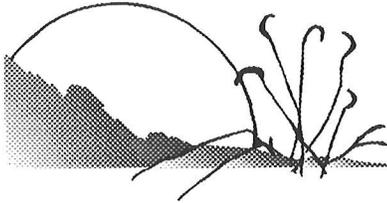
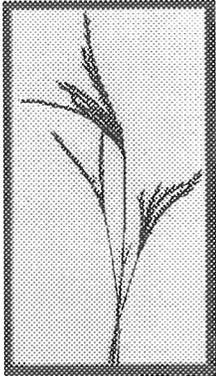


BOULDER COUNTY NATURE ASSOCIATION



Summer 2003

From Bluestem to Bovines, Researchers Explore Local Grasslands at Annual Symposium



Species that thrive in shortgrass prairies are disappearing from Boulder County grasslands. Winter grazing by cattle benefits native species of grasses and forbs in local tallgrass prairies. Introduced beetles can eliminate knapweed infestations. These and other recent findings were presented by local researchers at the 10th annual Boulder County Ecosystem Symposium on April 5. About 120 scientists, naturalists, and interested citizens attended this year's event.

Keynote speaker Carl Bock presented an overview of Boulder County grasslands, focusing on the impacts of urbanization and habitat fragmentation on native species.

Shortgrass prairies and associated fauna, such as the lark bunting and burrowing owl, are far less common than they were a century ago. In contrast, species associated with tallgrass and mixed-grass prairies, such as bobolink and grasshopper sparrow, remain fairly common.

Recent research shows that a variety of Boulder Valley birds and mammals, including bald eagles and ferruginous hawks, avoid grasslands at urban and suburban edges.

Other morning speakers focused on evolution and composition of native grasslands in the Boulder Valley. Kathleen Keeler's research has evaluated how the two common chromosome morphs of big bluestem interact to create thriving stands of this native tallgrass. David Buckner and Lyn Reidel presented results of 17 years of monitoring native grass and forb production in grazed and ungrazed tallgrass prairie plots. Their results suggest that some winter and early spring grazing may be necessary to maintain healthy tallgrass prairie stands in the South Boulder Creek drainage. Patrick Murphy described efforts to interseed native shortgrass and mid-grass species in an active prairie dog colony dominated by introduced weeds. Three relatively dry years have hampered efforts to reestablish the native grasses, but native seeds and seedlings persist on the study site.

During the afternoon session Steve Armistead described a new butterfly monitoring program throughout various plant communities of the Open Space and Mountain Parks system, and Whit Johnson reported on rodent communities associated with black-tailed prairie dog colonies. Whit's research indicates that local prairie dog colonies are artificially overcrowded due to habitat fragmentation and urbanization, and that Boulder Valley prairie dog colonies support lots of deer mice but few other rodent species.

Tim Seastedt presented evidence that three species of non-native insects, first released on Boulder County Open Space in 1997, have almost eliminated diffuse and spotted knapweed at one release site. One of the insects appears to be

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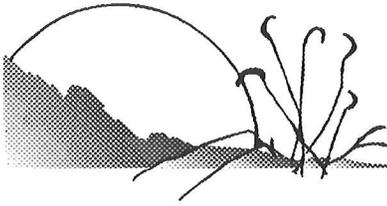
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Ecosystem Symposium, cont.

dispersing unaided across the Front Range, and its populations may be sufficient "to reduce seed production of diffuse knapweed in south Boulder County to levels where knapweed is no longer an invasive threat in the area."

Dave Sutherland and I concluded the symposium with general comments about the status of native grasslands both in Boulder County and across the Great Plains. We agreed that grassland restoration efforts face enormous obstacles, including habitat fragmentation, proliferation of invasive weeds, and cultural indifference.

We also agreed that the creative energy being invested in grassland restoration projects and research, along with the current revival of public interest in the North American prairie ecosystem, offer hope for the future of our native grasslands.

We thank co-sponsors Boulder County Audubon Society, Boulder County Parks and Open Space, City of Boulder Open Space and Mountain Parks, and Colorado Native Plant Society for making this year's symposium possible.

- Steve Jones

Newsletter Editor or Designer

If you enjoy working with desktop publishing or graphic design and would like to help edit and design this quarterly newsletter, please give Joan Ray (303-444-5011) or Steve Jones (303-494-2468) a call.

