Boulder County Nature Association



"The Boulder County Nature Association is a private, non-profit membership organization committed to preserving the natural history of our region through research, documentation, and public education."

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FLAMMULATED OWLS AND CLIMATE CHANGE

By Dianne Andrews

Flammulated Owls are small, dark-eyed forest owls about six inches in length. Their name, which means "marked with little flames," refers to the orange-tipped scapular (shoulder) feathers. They nest primarily in mature and old-growth ponderosa pine, Douglas-fir, and aspen forests, where they feed mainly on the small moths that are particularly abundant in these forests. They are uncommon to common summer residents in the foothills and lower mountains of Colorado and spend their winters in Mexico and Central America.

At sunset during breeding season, when most forest birds are getting settled in for a night's rest after a busy day of foraging and feeding their young, the "flams" are just beginning to hunt moths and other prey. If the owls are nesting in the Manitou Experimental Forest near Woodland Park, Colorado, Dr. Brian Linkhart and his crew are probably nearby.

Dr. Linkhart, a professor at Colorado College in Colorado Springs, described his research findings in his keynote address to the Colorado Field Ornithologist's Convention, held this May in Trinidad, CO.



Over the last 30 years Dr. Linkhart and his students have banded all the Flammulated Owls in their 3000-acre study area and have delineated their territories. They know when the migratory owls return in the spring, when they begin breeding, and how many owlets are fledged every year. And they have become very familiar with the stresses these owls face.

Flammulated Owl Photo by Bill Schmoker

(continued on page 4)

STOP ELDORA SKI AREA EXPANSION: UPDATE

By Dave Hallock

The Middle Boulder Creek Coalition (MBCC) is a group of citizens and organizations (including BCNA) that have banded together to stop the Eldora ski area from building new ski lifts and runs beyond its current location down towards Hessie and Middle Boulder Creek. The wildlife, watershed, viewshed, and soundscape of the Hessie area will be adversely impacted. The lower backside of Bryan Mountain will be fragmented with ski runs and lifts, impacting forest interior species documented in the area, including boreal owl, American marten, and golden-crowned kinglet.

The conversion from forest to ski runs and glades will increase runoff to Middle Boulder Creek. The ski runs and lifts will become part of the immediate foreground view for people using the Hessie area. The sounds of snowmaking, lifts, snowmobiles, and downhill skiers will become part of the experience for those snowshoeing up to Lost Lake or the Fourth of July Road. The lower portion of Bryan Mountain above Middle Boulder Creek should not become part of the ski area but remain as a buffer to the creek, Hessie, and the Town of Eldora. This is good land use and watershed planning.

The ski area has submitted a formal application to the Forest Service for a portion of their expansion and the public process should begin this summer. MBCC has been organizing, assembling alert lists, taking officials to the site, and setting up social media. To learn more and sign up for action alerts, go to www.middlebouldercreekcoalition.org.

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Where Have All the Prairie Dogs Gone?

By Ruby Bowman

The Colorado Parks and Wildlife Division has approved Boulder County's permit application for the Rabbit Mountain Open Space prairie dog relocation. Starting on July 1st, black-tailed prairie dogs will be live-trapped at the Alexander Dawson county property near Boulder Creek and released to their new home at Rabbit Mountain Open Space in north Boulder County. The prairie dog relocation is necessary because the Army Corps of Engineers and Boulder County Parks and Open Space will be doing major stream realignment work in the area and the prairie dogs in question would be impacted by earthmoving operations.

I applaud Boulder County's effort to preserve prairie dogs at the Alexander Dawson property. The blacktailed prairie dog is a keystone species and a Colorado species of special concern and deserves this type of protection. While the county should be commended for its conservation effort, the Rabbit Mountain relocation is certainly way overdue. It has been 10 years since the county conducted its last prairie dog relocation. During that time, Boulder County has been relying exclusively on lethal control to manage prairie dogs on Parks and Open Space (POS) properties. I define lethal control as wildlife control that results in the eventual death of wildlife. including trapping and donation of prairie dogs to wildlife recovery centers.

