

Boulder County Nature Association



"The Boulder County Nature Association is a private, non-profit membership organization committed to preserving the natural history of our region through research, documentation, and public education."

Volume 31, Number 1
Winter 2013

SONG OF THE ALPINE: Climate Change and the Resilience of High Elevation Ecosystems

20th Annual Boulder County Ecosystem Symposium
Saturday March 16, 2013
8:30 AM to 2:30 PM
University of Colorado, Ramaley Auditorium

The 2013 Ecosystem Symposium focuses on the environmental responses and adaptations of Colorado's high elevation ecosystems to long-term climate change. The Symposium is entitled *Song of the Alpine – Climate Change and Resilience of Native Ecosystems* in honor of Joyce Gellhorn, an ecologist and educator, who died last autumn. We will lead off with a presentation of some of Joyce's work on White-tailed Ptarmigan, which we're sure people will enjoy. We hope everyone will put this date aside, as it should be another interesting gathering of local research and talent. We hope to see you all there.

Many thanks to the sponsors who make this symposium possible: Boulder County Nature Association, Colorado Native Plant Society, Boulder County Parks and Open Space, City of Boulder Open Space and Mountain Parks, Boulder County Audubon Society and the University of Colorado Boulder. Listed below is a partial list of the presentations. A complete line-up will be announced in January. See www.bcna.org for additional information.

- A remembrance of Joyce Gellhorn, a long-time champion of our alpine ecosystem and author of *Song of the Alpine: The Rocky Mountain Tundra through the Seasons*, *White-tailed Ptarmigan: Ghosts of the Alpine*, and the just released *Aspen Dreams: A Memoir*
- Dr. Bill Bowman on nitrogen deposition and alpine plant community responses
- Thomas Detmer on the effects of high elevation reservoir stocking on fish genetics
- Scott Ferrenberg on the evolutionary forces that influence bark beetle resistance in trees
- Dr. Chris Ray on climate change implications for the American pika
- Dr. Mark Williams on climate change and alpine ecology

The Symposium is free and open to the public. Donations will be accepted for the Boulder County Nature Association's Research Grants program. Don't forget to bring your reusable plate, cup, and utensils for the complementary lunch. Parking is available at the UMC lot on Euclid Avenue and at the CU Recreation Center lot north of the library. Please consider taking public transportation. Several Broadway buses stop near the auditorium.

BCNA Winter Program Bird Count Retrospective with Dr. William Weber

Though best known as the dean of Colorado botanists and founder of the University of Colorado herbarium, Bill Weber has been a birder and naturalist all his life, beginning in the 1930s when he founded the Sialis Bird Club in Bronx Park. He and his young friends were actually responsible for the "Wooden Dovekie" incident of the Christmas Census. His notebooks from those early years have contributed to a new book by Paul Buckley on early birding in the New York City area.

Dr. Weber, now 94, will share stories from those early years. In the spirit of the occasion, we will also discuss results of the 2012 Boulder Christmas Bird Count, conducted on December 16. Copies of Dr. Weber's seminal field guide, *Colorado Flora, Eastern Slope*, will be available for purchase and signing.

Join us on Thursday, January 10, 7 p.m. George Reynolds Branch Library, Table Mesa Drive opposite King Soopers.

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**The Colorado Breeding Bird Atlas:
Birding Mt. Evans**
Sandra Laursen

Two BCNA field trips last summer helped to fill a blank spot in the second Colorado Breeding Bird Atlas by surveying the Mt. Evans Southeast Block. This high mountain block includes subalpine forest and alpine habitats in the heart of the Mt. Evans Wilderness.

On July 5th, 2012, Cathy Comstock, Barbara Hoover, Steve Jones, Jim Knopf, and I hiked up Three Mile Creek, starting at 9000 feet near the south end of Guanella Pass Road. The trail climbed gradually from 9000 feet, crossing the creek repeatedly on log bridges. Wildflowers flourished in moist spots in the coniferous forest and aspen groves. Hermit Thrushes chortled from the hillsides and a fluffy young robin led a merry chase through the brush. We watched a pair of Red-naped Sapsuckers carry food to their nest hole in an aspen trunk, listening to the begging nestlings inside. We documented 24 species and confirmed breeding for six: not a bad morning's work. But with the promise of alpine habitats just beyond what we could reach in a day, we made plans to come back.

