



On The Wing

Volume 38, Number 1

Boulder County Audubon Society Newsletter

Jan-Feb 2008

State of the Birds: Can Locally Extirpated Species Be Recovered?

Steve Jones

The Boulder County Avian Species of Special Concern List (Hallock and Jones 1999) includes four breeding species thought to have been extirpated from the county before 1900: Barrow's Goldeneye, Sharp-tailed Grouse, Long-billed Curlew, and Mountain Plover. All four were "edge of range" species that barely made it into Boulder County, and all four were considered rare breeders.

Their disappearance stemmed from a variety of environmental factors, including extirpation of bison, fire suppression, and human disturbance of floodplains grasslands. However, potential nesting areas that were disturbed during the late nineteenth century are returning to a more natural state, and all four of these species still nest within 100 miles of Boulder County. So what are the chances of recovering them locally?

Long-billed Curlew

Long-billed Curlews are occasionally seen in Boulder County during spring and early summer (Boulder County Audubon Society 1979-2007), but the last nesting report is from Gale, who collected several sets of eggs at unspecified locations in 1888 (Henderson 1907). Curlews nest in scattered numbers throughout eastern Colorado, and Colorado Breeding Bird Atlas volunteers confirmed nesting near Loveland (Kingery 1998). These upland shorebirds require mid-grasses for nesting and bare ground or muddy areas for foraging.

Given the proximity of some nesting populations to Boulder

(Continued on page 4)



Curlew at dawn — Steve Jones

BCAS 4th Tuesday Program Series Jan. 22, 7:30 p.m.

Forest Thinning and the Bird Community

Heather Swanson, Boulder OSMP

Forestry practices including thinning and prescribed burning are often used by management agencies to mitigate fire danger along the urban interface, and to return the forest structure to conditions more closely approximating those prior to fire suppression. Locally, both the City of Boulder Open Space and Mountain Parks Department and Boulder County Parks and Open Space have used thinning on open space lands to meet their forest management goals. In studies of breeding bird communities both before and after management, we have determined that forest structure influences the bird community found. This highlights the need to consider bird community management goals in planning future forestry in these and other Front Range forests.

Heather Swanson is a Colorado native and received her PhD from the University of Colorado in Ecology and Evolutionary Biology. Her dissertation research focused on the response of ponderosa pine bird communities to the spatial patchiness of ponderosa pine forest stands. Heather is currently a wildlife ecologist with the City of Boulder Open Space and Mountain Parks Department.

More programs, page 2

Refreshments and Socializing at 7 PM

Program at 7:30

Meetings are held at the Unitarian Universalist Church of Boulder, 5001 Pennsylvania Ave. (west off 55th St. between Arapahoe and Baseline)



BCAS 4th Tuesday Program Series

Presented with support from SCFD

February 26, 7:30 p.m.

**Brown-headed Cowbird Brood Parasitism
in the Urban/Wildland Interface**

Dr. Alexander Cruz

From 1997 to 2004, University of Colorado ecologists monitored more than 950 songbird nests of 16 species that served as cowbird hosts in Boulder open space properties. They found high rates of nest parasitism for some species (Plumbeous Vireo, 54%, and Warbling Vireo, 38%) and surprisingly low rates of parasitism for others (< 1% for Western Wood-Pewee). Cowbird abundance decreased with distance from the urban/wildland interface, and cowbirds used urban areas for foraging and roosting. Results of this ongoing study suggest that nest parasitism by cowbirds may convert forests near urban areas into population "sinks" for some native songbird species.

Alexander Cruz has taught in the University of Colorado ecology department for 35 years. His research projects have been funded by the National Science Foundation, the National Academy of Sciences, the National Geographic Society, and the City and County of Boulder. He has trained and mentored the research of 38 graduate students and more than 300 undergraduate students, earning teaching honors that include the Hazel Barnes Prize, the Briggs Mentoring Award, and the Equity and Excellence Award. A longtime friend of Boulder County Audubon, he has participated in Christmas counts and organized many Front Range bird population monitoring projects.

