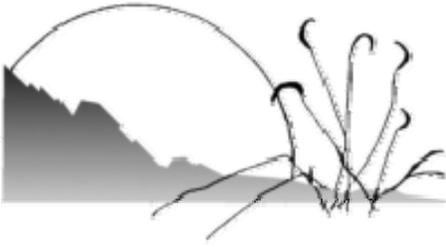


BOULDER COUNTY NATURE ASSOCIATION



Volume 23, Number 3
Summer 2006

BCNA Ecosystem Plan 20+ Years Later

This is the first in a series of articles that explores the evolution of the Ecosystem Plan and the current status of the core preserves and habitat connectors. As BCNA is nearing its 25-year anniversary, it seems appropriate to take a look at some of the long-term projects that have helped define the organization.

One of the first volunteer projects undertaken by members of BCNA in the early 1980s was to assist Boulder County Parks and Open Space with the update of the Environmental Resources Element of the Boulder County Comprehensive Plan. Members spent time in the field looking for animals and plants that were rare, restricted to a few locations, or appeared to be declining.

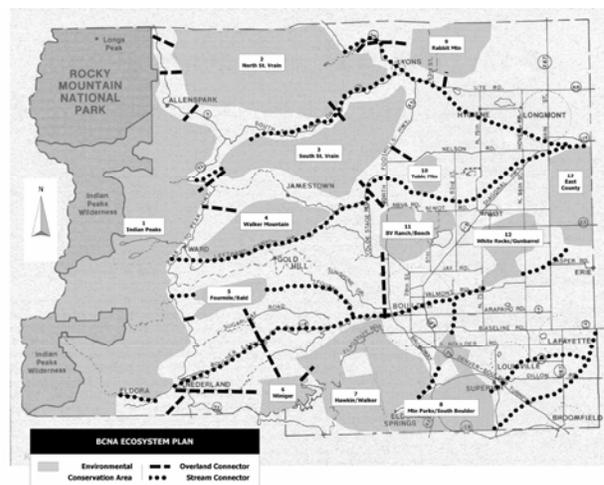
The result was the designation of critical wildlife habitats, rare plants, and critical plant associations within the county. But much of this is what ecologists would term a “fine filter” approach to land protection. Mike Figgs had the idea of adding a new designation to the County’s plan: larger blocks of land called “Environmental Conservation Areas” (ECAs) that tried to capture the needs of wide-ranging animals and accommodate natural disturbance processes. Three ECAs were designated in this Comprehensive Plan update, all located in the foothills.

Though the County update was completed, the idea of looking at larger blocks of land for protection was intriguing. The emerging fields of conservation biology and landscape ecology were broadening conservation efforts away from small sites often based on a single species towards recognition of landscapes and processes that maintained biodiversity, what ecologists call the “coarse filter”. Roz McClellan, then the director of the CU Environmental Center, organized several symposiums that brought in noted ecologists such as Reed Noss and George Wuertner. They were inspirational and accelerated the learning curve.

A few years later, in the mid-1980s, BCNA mapped a countywide system of habitat core areas that were felt to be the “best of what is left” in the county. Riparian and large-mammal movement corridors connected the core areas. The relatively natural areas of the landscape needed to remain as such, and interconnected to allow for the movement of species. The “Ecosystem Plan,” as it was commonly called, is shown on the map that follows. BCNA used the plan to influence public land acquisition and management as well as foster private land preservation through the actions of landowners and land trusts. BCNA formed its own land trust, the Boulder County Land Trust.

During the 1990s, three events occurred that helped achieve much of the land use plan envisioned. The first was the passing of the County Open Space sales tax in November 1993. This allowed the County to acquire fairly significant chunks of the landscape rather than scattered, isolated parcels. Lands protected around Rabbit Mountain now total almost 14,000 acres instead of just the original 2,500, and includes not only the golden eagles’ nest but also much of their feeding grounds.

....continued on page 6



Boulder County Ecosystem Plan
courtesy of Dave Hallock

BCNA Summer/ Early Fall Events Calendar

July 16, 4-6 p.m.: BCNA board meeting. All members are invited and your input is most appreciated. Mort Wegman-French's house, 4512 Prado Drive, Boulder (303-543-0150).

Early August: Butterfly survey in beautiful Coulson Gulch, in the North St. Vrain Canyon, with Donn and Cathy Cook. Check nature-net or www.BCNA.org for date and times, or call Jan Carnes (303-827-3024).