On August 3rd to 4th, Steve and I were joined by Linda Andes-Georges and Jean-Pierre Georges for an overnight expedition. Starting from the same trailhead, we hiked in three miles and set up camp at 10,500 feet. We birded the forested slopes, rocky outcrops, and shrubs along the creek before an entertaining game of "hang the bear bag" and bedtime. The next morning we left our big packs in camp for a rapid ascent to the tundra. Bushwhacking through an enormous willow carr yielded new confirmations of sparrows and warblers, plus a rewarding view of Mt. Evans from atop Kataka Mountain. Other highlights included a Horned Lark, Dusky Grouse, and soaring Sharp-Shinned Hawk. A rosy tinge on the tundra showed that fall was already arriving in the high country. Eating a snack in the brisk wind, while delighting in the day's grand vistas and small discoveries, reminded us of past lessons on alpine ecology and how to live heartily from friend and mentor Joyce Gellhorn.

The final tally—with observations by Dale Ball on July 29th—included a respectable 41 species with 14 confirmed as nesting. According to Steve, this 34% confirmation rate is typical for mountain blocks, while 40 to 50% is typical of lower-elevation blocks.

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Message from the Board

Peter D. Kleinman, President

I hope everyone is having a great winter season, despite the appalling lack of moisture and unusual warmth. I had some thoughts about our organization I thought I'd share. We are a little unusual for a non-profit in that we provide such a lovely service for the community, without having to raise fancy amounts of money, largely through dedicated teachers and conservationists whose contributions are received enthusiastically. We have an involved Board of Directors, but no paid staff or executive director, meaning that what we accomplish comes from the efforts of a relatively few people who have largely been there from the outset and put in lots of their own time and effort to make our organization work. It makes for a warm and comfortable group, but it limits how expansive we can be about new projects or ideas.

At a recent Board Retreat we discussed how we might approach local advocacy issues. We would like to see ourselves as promoting educational dialogues and developing well-thought out positions on topics that are current and of general interest. This might involve topics like the management plan for Walker Ranch, the Boulder Reservoir plan, the Eldora Ski Area Expansion, the Southeast Grassland Buffer Plan, prairie dog conservation and relocations plans, and County-wide trail connections, all of which tend to have their controversies and deserve careful thought and research.

We have established a Conservation Committee to oversee the development of position statements and would like to continue to elaborate this idea over the next several months. We want to enhance our connection with and influence on the quality of discussion which occurs in our community. Any ideas and interest you may have in participating would be most welcome, since it all depends on the involvement of people like you in the community. Please consider membership in BCNA and involvement in planning its activities.

We invite you to report your sightings to
www.coloradofrontrangebutterflies.com

BIRDS RESPOND TO HOTTER AND DRIER WEATHER

Dave Hallock

The heat and dryness of spring and early summer in 2012 make one think about long-term trends. You know: climate change. Whether it is truly long-term or not, we appear to be in the grips of something real. The Indian Peaks Bird Counts, now in their 31st year, are showing some signs that could be related to the warming trend, as well as changes in the timing of moisture.

Nesting at Higher Elevations. Increased warmth and aridity could lead to the upward movement of some bird species. We have several species whose upper extent of nesting is found in the montane life zone (up to about 9,000 feet), such as Yellow Warbler and Song Sparrow. A few other species find the lower extent of their nesting range in the upper portions of the montane. You won't find nesting Wilson's Warblers and White-crowned Sparrows much below 8,000 feet. All four of these bird species favor riparian habitats, particularly willow thickets, for nesting. Yellow Warblers appear to be "replaced" by Wilson's Warblers in the subalpine, while White-crowned Sparrows replace Song Sparrows at higher elevations. These four species and their overlap in the upper montane could provide some clues about the impacts of higher temperatures.

