from us, or biting us or stinging us.

If they do notice us, they don't seem interested and they don't interrupt their bug work to give us a second glance.

Approach a **praying mantis** for a closer peek and amazingly, this insect's odd triangle-shaped head swivels toward you. As you look at the praying mantis, the mantis takes a good look at you in turn.

If you make a sudden movement, the alarmed mantis might flare its wings to look bigger.

A Mantis is a Kind of Mantid

A praying mantis is just one kind among a family of insects called **mantids**, but it is the one that gets noticed because Colorado has a quite a few of them and because it is a big bug. It can grow as long as your hand, 3 inches or more. A praying mantis can be bright green or brown. It has a colorful spot in each "armpit." (The area under each front leg.) Straight wings that look a little like thin leaves rest along its back.

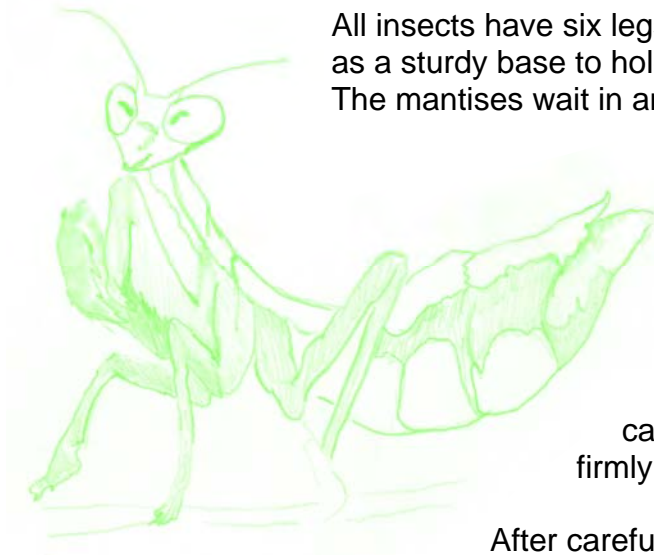
One of the best times to find praying mantises is in August and September. If you go on a search for them, they are hard to see because of their great camouflage coloring. But sometimes, when you are not expecting it, you will notice one sitting on a window screen or on a twig right near you. Mantids like to climb things. So keep an eye out for them and you might be lucky enough to spot one turning its head to eyeball you too.

The world teems with interesting bugs, but praying mantises stand out because of their "intelligent alien" science fiction appearance as they stare back at you.



Fast Food

Praying mantises get their name because of the prayerful way their front legs are held together and raised in front of their bodies. More accurately, they could be called “preying mantises.” Like all mantids, they hunt and eat live insects, and their front legs are their weapons.



All insects have six legs. The mantids use their back four twig-like legs as a sturdy base to hold themselves securely in place.

The mantises wait in ambush with their front two legs held ready for action. Those folded front legs have a sudden spring-like release. Their legs flash forward quicker than our eyes can follow to snatch an insect meal in an instant. One second the mantis is eyeing some other critter such as a caterpillar and the next second we see the caterpillar snagged on the spines of the mantis’ front legs. The mantis can now delicately nibble dinner, which is grasped firmly and pinned on the spines of its legs.

After carefully cleaning its face and feet (sort of like a cat), it will creep along, on the hunt for its next insect feast.

Bug Eyed

Whether it is looking at us or at a potential meal, the mantid’s two big, bulging eyeballs give it vision in several directions at once. We have one lens in each of our eyes, but insects have compound eyes with hundreds or even thousands of lenses for seeing hundreds or thousands of images at once. With eyes like this on a head that rotates all directions on a flexible short neck, a mantid is awesome at spotting its prey. Above each eye is an antenna that is useful for touch and smell too.

Cold Storage

Mantids lay their eggs by the hundreds in masses of brownish white foam. The foam hardens on a plant stem or against a rock and provides shelter through the winter to the developing new mantids.

In late spring, baby mantids (called nymphs) hatch and start their life as ferocious mini-predators. They look like tiny, wingless versions of the adults, and they start out eating tiny gnats and sometimes each other. Each time they molt (which is shedding their hard exoskeleton) they have room inside their new exoskeleton to grow a little larger. Each time they get a little larger, they can catch larger bug prey. They molt several times until they are all grown up by the end of the summer.



Mantids from Near and Far

Some people call all mantids mantises, but you might know that “mantids” is the best term to use for any mantid other than the European praying mantis.

People brought praying mantises here from Europe where they naturally live. The adults can't survive Colorado winters when temperatures drop too low for them. But come spring, baby mantises will hatch from egg cases that survive chilly temperatures.