Window on Nature

The Snows of Yesteryear

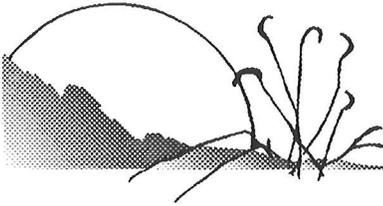
by Dave Hallock

The blizzard of 2003! The big dump. The 100-year snowstorm? It was probably close to that. But long-term climate studies indicate that storms like this, at times, are more the norm in the spring than the exception. And some would argue that the past 150 years have been milder than average when looking at a longer period of time, say the last 3,000 years.

The benchmark storm for our era occurred on April 14 and 15, 1921. A total of 95 inches of snow was recorded at Silver Lake in the City of Boulder Watershed. This storm set the North American record for snow in a twenty-four hour period: 76 inches fell on April 14. (Note: In 1997, Montague, NY, received 77" in twenty-four hours, but this number was disallowed by the National Climate Extreme Committee as the folks in New York added 6 measurement totals [the number of times they cleared their measuring site], two more than the maximum allowed. Too bad.)

Another major snow event of the last century occurred in December of 1913. Over a five-day period Denver received nearly four feet of snow and Georgetown recorded 86 inches. Boulder received 43 inches from December 4 through 11. The Switzerland Trail Railroad had trouble keeping the route open between Boulder and Eldora and Ward that winter. As reported in the Boulder Tribune (December 12, 1913), "After bucking snow from noon Monday to 5:30 Tuesday morning, the DB&W Railroad company has finally succeeded in opening up its line from Boulder to Eldora. Drifts over 20 feet high were encountered by the train from Sugar Loaf station to Eldora." The train was loaded with over 50 miners, some of whom had been stranded in Boulder for a week. Snow and cold weather continued throughout that winter and into spring, which made life difficult for the railroad and mountain residents.

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Snows of Yesteryear, cont.

Most major snowstorms on the Front Range are spring storms. Generally sometime in March the jet stream and westerly storms, which dump most of their snow on the other side of the Continental Divide, migrate north. This allows for low-pressure storms (sometimes called cut-off lows) to drift across Arizona and New Mexico. They pick up moisture from the gulfs of California and Mexico, which is driven into the Front Range from the east, the clouds dropping their moisture as they rise and cool. These are called upslope storms.

Local archeologist Jim Benedict has been studying how periods of increased upslope storm activity may have affected early inhabitants of the Front Range high country and their game animals over the past 3,000 years. He has found a correlation between incidents of low levels of human use of the high country, based on radiocarbon dates from prehistoric campsites and game-drive systems, with periods of high amounts of persistent snow (covering the ground for up to 40 weeks of the year in alpine areas), as indicated by lichen snowkill. He speculates that these periods saw greater amounts of spring snowstorms, combined with colder temperatures. One of the consequences of the greater snow cover was a major die off of elk, bighorn sheep, and mule deer, which in turn made the area less attractive to prehistoric people for periods of time until the game numbers recovered.

There are written accounts documenting a spring snowstorm that resulted in mass game die offs on the Front Range. It occurred in 1844. Accounts from trappers, traders, and Native Americans provide some testament to the event. Ceran St. Vrain reported over 11 feet of snow south of Colorado Springs. Almost six feet of snow fell near Denver, and Native American tradition, possibly referring to this event, placed the snow at "two ponies deep." Accounts of mass die offs of bison, elk, deer, and antelope along the Front Range were numerous. Herds of buffalo and antelope walked round and round in the deep snow until they died.

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The evidence suggests that for high elevation localities snow and cold may be greater limiting factors than drought. Our mountain bird populations also exhibit this trend. I have been looking at the first 20 years of data from the Indian Peaks Bird Counts. There is a positive correlation with temperature (warmer weather equals more birds and the summer of 2002, very much a drought year, produced our record high for breeding birds), while more precipitation and cooler temperatures equal fewer birds.

While everyone has been focused on the effects of drought over the past several years, down the road it may be the return of the snows of yesteryear that again drive most large animals, including humans, out of the mountains.