When comparing the first ten years of the Indian Peaks Bird Counts (1982 to 1991) with the last ten (2002 to 2011) a change in abundance of these four bird species in the upper montane comes to light. Yellow Warblers have more than doubled in number, while Wilson's Warblers have declined by about 25%. Song Sparrows have increased by almost 60%, while White-crowned Sparrows have declined by about half. So the species at the upper end of their nesting range, Yellow Warbler and Song Sparrow, have been increasing in the upper montane, while Wilson's Warbler and White-crowned Sparrow, both at the lower end of their nesting range, have been losing ground. This is what would be expected with a warming trend: the upward movement of species.

Quantum Leap. Then there is the dramatic upward shift, what I call a "quantum leap." During four of the past six years we have found a few Song Sparrows in willow thickets at 10,000 feet elevation, having never recorded them at these higher sites in the previous 25 years during the breeding season.

The quantum leap experience really gains momentum with two other species, Brewer's Sparrow and Sage Thrasher. Both of these species favor

sagebrush habitats, like those found in North Park or on the Plains. From 1982 through 1999, we rarely saw either species on the count, and when we did it was in July and assumed to be "post-breeding" movement. Beginning in the year 2000, we started detecting a few of both species in krummholz habitat (the stunted trees and willows found at treeline around 11,500 feet) during mid-June. Then the year 2002 hit: the hot, dry, wildfire-prone year that is constantly being compared to 2012. Brewer's Sparrows and Sage Thrashers were everywhere in the krummholz: on the flanks of Bald Mountain, Niwot Ridge, Mt. Audubon, even around the 4th of July Mine on the trail to Arapaho Pass. But what were they doing there? Were they nesting, or had they abandoned nesting in the sagebrush due to the heat and drought?

There was another issue with Brewer's Sparrow. There is a race of Brewer's Sparrow called the "timberline sparrow" found in Alaska, Canada and Montana, that favors krummholz and stunted willows around treeline. Could these be them? One way to find out was to get a recording of their song. There is a slight difference between the two races that can show up in a sonogram, a visual pattern of the song. I borrowed a parabolic dish and recorder from BCNA and went up to the west flank of Niwot Mountain and got a recording. It was sent off to a researcher in Montana who specializes in timberline sparrows. He concluded that it was not the timberline race.

(continued on page 4)



Brewer's Sparrow, photo by Bill Schmoker

Hotter and Drier, continued from page 3

We continued to go up and observe the behavior of the birds. They appeared to be in pairs that stayed around the same clump of willows. But we were skunked when trying to find a nest or observe fledged young. The "Brewer's Sparrow/Sage Thrasher krummholz invasion" declined in the years following 2002, except for a slight peak in 2006, and after 2007 was virtually absent, with only a few montane sightings. A dry spring seems to be part of the pattern for their arrival.

Which brings us to 2012 and another dry, warm spring. All the ingredients were there for the return of these two species. In mid-June I ventured up to the flanks of Bald Mountain, and they were back! Not just back, but in numbers that exceeded 2002. A few days later I went to the Mountain Research Station and found the same thing, clusters of several male Sage Thrashers singing their heads off. In different pockets of willows Brewer's Sparrows were singing. Mike Figgs and Nan Lederer had both species on Mount Audubon. Linda Andes-Georges and Jean-Pierre Georges found Brewer's Sparrows on Niwot Mountain, including a fledged young.

So, are we observing part of the future relative to climate change? The gradual upward movement of some animals and the quantum leaps of others will be interesting to watch in the years ahead. Such questions illustrate part of the value of returning to the same places over long periods of time.

SNOW BIRDS

From all appearance, many northern birds are excited by snow, especially that of the first snowstorm of the year. Both ravens and ptarmigan then become visibly animated, rolling, sliding, and bathing in the fluff when it is not yet packed. Owls, crows, finches, tits, and kinglets also bathe in snow.

Bernd Heinrich, *Winter World: The Ingenuity of Animal Survival*



Black Rosy-Finch, photo by Carol McCasland

TREASURER'S REPORT

September 1, to December 15, 2012

Howard Witkin

You will have to excuse the lack of information on my part. I became treasurer on August 31, 2012, and am trying to comprehend all of the financial facets of the organization. One of the aspects of being treasurer is to give a concise and accurate report of the financial condition of the organization. To this point it would be prudent to have a CPA review the financial statements prior to submitting them to the organization, and up until now we have not been able to identify such a person. The information being submitted has not been reviewed by the Board or a CPA which may result in the need for changes. I apologize for any errors that may have occurred and hopefully before the annual meeting we will have a fully reviewed financial report.