Some exotic Chinese mantids are also sold in Colorado. Chinese mantids are slightly bigger than European mantises but are more likely to die out over our cold winters. They are brown with yellow or green stripes along their wings.



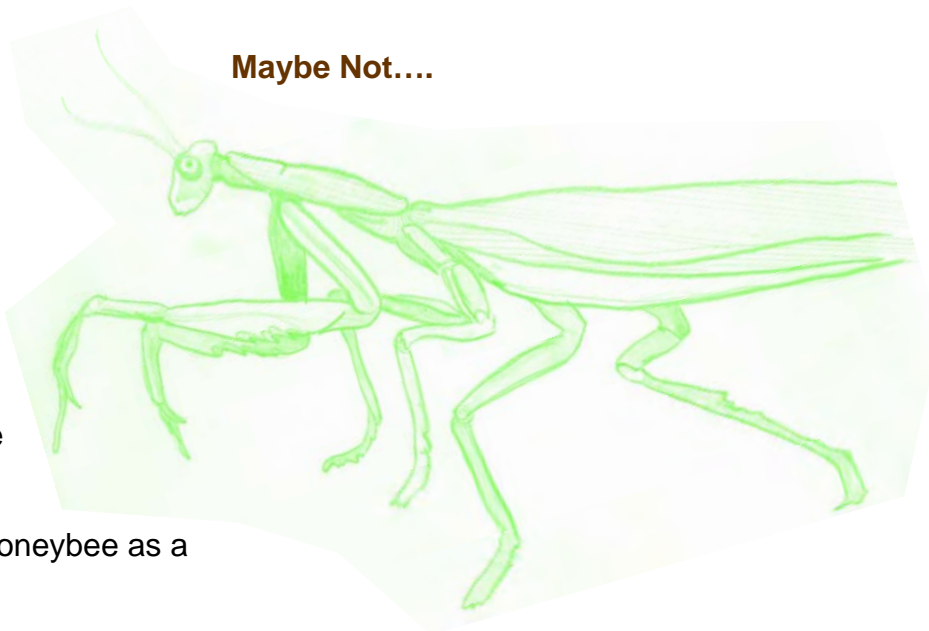
Our native mantids are not as eye-catching but they are just as cool.

Our native mantids are half the size of praying mantises. They are called **ground mantids** because that is where they live, on the ground in our shortgrass prairie habitat. They are a dull, gray-brown color. The color is perfect camouflage for the places where they live. With patience you can find them running and jumping along the ground in eastern Boulder County.

Garden Helpers? Maybe....

Praying mantises are often found in gardens and yards. Some gardeners like to see mantids because they know mantids will eat bugs that can chew on their growing flowers and veggies. But really, mantids don't care if their prey belongs to the “good” bug or “bad” bug category. Mantids are as likely to eat a honeybee as a cabbage moth caterpillar.

Maybe Not....



Deadly Mate?

It is a common belief that female praying mantises bite the heads off their mates. Mantises kept in cages for study often do, but male mantises in the wild usually leave their mates with their heads safely intact.

Mantis in a Jar

Adult male praying mantises are thin and can fly, but by fall females are round and too full of eggs to get airborne.

If you put your hand slowly in front of a female praying mantis, she may carefully climb up your hand. Wear gloves if the prickle of her legs will make you squeamish.

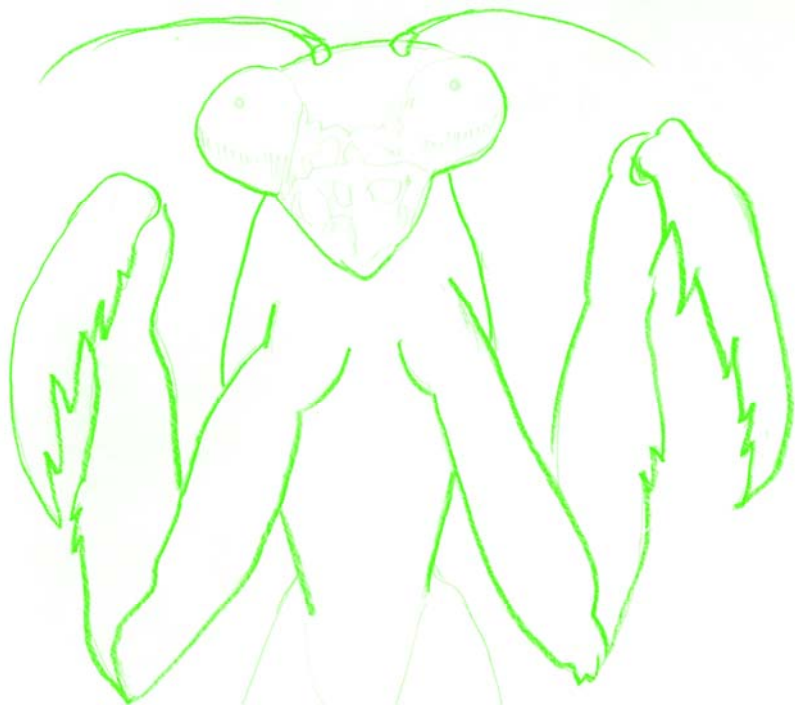
If you want to catch a female mantis to observe for a few minutes, hold a big jar in front of her and she might climb in. Cover the top with a lid that has air holes.