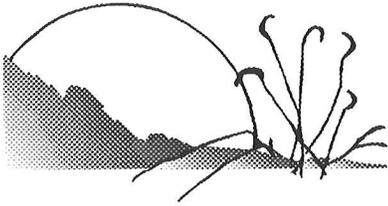
Note: For a good scientific account of the possible impacts of large snow events on humans and animals, read the following paper by James Benedict: Effects of Changing Climate on Game-animal and Human Use of the Colorado High Country (U.S.A.) since 1000 BC, in Arctic, Antarctic, and Alpine Research Volume 31, No. 1, 1999, pages 1-15.)

Editor's note: BCNA will publish Dave Hallock's Indian Peaks Bird Count 20-Year Summary later this year.

Kudos to Susan Winter - Over the years BCNA has been blessed with a number of creative and dedicated newsletter editors, each bringing something new and special to this quarterly publication. During the past three years, Susan Winter has raised newsletter design to an art form. Her creative layouts, attention to detail, and inclusion of material from diverse sources have made the newsletter a joy to behold and to read. We thank Susan for her great work on the newsletter and in maintaining the BCNA web site, as well as her helpful comments and suggestions during board meetings. We wish her safe and productive journeys.

- Steve Jones, Jim McKee, and Joan Ray, Newsletter Committee

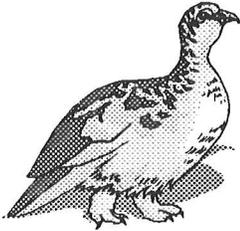
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Corvids and Seed-Eaters Abound on Indian Peaks Fall and Winter Bird Counts

By Dave Hallock



This Fall Count marked the end of 21 years of Indian Peaks Bird Counts. Weather for the count was generally warmer than average, with storms at the end of the first and second weeks of the

count period. The number of species observed was slightly above average, while the number of individuals seen per count hour was right at the 20-year average.

Species with above-average numbers included corvids (particularly gray jay, Steller's jay, black-billed magpie, and common raven), tree cone seed-eaters (particularly red crossbill and red-breasted nuthatch), several resident species (blue grouse, black-capped and mountain chickadee, white-breasted nuthatch, brown creeper, and American dipper), and several short-distance migrants (broad-tailed hummingbird, American robin, ruby-crowned kinglet, and yellow-rumped warbler).

Dark-eyed junco was the most significant species having a poor numeric showing; its 20-year average is 4.5 birds per count hour, but we saw only 2.7. Other below average species appeared to be centered in the subalpine and alpine areas of the count circle. These included horned lark, American pipit, Wilson's warbler, chipping sparrow, white-crowned sparrow, and pine grosbeak. Clark's nutcracker, mountain bluebird, and pine siskin also made poor showings.

The Winter Count produced a below average number of species and an above-average number of individuals. The good numbers were again led by corvids and tree-cone seed-eaters. A whopping 319 crows were observed, led by 100 in Nederland and 165 west of Eldora. Steller's jays, Clark's nutcrackers, and black-billed magpies were also more numerous than

usual. This was the all-time high for corvids (7.93/hour) over four seasons. Pine grosbeaks led the way for seed-eaters, with 51 being seen in the Ward North area. Overall, seed-eaters made their best showing since 1995.

The 109 house sparrows observed was also a record. There were above-average numbers of downy woodpeckers, black-capped chickadees, white-breasted nuthatches, pygmy nuthatches, dark-eyed juncos, and Cassin's finches. Rosy finches, which have been getting harder to find, made a good showing.

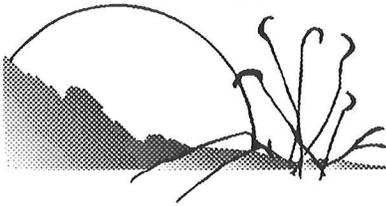
For complete count results, visit the BCNA website: www.BCNA.org. For information about volunteering for the counts, contact Dave Hallock (eldoradh@rmi.net) or Bill Kaempfer (kaempfer@colorado.edu).