September 10-24: Indian Peaks fall bird count. Contact Bill Kaempfer (William.kaempfer@colorado.edu) to volunteer or for more information.

Sunday, October 1, 4:30-8 p.m. Steve Jones (stephen.jones@earthlink.net) will lead an evening hike and picnic on the Green Mountain West Ridge Trail (2.5 miles, round-trip). We should see lots of migrating birds and a beautiful half moon. Meet at the Chautauqua Ranger Cottage parking area (the first parking lot as you enter Chautauqua Park, west of Baseline and 9th). Bring portable food for yourself or to share with the group.

A Good Spring for Cliff-Nesting Raptors

Close to 50 volunteers monitored cliff-nesting raptors on City of Boulder Open Space and Mountain Parks land this spring. Prairie falcons and peregrine falcons appear to be doing especially well.

Golden eagle: one nest has one chick, a second nesting territory appears to be inactive.

Prairie falcon: Five active nests have produced at least 14 young.

Peregrine falcon: Two active sites have produced an undetermined number of young.

In addition, two bald eagle nests have each produced four young, and the two osprey nests at Boulder reservoir also produced four young. A total of five bald eagle nests have been reported in Boulder County this spring.

-Information provided by Lisa Dierauf, Boulder OSMP volunteer coordinator.

Summer and Fall Field Classes

Space is still available in several of the following BCNA summer and fall classes. Scholarships of up to \$50 per class are available. For more information, visit www.BCNA.org/education.

Bats of Boulder County

Rick Adams

Observe bats up-close-and-personal while learning about their ecology, physiology, morphology, and behavior. We will listen to and record echolocation calls and use a night-vision camcorder to watch bats drinking.

Friday, August 4, 6:30-9 p.m., indoor class
Saturday, August 5, 7-10 or 11 p.m., field class

Tuition: \$45 (\$40 for BCNA members). Limited to 16 participants.

To register: Contact Rick, preferably through email at battings@yahoo.com; if email not available call 303-245-1059

Dazzling Dragonflies and Damselflies of Boulder County

Scott Severs

Learn about the distinguishing characteristics, behavior, and lifestyles of local Odonata species. In the field we will discover where and when to look for these jewel-like insects, and how to best approach them for observation.

Wednesday, August 9, 6:30-9:30 p.m., indoor class
Sunday, August 13, 8 a.m.-1 p.m., field class

Tuition: \$45 (\$40 BCNA members). Limited to 8 participants. To register call Scott at 303-684-6430, or email rostrhamus@aol.com

Mushrooms: Beautiful, Valuable, Essential
Vera Evenson

Learn to appreciate our native mushrooms of the Front Range for their fascinating beauty, essential mutualism with tree associates, recycling role, and their value in restoring damaged ecosystems.

Friday, August 18, 6:45-8:45 p.m., indoor class
Saturday, August 19, 9 a.m.-1 p.m., field class

Tuition: \$45 (\$40 for BCNA members). Limited to 15 participants. To register call Vera 303-443-8968, or email theevensons@earthlink.net



Boreal Toad
photo by Rebecca Hill

Grassland Ecology

Steve Jones, with Naseem Munshi

Camp out under the full moon in the Pawnee National Grassland while exploring the geology, ecology, and cultural history of the grassland sea.

Thursday, August 24, 7-9 p.m., indoor class
 Saturday, August 26, 6:30-11 a.m., field class
 (South Boulder Creek State Natural Area)
 Saturday, October 7, 12 noon, to Sunday, October
 8, 4 p.m., field class (Pawnee National Grassland)

Tuition: \$80 (\$70 BCNA members). Limited to 8 participants. To register call Steve at 303-494-2468, or email Stephen.jones@earthlink.net

Mammal Tracking

Marty Colon

Learn how to identify any North American mammal's footprint, based on the evidence in a single track. This experiential workshop blends theory with immediate application, giving students the ability to identify tracks in the field and to continue learning on their own.

Friday, October 13, 6-8:45 p.m., indoor class
 Saturday, October 14, 9 a.m.-5 p.m., indoor and field class
 Sunday, October 15, 9 a.m.-noon, field class

Tuition: \$95 (\$85 for BCNA members). Limited to 12 participants. To register, contact Marty at 303-447-1188; marcol1@earthlink.net

Summer Natural Events Calendar

Early July: Barn owl chicks fledge. Listen for their steam-engine-like hisses along St. Vrain Road, Hygiene Road, and Plateau Road, west of Longmont. Peregrine falcon families hunt together over the mesas southwest of Boulder. Bald eagle chicks fledge from nests in cottonwoods on the plains.