A stick in the jar gives her something to climb. After watching her for a short time, let her go so she can hunt for the food and water she needs to survive.

Remember, you cannot take anything from Boulder County Parks and Open Space so release your mantis where you found her. Putting a wild critter back where you found it is always a good idea even in your own yard.

Some people keep a mantid as a pet, but it is a big responsibility to keep the insect healthy. Even when food and water is kept supplied in a big terrarium, the mantid often dies before winter.

If there is a stick for a praying mantis to climb, sometimes she will lay an egg sack on the stick. The eggs have to get cold over the winter to hatch just as they would in nature.



Go Wild for Insects

Mantids are not the only insects to observe in the fall. Crickets are jumping and colorful grasshoppers are hopping and flying. Male crickets and grasshoppers make loud chirping sounds with their wings. How many different sounds can you hear? How many different colors and sizes of grasshoppers can you find?

Cabin Fever: Restoration at Betasso Preserve

by Francesca Giongo

Over the summer, Boulder County Youth Corps assisted in the restoration of the historic McDonald cabin at Betasso Preserve. The cabin is visible from the Canyon Loop trail, about 0.8 miles from the trailhead traveling clockwise on the west portion of the trail.

A native of Boulder, Ronald McDonald started building his cabin in 1917 and homesteaded approximately 230 acres for a few years. In McDonald's own words, gleaned from archive documents, the land was "too rough and steep for any use but grazing." He mostly raised livestock and chickens, and cultivated only eight acres growing corn, wheat, potatoes and alfalfa. The crops relied solely on rainfall, since it was not feasible to build an irrigation system.

McDonald also planted plum trees; a few of those still stand west of the cabin. He reduced the risk of frost by putting the grove on sloping land for good air and drainage, and near a small temperature-modifying creek. He selected trees that were small and short because they were easier to pick from.

McDonald sold his property to his neighbor Charles Weaver in 1924. In the same year, Weaver sold it to the Betasso brothers, for about \$5 per acre. Dick and Ernie Betasso had begun consolidating their father Steve's ranch with the acquisition of several adjoining homesteads, starting a process that would ultimately net them a ranch of more than 2,000 acres with 125 head of cattle

Homesteader Homebuilding

The modest one-story, one-room timber cabin was built eight logs high, just tall enough for a full-grown man to stand up inside. It is an excellent example of the log homes built by Boulder County's homesteaders in the 20th century. The architecture illustrates how the tradition of building with horizontal log walls persisted in Boulder County even after cut lumber was locally available. It made good sense to use materials readily available such as logs and stones to build a home in the mountains. The simple construction technology is evident in the imprecise cutting and squaring of the logs, resulting in relatively large, irregular gaps between timbers. The logs were left round and joined at the corners by simple overlapping saddle notches. The original floor was probably a plain, wood-plank floor.

The six member Youth Corps crew repaired or replaced sill logs and wall logs, and did some chinking and daubing. Originally, the spaces between logs had been filled with pieces of wood (chinking) and sealed with white daubing. Daubing was a concoction of lime, water, sand, horsehair or hoghair, and molasses. The Youth Corps also dug drainage ditches and installed a drainage system around the perimeter of the cabin.

Boulder County Parks and Open Space staff plans to complete the project this fall by finishing chinking and daubing, installing a door, and repairing the floor, roof and window.



From the top:
The McDonald cabin before restoration began.

Youth Corps members in the McDonald cabin.

Youth Corps leader Adam Sanderson and his team at work hewing a log.

Joanna Sampson: Heart and Soul of Marshall, Colorado

by Brent Wheeler

Joanna Sampson was a quiet, unassuming woman who spent most of her life in Marshall, Colorado. Although I knew little about her earlier years, I can only assume her passion for history was predominant throughout her life. It was clear from the first day I met Joanna, she was someone special with a wealth of knowledge of the lands that surrounded her home across the City of Boulder Open Space lands known as Marshall Mesa.

