

BOULDER COUNTY NATURE ASSOCIATION



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Spring 2006

Ecosystem Symposium: "Alien Invaders"

How effective are biological controls for knapweed? Can tamarisk and the New Zealand mud snail be stopped? How does plague move from one rodent colony to another? How do domestic dogs impact wildlife? Learn about these and other fascinating topics at the 13th Boulder County Ecosystem Symposium, Monday, April 17, at the Boulder Public Library main auditorium. Last year's symposium drew 150 participants, and we are hoping for an even bigger turnout this year.

Free registration for this community event begins at 10 a.m., and presentations begin at 10:20. We ask that participants who are planning to stay for lunch consider bringing their own plates, cups, and utensils to reduce paper waste. Also, consider taking the "Skip" bus to avoid the downtown parking hassle. The annual symposium is sponsored by BCNA, Boulder County Audubon, Colorado Native Plant Society, Boulder Open Space and Mountain Parks, and Boulder County Parks and Open Space.

Schedule:

10:00 - 10:20 AM: Registration – Free

10:20 AM: Welcome – Stephen Jones, Boulder County Nature Association

10:25 - 10:50 AM: Rosemary Bush, David Buckner, and Tim Seastedt, University of Colorado – Life After Knapweed: What Benefits from the Demise of a Dominant Invasive Plant Species?

10:55 - 11:20 AM: Ken Lair, Bureau of Reclamation – Revegetation Strategies for Restoration of Salt Cedar (*Tamarix* spp.) Infestation Sites

11:25 - 11:50 AM: Kathy Damas, City of Boulder Open Space and Mountain Parks – Canada Thistle Management: Adaptive Treatment Strategies in Diverse Habitats.

11:55 - 12:20 PM: Eric Lane, Colorado State Weed Coordinator – Title not available

12:25 - 12:50 PM: Ben Lenth, Colorado State University – The Effects of Dogs on Wildlife Communities

12:50 - 1:30 PM: Complimentary Buffet Lunch

1:35 - 2:00 PM: Bianca Breland, University of Colorado – Effects on Non-Native Sunflowers on Native Ecosystems

2:05 - 2:30 PM: Tina Proctor, U.S. Fish and Wildlife Service – Invasion! Aquatic Nuisance Species Threats in Colorado

2:35 - 3:00 PM: Robin Knox, Colorado Division of Wildlife – The New Zealand Mud Snail in Aquatic Ecosystems

3:05 - 3:30 PM: Chris Ray, University of Colorado – The Potential Effects of Plague on Front Range Ecosystems

3:35 - 3:45 PM: Closing Remarks – Bruce Bland, Boulder County Ecosystems

Volunteers Make Symposium Happen

Sometime during the late-1980s, BCNA founding member Dave Hallock organized a casual roundtable of local scientists and naturalists to discuss ongoing natural history research in Boulder County. A few years later, these roundtables morphed into the Boulder County Ecosystem Symposium, an annual event that draws 120 to 150 participants from throughout eastern Colorado.

At first the symposia addressed a potpourri of subjects, but over the years, they have become more topical. For example, the 1996 symposium was entitled "Finding Common Ground" and explored recreational use of natural lands; the 2003 conference focused on "Saving our Native Grasslands;" and last year's symposium profiled "Species in Peril." During our "blue period," we folded one day's presentations into the ominous theme, "Boulder County Ecosystems, Is There Hope?"

Regardless of the topic, these one-day gatherings have offered local scientists and naturalists a unique opportunity to share their efforts to understand and protect native ecosystems. Some of our best presentations each year are from graduate students and faculty at the University of Colorado, but we've also been stimulated by bird banders, amateur botanists, environmental activists, park rangers, professional wildlife managers, iconoclasts, and poets.

What really makes the symposium work is the annual effort of a couple of dozen unflappable volunteers. Once again, we thank Dave Sutherland and his projection assistants, Sue Cass and her gastronomic conspirators, and all the other folks who simply show up and do what needs to be done (or e-mail stephen.jones@earthlink.net). See you on the 17th, and thank you all!

- Steve Jones, for 2006 symposium organizing committee: Bruce Bland, Tim Damato, Joyce Gellhorn, Jim McKee, and Jeff Mitton.