According to county wildlife data, over 15,000 prairie dogs have been trapped on POS properties and donated to wildlife recovery centers to become food for black-footed ferrets and raptors since 2002. An unknown number of prairie dogs have been fumigated on county properties. The county does not provide an estimate of the number of prairie dogs they poisoned: it only gives the number of properties fumigated.

(continued on page 4)



Photo by Carol McCasland

Message from the President

Away on vacation, visiting the Coast of Maine near the Hog Island Audubon Camp, and watching Atlantic Puffins on Egg Island, a great story of restoring an endangered species. It is so refreshing to look at a different landscape and be reminded of how attached I am to Maine summers which I enjoyed as a boy and teenager. Almost by accident, as we drove into an abandoned parking lot Sunday evening, two beautiful sandhill cranes greeted us, pecking away at whatever scraps were available. Our trip has been full of moments like that.

This spring has been a good one for BCNA. We had a very interesting and profitable ecosystem conference in April, marked by a very lively panel discussion on plans for the Gross Reservoir expansion. Other topics included a talk about environmental hold and constant flow in Boulder Creek,* toxic chemicals in micro-amounts in South Boulder Creek, what we can know about global warming and its particular effects on the Colorado region, and a landscape architecture history of the Boulder County watershed. It is always impressive to me how willing and gracious people are in sharing what they have learned about the Boulder ecosystem and how many knowledgeable people there are to talk with in this County. We are truly fortunate.

Next year's conference should be a little bit earlier to accommodate peoples' busy schedules and to avoid the warm beautiful weather that makes it hard to sit inside on a Saturday. The topic will involve our alpine ecosystems and inevitably lead to further discussion about climate change. We urge people to submit ideas about what they would like to hear at the conference so we can incorporate them into the planning.

Greetings to everyone, and I can only invite you to join us for any of our educational programs, research activities, and next year's ecosystem conference.

Peter Kleinman, President

*Environmental hold refers to the top couple of feet of the Gross Reservoir expansion plan which will belong to Boulder and Lafayette and allow a constant flow to maintain water in the stream during normally dry periods, which is good for recreation and the ecosystem as a whole.

MEET OUR NEW BOARD MEMBERS



Megan Bowes: I am a botanist and plant ecologist with the City of Boulder's Open Space and Mountain Parks Department, where I manage OSMP's rare plant and vegetation community mapping programs and assist with a variety of vegetation monitoring and habitat restoration efforts. Currently I am developing the department's new Ecological Restoration Program.

I am an active volunteer with the Colorado Native Plant Society and CSU Extension's Native Plant Master Program, where I've created a number of botanical and natural history classes and presentations. I also volunteer for many other organizations and governmental agencies, including the Colorado Natural Areas Program and BCNA's Winter Raptor Survey. In my spare time, I like to garden, lie in my hammock and read, and hang out with my boyfriend, four cats, and tarantula.

Stephen Ponder: I grew up in the mountains of Washington State and have a lifelong interest in the natural world as a hiker, a seasonal employee, and volunteer for the U.S. Forest Service, and as a journalist and researcher specializing in environmental history and policy.



In my first career, as a journalist, I wrote about debates surrounding the creation of North Cascades National Park and wilderness areas in the North Cascades. I was a reporter and editor for the Associated Press, United Press International and the Seattle Post-Intelligencer, among others. I also served as a press aide for a congressman who sponsored legislation

creating the Alpine Lakes Wilderness Area east of Seattle. In academia, my second career, my dissertation research focused on the forester Gifford Pinchot and the shaping of public opinion between competing visions of conservation and wilderness in the early twentieth century. As a recreationist, I backpacked extensively in the Pacific Northwest and later worked as a river guide on whitewater expeditions in Oregon and Washington.