Special Audubon Program: Saving Piñon Canyon

Cosponsored by Sierra Club Indian Peaks group.

Sunday, February 24, 4 p.m.

REI Boulder store, 1789 28th Street

Citizens from southeastern Colorado have been working valiantly to resist an increase to the size of Connecticut of the Piñon Canyon army maneuver site. This expansion could eliminate much of the Comanche National Grasslands, along with hundreds of thousands of acres of private ranchland. The presentation will provide a brief history of the Piñon Canyon issue — from the original taking of 238,000 acres in 1983 to the current plans of at least 418,000 acres. It will also include an update of the past and current legislation being considered in the state and nationally. There will be many opportunities to ask questions or to volunteer or offer support.

Lon Robertson is director of the Piñon Canyon Expansion Opposition Coalition and a generational rancher from the Kim and Branson Colorado area. He and his wife Anita work and live on the family ranch in the area that was homesteaded in 1916 by Lon's grandfather and grandmother.

Please join us in this important discussion about saving an ecological and cultural treasure.

Coming in March: Carron Meaney, *Preble's Meadow Jumping Mouse: Threatened Status Update and Ways to Construct Mouse-Friendly Culverts.*

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Boulder County Audubon Society

On the Wing — five issues annually:

Jan, March, May, Sept, and Nov.

Next issue:

Deadline for materials for the Mar 2008 issue is Fri., Feb 15. To contact the editor, use the link in <http://www.boulderaudubon.org/newsletter.htm>

How Urgent is Climate Change?

“Having issued their fair and balanced consensus document, many climate scientists now cite oft-overlooked reasons for immediate and forceful action to curb global warming.”

[Science Magazine, 23 Nov 2007, p 1230]

The fourth IPCC report, released on Nov 17, is a synthesis of the results of the working group studies that also incorporates results obtained more recently. Concerns raised by this report prompted more than 200 scientists to submit a petition to the global warming treaty conference in Bali calling for the world to cut in half greenhouse gas emissions by 2050. That is what the scientists believe is required to keep warming below 2° C (3.6° F), which is considered a threshold for more serious consequences.

What has changed since the earlier reports to prompt this sense of urgency?

- Observations in the Arctic in 2007 have shocked the scientists. Not only was there a record ice-free area in the Arctic this year, but the remaining ice has thinned substantially. This has prompted concerns that the Arctic could be largely ice free in late summer in as few as 5 to 10 years.
- Loss of ice from the Greenland ice sheet was 15% above the amount that has been typical recently. Water from melting ice lubricates the base of the glaciers, accelerating the flow toward the ocean.
- Modeling programs don't include this mechanism of ice loss, so the observations have raised concerns that sea level could rise much faster and farther than predicted previously. There is concern that the models also have underestimated positive feedback, in which loss of snow and ice cover enhances future warming.

2007 may prove to be anomalous. However, the consensus is that we have started a process of climate change somewhat like a slow-motion avalanche that will bury us if we do nothing.

The only outcome of the Bali talks was an agreement to continue talking for another two years, with no firm commitments for action. China and the U.S, the two largest emitters, would not commit to any action. As Andrew Revkin says in his article, *As China Goes, So Goes Global Warming*. “China is clearly responsible for the largest wedge of emissions in the future, but the United States is still the biggest roadblock.” (*N.Y. Times Week in Review, Dec 16*)

The IPCC synthesis reports can be downloaded from <http://www.ipcc.ch/ipccreports/ar4-syr.htm>. There are a few quotes from the reports in the next column.

Quotes from the Fourth IPCC Report

Warming of the climate system is unequivocal, as is now evident from observations of increases in global average air and ocean temperatures, widespread melting of snow and ice, and rising global average sea level.

There is *very high confidence*, based on more evidence from a wider range of species, that recent warming is strongly affecting terrestrial biological systems, including such changes as: earlier timing of spring events, such as leaf-unfolding, bird migration and egg-laying; and poleward and upward shifts in ranges in plant and animal species.