BCNA Spring Events Calendar

Sunday, April 9, 3-5 p.m. Wintering raptor survey mapping party. New volunteers are welcome to help us map this year's data. Sue Cass, 4560 Hanover Avenue, Boulder. 303-494-5345; cass@colorado.edu.

Monday, April 17, 10 a.m. to 4 p.m.: Boulder County Ecosystem Symposium, "Alien Invaders." The 13th annual symposium will focus on impacts of invasive species on Front Range ecosystems. Free and open to all. Boulder Public Library auditorium, 9th and Canyon (see articles on page 1).

Sunday, April 23, 4-5:30 p.m.: Organizational meeting and volunteer training for ecosystem stewardship project. We will work primarily on setting up breeding bird surveys and using the GPS receiver. New volunteers are most welcome. Steve Jones, 3543 Smuggler Way (off Greenbriar 1.1 mi. west of South Broadway). 303-494-2468; stephen.jones@earthlink.net.

Saturday, May 27, 6-11 a.m.: Breeding bird survey, foothills shrublands and forest. Paula Hansley (hansleyp@att.net) and Natalie Shrewsbury (n.shrewsbury@comcast.net) will lead a 2.5-mile hike up Shadow Canyon to census breeding birds. This workshop for ecosystem stewards is open to all BCNA members. Contact Paula or Natalie for meeting location and other details.

Tuesday, June 6, 6-10 a.m.: Breeding bird survey, foothills conifer forest. Steve Jones (stephen.jones@earthlink.net; 303-494-2468) will lead a hike into the canyons on Green Mountain to census breeding birds. This workshop for ecosystem stewards is open to all BCNA members. Meet at the Panorama Point parking area, opposite the Flagstaff Summit turnoff (about 3.5 mi. up Flagstaff Mountain Road). Bring binoculars and a notebook.

Tuesday, June 20, 6-11 a.m.: Breeding bird survey, foothills conifer forest. Laura Osborn and Steve Jones (stephen.jones@earthlink.net; 303-494-2468) will lead a hike at Walker Ranch open space to survey breeding birds. We should see some woodpeckers, a few raptors, and a good number of bluebirds. Meet at the Ranger Cottage parking area at Chautauqua to carpool.

Wednesday, June 21, 6-10 p.m.: Summer solstice picnic and wildflower walk at Betasso Preserve. 6pm to Sunset. Bring a finger food to share and we'll celebrate the longest day of the year as we watch the local wildlife go to bed. Details: Scott Severs (303)684-6430.

Thursday, June 29, 7 a.m. to noon: Breeding bird survey, Coulson Gulch. Join eco-stewards Jan Carnes, John Carnes, and Steve Jones for a peaceful morning in beautiful Coulson Gulch, northwest of Lyons. Or come up Wednesday night and camp with us under the stars. Contact Steve Jones or John and Jan Carnes (pinewoodsprings@aol.com) for directions and car-



The Sharp-shinned Hawk caught the starling in my backyard, then carried it out to the street (with some difficulty!). The starling was still squawking when I took this picture.

Paula Hansley

Spring Natural Events Calendar

Early April: Welcome back, Blue-winged Teal (South America), Turkey Vulture, Swainson's Hawk (South America), Spotted Sandpiper (Central and South America), Burrowing Owl, White-throated Swift, Broad-tailed Hummingbird, Williamson's Sapsucker, Say's Phoebe, Tree Swallow, and Chipping Sparrow!

April 13: Full moon rises at 8 p.m.
Ice Breaking in the River (Arapaho)
Buffalo-Pawing-Earth (Osage)
Maple Sugar (Ojibwa)

Late April: Glad you made it, Cordilleran Flycatcher, Hermit Thrush, Yellow Warbler (Central and South America), Black-headed Grosbeak, Green-tailed Towhee, and Lesser Goldfinch!

May 4: Jupiter is in opposition, its closest approach to the Earth, so it should appear unusually large in your scope.

Early May: So good to see you, Flammulated Owl, Warbling Vireo, Swainson's Thrush, Yellow-breasted Chat, Lazuli Bunting, and Bullock's Oriole!

May 5: Eta Aquarid meteor shower. Best viewing this year should be to the east after midnight.

May 12: Full moon rises at 8 p.m.
When the Ponies Shed Their Shaggy Hair (Arapaho)
When the Horses Get Fat (Cheyenne)
Buffalo-Breeding (Osage)

Late May: Feliz cumpleaños, baby Colorado Chipmunks, Striped Skunks, and White-tailed Deer!

