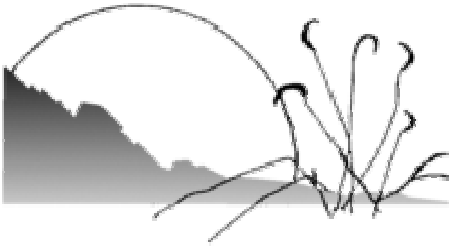


BOULDER COUNTY NATURE ASSOCIATION



Volume 21, Number 3
Summer 2004

Missing Lynx– No Longer

Colorado's lynx population, if not thriving, is certainly looking healthy and the future prognosis is good. Of 129 lynx released previously, 51 are known dead and 78 are possibly surviving. The Colorado Division of Wildlife (CDOW) is currently tracking 55 of these.

Sixteen kittens were born in 2003, the first year of documented reproduction. As of April, 2004, 6 kittens are known to be alive and 7 are known dead. Trackers have documented at least one snowshoe hare kill by a kitten. Fifteen possible breeding pairs have been documented this spring and as of Monday, May 31, seven newborn kittens in two litters have been found in southwestern Colorado. All were healthy and were found in the same general area at about 11,000 feet elevation. All breeding females so far have been from the 1999 and 2000 releases.

Thirty-seven additional lynx were released this spring, all fitted with satellite and VHF radio collars. Some attempts have been made to recapture and collar animals that have slipped their collars or whose radio batteries have died as well as last year's kittens. CDOW plans to release another 50 lynx next year and 15 each in 2006 and 2007.

Since the high mortality rates with the initial releases in 1999 and the resolution of problems with early release protocols, survival rates have been outstanding for a carnivore re-introduction.

As of June 4, 2004, 4 litters with a total of 13 kittens have been found. All of the dens were

at elevations between 3300 and 3450 meters. There are high hopes that they will find many more kittens this summer. I believe that we have turned a corner with this species. The final test will be when Colorado achieves a self-sustaining population, hopefully in the not too distant future.

Jim McKee



Canada Lynx
Colorado Division of Wildlife

Inside...

**Summer Calendar
Sightings
Wintering Raptor Survey Report
Wilderness Celebration
Prairie Dog Behavior
and
Summer Classes**

BCNA Summer Calendar

Sunday, July 11, 4-7 p.m: Board meeting and potluck at Steve and Nancy's, 3543 Smuggler Way, off Greenbriar in South Boulder (303-494-2468). All members are invited. Hummingbirds, nighthawks, and hawk moths likely.

Monday, September 6, 5:30-8:30 p.m: Steve Jones (303-494-2468) will lead a leisurely birdwatching stroll and picnic along the Green Mountain West Ridge Trail. Meet at the Baseline Middle School parking lot at 20th and Baseline at 5:30 p.m.

September 4-19: Indian Peaks Fall Bird Count. Contact Bill Kaempfer (303-939-8005; kaempfer@colorado.edu) for more information.

Look for more announcements on the Naturenet, or visit www.BCNA.org

Sightings

It's been a relatively good spring for locally endangered owls. A long-eared owl nest found by Boulder County Parks and Open Space biologists north of Lefthand Canyon is the first reported in the county since 1986. The nest had at least three young in early June. A burrowing owl nest near Boulder Reservoir was the first observed at that location since 1989. In early May, Dave Madonna found a barn owl sticking its head out of a nest box at the Xcell Energy plant at Valmont Reservoir. Time for a barn owl cam?

Jim Knopf has been observing an unusual spring ritual at his house: honey bees tripping out and crash landing after drinking the nectar of his datura (jimson weed) plant. "I hear them buzz around while trapped inside the closed flowers (the flowers open at night). Some of them die inside the flowers. But most interesting is to watch one do a blissful backflip from the rim of a giant, trumpet-shaped flower and then tumble into its depths." According to one web site, bees and moths can become addicted to the hallucinogenic and highly toxic chemicals (scopolamine, atropine, and others) in this legendary plant's nectar. In Medicinal Plants of the

Mountain West, Michael Moore lists a half-dozen therapeutic effects that can be derived from smoking datura leaves. However, he adds, "To dabble in jimson weed for dilettante pseudoritual purposes or to try to get stoned with it is a silly, gratuitous, and dangerous thing."