Participants: Linda Andes-Georges, M. Thomas Auer, Bev Baker, Barbara and Earl Bolton, Maggie Boswell, Alex. Brown, Diane Brown, Gene Dilworth, Sharon Dooley, Mike Figgs, Chris Freeman, Beverly Gholson, Jean-Pierre Georges, Kathy Gibson, Audrey Godell, Maddy Goldhawk, Dave Hallock, Susan Harris, Dave and Elaine Hill, Jean Holitza, Jody Hovorka, Steve Jones, Bill Kaempfer, Dawn and Paul Kummli, Nan Lederer, Cherie Long, Gary Matthews, Lisa McCoy, Merle and Sally Miller, Paul Mintier, Naseem Munshi, Carol Newman-Holitza, Mark Pscheid, Robin Sell, Bill Schmoker, Richard Trinkner, Michael Tupper, David Waltman, Larry White, Tom VanZandt, Eric Zorawowicz.

Thorne Natural Science School Classes

The Thorne Natural Science School starts its summer session on June 9th and it runs weekly through August 8 for children ages 6-14. Call Thorne Ecological Institute at 303-499-3647 for further info or check the web site www.thorne-eco.org. Scholarships are available.

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Books

Wolf, Thomas J. 2003.
In Fire's Way: a Practical Guide to Life in the Wildfire Danger Zone. University of New Mexico Press, Albuquerque.

In his usual free-form, iconoclastic style, Colorado and New Mexico ecologist Tom Wolf chronicles the extravagances and failures of federal and state fire control policies. He makes a strong case for community-generated fire mitigation programs (much like the one being carried out now in Boulder County's Magnolia neighborhood), which combine sensible building codes, ecologically sound thinning, prescribed burns, and creation of defensible space around homes.

He shows how such programs promote forest health and save money when compared to costs of fighting catastrophic wildfires and restoring charred lands. He says we need to learn to live with fire and relearn how to use forest products economically. You will enjoy his chronology of New Mexico's Cerro Grande fire and his self-effacing account of setting a small wildfire in his own mountain subdivision while conducting a "controlled burn."

Jones, Stephen R. 2003
Owls of Boulder County, Illustrations by Linda Mahoney. Designed by Liz Jones. 54 pages with 15 black & white illustrations. \$6.95.

This new booklet, professionally designed by Liz Jones and featuring exquisite illustrations by Linda Mahoney, serves as both a field guide to owls and a comprehensive summary of local owl studies. More than 100 volunteers contributed to these studies, which were initiated by BCNA and Boulder County Audubon in 1985. The booklet includes descriptions and illustrations of 12 species found in Boulder County, distribution maps, nesting records, a key for recognizing owl calls, tips for finding owls, and information on population trends and conservation. *Owls of Boulder County* is available at Wild Bird Centers in Boulder and Longmont and at the Boulder Bookstore.

Summer Calendar

Sunday, July 6, 6-8 AM: Early morning search for avian species of special concern in South Boulder Creek State Natural Area. Meet at South Boulder Creek trailhead at intersection of South Broadway and Marshall Road (at the bottom of the hill, 0.4 miles south of Greenbriar, as you leave Boulder). Optional breakfast to follow. For details, contact Steve Jones (303-494-2468; stephen.jones@earthlink.net).

Sunday, July 27, 6-9 PM: Midsummer night's picnic on Green Mountain. Enjoy a potluck picnic and wildflower walk at dusk. Contact Steve Jones (303-494-2468) for location, or email stephen.jones@earthlink.net.

Sunday, August 3, 4-7 PM: All members are invited to the BCNA Board meeting at Jan and John Carnes' house in Pinewood Springs, northwest of Lyons. Bring food to share for a potluck dinner on the deck while admiring the hummingbirds and other critters. Directions: Jan Carnes (pinewoodsprings@yahoo.com)
Carpooling info: Scott Severs (303-541-0784)
rostrhamus@aol.com

Saturday, September 7 and Sunday, September 22: Indian Peaks Fall Bird Count. Contact Bill Kaempfer (kaempfer@colorado.edu) for information.

Summer BCNA Field Classes

Ecosystem Immersion: Alpine Ecology

Instructor: Joyce Gellhorn

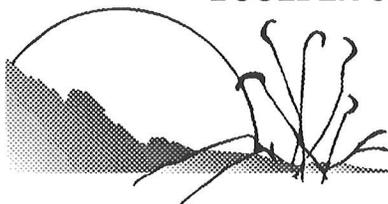
Explore the ecology of the alpine ecosystem while camping out where the forest meets the tundra. Working in field projects in small groups, we will observe intricacies of the alpine ecosystem.