Joanna moved to Marshall, Colorado, during the early 1950s when much of this area remained undeveloped from the ever growing populations of Boulder and nearby Denver. Perhaps this is what drew Joanna and her husband to move to this area. Perhaps it was the sheer beauty of the rolling hills and grasslands. My hunch would be it was all of the above and the lure of a rich history that needed to be discovered and told.

Discover and tell the rich history Joanna did. Joanna was “the expert” in coal mining at Marshall Mesa and history of the surrounding area of Eldorado Springs. She spent over 50 years researching what the early settlers did... whether it be countless hours spent in Carnegie Library, CU’s Western History Collection, the archives in Denver, roaming the mesas looking for traces of early settlers or interviewing coal miners and their families.

Sharing History

Joanna’s passion for history went beyond just knowing; she wanted to make sure others knew and shared her interest. Her research was used to create interpretive brochures and programs for Eldorado Canyon State Park and many areas of City of Boulder Open Space and Mountain Parks system. Joanna researched and authored *Walking Through History at Marshall Mesa*; *High, Wild and Handsome*; *Historic Walker Ranch*; and *A Glimpse of Eldorado’s Colorful Past*. She was the source for anything related to Marshall coal mining and the impetus behind the annual living history interpretive programs conducted by the City of Boulder during the late 1980s and into the 1990s.

Every year Joanna and I led public tours around Marshall Mesa. She provided photographs and gave the presentation on the mining strikes. She told stories of harsh and unsafe working conditions, poor wages and unfair treatment by mining companies. You could feel the emotion and fear of the miners when she talked about the State Militia mounting machine guns on top of the mesas to keep the striking miners at bay. Joanna yearned to be a part of the living history program but knew women were never allowed in the mines. Each year she would refrain from participating in the skit in order to maintain historical accuracy.

Partnership in Preservation

Joanna Sampson and another long-time friend and volunteer historian, Doc Teegarden, were instrumental in not only

documenting the rich history of these lands but also in preserving whatever relics remained. They both volunteered countless hours to help stabilize historic structures such as the Doudy-DeBacker-Dunn House located at the South Mesa Trailhead, the Stockton Cabin in upper Shadow Canyon and many barns throughout south Boulder. Their passion and efforts led to creation of the first cultural resource program for the City of Boulder Open Space and Mountain Parks.

Joanna did more than just research and share her knowledge. She instilled a sense of place and importance of the past. Her vivid recollections of past events made one feel as if they were actually there.

Old Louisville Inn - A Private Tour

One of my fondest memories of Joanna was going to lunch



Industrial mine in Superior, circa 1923.

at the Old Louisville Inn. After years of working closely with Joanna on the coal mining history and recently celebrating the completion of the Marshall Mesa coal mining grant project, Joanna and I felt it was a good time to celebrate. What more suitable location than the Old Louisville Inn, a prominent gathering spot for local miners during the heydays of coal mining. As Joanna and I enjoyed lunch, we started talking to the owner about the history of the inn. We shared stories of coal mining and the prohibition era. The

owner quickly recognized that Joanna had a wealth of information that was above and beyond most patrons and invited us on a private tour of the inn. As he led us into the basement, I could visualize the inn being full of miners with spirits flowing freely. Here in the basement were sealed off tunnels that led to other parts of the town. It was rumored that the tunnels were used as escape routes into other establishments when prohibition raids occurred.

After a great day with Joanna, I went home to sleep. I distinctly remember having the most vivid dreams of being a coal miner and enjoying an evening in the inn and being rousted from inn to inn as the prohibition raids ensued. Many loud and raucous coal miners from various regions of the world were there. The coal miners were known to work hard and sometimes play even harder. This led to some wild times and an occasional fight. It was Joanna’s passion and tireless research that brought them alive to me.

Thank you my friend. My life and anyone who has an interest in the history of these lands will be much richer for all your efforts!

Brent Wheeler was the department’s Operations Manager for 10 years and currently works part-time as a Project Coordinator for Boulder County Parks and Open Space. As a former employee of the City of Boulder Open Space and Mountain Parks, he worked closely with Joanna from 1984 to 2001.

Discover Boulder County

A CALENDAR OF NATURAL AND CULTURAL HISTORY EVENTS

I Spy Bones

Thursday, September 6; 9:30am to 10:30am

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

The bone detectives are on the prowl! Help volunteer naturalist Diane Faigen and others search for evidence, including skulls, vertebrae, and antlers of some of the animals that live here. This program is geared toward preschool children, but siblings are welcome. Hands-on activities and a fun craft will also be included.