There were a couple of issues that I felt needed to be changed for the benefit of future treasurers and the organization as a whole. The first was to find a local insurance agent and company; our coverage is now with State Farm. We have also been able to save money from our previous coverage. The second issue was to change to a bank that had multiple locations throughout the county. We are now in the process of moving all of our accounts to First Bank which fulfills this requirement.

One of the pressing issues that needs to be addressed is a budget for the short and long term. At the present our income for the year is nearly \$15,000 and we should have a net positive income, but it will be small. My immediate concern is with the revenue generated by Book Sales that accounts for 21.2% of our income. We still have dues coming in which will change this figure, but it is still a significant portion of our income, and according to Steve Jones our book sales income will drop off next year.

At the present we have in excess of \$11,000 in the combined checking accounts. Due to the length of the entire financial report it is not included here but is available to all members. If any member would like a copy please contact me directly.

Connect with nature:
nature-net-subscribe@yahoo.com

**BCNA's Annual Meeting
February 2, 2013**

BCNA's Annual Meeting will be held at 6:00 PM on Saturday, February 2nd at the Arapahoe Ridge HOA Clubhouse, 1750 Powell Street in Erie, the same location as last year's gathering. Information on our program speaker and topic will be announced on Nature Net and on our website, www.bcna.org.

As is usually the case, a potluck supper will be followed by announcements and elections to the Board of Directors. Please bring your own drinks and a main dish, side dish, salad or dessert to share and, in the interest of our environment, bring your own table service and serving utensils.

To reach the Arapahoe Ridge HOA Clubhouse drive east on Arapahoe Avenue to North 111th Street (the first light east of US HWY 287), turn left (north) on North 111th Street to your first right at Morris Court, then immediately left on Hughs Drive to Powell Street (second stop sign). Turn left on Powell (you will see a large park, pool and the clubhouse on the left), a short distance to a circular drive and the entrance to the clubhouse on the left. A large parking lot is immediately south of the circular drive. Drop-offs may be made at the entrance to the clubhouse from the circular drive, but no parking is allowed in the driveway. All are welcome!

Call for Board Nominations

In preparation for our Annual Meeting on February 2nd, 2013, the Nominating Committee is now calling for nominations for at least two openings on the Board of Directors. As our organization has matured, it is an especially important time to encourage new ideas, lots of energy, and a younger generation of leaders to reflect the needs of the future in conservation, ecosystem education, and citizen research opportunities. We are especially interested in engaging younger people to participate actively in the future of our organization. Please send any nominations or questions about the process to Peter Kleinman or Sue Cass.



Sun-dappled Three Mile Creek
Photo by Sandra Laursen

Mt. Evans, continued from page 2

Personally, I am grateful for loans to replace damaged binoculars and forgotten socks (*sheesh!*) and valued the chance to improve my skills in detecting nests, recognizing fledglings, and identifying skulky sparrows.

Atlas II will update the original Colorado Breeding Bird Atlas, initiated in 1987. The Atlases compile data on the distribution, abundance, habitat use, and nesting habits of birds breeding in Colorado. Such data aid wildlife managers and ecologists statewide in making decisions on land management practices. Numerous BCNA members have surveyed other Atlas blocks, assisting a massive volunteer effort of over 44,000 survey hours that has so far documented over 260 species of birds nesting in the state.

For more about Atlas II, visit <http://www.cobreedingbirdatlasii.org/>

To explore Atlas II results, visit <http://bird.atlasing.org/Atlas/CO/>

For more field trip photos, visit <http://sandra-l.smugmug.com/Travel/Hiking> (2 galleries)

**Dangerous Strangers on Your Property?
BCNA to Participate in Myrtle Spurge Eradication**
Megan Bowes and Steve Jones

Boulder County Nature Association has been asked to partner with Wildlands Restoration Volunteers (WRV), the Boulder County Audubon Society and the Colorado Native Plant Society in an effort eradicate the “List A” noxious weed myrtle spurge (*Euphorbia myrsinites*). Also known as donkey tail spurge, this plant is an escaped, low-growing ornamental that was once touted as a hardy xeriscape species, but that is now designated for statewide eradication by the Colorado Department of Agriculture.