There is *high confidence*, based on substantial new evidence, that observed changes in marine and freshwater biological systems are associated with rising water temperatures, as well as related changes in ice cover, salinity, oxygen levels, and circulation.

There is *high agreement* and *much evidence* that with current climate change mitigation policies and related sustainable development practices, global GHG emissions will continue to grow over the next few decades.

Anthropogenic warming could lead to some impacts that are abrupt or irreversible, depending upon the rate and magnitude of the climate change.

Societies across the world have a long record of adapting and reducing their vulnerability to the impacts of weather- and climate-related events such as floods, droughts and storms. Nevertheless, additional adaptation measures will be required at regional and local levels to reduce the adverse impacts of projected climate change and variability, regardless of the scale of mitigation undertaken over the next two to three decades. However, adaptation alone is not expected to cope with all the projected effects of climate change, especially over the long term as most impacts increase in magnitude.

The five “reasons for concern” identified in the TAR are now assessed to be stronger with many risks identified with higher confidence. Some are projected to be larger or to occur at lower increases in temperature. This is due to: (1) better understanding of the magnitude of impacts and risks associated with increases in global average temperature and GHG concentrations, including vulnerability to present-day climate variability, (2) more precise identification of the circumstances that make vulnerable systems, sectors, groups and regions especially vulnerable, and (3) growing evidence that the risk of very large impacts on multiple century time scales would continue to increase as long as GHG concentrations and temperature continue to increase.

(Bold/normal type duplicates emphases in the report.)

State of the birds (continued from page 1)

County, along with the success of recent restorations of Boulder Creek and Saint Vrain Creek floodplain grasslands, it seems likely that Long-billed Curlews will nest in Boulder County in the not-too-distant future. However, continued suburban sprawl on the plains may discourage curlews from residing here.

Barrow's Goldeneye

On July 19, 1886, naturalist Denis Gale saw an adult Barrow's Goldeneye with 3 flightless young on the "upper lake of North Saint Vrain." (Henderson 1907). Twenty-two years later, University of Colorado Museum curator Junius Henderson described this cavity-nesting duck as a "summer resident, perhaps resident, passing well up into the mountains." (Henderson 1908). He mentioned Gale's breeding season observation but no others.

Colorado Breeding Bird Atlas volunteers found nesting Barrow's Goldeneyes at three shallow lakes in the Flat Tops Wilderness, north of Glenwood Springs (Kingery 1998). From 1999-2006, Rocky Mountain Bird Observatory volunteers found several more breeding sites in the Flat Tops (Rocky Mountain Bird Observatory 2007). However, breeding populations appear to be declining, possibly in response to a shortage of nest trees (Rocky Mountain Bird Observatory 2007). Though Barrow's Goldeneyes can lay their eggs on ledges, they probably depend on woodpecker cavities for nesting in western Colorado (Kingery 1998).

The future of Barrow's Goldeneyes in Boulder County may be more closely tied to activities of forest insects than to activities of humans. Infestations of pine beetles, spruce budworms, and other insects, which are driven by climatic conditions, create the dead trees that these ducks may require for nesting. A decade from now, when the conifers killed by our current wave of insect infestations have begun to rot, a family or two of Barrow's Goldeneye's may again grace a remote lake in the Indian Peaks Wilderness.

Plains Sharp-tailed Grouse

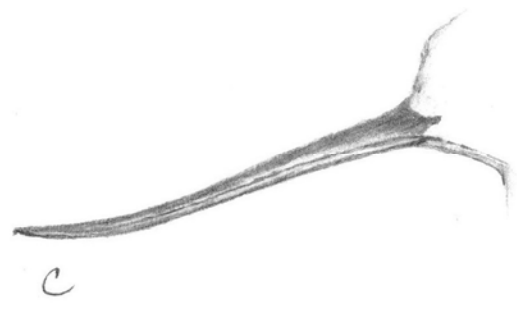
Gale (Henderson 1907) included this species in his list of Boulder County birds and discussed its nesting habits, without specifying nesting locations. Plains Sharp-tailed Grouse nested in scattered populations throughout northeastern Colorado during the late nineteenth century (Kingery 1998). One isolated Front Range population still exists in Douglas County, south of Denver.