From Grassland to Glacier

Saturday, September 8; 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, rising from the Great Plains to the Continental Divide, and supporting a diversity of biological life zones. If you have wondered how the subalpine fir tree or the Abert's squirrel can live in several life zones, join park interpreter Shirley Hollingsworth on an easy one-mile hike to find the answers. While exploring, you will discover what lives there and how different plant and animal communities adapt to this mountain landscape.



Woman of Genius – Mary Hunter Austin

Wednesday, September 12; 7:00pm to 8:00pm

Boulder County Parks and Open Space Office; 5201 St. Vrain Road, Longmont

Please join first-person storyteller and water rights enthusiast Constance Holland as she plays Mary Hunter Austin, a writer and Indian Rights activist in the late 19th and early 20th centuries. She was one of the first women to become involved in the battle over water rights in the West and Southwest. Please join us and meet “Mrs. Austin” as she tells us about her adventures.

Bears in Our Backyard

Saturday, 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 are busy gorging on berries and other food in preparation for their long winter sleep. How much do bears need to eat before hibernation, and what are their chances of survival? What would you do if you encountered a bear, and how do you bear-proof your backyard? Get answers to these questions and more as you hike in search of bear signs, and learn how people and bears can share wild places. Be prepared for a moderate 1.5-mile hike.

Rattlesnake Hike

Sunday, September 16; 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 and learn about this fascinating reptile, which can be found in the plains and foothills of Boulder County. Volunteer naturalists will share information about the western rattlesnake, including habitat, ecology, behavior, and how to be safe in rattlesnake country.

Junior Ranger Adventure Day

Saturday, September 22, 10am-12:30pm

Heil Valley Ranch; North of Boulder off Lefthand Canyon Drive

Hey kids! Are you ready to be adventurous and get outdoors? Join Boulder County Parks and Open Space Rangers for a day of fun as you become a Junior Ranger! Learn how to be prepared for all the surprises the outdoors can throw your way. For kids aged 6-12, but all ages are welcome. An adult must be present. Bring water, sunscreen, snacks, hiking shoes and your bike if you have one.

To register, please visit www.bouldercountyopenspace.org/register. Contact Ranger Erin O’Leary at 720-352-7041 or eroleary@bouldercounty.org with any questions.

Circle of Stones Hike: A Woman’s Journey to Herself

Saturday, September 22; 9:30am to Noon

Meeting location will be provided to registered participants

Volunteer naturalist Louise Alderson will lead a walk to experience inner wisdom and to honor the feminine within us. This nature program, based on the book *Circle of Stones* by Judith Duerk, will include reflection, writing, and sharing time. Participants should be prepared for a moderate 1.5-mile hike. For women of all ages; register by email at lcolbenson@bouldercounty.org or by calling 303-678-6214 by Thursday, September 20.



Clever Corvids

Sunday, September 23; 10:00am to noon

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

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

Discover Boulder County

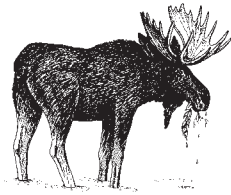
A CALENDAR OF NATURAL AND CULTURAL HISTORY EVENTS

Oh Deer – Elk and Moose!

Saturday, September 29; 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 fall hike in the high country and learn about and look for signs of the three members of the deer family that call Caribou Ranch Open Space home – mule deer, American elk, and moose. We will hike about three miles round-trip over easy terrain, and learn about the natural history, behavior, and ecology of these hoofed mammals. Please bring hiking shoes/boots suitable for seasonal weather conditions at 8,500 feet.



Moonlight Hike at Betasso Preserve

Saturday, September 29; 7:00pm to 9:00pm

Betasso Preserve; Boulder Canyon (Highway 119) to Sugarloaf Road; follow signs to Betasso Preserve; meet at group picnic shelter

Join resident Ranger Graham Fowler and volunteer naturalists for an evening of exploring Betasso Preserve under cover of darkness. We'll hike up to two miles round-trip, on easy to moderate trails, enjoying the moonlight, listening for night sounds, and learning about some of the nocturnal habits of the critters that live here. Bring a flashlight and your night vision. Please register by emailing gfwolder@bouldercounty.org by Thursday, the 27th.

Who are the Owls?

Tuesday, October 2; 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 people they are symbols of wisdom, to others, harbingers of doom and death. Over half of the owls recorded in the U.S. have been seen in Boulder County, and most of those owls nest here. Join volunteer naturalists to explore these creatures of the night, and learn about the diversity and special adaptations that make them expert hunters.