Thursday, July 10, 6:30-9 p.m., indoor class

Saturday, July 12, 12 p.m. through Sunday, July 13, 4 p.m., overnight camping and field studies

Tuition: \$80 (\$70 BCNA members); Contact Joyce at 303-442-8123; jgellhorn@sprynet.com

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Summer BCNA Field Classes, cont.



High-Altitude Butterflies

Instructor: Jan Chu

Visit the subalpine and alpine ecosystems to identify butterflies and observe their behaviors.

Explore butterfly-host plant relationships. There will be opportunities for close-up photography.

Thursday, July 17, 6:45-8:45 p.m., indoor class
Friday, July 18, 8 a.m.-2:30 p.m., field class
Tuition: \$50 (\$40 BCNA members); Contact Jan at 303-494-1108; chuhouse@hotmail.com

Bats of Boulder County

Instructor : Rick Adams

Come learn about the wonderful world of bats. We will investigate the natural history of these enigmatic mammals and see bats up-close-and-personal in the field.

Friday, August 8, 6:30-9 p.m., indoor class
Saturday, August 9, 7-10:30 p.m., field class
Tuition: \$45 (\$35 BCNA members); Call Carol Kampert (303-499-3049)

Ecosystem Immersion: Grasslands

Instructors: Steve Jones and Naseem Munshi

Experience the solitude, beauty, and history of the North American Prairie while hiking through Boulder's South Boulder Creek Natural Area and camping in the Pawnee National Grassland.

Thursday, August 21, 6:30-9 p.m., indoor class
Saturday, August 23, 6:30-11 a.m., field class
Saturday, September 6, 12 noon through
Sunday, September 7, 4 p.m., camping and field studies
Tuition: \$90 (\$80 BCNA members); Contact Steve (303-494-2468); stephen.jones@earthlink.net
[Note: this class is currently full]

Sightings

Boulder County's first documented bald eagle nest produced one young on private land near White Rocks. The adults were observed throughout the spring fishing at Sawhill Ponds.

Observers reported at least six osprey nests in Boulder County this spring. Osprey were first documented nesting in the county in 1994. You can observe the Boulder Reservoir nest from the main entrance road off N. 55th St. The Valmont Reservoir nest is visible from Legion Park, off Arapahoe.

Scott Severs observed a rare broad-winged hawk at the mouth of Boulder Canyon throughout much of May. There is only one, unsubstantiated, nesting record for this species in Colorado.

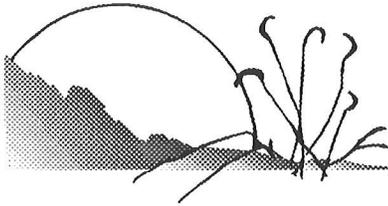
On Memorial Day Scott Severs and Julie Barrett ran into a traffic jam on US 36 west of Lyons. They hopped out of the car and set up their scope, and within minutes an international group of tourists were enjoying clear views of a large black bear calmly foraging on the flanks of Steamboat Mountain.

Jim Knopf entertained a black bear in his back yard in mid-May. The bear took down at least one bird feeder and brushed shoulders with a neighbor on the neighbor's front porch.

Two moose, rarities in Boulder County, were seen swimming in Glacier Lake, west of the Peak to Peak Highway on May 25. So you guessed it, another moose (or one of the above) showed up at a construction site on 13th and Pine on June 16.

The annual Boulder County Audubon Society Bird-a-thon was held on the weekend of May 17-19. Teams picked one day to try to find as many species of birds as possible in Boulder County. Seven teams participated, and the winning team of Richard Trinkner, Bill Schmoker, Ted Floyd and Chris Wood totaled an amazing 165 species (including at least 17 before dawn). Altogether, teams found at least 184 bird

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Sightings, cont.

species in the county that weekend.

Several observers at Lake Valley Golf Course watched a golden eagle swoop down, pick up a cat, and carry it high into the sky. The cat wriggled loose, suffering a broken leg and some deep puncture wounds.

Natural Events Calendar

Early July: Fireflies display at Sawhill Ponds; thousands of south-migrating Franklin's gulls gather at Boulder Reservoir; Colorado columbines bloom in aspen groves near Hesse; Lambert's locoweeds paint montane meadows magenta.



July 13: Full Moon, rises 9:03 MDT ("Thunder Moon"--Lakota; "Yellow-Flower Moon"--Osage).