Drought update: While Boulder and much of Colorado have received average to above-average precipitation during the past 12 months (Boulder received 6.16" in April, alone), about half of the Inter-mountain West continues to experience moderate to extreme drought conditions. The Palmer Drought Index shows extreme drought in the Nebraska panhandle, most of Wyoming, southern Montana, western Nevada, and northwestern Arizona. North Platte, Nebraska, received no precipitation from mid-November through mid-March. Northern and western Colorado, along with most of Utah, New Mexico, Texas, and South Dakota, fall into the "near normal" category. [Palmer Drought Index web site]

Drought data: Here's the 365-day percentage of average precipitation for selected regional stations through May 31: Boulder 110, Pueblo 107, Alamosa 98, Grand Junction 83, Goodland 57, Dodge City 97, Amarillo 77, Albuquerque 102, Farmington 100, Winslow (AZ) 42, Cedar City (UT) 75, Salt Lake City 108, Casper 102, Cheyenne 47, Scottsbluff 43, North Platte 71, Rapid City 70. [US Weather Service CPC Global Precipitation Monitoring web site]



Albino Red-tailed Hawk
Paula Hansley

Summer Natural Events Calendar

July 1: Full moon rises at 8:28 p.m. It is officially full early on the morning of July 2.

Moon when the bison bellow (Arapaho)
Thunder moon (Lakota)
Deer-hiding moon (Osage)

Mid-July: Look for large flocks of Franklin's gulls around Boulder Reservoir and other prairie reservoirs. They are already heading south from the northern prairies, signaling the start of the fall bird migration season. Rufous hummingbirds begin to appear at bird feeders. They are migrating south from breeding grounds in the Pacific Northwest, taking advantage of the abundant wildflower bloom in the central Rockies. One reason they are so aggressive around feeders is that they establish and defend foraging territories along their migration route.

July 27: Delta Aquarid meteor shower.

July 31: A "blue moon" (the second full moon of the month) rises at 8:31 p.m.

Moon of black cherries ripening
(Cheyenne/Arapaho/Lakota)
Corn in silk moon (Ponca)
Harvest moon (Ojibwe)

August 2: Lammas (Lughnasadh). This traditional holiday celebrates the time of hot weather and the beginning of the harvest. The fruits of the earth are cut and stored for the long winter months. Fruits are eaten and their seeds are planted in the ground.

August 12: Perseid meteor shower. This year's display is expected to be just average, with a quarter moon lightening the sky during the early morning hours. However, brief peaks of up to 100 meteors per hour are possible between midnight and dawn.

Mid-August: Shorebird migration peaks on the plains. This is a great time to plan a trip to Crescent Lake National Wildlife Refuge in the Nebraska sandhills. Thousands of shorebirds work the shallows of the refuge's alkaline lakes while the mauve hills glow with sunflower blossoms.

Late-August: Giant eveningstars (*Nuttallia decapetala*) unfurl on shales near Six-Mile Fold (north of Boulder along the Foothills Hwy.). The closely related plains eveningstar (*N. nuda*) blooms in perfusion in sand-sage prairies along Interstate 76

between Keenesburg and Sterling. Both species unfurl in the evening and are pollinated by night-flying hawk moths.

August 29: Full moon rises at 7:53 p.m.

Drying grass moon (Arapaho)
Moon when deer paw the earth (Lakota)
Wild rice harvest moon (Ojibwe)

Early-September: Look for migrating sage thrashers and pinyon jays in Doudy Draw. Ladybird beetles may gather in vast numbers on foothills summits. They hibernate under rocks and bark. Why there? Maybe there are fewer black bears visiting these rocky summits.

September 22: Autumn Equinox (Mabon). Completion of the harvest and equal length of day and night prepare the world for the coming dying and rebirth. In the olden days, people wandered through the wilderness gathering dried plants to be used as healing herbs or house decorations. Altars held acorns, pine cones, cornstalks, and colorful leaves.

Late-September: Look for bottle gentians (*Pneumonanthe bigelovii*) blooming in foothills grasslands and open forests. The corollas of these pale- to sky -blue gentians barely open, even in the brightest sunlight, so bumblebees have to force their way in to get at the nectar.