July 10: Full moon rises at 8:50 p.m.
 Thunder (Lakota)
 When the Buffalo Bellows (Arapaho)
 Deer-Hiding (Osage)

Early August: Lammas is 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. On the North American prairie, the Black Cherry Moon signals the time to harvest wild fruits and hold the year's most sacred ceremony, the Sun Dance. Franklin's Gulls and shorebirds return from nesting areas in the prairies of southern Canada and gather by the thousands at local reservoirs.

August 8: Full moon rises at 8:06 p.m.
 Black Cherries Ripening (Lakota, Cheyenne, Arapaho)
 Corn in Silk (Ponca)
 Ducks Begin to Fly (Cree)

August 12th and 13: Perseid meteor shower. Best viewing probably will be early in the evening, as the maximum shower occurs during the afternoon and a nearly full moon rises a few hours after sunset.

Early September: Spectacular ten-petal evening-stars (*Nuttallia decapetala*) bloom on hogback shales north of Boulder. These drought-tolerant members of the stick-leaf family (named for their Velcro-like foliage) unfurl right around sunset. Their saucer-sized, pale-yellow blossoms attract night-flying sphinx moths. Look for them near the intersection of US 36 and Niwot Road.

September 7: Full moon rises at 7:32 p.m. Partial lunar eclipse.
 Drying Grass (Arapaho)
 Deer Paw the Earth (Lakota)
 Wild Rice Harvest (Ojibwa)

September 22: Autumn Equinox occurs at 10:02 p.m.

Bobolinks in Boulder County

Through the soft morning mist an eerie warble pierced my thoughts. The enigmatic song of the Bobolink seemed an oracular voice reaching forward from ancient prairies into the butter-yellow meadows of southern Boulder County.

For the last five years, I've been privileged to monitor Bobolinks on City of Boulder agricultural fields. Bobolinks are an intriguing grassland passerine bird species with a significant population in the Boulder area. Sometimes called the "tuxedo bird" for the male's striking white-on-black plumage (like a tuxedo worn backwards), a better moniker might be the Monk Bird. Male Bobolinks have a creamy patch on their head like a skullcap, and in the field, exude an aura of mystery. Bobolinks also migrate to mythic extent, traveling some 20,000 kilometers annually between their breeding grounds in North America, and wintering grounds as far south as Bolivia, Brazil, Paraguay, and Argentina. Bobolinks' navigational abilities include literal body memory, as Bobolinks' nasal tissues harbor iron oxide. In laboratory research using planetariums, Bobolinks have been shown to respond to changes in both magnetic fields and stellar patterns. Would that we humans had awesome global positioning abilities built into our bodies!

The Boulder County Bobolink population may be important within the state, as the number of known breeding populations is quite limited. Boulder County Nature Association lists the species as one of primary concern, and the State of Colorado's 2005 Comprehensive Wildlife Strategy includes Bobolinks with species of "greatest conservation need." Historical accounts dating back to 1904 reflect Bobolink presence likely on, or near, what is now City of Boulder Open Space. Since 2000, the City of Boulder has conducted surveys of declining grassland birds on Open Space, with a particular focus on Bobolinks. These surveys were used to adjust agricultural management practices to better accommodate Bobolink breeding needs. In 2006, the City commenced an exemplary expansion of this program to encompass multiple volunteers and carefully considered work with lessees, to balance agricultural practices with breeding grassland bird needs.

Much of Bobolinks' appeal lies in their fascinating behaviors. Bobolink males are a bit fickle; after exclusively courting one female and then mating, males quickly seek another female for mating. Females, in turn, may lay clutches with eggs sired by

more than one father. Yet female Bobolinks do not exhibit much aggression toward each other, and unpaired young males may help feed another male's offspring. [Somewhere in all this there is a lesson for humanity, but it is a confused message.]

What can you do?

A number of conservation organizations focus attention on declining grassland bird species, including the Rocky Mountain Bird Observatory, the Audubon Society, Boulder County Nature Association, The Nature Conservancy's Prairie Wings program, and the U.S. Fish and Wildlife Services' Partners in Flight program, among others. The State of Colorado Division of Wildlife additionally has a Grassland Conservation Plan. Locally, you can explore bird monitoring volunteer opportunities with the City of Boulder, Boulder Audubon, or BCNA, among others.

-Barbara Hawke

Boulder County's Dickcissel Invasion: Another Product of Drought?