Late July: Great blue heron and great egret chicks fledge at Boulder Valley Farm; migrating shorebirds probe for invertebrates at Sombrero Marsh; migrating rufous hummingbirds defend foraging territories around backyard feeders; fritillaries and swallowtails nectar from Monarda flowers in Gregory Canyon.

July 27-29: South Delta Aquarid meteor shower.

Early August: Black bears migrate down to foothills canyons to feed on chokecherries and other ripening fruits; baby chipmunks appear above ground; cicadas churr in ponderosa pine

Summer 2003

forests on Enchanted Mesa; gayfeathers (*Liatris punctata*) begin blooming on Shanahan Ridge.

August 1: Lammas, the time of hot weather and the beginning of the harvest season, is celebrated.

August 11: Full Moon, rises 8:20 MDT ("Moon of Black Cherries Ripening"--Cheyenne; "Dear-Hiding Moon"--Osage)

August 12: Perseid meteor shower. Look to the northeast after midnight.

Late August: Tallgrasses flower along South Boulder Creek; gentians begin blooming from the plains to the alpine tundra; large flocks of songbirds gather on Green Mountain West Ridge; blooming goldenrods on the plains attract blister beetles, long-horned beetles, tiger beetles, and other insects.

Early September: Hummingbirds and monarch butterflies begin to head south; sage thrashers and pinyon jays pass through (try North Foothills Trail and Doudy Draw); ladybugs congregate on summits of foothills peaks; giant eveningstars (*Nuttallia decapetala*) unfurl after sunset at Six Mile Fold.

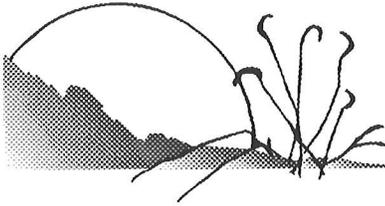
September 7 through September 22: Indian Peaks fall bird count (go out any time during this period).

September 10: Full Moon, rises 7:46 MDT ("Moon When Deer Paw the Earth"--Lakota; "Wild Rice Harvest Moon"--Ogibwe). The Harvest Moon occurs this month as the full moon rises around the time of sunset for several consecutive days, providing additional light for late-working farmers. This phenomenon is caused by the tilt of the earth relative to the orbiting plane of the moon. Since the autumn full moon rises at a very shallow angle, it "retrogrades" only a few degrees over the eastern horizon each evening.

Late September: Migrating raptors soar over the Dakota Hogback; elk begin to bugle in Moraine Park and at Walker Ranch; aspen turn golden along the Peak to Peak Highway; black bears continue to fatten up on berries in foothills canyons.

September 23: Autumnal Equinox.

BOULDER COUNTY NATURE ASSOCIATION



State Wildlife Affairs

By Jim McKee

First Lynx Kittens Reported

Yes we have kittens! Six litters with a total of 16 young were found between May 21 and June 21 in southwestern Colorado at elevations between 10,600 and 11,200 feet. More are expected because births are believed to occur most frequently in June.

The Colorado Division of Wildlife (CDOW) has released 129 lynx - 41 in 1999, 55 in 2000, and 33 this spring. They plan to release another 50 in 2004 and 50 in 2005. Fifteen lynx will be released in both 2006 and 2007. Tanya Shenk (CDOW's lead lynx researcher) and her crew are currently tracking 63 lynx. Another 45 are confirmed dead, with human-caused mortality from gunshots and vehicle collisions the biggest cause of death. The status of the rest is unknown, although at least two have slipped their radio collars and the batteries have run down on the collars of others.

The birth of kittens signals (at least initial) success of lynx recovery in Colorado. Further births this year and in succeeding years will ensure the future of a sustainable population. This effort is the legacy of retired CDOW director John Mumma and many others including biologists Gene Byrne and John Seidel, both now retired. Although it was a close call in getting approval from the Colorado Wildlife Commission in 2000, the commission has now approved all of the planned future releases with the support of Governor Bill Owens and Greg Walcher, the director of the Department of Natural Resources.