A recent effort to reintroduce Sharp-tailed Grouse in the Rocky Flats/Coal Creek grasslands south of Boulder apparently failed. Vegetative cover in Boulder's remnant tallgrass/mixed-grass prairies may not be sufficient to provide suitable habitat for this species, but continued study is certainly in order.

Mountain Plover

The extirpation of free-roaming bison may have doomed Mountain Plovers in Boulder County. Bison herds created the bare ground that these plovers require for

(Continued on next page)



Have some fun and test your birding identification skills with the 3 sketches of bird beaks! (They are not necessarily drawn to scale.) Can you identify each bird simply by its beak? Just to give you a few more clues, a short statement about the bird is also provided. The answers are on page 7.

A) I am a wandering nomad that lives in mixed woods and suburban backyards. I am medium sized with short pointed wings and massive bill.

B) I love to dive to for aquatic plants and crustaceans. The sketch shows me in the breeding stage. I am a male. When flying, both my female counterpart and I have a grey stripe along the trailing edge of the wing.

C) I am such an elegant bird! My bill is thin and upturned. My neck is cinnamon in the summer and grey in the winter.

If you have enjoyed this little quiz, let us know and I will do other quizzes for upcoming editions of "On the Wing".

– Susie Mottashed

(Continued from page 4)

nesting and foraging (Kingery 1998). For a short time during the late nineteenth century, prairie dogs and over-grazing cattle may have created enough disturbance of local prairies to sustain a few Mountain Plovers. The only documentation of their breeding here is again from Gale (Henderson 1907), who discussed their nesting habits without giving specific nesting locations.

Today true shortgrass prairie is hard to find in Boulder County. Sustaining this ecosystem in our relatively wet plains/foothills interface climate requires intensive grazing by ungulates. Without large herds of bison to graze and trample the prairie, we might need a major climate shift, causing our mixed-grass prairies to morph into shortgrass prairies, to restore nesting habitat for this species. Ironically, that climate shift is well underway.

Some people question the importance of restoring extirpated species to Boulder County when these species nest successfully in other parts of Colorado. Besides the Federal Endangered Species Act, there's little protection for threatened vertebrate populations in North America. Since our local environment is the one environment we can control, it would seem foolish and irresponsible to allow birds and mammals to go extinct just beyond our doorsteps.

We are one of the wealthiest counties in North America, if not in the world, and almost half of our county's land is publicly owned. If we can't protect and restore our locally endangered species, how can we expect others to do the same? All of our management plans for all of our public lands should include strategies for recovering extirpated species.

Literature Cited

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- Kingery, H. E., ed. 1998. *Colorado Breeding Bird Atlas*. Colorado Bird Atlas Partnership, Denver CO.
- Rocky Mountain Bird Observatory. 2007. Monitoring Colorado's birds. www.rmbo.org/conservation/mcb.html

Ptarmigan of Boulder County

Instructors: Joyce Gellhorn and Calvin Whitehall

Have you ever seen a ghost? Elusive white-tailed ptarmigan - ghosts of the alpine tundra - are snow white in winter except for their black beak and eyes. Because they roost in snow burrows and blend so well into their environment, they are often difficult to find. The evening slide program focuses on adaptations of white-tailed ptarmigan to their alpine home. During the field class we will visit a favored wintering site on snowshoes in hopes of seeing these ghosts.

Thursday, March 6, 7-9 p.m., indoor class

Saturday, March 8, 8 a.m.-3 p.m., field class: Brainard Lake

Tuition: \$60 (\$50 for BCNA members). Limited to 12 participants.