My wife and I came to Boulder three years ago to visit grandchildren and quickly learned to appreciate nature in Boulder County and the need to protect and, where possible, to restore what remains of it. As a volunteer for Boulder County Parks and Open Space, I lead hikes that discuss fire ecology and fire policy, as well as more general topics.

Howard Witkin: My entire life has been spent in the business world as a builder and developer, but I have always had a strong love of the outdoors, nature, and wildlife. For many years I raced sailboats around the world and through sailing became deeply attuned to the environment and nature and how it affects our lives. During the summer months for a number of years I spent time living on our boat in the Bahamas, where I began my journey as a wildlife/ nature photographer and learned how fragile nature is and how humanity is destroying it.

After moving to Boulder and meeting the wonderful people associated with BCNA my wife and I became very involved in helping to protect our local environment by participating in the Burrowing Owl, Raptors of Concern, and Winter Raptor surveys. We also volunteer for the "Bear Aware" program developed by the Colorado Division of Wildlife and are involved with the Wolf Reintroduction Program in Yellowstone Park through the Yellowstone Foundation.

It is through my photography that I hope to educate young people about the environment that surrounds them: helping them to appreciate nature and stimulating their desire to



Photo by Howard Witkin

protect it for their generation and for future generations. My passion today is to act as a steward and advocate for nature, giving voice to the need to protect wildlife and the environment.

Prairie Dogs (continued from page 2) Lethal control has primarily occurred on Multiple Objective Areas (MOA), where prairie dogs can supposedly coexist with other uses, and No Prairie Dog (NPD) areas. The prairie dog populations on the Habitat Conservation Areas (HCAs), which according to Boulder County's Prairie Dog Management Plan "form the foundation of the prairie dog conservation strategy," have been significantly declining in recent years due to outbreaks of sylvatic plague. In 2004, there were 1581 acres occupied by prairie dogs on HCAs. After 2005, prairie dog acreage on habitat conservation areas decreased to 418 acres in 2011, or 7.76% of the total acreage designated as HCAs. This small percentage of prairie dog habitat on HCAs is not sufficient to implement a prairie dog conservation strategy for Boulder County, nor is it adequate to support associated wildlife species that depend on prairie dog habitat as a food and shelter source in wildlife conservation areas.

In 1999. I attended the commissioners' public hearing for the adoption of the county Prairie Dog Management Plan. At the hearing, Boulder County residents spoke up in favor of the plan, believing that prairie dog conservation would be its primary objective. For several years Parks and Open Space staff made a concerted effort to preserve prairie dogs by relocating them. In 2002, at staff's recommendation, the plan was amended to include the management option of trapping and donating prairie dogs to wildlife recovery centers. Thereafter, wild-to-wild relocation was abandoned by the county even though its own management plan states "nonlethal controls are the preferred methods of removing prairie dogs from inappropriate locations." For the past ten years Boulder County has ignored this important language and instead has managed prairie dogs in the "Old Wild West" tradition, as a pest instead of as the keystone species that it rightfully is.

The Rabbit Mountain relocation has been a long time coming. For many people, the relocation is a step in the right direction in fulfilling the county's promise to its citizens that non-lethal methods will be the preferred management option for our prairie dogs. This is clearly evident in the nearly 1500 comments Boulder County received in response to the Rabbit Mountain relocation, which "show broad community support for relocation as an alternative to lethal control in Boulder County," according to a county document. Looking beyond 2012, it still remains to be seen whether Boulder County will expand its prairie dog conservation efforts in a meaningful way. Let's hope the Rabbit Mountain relocation is not just a token conservation effort that will have to do for another ten years.

Flammulated Owls (continued from page 1)

Flammulated Owls have a low reproduction rate, usually 2 to 3 young per nest, and a high percentage of young owls are taken by predators. In addition, males have a delayed age of first breeding, with some owls not breeding until they are three to six years old. Weather also takes a toll. One year, after a week of stormy, cold nights, moths were scarce and over 90 percent of the newly-hatched owlets died.