September 28: Full moon rises at 7:07 p.m. This is the official "Harvest Moon." Due to the tilt of the earth relative to the orbit of the moon, the full moon rises near the time of sunset for several days in a row, providing extra light for farmers harvesting their crops. See the Sky and Telescope web site for a full explanation and an illuminating graphic.



Ten Petal Evening Star
Steve Jones

Wintering Raptor Survey Report

The Wintering Raptor Survey season has come to a close, reports representing hundreds of volunteer hours have been collected and empirical data points meticulously mapped. Early impressions suggest a number of variant trends.

Vole dependent species (Northern Harrier, Rough-legged Hawk) appear to have declined. Vole populations naturally cycle, but there is some suspicion that our multiple years of drought may be a contributing factor in the reduced number of voles available for raptor predation. Ferruginous Hawk and American Kestrel numbers also appear to be down.

The number of wintering Bald Eagles appears to be on the upswing, especially in northern areas of Boulder County. A side note: last year, the entire county was abuzz over its first, ever, pair of breeding Bald Eagles. The pair successfully fledged a single chick from a nest site near White Rocks Natural Area. This year, incredibly, three breeding pairs have set up housekeeping in the county and a fourth displayed early interest in and later abandoned a site near Boulder Reservoir.

The number of Prairie Falcons observed appears to be slightly higher this year than in previous years.

The ubiquitous Red-tailed Hawk presented in good numbers and numerous forms with rufous and dark morphs and Harlan's occurred on most survey routes. Krieder's were sparse, at best.

This year's most unusual (rarest) sighting: a dark morph Rough-legged Hawk was spotted on the North and South Rabbit Mountain survey routes in late season. Rough-legged Hawks are few and far between to begin with, so observing the rarer still dark morph form caused a little excitement.

Thank you, volunteers, for your many hours dedicated to this important survey! As always, Wintering Raptor Survey data can be accessed on BCNA's website. Look for 2003-2004 results later this year.

I'm going to share a little secret with you. This opinion is strictly personal and promulgated only after spending many very enjoyable and insightful hours in the field. The best place in all of Boulder County to observe wintering raptors is at 59th Street and St. Vram Road, looking north toward the St. Vram River and Rabbit Mountain. On a good

day in midseason (Dec. Jan, Feb) one might expect to observe Northern Harriers, Rough legged, Ferruginous and Red-tailed Hawks working the open fields just north of St. Vram Road. In the distance, look for Bald Eagles perched in trees and on power poles. Turn your eyes skyward to the north over Rabbit Mountain where several eagles may soar, mostly Balds, some Golden's, occasionally pestered by a pesky Ferruginous or Red-tail.

Why are we, here along the Front Range of the Rockies, so blessed with this number and variety of raptors? Ah! Perhaps this is a subject for future discourse. Happy raptor-ing!

Sue Cass, Wintering Raptor Survey Coordinator

Thursday, July 29th-- Happy 40th Anniversary to the Wilderness Act!!

The Colorado Mountain Club, Sierra Club, Citizens for the Arapaho-Roosevelt, Colorado Environmental Coalition, and other partners will be hosting a special evening to celebrate the Wilderness Act's 40th anniversary and to review some of the recently reinventoried wildlands and roadless areas of the Arapaho-Roosevelt National Forest.

Discover the roadless and wild areas of the Arapaho-Roosevelt National Forest

6 p.m.- 7:30 p.m.

Come together with fellow outdoor enthusiasts to look at and discuss the new maps of roadless areas and undiscovered wild treasures in your neighboring national forest.

7:30 p.m.

Raise your glasses and spirits as this year the Wilderness Act turns 40! Join us in celebration of the 40th Anniversary of the Wilderness Act.

Boulder Group Office of Colorado Mountain Club
Table Mesa Shopping Center
633 South Broadway, Unit N
Boulder

Both events are free and open to the public. To RSVP and/or for more information or to help with the event contact Lisa lisa@cecenviro.org 303-534-7066 x208.