Plants are blue-green and succulent, producing chartreuse flowers in early spring, followed by seeds that can project up to fifteen feet away from the mother plant. This mechanism has allowed myrtle spurge to readily escape

gardens and invade sensitive ecosystems where it out-competes native vegetation and reduces wildlife forage. The whole plant contains a toxic, milky sap which can cause severe skin irritations and is poisonous if ingested. Restoration and landscape alternatives to myrtle spurge include native plants such as sulphur flower (*Erigeron umbellatum*), kinnikinnick (*Artocostaphylos uva-ursi*), and creeping mahonia (*Mahonia repens*).



Four Mile Canyon resident Cyndra Deitz has mapped myrtle spurge populations along the roadsides immediately west of Boulder. She approached BCNA and the other partners recently about organizing a volunteer weed pull to help remove this species on private property, where the landowners may not have the resources to do so themselves. Depending on the need, volunteer efforts could be extended to target land managed by Boulder Open Space and Mountain Parks or other municipalities in 2013 and beyond.

Since myrtle spurge spreads mainly by seed, it is very important to prevent seed production and deplete the seed bank, which can remain viable for eight years. Thus, the partners recognize we will need to continue our efforts for multiple years to achieve success. This approach models WRV’s tremendous success in helping eradicate many of Boulder’s Mediterranean sage populations. They were also influential in aiding Boulder County in the Fourmile Canyon Fire restoration efforts—work which also largely targeted private lands.

BCNA Board of Directors

President.....Peter Kleinman 303-554-5320
Vice President.....Scott Severs 303-684-6430
Treasurer.....Howard Witkin 303-789-4950
Secretary.....Sue Cass 720-684-6922

Megan Bowes 303-561-4883
Steve Jones 303-494-2468
Janet McLachlan 303-746-3619
Steve Ponder 541-822-3248
Terry Stuart 303-449-2232

Committees and Contacts

- *Avian Species of Special Concern:*
Dave Hallock (dheldora@rmi.net) and Steve Jones (curlewsj@comcast.net)

- *Conservation*
Steve Ponder (541-822-3248)

- *Ecosystem Stewardship:*
Steve Jones (303-494-2468)

- *Education:*
Carol Kampert (303-499-3049)

- *Indian Peaks Bird Counts:*
Dave Hallock (303-258-3672) and
Bill Kaempfer (303-954-8998)

- *Membership:*
Janet McLachlan (303-746-3619) and
Terry Stuart (303-449-2232)

- *Newsletter:*
Dianne Andrews, content editor (303-823-6779)
Carol McCasland, layout (303-635-6433) and
George Oetzel, support (303-543-3712)

- *Publications:*
Sue Cass (720-684-6922)

- *Research Grants:*
Peter Kleinman (303-554-5320)

- *State and Regional Wildlife Issues:*
Peter Kleinman (303-554-5320)

- *Website:*
George Oetzel (303-543-3712)

- *Wintering Raptor Survey:*
Sue Cass (720-684-6922)

WRV is actively developing their 2013 project schedule and hopes to organize the myrtle spurge pull sometime next spring, possibly in conjunction with Earth Day. Check the BCNA and WRV websites (<http://bcna.org> – click on Volunteer Opportunities and <http://wrv.org> -- click on Projects and Trainings) for updates and to secure your spot on the team.

WINTER CALENDAR

Tuesday, January 22, 7:15 pm, Unitarian Universalist Church of Boulder, 5001 Pennsylvania Ave, **Swift Fox Family Life**. Nancy Stocker will share her photographs and observations of swift foxes in eastern Colorado and will discuss historic changes in Swift Fox populations and current conservation concerns.

Tuesday, February 26, 7:15 pm, Unitarian Universalist Church of Boulder, 5001 Pennsylvania Ave., **The Trumpeter Swan: Back from the Brink, A Restoration Success Story** presented by Dave Olson, Migratory Game Bird Coordinator for the U.S. Fish and Wildlife Service.