The owls produce a greater number of owlets in mature and old-growth montane forests than in younger forests. These forests have been heavily impacted by decades of logging and fire suppression and in some areas are currently experiencing high levels of mortality due to mountain pine beetle epidemics. The owls are also dependent on cavities created by other birds, especially Northern Flickers. Dr. Linkhart is currently studying the impacts of thinning projects and intense wildfires on these owl populations.

Now the birds are faced with another challenge: climate change. Over the last 30 years, the mean daily high temperature of May in the study area increased about 6 degrees F. During that same period Flammulated Owls started incubation five days earlier. Dr. Linkhart is concerned that at some point there will be a decoupling in the life cycles of the owls and their prey.

Recently he began working with colleagues in Mexico, where they have started a project to band Flammulated Owls. He's hoping to eventually recapture some of the birds he and his students have banded in Colorado and to increase our understanding of Flammulated Owl migration. Some studies are now showing that climate change is a greater threat to birds that migrate long distances than to resident birds.

Sometimes it seems astonishing that some individuals of every species can surmount all the gauntlets they face in a lifetime. But the proof of the resilience of life is all around us. The proof of the impacts of climate change is also accumulating every day. A report on birds and climate change sponsored by the World Wildlife Fund concludes that "the degree of global warming is the most fundamental variable that will determine future impacts on birds" and "climate change is likely to be the greatest threat to many, if not most, ecosystems."

To learn more about Dr. Linkhart's field research, go to YouTube to view a series of short, fascinating films ("Keepers of the Flam") produced by his students.

"Birdwatchers" Taken out by Drone at Spinney Mountain Reservoir

April 1, 2012. Two prominent Boulder area naturalists appear to have been killed by a low-flying military drone (unmanned) aircraft



near Spinney Mountain Reservoir Friday morning. While the U.S. Army command at Fort Carson denied any knowledge of the alleged attack, two anglers reported seeing a small white plane flying over the naturalists and releasing a missile-like device, which exploded upon hitting the ground.

"All that was left was a big black hole in the prairie," said Bill Updike, 55, Hartzel. "Those poor suckers never had a chance."

"I seen these two hippie types wandering around and staring through binoculars, then the next thing you know, there's this big explosion and they plumb disappeared," said Ferlin Peters, 68, Woodland Park. "The little white plane just flew off like nothing happened."

The missing naturalists, Stephen Jones of Boulder and Tom Jeffries of Arvada, were reputedly working on a breeding bird survey at the state park when the attack occurred. When contacted by this newspaper, their colleagues expressed surprise over Jones and Jeffries' apparent involvement in terrorist activities. However, Jones has been an outspoken critic of the Army's recent efforts to expand its Piñon Canyon Maneuver Site and convert much of southeastern Colorado into a drone warfare proving ground. Jeffries has a long history of association with utopian and left-leaning groups.

Fort Carson drone brigade commander U.R. Moneysworth said the Army never comments on antiterrorist operations. "We seek out the terrorists, identify them, and destroy them, but we're not going to reveal any of our operational details to the enemy," said Moneysworth. "If there were anti-government types scoping out that dam with binoculars, I'm sure they got what they deserved."

Under current Obama administration anti-terrorist guidelines, the government is under no compunction to go through legal review before targeting suspected terrorists, even U.S. citizens on American soil. It's not known how frequently such operations occur, since anti-terrorist forces operate under a veil of secrecy. Drones have killed hundreds of civilians in Pakistan,

including dozens of children.

When contacted posthumously, Jones acknowledged some sadness over having been killed, but added, "I'd rather have been taken out by a drone than by fast food or fracking fluids. At least it was quick and thrilling, kind of like a video game."

Editor's note: We received no verification of the events described in this report and take no responsibility for any factual errors or omissions.