A Woman's Encounter Within Herself and Nature

Saturday, October 6; 9:30am to noon

Meeting location will be given to registered participants

Join volunteer naturalist Louise Alderson for a walk in nature. Using passages from the book *I Sit Listening to the Wind*, by Judith Duerk, you will experience the rhythm of nature and personal reflection. Participants should be prepared for a moderate 1-mile hike. For women of all ages; register by email at lcobenson@bouldercounty.org, or by calling 303-678-6214 by Thursday, October 4.

Autumn Heritage Day at Walker Ranch Homestead

Sunday, September 30; 10:00am to 4:00pm

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

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

A highlight of the autumn event is the vintage "base ball" game. Once again, the Walker Ranch Boys will take on their rivals, the Denver Blue-stockings beginning at 1:00pm.

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

This program is free and open to all ages. For more information, please call 303-776-8848 or email skippen@bouldercounty.org.

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



Discover Boulder County

A CALENDAR OF NATURAL AND CULTURAL HISTORY EVENTS

Quaking Aspen Hike

Saturday, October 6; 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 to learn more about the aspen – the most widely distributed tree in North America. On this trip, we'll hike about two easy miles (round-trip) at 8,500 feet through conifer forest, meadows, and aspen groves. We'll discuss the natural history of the aspen, including its importance to wildlife, varied uses, response to fire, and threats to its health. We'll also keep an eye out for signs of wildlife, and maybe even hear bugling elk.

Fire on the Mountain: After the Fourmile Canyon Fire

Saturday, October 13; 10:00am to noon

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

Join Boulder County 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 and scale 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. We will also keep an eye out for any wildlife or signs of wildlife.

Bears in Our Backyard

Sunday, October 14; 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 in preparation for their winter sleep. How much do bears eat before hibernation? What are their chances of survival? What would you do if you encountered a bear, and how do you bear-proof your backyard? Get answers to these questions and more and learn how people and bears can share our wild places. Be prepared for a moderate 1.5-mile hike.

Hanging Out With Bats

Saturday, October 20; 1:00pm to 2:30pm

Meeting location provided to registered participants

Explore the mysteries surrounding the only mammal that flies. Join volunteer naturalists Louise Alderson and Susan Holley to learn about the resident bats of Boulder County, their habits and habitat, and their importance to humans. This program is for families with preschool and elementary-age children, and will include a slide presentation and hands-on activities. Register for this program by emailing icolbenson@bouldercounty.org, or by calling 303-678-6214 by Thursday, October 18.

Ghost Towns of the Rockies (presentations and book signings)

Sunday, October 28, 2:00pm to 3:00pm

Agricultural Heritage Center; 8348 Ute Hwy 66 in Longmont

-- and --

Saturday, November 17, 1:00pm to 2:00pm

Goodhue Farmhouse, Carolyn Holmberg Preserve at the Rock Creek Farm; 2005 S. 112 St. Broomfield

Thrilling, exciting, spooky! Preethi Burkholder, author of *Ghost Towns of the Rockies*, presents fun-filled stories and photos from days gone by. Learn about the ghost of Annabelle Stark of St. Elmo, Colorado, the Silver Panic of 1893, which turned many thriving communities across America into ghost towns, and beautiful, mysterious ghost towns across the Rockies. Children, parents, and seniors alike will enjoy this event. Autographed books will be available for purchase at the event, and there will be a book-signing following the one hour program. Call 303-776-8688 or email jdrew@bouldercounty.org for more information.

Geology and Landforms of Hall Ranch

Saturday, October 27; 9:00am to 1:00pm

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

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

All Programs

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

Discover Boulder County

A CALENDAR OF NATURAL AND CULTURAL HISTORY EVENTS

Story in the Rocks - Geologic History of Boulder County **Monday, October 29; 6:30pm to 8:00pm**

REI Store Community Room, 1789 28th Street, Boulder

The geologic history of Boulder County's remarkable landscape goes back over 1.7 billion years. Wonder where the rocks came from or how the Rockies formed? Rocks contain a record of earth history that can be read like the pages in a book. Join geologist and volunteer naturalist Sue Hirschfeld for this slide program and learn how to interpret the landscape that has developed over the last two billion years.

Wildlife and Winter Hike

Saturday, November 3; 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. Be prepared for a moderate 2-mile hike above 8,500 feet.

Snoods and Caruncles – Wild Turkeys of Boulder County **Wednesday, November 7; 7:00pm to 8:30pm**

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

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



Story in the Rocks Hike – Our Changing Landscape **Saturday, November 10; 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 landscape has changed. Tales told in the rocks span 200 million years, from ancient sand dunes to tidal flats to riverbeds where dinosaurs roamed. The rocks also determine the shape and ecology of the present landscape, and the plants and wildlife we find here.