Equipment: Snowshoes (these can be rented), daypack, binoculars, lunch, and thermos with a hot drink. Recommended reading: Gellhorn, Joyce. 2007. *White-tailed Ptarmigan: Ghosts of the Alpine Tundra* (books available for purchase during first class). To register: Call Joyce at 303-442-8123, or email jggellhorn@mac.com

Note: Boulder County Nature Association offers scholarships to defer part or all of class tuition. For more information, visit www.bcna.org



Mountain Plover – Steve Jones

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BOULDER COUNTY WILDLIFE INVENTORY, AUGUST 2007

Gillian and Alex Brown, 4560 Darley Avenue, Boulder, CO 80305.

August is usually a quiet month for both birds and birders and August 2007 was no exception. This does not mean that there was no bird activity but that it was not obvious. Fall migration was well under way and towards the end of the month large numbers of birds were flying south through Boulder County every night. These can be identified by their flight calls but are rarely noticed. Visual signs were the large influx of hummingbirds throughout the county, the movement of mountain breeding birds, such as **Chipping Sparrow** and **Wilson's Warbler**, on to the plains and the arrival of shorebirds in local ponds.

The most unusual bird of the month was undoubtedly a **Ruby-throated Hummingbird** that lingered for three days at a feeder in Niwot. This is probably a first record for the county as previous records from 1984 have the notation "dubious" alongside the entry. **Calliope Hummingbirds** were reported all over the county and were the commonest hummingbird species on the plains. We heard several comments referring to "baby hummingbirds" presumably by people who noticed the small size of the birds but did not realize that they were looking at a different species. A **Black-chinned Hummingbird** was also reported at the same feeder in Niwot.

Warblers were also on the move with the most unusual sighting being a **Prothonotary Warbler**, a species last seen in 2002. **Townsend's Warblers** were reported in several locations in the mountains; this is a warbler that is typically seen in fall migration. A **Tennessee Warbler** was also a good find. Several species of the shorebirds commonly referred to as "peeps" were reported for the first time this year: **Semipalmated Sandpiper**, **Western Sandpiper**, **Baird's Sandpiper** and **Pectoral Sandpiper**. Of these **Pectoral Sandpiper** is the most unusual in Boulder County.

Ash-throated Flycatcher was one of the less usual flycatchers to be reported. **Loggerhead Shrike** is always a bird that is hard to predict where to be found, but we would normally expect this species to have been seen long before August. Another bird that is normally reported during spring migration but was missed until now is **Clay-colored Sparrow**.

Several birds that were surely present in the county were not reported. Into this category fall **Western Grebe**, **American Coot** and **White-throated Swift**. Altogether 150 bird species were seen in August, a fairly average total for the month. We appear to have had fewer contributors to the inventory than normal.

CONTRIBUTORS TO THE AUGUST INVENTORY

Linda Andes-Georges, Alex & Gillian Brown, Raymond E. Davis, John Dunn, Ted Floyd, Steve Frye, Paula Hansley, Steve Jones, Chishun Kwong, Gene and Lynn Monroe, Sharon Norfleet, George Oetzel, Laura Osborn, Peter Plage, Ira Sanders, Bill Schmoker, Scott Severs, John Vanderpoel, David J. Waltman, Wild Bird Center.

BCAS Education Report: Audubon Adventures Kits

For the 3rd year, BCAS has provided Audubon Adventure kits to teachers of grades 3-6 in the Boulder Valley School District. This year, 20 classrooms received the free kits to use with their students to learn about birds, environmental concerns, habitat conservation and endangered wildlife. The kits were purchased from The National Audubon Society, at a cost of \$47 each, thanks to a grant from the Scientific and Cultural Facilities District of Boulder County.

If you would like to sponsor an Audubon Adventure Kit for a classroom next school year, please contact Mary Balzer, marybalzer@qwest.net, or Maureen Lawry, maureen_lawry@msn.com. We must teach our younger generation to love and care for the natural world. Thank You!