THANKS AND CONGRATULATIONS TO DR. WILLIAM WEBER AND DR. RON WITTMANN

This spring the University Press of Colorado issued the 4th Editions of the *Colorado Flora: East Slope* and *Colorado Flora: West Slope*. The floras cover the 3500 flowering plants known to occur in Colorado, including over 1500 species found in Boulder County.

Dr. Weber has been studying and educating people about the flora of our state for over 65 years, along with his collaborator of the last 30 years, Dr. Wittmann. As they write in the new edition, "The ultimate purpose of our *Flora* is to educate local amateurs and professionals in the recognition of plant species so that they can be better stewards of our priceless and irreplaceable biological heritage." Thank you both for helping us all to broaden our knowledge and appreciation of the plants of Colorado and for inspiring us to contribute to their protection!

To listen to a delightful interview with Dr. Weber, age 94, and still full of *joie de vivre*, go to Colorado Public Radio, <u>www.cpr.org</u>.





William A. Weber is Professor and Curator Emeritus of the Herbarium. University of Colorado Museum of Natural History in Boulder. He is also coauthor of A Rocky Mountain Lichen Primer (with James N. Corbridge, University Press of Colorado 1998) and Bryophytes of Colorado: Mosses. Liverworts, and Hornworts (with Ronald Wittmann, Pilgrims Process 2010). Ronald C. Wittmann is Museum Associate. University of Colorado Museum of Natural History. A professional physicist, he became an expert on the flora of the state by collaborating closely with Dr. William Weber over the past 30 years.

Publications Sales Exceed Expectations

As of June 10, we had distributed 1353 copies of our new field guide, *Butterflies of the Colorado Front Range*, with gross receipts of \$9041.57. The receipts exceed our expenses to date by about \$1400. Our bird song CD, *Dawn Chorus in the Colorado Rockies*, has also done well, generating \$6300 from sales of 1220 copies against \$4429 of costs.

We're happy that both publications are generating profits that we can invest into publishing and distributing monographs, such as the recent *Boulder County Avian Species of Special Concern* pamphlet and an upcoming monograph describing 30 years of wintering raptor research in Boulder County. Thank you all for supporting BCNA publications.

Chu, Janet, and Stephen Jones. 2011. *Butterflies of the Colorado Front Range*. 112 pages with 80 color photos. \$12.50.

Boulder County Nature Association. 2008. *Dawn Chorus in the Colorado Rockies*. 45 minute CD of bird songs recorded in a variety of natural habitats. \$11.

Hallock, Dave, and Stephen Jones. 2011. *Boulder County Avian Species of Special Concern.* 32 page monograph. \$3.

BCNA members receive a 10% discount on all publications. To order contact Steve Jones: curlewsj@comcast.net.

SUMMER NIGHT

That night, resting inside the walls of our home, the world outside weighed so heavily against the thin wood of the house. The sloped roof was the only thing between us and the universe. Everything outside of our wooden boundaries seemed so large. Filled with night's citizens, it all came alive. The world opened in the thickets of the dark. The wild grapes would soon ripen on the vines. The burrowing ones were emerging. Horned owls sat in treetops. Mice scurried here and there. Skunks, fox, the slow and holy porcupine, all were passing by this way. The young of the solitary bees were feeding on pollen in the dark. The whole world was a nest on its humble tilt, in the maze of the universe, holding us.

LINDA HOGAN, from her book *Dwellings: A Spiritual History of the Living World*

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We invite you to report your sightings to www.coloradofrontrangebutterflies.com

SUMMER CALENDAR

Wednesday, July 4th. Cal-Wood Annual Butterfly Count. This is the 29th year of this annual day-long count. Meet at 7:45 a.m. at Safeway Grocery's northern parking lot adjoining and south of Iris Ave, west of 28th Street in Boulder for car pooling. The Count lasts until 3:00 p.m. or may end earlier if the clouds roll in. Cal-Wood is known for its Parnassians, Swallowtails, Queen Alexandra's Sulphurs, Ringlets, Persius Duskywings and 60 other colorful butterflies. Children are welcome when accompanied by adults. The count is reported to the North American Butterfly Association (NABA). \$3.00 per person. Contact Jan Chu for additional information at chuhouse@hotmail.com.