Birds of Prey Slide Program

Tuesday, November 13; 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 for the evening and learn how to recognize birds of prey—hawks, eagles, falcons, and owls—in the skies. During this slide presentation, you'll learn how to distinguish between raptors by identifying field marks, behavior, location, and time of year. You will also learn about the habitat requirements and ecology of these magnificent birds.

Birds of Prey Driving Tour

Saturday, November 17; 10:00am to 1:00pm

Meeting location provided to registered participants

Join volunteer naturalists for a driving tour of some of the 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 observation and identification skills. Participants should bring lunch, binoculars, a spotting scope, and a bird field guide if you have them. The tour is geared for adults and older children. Register by emailing icolbenson@bouldercounty.org, or by calling 303-678-6214 by Thursday, November 15.

Nature Hikes for Seniors

Boulder County Parks and Open Space hosts a nature hike for seniors every month. Programs include information



about an area's history, wildlife and current resource management projects. For more information, call 303-678-6214. Please call in advance if you plan to bring a large group so we have enough naturalists at the program.

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

September 27	Walker Ranch Open Space (meet at the Meyers Homestead Trailhead)
October 25	Heil Valley Ranch Open Space (meet at the Lichen Loop Trailhead)
November 29	Rabbit Mountain Open Space

Exhibition: Photography of Boulder County Parks and Open Space

A juried photography show will be held at The Dairy Center for the Arts in Boulder, Colorado, during March 2013. The exhibit, called *Land through the Lens: Photography of Boulder County Parks and Open Space* will feature photographs of county-owned open space land.

Photography Hikes and Sessions

Listed below are several opportunities to take pictures on open space. The sessions provide a chance to get unique photographs to submit to the exhibition. Visit www.bouldercounty.org and search for "photo show" to learn more about the exhibition and submitting photos.

Agricultural Heritage Center Sunset Sessions

Come to the Agricultural Heritage Center (348 Ute Highway in Longmont) during off hours to take pictures of the scenery during sunset.

Wednesday, September 26th; 5:00 – 7:30pm (sunset 6:55)

Wednesday, October 31st; 5:00 – 6:30pm (sunset 6:00)

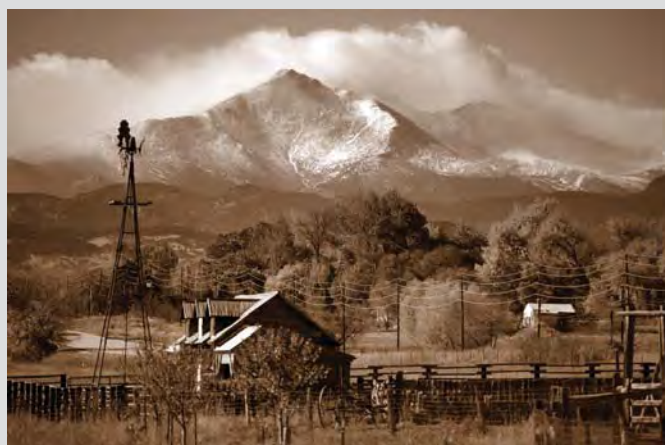
Buildings will not be open and we will not be conducting tours during these sessions. The site is normally open to the public Friday – Sunday from 10:00am – 5:00pm. For more information, contact Jim Drew at 303-776-8688 or jdrew@bouldercounty.org.

Photography Sessions with Ranger Fowler

Ranger Fowler will lead a photography hike in the park, focusing on wildlife. We'll talk about photography and go to areas that should provide some good shots!

Friday, October 19, 5:30 to 7:30pm; Heil Valley Ranch

Please wear appropriate clothing and be prepared to capture our natural wonders with your camera. For more information, contact Graham Fowler at 303-499-5083 or gfover@bouldercounty.org



Agricultural Heritage Center

Junior and Senior Fishing Derby Takes Place Saturday, October 13th



Dust off those fishing rods and invite a kid to go fishing at Boulder County's senior and junior fishing derby. The first ten 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 catch the heaviest trout, have the largest age difference, and are first to catch the limit.

The derby takes place Saturday, October 13th 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.

Firewood Permits for Sale

The Boulder County Parks and Open Space Department has firewood permits for sale. The permits are for Hall Ranch Open Space on Saturdays this fall.

Permits are \$10 for half a cord of wood for personal use only. Individuals may purchase up to five cords and will need to load and haul firewood from Hall Ranch in one trip. Loads must be safely secured per applicable Colorado's Department of Transportation regulations. Since the open space roads may be extremely adverse, 4-wheel drive vehicles are required. Trailers are not permitted.