The lynx release and monitoring activity has been paid for primarily with Colorado Lottery money through the voter-approved Great Outdoors Colorado program and the CDOW Non-game and Endangered Species Checkoff on Colorado income tax returns. Additional funding is needed to keep the program operating and the Colorado Wildlife Heritage Foundation is working to raise money to support

Summer 2003

reintroduction. To learn more about helping with this effort, call the Heritage Foundation at (303)291-7238.

Carnivore Biologist

Many expressed concern about the mountain lion quotas (790 in total) that were set at the November Wildlife Commission meeting. Wendy Keefauver-Ring of Sinapu, in particular, felt that there was insufficient population data to support these numbers and asked that the quotas be reduced to a total of no more than 300. Other testimony, including that from BCNA and the Colorado Wildlife Federation, felt that more population data was needed to support lion quotas. Even testimony from outfitters and lion hunters supported this need.

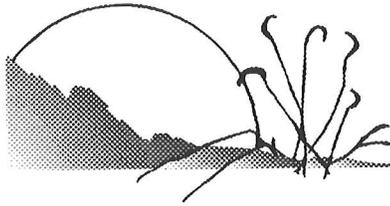
Although the commission approved the proposed quotas, there was a strong minority opinion in the commission that the Colorado Division of Wildlife (CDOW) needed to look for a good lion biologist when they replaced Tom Beck, the recently retired carnivore biologist. Director Russell George and Jeff VerSteeg, manager of the Terrestrial Section, took this seriously and set out to find the best person available to fill this position.

In late May, I was pleasantly surprised (amazed) to hear that they had hired Dr. Kenneth Logan, arguably the leading active lion biologist in the country. Ken Logan previously worked for the internationally acclaimed Hornocker Wildlife Institute in New Mexico on a ten year study involving almost 300 lions at the White Sands Missile Range. This study culminated in the 2002 book, *Desert Puma*, co-authored by Ken and his wife, Linda Sweener. *Desert Puma* is recognized as the best recent book on mountain lion biology and population management.

Hiring Ken Logan was a coup for the Colorado Division of Wildlife and, I believe, is testimony to the prestige the division has within the community of wildlife management agencies.



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Volunteers Needed for Wildlands Restoration Projects

South Boulder Creek Trail - James Peak Wilderness: August 2-3, 2003; plus evening of Aug 1: Construct a new trail to replace a badly eroded trail section west of Rollinsville. Backcountry camping near a meadow along upper South Boulder Creek. 35-40 volunteers needed.

Forest Lakes - James Peak Wilderness: August 16-17, 2003; plus evening of Aug 15: Volunteers will reroute portions of 3000 feet of trail to avoid sensitive stream habitat between the upper and lower Forest Lakes, including a large willow/wetland complex near the inlet to the lower lake. Camping off the Rollins Pass Road in a spectacular area near the edge of the Alpine at 11,000 ft. 35-40 volunteers needed.

To register for either of these projects, please contact Wildland Restoration Volunteers at wrv@ecomail.org or call 303-543-1411. Please tell us your name, address, home/work phone, email, and how you heard about the project.

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Email BCNA at mail@bcna.org

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Cliff Nesting Raptors	Nan Lederer	303-447-1899
Conservation Committee	Bruce Bland	303-499-8612
	Joan Ray	303-444-5011
Education Committee	Carol McLaren	303-530-9108
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Support the Boulder County Nature Association

Name _____

Address _____

Phone, Fax or Email (optional) _____

Type of Membership:

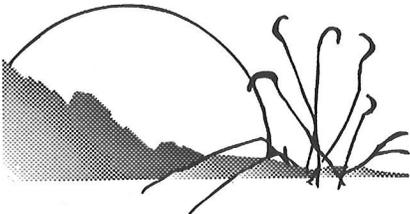
- | | |
|---|-------|
| <input type="checkbox"/> Student/Senior (65 and over) | \$10 |
| <input type="checkbox"/> General Member | \$15 |
| <input type="checkbox"/> Family or Household | \$20 |
| <input type="checkbox"/> Supporter | \$30 |
| <input type="checkbox"/> Subscriber | \$50 |
| <input type="checkbox"/> Founder | \$100 |
| <input type="checkbox"/> Life Member | \$300 |

The membership year is January 1 to December 31.
(Members who join after October 1 are considered paid through the following year.)

All members receive this quarterly newsletter.

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

Thanks for your support!



Boulder County Nature Association
P.O. Box 493
Boulder, CO 80306