Thursday, July 5th, 6 a.m. to 2 p.m. **Breeding Bird Atlas Trip to Mount Evans Block**.

Dale Ball and Steve Jones (curlewsj@comcast.net) will lead this trip to the Mount Evans breeding bird atlas block north of Conifer. We'll hike about 3 miles at 10,000 to11,000 feet searching for northern goshawks, dusky grouse, red-naped sapsuckers, Clark's nutcrackers, dusky flycatchers, goldencrowned and ruby-crowned kinglets, red crossbills, and other birds of the subalpine forest. This trip should offer a great opportunity to work on those high-altitude bird songs. Meet at the commuter parking lot on the northeast corner of the intersection of State Highway 93 (South Broadway) and Eldorado Springs Drive at 6 a.m. Bring food, water, binoculars, and rain gear (it's the start of the summer "monsoon").

Sunday, July 15th, 6:00 p.m. Roll and Stroll Birdwatching. Join The Boulder County Audubon Society and OSMP on a bird-watching field trip at Cottonwood Trail. Boulder Audubon birders team up with Topher Downham to provide this fun birdwatching experience to people who use walkers, wheelchairs, strollers, young legs, or older legs. Birdwatching begins at the Cottonwood Trail trailhead at 6:00 pm, located on Independence Road, just east of Foothills Pkwy (Hwy 157) between Valmont Road and 28th Street in Boulder. Bring hats, sunscreen, water, assistance if necessary, and binoculars if you have them, though some will be available to share. Extra wheelchairs are available for assistance or just to experience "rolling".

Connect with nature:

kakkkkkkkkkkkkkkkkkkkkkkkkkkk

Sunday, August 19th, 7:30 to 11 a.m. **Tallgrass Prairie Hike**. Leader: Steve Jones. The big bluestem and Indian grass should be in full bloom for this walk through Boulder's tallgrass prairie. Bring a hand lens and binoculars and expect to see crab spiders, milkweed beetles, soldier beetles, dragonflies, and perhaps a monarch caterpillar or two. Meet at the South Boulder Creek trailhead on the west side of South Broadway one mile south of the Greenbrier light. Limited to 15 participants. To sign up, contact Steve (curlewsi@comcast.net; 303-494-2468).

Museum of Natural History, University of Colorado, **Summer Workshops for Children K-5.** These three hour workshops provide fun, scientific explorations of our natural world and are offered on Wednesdays and Fridays throughout the summer. See their website for full course descriptions.

http://cumuseum.colorado.edu/Education/ summer_workshops_2012.pdf

Butterflies Galore This Spring

By Jan Chu

Butterflies are coming in from the east and south in great numbers. Painted Ladies were seen April 22: they come from the southeastern deserts of California. Last season we saw none until June 27 (one at Meyer's Gulch) and one in July. Dainty Sulphurs were found June 10 by Pam Piombino in her garden; many of these tiny yellow butterflies are on the dusty trails now. Last year we saw none.

Variegated Fritillaries emerged in huge numbers in Virginia and were tracked coming west. Paul Opler raised the question, "Do we get immigrants from Virginia?" The Question Mark butterfly in Heil Valley Open Space was photographed on 5/27/2012 (see below). It usually lives to the east and southeast. All in all, the season has been outstanding this spring. Last year the fires and extreme drought in the south prevented many butterflies from coming here.



Photo by Jan Chu

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The membership year is January 1 to December 31. Those who join after October 1 are considered members in good standing through the following year. All members receive this quarterly newsletter. Supporter-level members and higher also receive a complimentary copy of each BCNA publication.

Please make checks payable to "Boulder County Nature Association" or "BCNA" and mail to: P.O. Box 493, Boulder, CO 80306.

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