In early June birdwatchers reported a half-dozen singing male dickcissels at Teller Farms Open Space, east of Boulder. On June 17, during 15 minutes of commuting, I found a dozen singing dickcissels in hay meadows beside Hygiene Road and N. 75th St. Dickcissels, which typically nest in tallgrass and mixed-grass meadows in the eastern half of North America, are considered rare in Boulder County; so this surge in recent sightings suggests a major irruption worthy of investigation.

We're blessed with some historical information. In 1908 University of Colorado Museum curator Junius Henderson characterized dickcissels as "rare" in Boulder County and noted that there was a single specimen in the university collection. Five years later curator Norman Betts reported that he had observed a singing male at an unspecified location during the summers of 1910 and 1911, and added, "It will be interesting to note whether this species becomes established in the county as a regular summer resident, as in the case of the Bobolink."

In 1939 CU ornithologist Gordon Alexander updated Henderson and Betts' checklists, characterizing the dickcissel as a "rare or irregular summer resident...Common in 1934, but not before or since." In a 1998 Colorado Breeding Bird Atlas species account, Hugh Kingery cited John



Dickcissel
photo by Bill Schmoker

Zimmerman's research in western Kansas, which suggests that "Dickcissels' irregularity, erratic mass invasions, and extra-limital excursions result from drought in the Great Plains." Hugh added, "Settlers, breaking the prairie into cropland, probably turned inhospitable shortgrass into the disturbed habitat that Dickcissels favor. That would explain the birds' rarity in the 19th century and their profusion [on Colorado's eastern plains--*my clarification*] in the past 75 years."

So it looks like we're heading in a fruitful direction. 1934 fell in the middle of the worst drought to hit eastern Colorado during the past 140 years. So far, 2006 has been one of the driest years on record in eastern Colorado. So it's possible that the irrigated hay meadows and alfalfa fields in the Boulder Creek and St. Vrain Creek floodplains provide an oasis of cover that dickcissels utilize when grass cover is sparse farther east. My guess is that before European settlement, naturally-occurring tallgrass prairies in these foothills floodplains also attracted dickcissels during drought years.

- Steve Jones

Wintering Raptor Survey: Good News/Bad News

The 23rd annual Wintering Raptor Survey has once again produced a mixed bag of results that appears to support long term trends, especially pertaining to Bald Eagles and both Ferruginous and Rough-legged Hawks. For the Bald Eagle, the news is good; for the buteos, decidedly not!

Let's hear the good news first. Bald Eagle numbers appear to be well within the ten year average of 0.054 birds per transect kilometer and the current breeding season finds five nesting pairs among Boulder County's resident birds. This number is fast approaching the number of nesting pairs of Golden Eagles and since nesting Balds is a fairly recent phenomenon, only time will tell how many pairs the area can actually support. Though observed on all transects, wintering Bald Eagles tend to congregate in the northern part of the county with most sightings on the Rabbit Mountain and Boulder Reservoir transects. Indeed, rodents (prairie dogs) and reservoirs are most likely the big draw. Currently, Bald Eagles are doing very well in Boulder County.

Alas, the same can not be said for Ferruginous and Rough-legged Hawks. The long term trend for both birds has been steadily downward and this year's survey results are particularly alarming! There were only four sightings of Rough-legged Hawks ... all surveys, all transects, all season! This trend goes beyond the typically cyclic population variations for this vole dependent species and habitat fragmentation and climate change have been suggested reasons for its flight from not only the county, but from much of eastern Colorado. Ferruginous Hawks accounted for 37 sightings compared to 507 for the ubiquitous Red-tailed Hawk. As much as I enjoy Red-tails, it is my fervent hope that it will not soon be our only wintering buteo.

The above are my purely unscientific observations extrapolated from this season's as yet unrecorded data. On behalf of BCNA, I would like to offer a huge "THANK YOU" to all you surveyors who make this important long-term study possible!

-Sue Cass

Ecosystem Plan continued from page 1...

The second event was the formal inclusion of the Ecosystem Plan into the Boulder County Comprehensive Plan. Representatives from approximately a dozen agency and environmental organizations reviewed and revised the plan. The core areas were adopted as Environmental Conservation Areas. The County saw the ECAs as locations where development rights should be removed through purchase, transfer or donation. The Ecosystem Plan provided an ecological framework and rationale.