Binoculars for Indonesian Kids

The Animal Protection Institute (API) is teaming up with the Indonesian Parrot Project (IPP) to provide binoculars to Indonesian school children to help teach them that birds are more beautiful wild than caged. The binoculars will be used in conjunction with the educational curriculum provided by IPP to teach the children the importance of conservation and the cruelty of the wild bird trade. 80% of illegally trapped Indonesian birds are traded within Indonesia. These birds, especially parrots, are kept as a sign of wealth and prestige, typically in tiny cages or chained by the leg to a perch. Putting an end to this internal trade in wild birds will require a change in attitudes toward keeping birds captive, along with an increased appreciation for birds in their natural habitat. Despite the diversity and beauty of Indonesian birds, many children have never seen them in the wild. Your donation of new or used binoculars will help take these children bird watching. Please send binoculars to:

Binoculars for Birds
c/o Animal Protection Institute; 1122 S Street
Sacramento, CA 95814

For more information, go to
www.nationalbirdday.com/b_binocs_for_birds.php

Field Trips

Saturday, January 19, 8-11 a.m. Valmont Lakes. Join Xcel Energy senior plant engineer Dave Madonna and Steve Jones (303-494-2468) for a tour "inside the fence" at the Valmont Power Plant. Expect to see thousands of ducks and gulls taking advantage of the ice-free water. Meet at the visitor parking lot at the main plant entrance, off 63rd St. just north of Arapahoe.

Saturday, January 19, 9 a.m. - 2 p.m. Sue Cass, Jim Eide, and Jim McKee will lead a raptor tour for BCNA, Boulder Bird Club, and Boulder County Audubon members. We will meet at Lagerman Reservoir at 9:00 AM and return by 2:00 PM. Please bring binoculars, scopes, field guides, water and a lunch or snack as you prefer. Also radios if you have them. We will carpool to minimize the number of cars in the caravan. Please call Sue Cass (303-494-5345), Jim Eide (303-443-6236), or Jim McKee (303-652-2414) if you have questions about this tour.

Saturday, February 2. Half-day trip to mountain feeder spots to try for rosy finches, grosbeaks, woodpeckers, and crossbills. The trip will end with lunch at either the Millsite Inn in Ward or the Meadow Mountain Cafe in Allenspark. Meet at 8:00a.m. at the Justice Center parking lot at 6th and Canyon. Please contact the leader: Bill Kaempfer prior to the trip in case the weather necessitates rescheduling. kaempfer@colorado.edu or 303-954-8998.

Saturday, February 23rd 7:00a.m. - mid to late afternoon Join John Vanderpoel for a day of touring the Reservoirs and lakes looking for wintering gulls. Meet at the Niwot Park N Ride (Hwy 119 & Niwot Rd). Dress for weather, bring lunch. jvanderpoel@peregrinevideo.com, 303-652-3678.

Saturday, March 8th 7 - 10 a.m. Sawhill Ponds Wildlife Area. Welcome spring with an early morning hike and potluck breakfast at Sawhill Ponds, located off 75th Street between Valmont and Jay roads. Bring something sweet, warm, tropical or passionate to pass around. We should see raptors, ducks, and early-singing songbirds. Leader: Steve Jones
stephen.jones@earthlink.net 303-494-2468



Answers to Quiz on page 4
A) Evening Grosbeak
B) Ring-necked Duck
C) American Avocet

GROCERY COUPONS SUPPORT BCAS

Every time you buy food (or wine or beer), you could be supporting this chapter and its goals of backyard habitat creation, school-room programs for kids, and protection of important bird areas in our own county.

Cards and certificates are used exactly like cash. You are whisked through the check-out line as though you were handing over greenbacks. Every \$100 you spend puts \$5 or \$10 into the BCAS piggybank for our local chapter needs at no cost to you.

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Sharp-tailed Grouse – Steve Jones

Boulder County Audubon Society

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Local memberships are an important part of the support that makes this newsletter and our other activities possible. We get very little return from national memberships.

If you're already a member, check your mailing label for a renewal notice.

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