Sunday, March 3, **Ski and Snowshoe Tour of Hessie Area**. Steve Jones will lead a 3-hour ski or snowshoe tour of the Hessie area, where the Eldora ski area is proposing a significant expansion. We'll look for seed-eating birds along the way. Meet at 8:00 am at the Settlers Park parking area, Third and Canyon. Lunch at Kathmandu afterwards, with return to Boulder around 2:00 pm. Contact Steve at curlwsj@comcast.net or 303-494-2468.

Saturday, March 23: **Spring Welcoming Breakfast Hike at Sawhill Ponds**. Meet at 7:30 am at the Sawhill Ponds parking area (west of 75th St. between Valmont and Jay roads). Bring something warm and nutritious to share in a potluck picnic beside Boulder Creek. Expect to see ducks, raptors, and early-singing passerines. Return around 11:00 am. Contact Steve at curlwsj@comcast.net or 303-494-2468.

Call for Research Proposals 2013

The Boulder County Nature Association has supported research grants for many years that deal with the natural history of Boulder County. Grants are available in two categories again this year. First, the Evenson Memorial Grant offers up to \$400 and supports research on our native cats. Second, general BCNA grants up to \$1000 (or more if funds allow) fund projects that increase our understanding of the natural history of Boulder County or document the County's ecosystems.

Proposals should include a detailed methodology and a complete budget and be limited to five pages. No institutional overhead will be allowed. Successful applicants sign a contract specifying they will complete the project in 2013 and share results with the Nature Association. We ask for electronic submission of a final report. Applications should be submitted by Saturday, March 15, 2013, either to BCNA, P.O. Box 493, Boulder, Colorado 80306, c/o Peter Kleinman, Chairman, or by e-mail to peterk218@gmail.com.

Board of Directors Retreat 2012

Sue Cass

The BCNA Board of Directors met on October 21, 2012 for an all day retreat with several goals in mind. One area of deliberation was the streamlining and updating of various Board and committee functions, focusing primarily on banking and insurance issues and the operations of the Membership and Education Committees.

It was agreed BCNA would benefit from the ability to process credit and debit cards for the payment of memberships and to support the sale of popular BCNA publications, an ability we have not previously had. BCNA Treasurer Howard Witkin researched and identified a local insurance carrier who has underwritten our required coverage at half the previous cost. Membership Committee Chair Janet McLachlan proposed and the Board adopted mechanisms that support the goals of future electronic communication with the membership and better tracking of membership trends.

Education Committee members and others will meet soon to discuss the recruitment of a new generation of instructors for BCNA classes and improving and simplifying the process for collecting tuition and reimbursing instructors. A goal of attracting new and younger members was discussed and it was agreed we would benefit from a second all membership meeting held during the summer months. Watch for announcements about a meeting and potluck picnic this summer, where we will examine the implementation of The City of Boulder Parks and Recreation Department's new Boulder Reservoir Management Plan and its impacts on wildlife in the area.

Our new Conservation Committee will research important conservation and environmental issues with the goal of developing informed and consensual advocacy positions that support BCNA's overarching mission statement. Through this process BCNA expects to establish and renew relationships with the staffs of the City of Boulder Open Space and Mountain Parks, the City of Boulder Parks and Recreation Department, Boulder County Parks and Open Space, and other supporting organizations, as we provide counterbalance to the advocacy of recreational groups. A preliminary list of issues has been developed, as outlined in *Message from the Board* on page 2. If you have interest or expertise in these or other issues and would like to participate in the process, let us know.

Support the Boulder County Nature Association

Name _____

Address _____

Phone and/or E-mail (optional) _____

Type of Membership:

_____ Student/Senior (65 or over)	\$15
_____ General Member	\$20
_____ Family or Household	\$30
_____ Supporter	\$40
_____ Founder	\$100
_____ Life Member	\$300
_____ Corporate	\$500
_____ Donation to General Research Grants	
_____ Donation to Evenson Big Cat Research Grants	
_____ Donation to General Research Fund	

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