The third event was the update of the Arapaho and Roosevelt National Forest Land and Resource Management Plan. Then District Ranger, Bill Anthony used several concepts from the Ecosystem Plan to influence the Forest Plan update. The Boulder District was the only area on the Forest to use the Core Habitat designation, which was done in the North St. Vrain and South St. Vrain (two BCNA Environmental Conservation Areas). Much of the North St. Vrain Canyon received a Research Natural Area designation. Most other areas that had been mapped by BCNA as core habitat received a Flora and Fauna prescription.

The primary emphasis in achieving the plan over the past 20 years has been removal of development potential from within the ECAs and connectors. The success, primarily due to the passing of the County Open Space sales tax and all the citizens of Boulder County, has been way beyond what we thought might happen, when conceptualizing the plan in the 1980s.

Now mind you, whatever joy felt from the success is offset by the realities of the landscape that Boulder County is a part. The sheer volume of people now living in the urban Front Range, the continual advancement of nonnative plants and animals, air pollution, acid rain, increased nitrogen brought to the mountains from upslope storms, global warming, and altered disturbance regimes all provide a sobering reality. The core areas are still relatively small. Wide-ranging mammals, such as pronghorn and bison, will never be a viable part of the plains. Even the long-term existence of prairie dogs will be tested. As the saying goes, the price of an ecological education is to live in a world of wounds.

But that knowledge also gives an understanding of what you have where you live. The magnificence, complexity, uniqueness, and beauty of our local organisms, communities, and ecosystems are astounding. You have to fight for what you have. It is home. That is what BCNA has been about!

The articles to follow in future BCNA Newsletters will look at the individual core areas and connectors in detail.

-Dave Hallock



Baby Barred owl, Corkscrew Swamp, Florida.
Photo by Maureen Blackford

Allegra Collister Bird Banding- Moving on

Editor's note: Joe Harrison recently resigned his volunteer position as master bander at BCNA's Allegra Collister Nature Preserve.

Rebecca called and asked about my thoughts and memories of bird banding over the last 15 years. Well, I have to admit that the decision to retire wasn't easy. In fact, it has taken at least 3 years (6 seasons) to convince myself that I should give up what has been a very fulfilling avocation. And, I suppose I still don't have the banding bug out of my system. But, there are many more places and birds to see.

Memories, sure. I've got a ton of wonderful memories. I remember when:

Moving On continued...

- an escaped steer stampeded through the gulch and literally exploded nets despite the futile tactics of the bander cowboys.
- there were 36 birds found in a single net at closing time.
- Virginia **always** brought cookies, cakes and breads or fruits to sustain the hungry banders.
- we were surprised by a Broad-winged Hawk becoming entangled in a net.
- the first thing to catch our eye in the pre-dawn light was a pickup truck upside down, totally demolished and almost tangled in one of our nets.
- the thrill of finding a brilliant male Scarlet Tanager.
- there were 3 big, live Prairie Rattlesnakes trapped at the bottom of the pit at our comfort station.
- trying to carefully extract Sharp-shinned and Cooper's Hawks from nets.
- there was a face to muzzle encounter with a curious coyote.
- an American Kestrel attacked and killed a netted sparrow only to become the next bird to be banded.
- the trails were overgrown with weeds and required several days of hard labor to clear.
- how painful the bite of a Northern Shrike can be.
- the excitement of snaring Blue-winged Warbler, Black-throated Blue Warbler, Prairie Warbler, Worm-eating Warbler and Ovenbird.
- we all wore "bear bells" to ward off a meeting with the gulch sow and her cub.
- the Orchard Oriole was a nice catch.
- it was disappointing to not be able to band the Broad-tailed and Rufous Hummingbirds that we found.
- I was startled almost out of my wits by a White-tailed Deer that darted directly in front of me in the dawn light.
- my granddaughter banded her first bird, a Blue Jay.
- volunteers were so helpful and visiting guests were so appreciative.
- and many more.

It doesn't seem possible. **10,741** birds banded. And, so far, only **2** recoveries. In some ways, I suppose it is just a beginning.

The events and adventures of bird banding at ACNP have filled me with many stories that I will tell repeatedly to anyone who will listen. The team of banders, Virginia, Maggie, Tom and Tony, made my task easier and enriched my days with their camaraderie, humor and freely given support.

BCNA has been the foundation of the Allegra Collister Nature Preserve, part of the persuasion to band birds and certainly a mainstay of the effort. Thank you!

-Joe Harrison

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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:*
 Carol Schott (303-530-9108) and
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- *Indian Peaks Bird Counts:*
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Visit Our Website

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

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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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