Early June: Yah-ta-hey, baby Mule Deer, Elk, Big-horn Sheep, and Yellow-bellied Marmots!

June 11: Full moon rises at 9:10 p.m.
Rose (Pawnee)
Strawberry (Ojibwa)
Idle Moon (Assiniboine)

June 17: Saturn and Mars are just 0.5° apart and just 1° from the Beehive star cluster in the evening sky. Look for Mercury below Venus in the morning sky from June 15 on.

June 21: Summer Solstice occurs at 12:06 p.m., Mountain Daylight Time. In Latin, the word "solstice" denotes "the sun standing still."

Late June: We are blessed by your presence, baby Little Brown Bats (1.5-2 g) and Big Brown Bats!

Thanks, Jim!

On February 21st, Boulder County Parks and Open Space (BCPOS) presented their 2005 Outstanding Volunteer Award to Jim McKee at an open house and reception at Boulder County's pristine new facility in Longmont. Since becoming a Volunteer Naturalist for BCPOS in 1991, Jim has shared his considerable expertise, knowledge and experience through interpretive programs with participants of all ages and is an esteemed mentor to his fellow volunteers and BCPOS staff.

For nearly a decade, while serving on the Parks and Open Space Advisory Committee (POSAC), Jim McKee has provided a consistently strong, but measured voice in support of acquisition and preservation of open space and the wildlife habitat and native plant communities they support. As a BCNA board member, Jim has monitored Colorado Division of Wildlife Commission meetings, interjecting positions on wildlife issues important to BCNA and its membership and has been a member of the Commission's Grassland Species Working Group. Jim also assists with the Wintering Raptor Survey and has organized and led countless birds of prey driving tours for a variety of groups as well as for the public.

Thank you, Jim, for all you do to further the goals of BCPOS and BCNA! Your strong and dedicated advocacy has enhanced the natural values that make Boulder County special for all of us!

Sue Cass

Membership Expiration

Please check the date and membership category on the address label of your newsletter. If the date is earlier than 2006 this will be the last newsletter you will receive unless we receive your dues renewal.

Thank you for supporting BCNA

Wildlands Restoration Volunteers – April 2006 Activities

Would you like to give something back to the open spaces you love? Please join us to help restore two special places in Boulder County.

Pella Crossing Wetland Restoration

Date: Saturday, April 15

Description: Welcome the spring and return to the site of Wildlands Restoration Volunteers' first project! Back In 1999, and 86 projects ago, 20 volunteers restored a stretch of shoreline at Heron Pond, in this Boulder County open space park. The willows planted are now taller than Michael Jordan! However, other parts of the shoreline on Webster Pond have undergone severe erosion from wind-induced waves. Volunteers will stabilize the bank with a variety of willow planting, seeding, and erosion control practices. Minimum Age: 12. Number of Volunteers: 60.

Boulder Prairie Restoration

Date: Saturday, April 29 Rain backup: May 13

Description: Building on two years of successful progress (initiated by Volunteers for Outdoor Colorado), Wildlands Restoration Volunteers will continue the urgent quest to remove Mediterranean Sage from Boulder County. Left unchecked, this weed aggressively invades grasslands, reduces native plant populations, and degrades wildlife habitat and the overall health of prairie ecosystems. Working closely with City of Boulder Open Space and Mountain Parks, Boulder County Parks and Open Space, and NOAA, we'll target our removal efforts at four high priority sites north of Boulder. Volunteers will walk across beautiful open spaces, popping plants out of the ground. Your efforts will restore and protect prairie habitat and take us one more critical step toward eradicating Mediterranean Sage from Colorado. Minimum Age: 12. Number of Volunteers: 120.

REGISTRATION INFO

There are three easy ways to register for a project or get more info. Go to our website, www.wlrv.org, click on "Projects", then "Sign-Up." You can also send email to info@wlrv.org or call 303-543-1411.

Wildlands Restoration Volunteers is a Boulder-based non-profit organization that provides an opportunity for people to learn about their natural environment, and take direct action to restore and

care for the land. WRV organizes about twenty volunteer stewardship projects per year in Boulder County and the greater Northern Colorado Front Range area. We would love to have your help! It's a lot of fun and no experience is required.



Invasive Mediterranean Sage
Photo by Ed Self

Congratulations Carol!