Prairie Dog Behaviors Reflect Social Roles

How does a black-tailed prairie dog spend its day? What are the differences among activity budgets of adult males, adult females, and juveniles? How do these differences reflect the social roles of individuals within prairie dog colonies?

The BCNA prairie dog ecology class spent a late-May morning observing behaviors of black-tailed prairie dogs in a small colony along the South Boulder Creek Trail, east of Marshall Road. We first developed a list of more than 30 observed behaviors. Some behaviors were interesting but difficult to characterize--such as the adult male who spent 15 minutes systematically clipping the small branches off a willow limb that had been blown into the colony ("pruning?") and the adult female who lay flopped out in the dirt with her eyes closed ("sunbathing"?). Other endearing behaviors included wrestling, dust-bathing, kissing (or touching incisors), chasing in circles, and jump-yipping.

Once we had categorized the behaviors, we split into small groups and watched individual prairie dogs, noting all the behaviors each displayed during a series of two-minute observations. The results, below, suggest dramatic differences among the roles of adult males, adult females, and juveniles.

Juveniles spent most of their time foraging and engaging in social activities such as wrestling, kissing, and nursing. Adult males devoted most of their time to vigilance activities such as alarm-barking and periscoping (sitting up on their haunches and looking around). Females were pulled in two directions, toward vigilance activities and burrow maintenance on one hand, and toward social interactions with their young on the other. Perhaps as a result, females spent the least percentage of time foraging.

Having read about cannibalism in black-tailed prairie dog populations, we wondered whether the stresses experienced by females during the breeding season might partially explain their craving for protein--which they have been known to extract from the flesh of their nieces and nephews!

Steve Jones



Table 1. Activity-budgets of individual black-tailed prairie dogs. Percent of 2-minute observation periods (N) when each behavior was observed.

Behavior	(N = 38) Ad. Males	(N = 44) Ad. Females	(N = 54) Juveniles
Foraging	39	28	83
Sunning	13	7	0
Sleeping	3	7	0
Self-grooming	6	8	8
Diving into burrow	8	15	26
Excavating burrow	0	2	0
Periscoping	61	50	37
Alarm barking	11	2	4
Jump-yipping	39	25	8
Kissing/nuzzling	3	11	26
Wrestling/playing	0	2	6
Mutual grooming	6	2	8
Nursing	0	2	4

- Wanee Butler, Steve Jones (compiler), Carol and Dave Kampert, Carol McLaren, Dave and Shelley Madonna, George and Marty Oetzal, Erin Russell.



**Summer Classes:
Butterflies, Bats, Arapaho Natural History,
and Front Range Geology**

Space may still be available in these upcoming BCNA field ecology classes. For more information, visit our web site (www.BCNA.org) or contact one of the instructors.

High Altitude Butterflies

Jan Chu

Visit the subalpine forests and alpine tundra of Niwot Ridge to observe higher altitude butterflies. There will be time for photography and detailed observation of host plants.

Indoor Class:

Wednesday, July 28, 6:45-8:30 p.m.

Field Class:

Friday, July 30, 7:30 a.m.-2:30 p.m.

Tuition: \$60 (\$50 for BCNA members).

Contact Jan at 303-494-1108; or e-mail: chuhouse@hotmail.com

The Natural World of the Arapaho in Colorado

Andy Cowell

The natural world of the Colorado Front Range and Great Plains as seen by the Arapaho Tribe of the nineteenth and twentieth centuries. Learn about traditional plant and place names, creation and cosmology beliefs, and the idea of "ecological consciousness" in traditional Arapaho culture.

Indoor Classes:

Tuesday, July 6, 7-9 p.m., Foothills Nature Center

Thursday, July 8, 7-9 p.m., Foothills Nature Center

Field Class:

Saturday, July 10, 9-noon

Tuition: A minimum donation of \$50, all of which will contribute to development of a public education website on the Arapaho.

To register contact Andy at 303-543-7504; e-mail: cowellj@colorado.edu

Bats of Boulder County

Dr. Rick Adams

Come learn about the natural history of these enigmatic mammals by delving into their ecology, physiology, morphology, and behavior. In addition, we will see bats up-close-and-personal while conducting fieldwork.

Indoor Class:

Friday, August 6, 6:30-9 p.m.