A full cord is 128 cubic feet stacked. A standard 8-foot pickup bed will hold approximately ½ cord stacked level to the top of the bed.

The firewood will be pre-cut into lengths no longer than 8-feet long. Permit holders are allowed to use chainsaws. Depending on assigned sites, the wood will be ponderosa pine, lodgepole pine or Douglas-fir. Firewood may be green or dry.

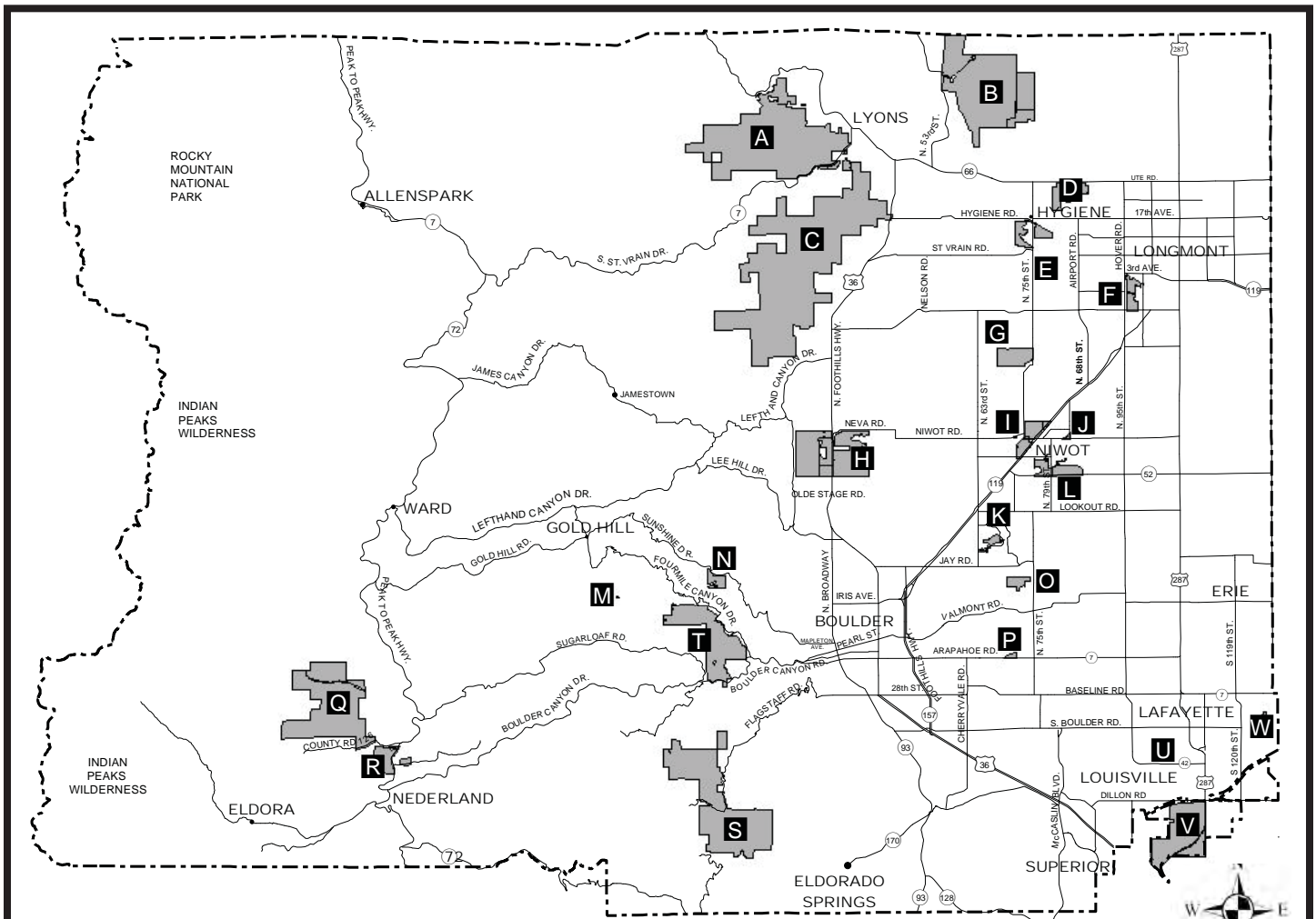
There are a limited number of permits available. You can learn more and purchase permits online at www.bouldercountyopenspace.org/firewood.



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

www.BoulderCountyOpenSpace.org

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