Congratulations to BCNA education co-chair Carol Schott for winning this year's Boulder County Pacesetters award for Education. Carol founded the Science Discovery program at the University of Colorado in 1983 and directed that highly successful program until 2006.

Thousands of children of all ages have delighted in the experiential classes offered by Science Discovery, and hundreds of teachers have benefited from Carol's creative and inspirational approach to science education. As co-chair of our education committee, Carol has given tremendous support and encouragement to teachers while helping to keep the program friendly and financially stable.

Wind Power and Wildlife in Colorado

I was fortunate to attend the Wind Power and Wildlife in Colorado Symposium and Workshop where I found that much of my knowledge about this subject was seriously outdated. Much information was presented and I can only provide a brief summary in this article.

After the passage of Amendment 37 in 2005, Colorado's wind energy capacity is expected to nearly quadruple in the next two years with the addition of at least 775 Megawatts (MW) of new capacity added to the presently installed 289 MW. Costs have dropped from \$0.40/kwh in 1981 to approximately \$0.06/kwh in 2006. Xcel Energy customers are now receiving a rebate for their units of wind power rather than paying a premium. The important question, from our standpoint, then is, "what are the present and future impacts on wildlife?"

Most of you are familiar with the horror stories emanating from the Altamont Wind Resource Area in California where many golden eagles, red-tailed hawks, kestrels and burrowing owls have been killed. This area included an important raptor migration route as well as plenty of prey species. Further, the 7000 towers initially installed were small with high rotational velocities and, in many cases, lattice tower construction which provided convenient perch sites. Much has been learned from the problems at Altamont and power companies installing new wind turbine farms seem to be very willing to work with environmental consultants to avoid this worst case scenario.

A number of things can and have been done to reduce wildlife fatalities. Siting, both macro (the general location of the wind farm) and micro (siting within the wind farm) are important. In one case that was discussed, moving wind turbines 50 meters back from the upwind side of a hill substantially reduced raptor fatalities. New tower designs are cylindrical and don't provide perching sites. Rotors are much larger with a slower rotational velocity while maintaining the same tip speeds. Power lines are underground to reduce power line strikes. Reduced lighting on towers and on power sub-stations have reduced bird strikes. Cylindrical, rather than guyed meteorological towers are also an improvement. Fewer, higher power turbines are used in new wind farms. Despite all of these improvements there are still fatalities, but wind power is arguably the most benign form of renewable energy readily available today.

Recent estimates of direct bird deaths from human or related activities include the following. For every 10,000 bird deaths the causes are tabulated below.

Windows and glass buildings	5500
Cats (domestic and feral)	1000
High tension wires	800
Vehicles	700
Pesticides	700
Communications towers	250
Wind Power (at full buildout)	50
Other	1000

Indirect effects are probably more important for some species than direct bird strike kills. Ground nesting prairie species seem to avoid towers temporarily, but then move back near the towers. However, prairie grouse (prairie chickens, sharp-tailed grouse, and sage grouse) exhibit significant avoidance behavior around human development. Lesser Prairie Chicken adults avoided buildings and transmission towers (600+meters). Nest and lek sites were far removed from roads (800 meters) and buildings (1200 meters).

During the past ten years, people have been noticing dead bats beneath wind turbines while conducting bird mortality studies. These observations came from various parts of the country and often indicated relatively low mortality. However, during the autumn of 2003, hundreds of dead bats were found beneath turbines at a wind facility in West Virginia. This area and another high mortality area in Tennessee were at forested, ridge top sites. Not surprisingly, these were mostly migratory, tree roosting bats (Hoary Bat, Red Bat, and Silver-haired Bat). Later studies have shown significant numbers of these same species dead at sites far from forested areas, probably during migration. Apparently, unlike colonial roosting bats, we know little about the migration patterns of these tree dwelling bats. Research in this area is ongoing and could prove beneficial in the future. In both bird and bat mortalities it is always a race to get to carcasses before scavengers, so mortalities may well be understated.

If anyone wants to dig deeper into this subject, I have a file of handouts from the symposium and a CD guide to further information resources.

Jim McKee

Meet Bob Dean!

I am a freelance nature and wildlife photographer. With my wife Nadine, I have been photographing the natural world for over 35 years. Our stock file has nearly 10,000 images ranging from Alaska to Australia to Europe.