Field Class:

Saturday, August 7, 7-11 p.m.

Tuition: \$45 (\$35 for BCNA members).

To register contact Lauren Golten, 303-477-7131; e-mail: lauren.golten@colorado.edu

Geology of the Colorado Front Range

Paula Hansley

Colorado is blessed with an amazing variety of well-exposed geologic features! We will get a feel for geologic time while exploring sedimentary formations spanning more than 500 million years.

Indoor Class:

Thursday, September 9, 7-9 p.m., Foothills Nature Center

Field Class:

Saturday, September 11, 8 a.m.-1 p.m., field session along a trail through the sedimentary geologic section in the Boulder area.

Field Class:

Saturday, September 18, 8 a.m.-noon, field session to examine foothills igneous and metamorphic rocks, along with coal mines, Valmont Dike, pediment surfaces, and faults.

Tuition: \$70 (\$60 for BCNA members).

To register contact Paula at 720-890-2628; e-mail: hansleyp@att.net

The Arapahoe and Roosevelt National Forests and Pawnee National Grassland Foundation

I attended the May 26 Boulder rollout for the Arapaho & Roosevelt National Forests and Pawnee National Grassland (ARP) Foundation. The foundation is a 501 (c) (3) non-profit corporation dedicated to expanding and coordinating public opportunities to support out forests and grasslands.

Its goals are:

1. Serve as a catalyst to galvanize community support for the forests & grasslands.
2. Develop partnerships to assist the ARNF & PNGs long-term projects and programs, including land protection, conservation, education, historical preservation, and capital improvement.
3. Raise funds both nationally and locally to help the ARNF & PNG reduce its maintenance backlog and to support its other projects and programs.

For more information regarding the ARP Foundation, contact Howard Alden at (970)482-0983 or hald22234@aol.com.

In the near future, you can also visit the web site at: www.arnf-png-foundation.org.

Jim McKee

VISIT OUR WEBSITE

For the calendar, class offerings, research results, publications, and other BCNA-related information:

www.bcna.org

JOIN THE NATURE-NET LIST SERVICE

For the latest news and in-depth discussions of Boulder County natural history issues, go to:

<http://groups.yahoo.com/group/nature-net>

BCNA Board of Directors

President.....Scott Severs (303-442-1322)
 Vice President....Steve Jones (303-494-2468)
 Treasurer.....Vickie Flower (303-684-9030)
 Secretary.....Jan Carnes (303-823-5350)

Bruce Bland (303-499-8612)
 Sue Cass (303-494-5345)
 Joyce Gellhorn (303-442-8123)
 Barbara Hawke (303-527-1819)
 Jim McKee (303-494-3393)

Committees and Contacts

- *Allegra Collister Birdbanding Site:*
Joe Harrison (303-772-3481).
- *Cliff-Nesting Raptors:*
Nan Lederer (303-447-1899).
- *Conservation:*
Bruce Bland and Joan Ray (303-444-5011).
- *Education:*
Carol McLaren (303-530-9108) and Carol Kampert (303-499-3049).
- *Indian Peaks Bird Counts:*
Dave Hallock (303-258-3672) and Bill Kaempfer (303-939-8005).
- *National Forest Management:*
Tim Hogan (303-444-5577).
- *Newsletter:*
Rebecca Hill and Steve Jones
- *Website:*
George Oetzel (303-543-3712).
- *Parties, Special Events:*
Naseem Munshi (303-673-0933).
- *Publications:*
Steve Jones (303-494-2468).
- *State and Regional Wildlife Issues:*
Jim McKee (303-494-3393).
- *Wintering Raptor Survey:*
Sue Cass (303-494-5345) and Jim McKee (303-494-3393).

E-mail BCNA at mail@bcna.org

Support the Boulder County Nature Association

Name _____

Address _____

Phone and/or E-mail (optional) _____ Type

of Membership:

_____ Student/Senior (65 or over)	\$10
_____ General Member	\$15
_____ Family or Household	\$20
_____ Supporter	\$30
_____ Founder	\$100
_____ Life Member	\$300
_____ Corporate	\$500

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
P.O. Box 493
Boulder, CO 80306