We have published many images in magazines and newsletters. Bob was an assistant editor and featured photographer for First Light Monthly Newsletter for Nature Photographers for over three years.

In addition to photography for stock and publication we lead photo workshops and teach beginning and advanced photography courses. We can be reached at Focus on Nature, PO Box 270501, Louisville, CO 80027-0501 or by email at: focusonnature@comcast.net.

The image I have included is of a baby Tasmanian Devil. An article in the BCNA newsletter last fall inspired us to travel to Tasmania, which we did over the Christmas and New Year's holiday. At a wildlife conservation park south of Hobart, we had the chance to see Tasmanian Devils "up close and personal". Here is a shot of a baby.



Baby Tasmanian Devil
copyright Bob Dean/Focus on Nature



Correction

Our apologies to Bob Dean for the mis-credit of his photo from the winter newsletter. The photo appeared on page 2 and was of Cathy Comstock holding a silver haired bat. The caption read "Photo by Rick Adams". It should have read "Photo by Bob Dean/Focus on Nature"

Space Still Available in Spring Classes!

Identification of Spring Wildflowers

Instructor: Joyce Gellhorn

Description: This course focuses on identification of flowering plants on the East Slope of the Front Range in Boulder County. General principles of taxonomy will be taught along with identifying features of major plant families. Emphasis will be placed on learning to use taxonomic keys to identify native plant species. Taxonomic and ecological features of flowering plants will be examined during the all day.

Saturday field trips. Session I is for the beginner while Session II expands on the concepts learned in Session I.

Session I:

Wednesday, April 19, 6:30-9:30 p.m., indoor class

Wednesday, April 26, 6:30-9:30 p.m., indoor class

Saturday, April 29, 9 a.m.-3 p.m., field class

Session II:

Wednesday, May 3, 6:30-9:30 p.m., indoor class

Wednesday, May 10, 6:30-9:30 p.m., indoor class

Saturday, May 13, 9 a.m.-3 p.m., field class

Equipment: 10x hand lens, dissecting needle, knife or razor.

Recommended reading: Wingate, Janet L. 2004. *Rocky Mountain Flower Finder*; Nelson, Ruth A., *Rocky Mountain Plants*; Weber, William A., *Rocky Mountain Flora*.

Tuition: \$65 for Session I or II; (\$55 for BCNA members); \$120 for both Sessions I and II (\$105 for BCNA members). Limited to 16 participants.

To Register: Call Joyce at 303-442-8123, or email: jgellhorn@sprynet.com



Sunset Pond at Pella Crossing Open Space,
looking toward Long's Peak.
Ed Self

Geology of the Front Range

Instructor: Paula Hansley

Description: Take a walk through 1.7 billion years of geologic time without leaving Boulder County! Learn how geologic strata are dated and how plate tectonics has dramatically affected our local geology. Examine dinosaur tracks, volcanic ash beds, fossil clamshells, and plant fossils (palm fronds). Walk along a 65 million-year-old ripple-marked beach! We'll have one indoor class to become familiar with geologic terminology and Boulder geology, including the origin of the Flatirons. Two half-day field trips will allow class members to see what has been called the "best outdoor geologic laboratory" in the United States. Each class member will be given laminated handouts to use on field trips and a notebook outlining important geologic features of the Front Range .

Thursday, April 13, 6:30-9:30 p.m., indoor class
Sunday, April 23, 8 a.m. -12 noon, field class
Sunday, April 30, 8 a.m. - 12 noon, field class

Tuition: \$70 (\$60 for BCNA members).
Limited to 15 participants.

To Register: Call Paula at 720-890-2628,
or email: hansleyp@att.net

BCNA Board of Directors

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- *Allegra Collister Birdbanding Site:*
Joe Harrison (303-772-3481)
- *Avian Species of Special Concern:*
Dave Hallock (dheldora@rmi.net) and
Steve Jones (stephen.jones@earthlink.net)
- *Ecosystem Stewardship:*
Steve Jones (303-494-2468)
- *Education:*
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rebecca.hill@gmail.com
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- *Wintering Raptor Survey:*
Sue Cass (303-494-5345) and Jim McKee

Visit Our Website

For the calendar, class offerings, research results, publications, and other related information: www.bcna.org

Support the Boulder County Nature Association

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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.

Boulder County Nature Association
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Note: If your name is checked in red, your membership has expired.