Allegra Collister began banding birds in a small gulch north of Boulder in 1959. Since then, a small group of volunteers have continued the effort; over 10,000 birds and more than 180 species have been banded or sighted in this small gulch, only a quarter mile long and 300 yards wide. In 1992, James Guercio (of Caribou Ranch fame) donated a Conservation Easement to BCNA, along with a gift of money to support the project. The easement covered the area historically used for bird banding by Allegra Collister and BCNA volunteers. The Allegra Collister Nature Preserve came into being. In 2011, the Conservation Easement was transferred to Boulder County Parks and Open Space. Bird banding continues each spring with Maggie Boswell, a licensed bird bander, and a small group of volunteers. This banding is done under the aegis of the national Bird Banding Laboratory and Maggie is a sub-permittee under the Master Permit of the Bird Conservancy of the Rockies.

Maggie has been banding there for nineteen years. Her fellow volunteers, Renee Haip and her son, Joel Such, and sometimes others, join her there three times a week each season. And they kindly invited a few of BCNA's board members to visit this small, but long-standing, operation on a recent October day.

We were given directions to locate a mailbox on a road near the foothills, and park in the small pull-out. Joel met us at the road and led us through a gate along a brush-cutter mown path down into a small gulch. We crossed a little stream full of duckweed on some pallet-like wooden "bridges" and climbed up the other side. His radio crackled as he told Maggie we were there. First, he led us down the west/east-running gulch to another path down to a 12-meter long mist net strung along the stream over another neatly mown strip. Nets are placed where high capture rates are likely; along a stream, near a spring, or where vegetation is dense. Here a White-crowned sparrow hung quietly, a young male we would come to learn. Joel gently untangled the surprisingly calm bird from the net and slipped it into a cotton bag, cinching it by a ribbon sewn in at the top. A bit of autumn breeze brought down numerous yellowing leaves into the net, which he carefully removed. They make the net more visible to the birds, who will then avoid it.

As we came back up to the main trail we met Maggie returning from more nets farther down the gulch. She carried her own two little precious bags and we returned to their table back beyond the entrance trail to the west.

The station consisted of a single picnic table, covered by corrugated fiberglass panels on a roof-like frame, hidden among the shady shrubbery. An outdoor thermometer was mounted on the roof frame in easy sight. Poles to push the nets up hung from hooks in the frame. A toolbox of bands and tools sat on one end. Other tools were spread out on the table—a pair of bent nose micro pliers or band openers, a leg gauge to measure which size band to use, five-hole band crimping pliers to fit the different band sizes, a wing rule, boxes of different sized bands, and a scale with short lengths of various sizes of PVC pipe. There was a notebook of gridded pages to enter data, and a book of detailed descriptions of different bird species. Nearby sat the brush-cutter and extra rebar and long lengths of aluminum pipe like the ones holding up the nets.

Maggie and Joel hung their bird bags on hooks under the roof above the table and quickly began to “process” each one. A Yellow-rumped warbler was gently removed from the first bag. Joel used the “bander’s grip” to carefully hold the bird by grasping it from behind, with his first two fingers spread on either side of the head. The bird was calm and quiet.

Continued on page 2
He used the leg gauge to measure for the correct band size and opted on a 1A. Still holding the bird in his left hand, he pulled a wire string of bands from the 1A box and, prying it apart with the bent nose pliers, removed the first one, reading the number to Renee, who recorded both the size and the band’s unique number. Then, using the crimping tool, he placed the band around the bird’s leg and tightened it, being sure that the ends of the band did not overlap, but were end-to-end, that it was nice and round, and moved freely along the bird’s leg. One thing that can sicken a bird, he said, is a staph infection called pododermititis, or “bumble foot”, that causes swelling in the legs and feet. They do not band a bird with this condition.

Once the band was attached and recorded, he blew the breast feathers apart to observe the amount of stored fat on the bird in a depression on its breast, the furculum, where the throat joins the body. Contour feathers (those on the surface) don’t grow uniformly across the skin of most birds, but in distinct patches called “tracts.” Blowing on the breast feathers to part them along their natural tracts, he could easily see the yellowish or orangish masses of body fat contrasting with the burgundy-colored muscular areas. Experience and practice gave him a sense of the depth of an empty furculum. He told us that a hollow full of fat could even bulge out a little. “One fat,” he called out, as Renee recorded that on the grid.

Next he measured the wing chord, or unflattened length of the wing feathers. He measured the longest remex, or flight feather of one wing, with a ruler that had a 90-degree bend at the top against which the curved “shoulder” of the wing could rest, and then the longest rectrix, or tail feather (plurals – remiges and rectrices). He spread the tail to look at the shape of the feather ends, which can indicate age or sex.

Aging and sexing are important pieces of data to record, if possible. Many criteria can be used. Feather condition (wear and color), feather length or shape, plumage coloration or patterning, length of a crown patch, presence of a brood patch or cloacal protuberance, “skulling”, and molt limit.

All passerines (perching birds) undergo an annual complete molt called the prebasic (or postnuptial) molt. Baby birds, covered in down, go through their first cycle in the nest, a complete molt called the prejuvenal molt, in which all the flight feathers grow simultaneously. These are structurally weaker than feathers grown in sequentially in later prebasic molts and have a coarser look than the denser and smoother formative or basic feathers grown later.

Molt limits are the boundaries between replaced and retained feathers, resulting from partial or incomplete molts. With an understanding of a given species’ molt pattern, a bander can recognize differences between two generations of feathers among flight feathers or coverts.

The bird’s wing is spread to look for these differences.

Slate-colored junco - A fairly common HY (hatch year) molt pattern, with the primary coverts and outer two greater coverts unplaced and brownish, contrasting with the fresh gray basic inner greater coverts.

Among other reliable tools for aging passerines is “skulling” or, determining the degree of ossification of the skull. As with humans, the skulls of young birds take several months to develop. As the bird matures, a second layer of bone forms underneath the first and thin columns of bone form pillars between the two layers that appear as small white dots. The feathers are usually wetted and parted to look for these dots.

If a bander is not 100% certain of a bird’s age or sex, they do not guess, but record it as “unknown” and move on to the next bird. This approach protects the reliability of the data.

After all the previous measurements and observations were recorded, the bird was placed head-first down into the appropriate sized PVC tube for weighing, and then released. The idea is to band and gather all this information as quickly, quietly, and carefully as possible and release the bird unharmed, having endured minimal stress. A skilled bander can process a bird completely (including ageing, sexing, and measuring) in about a minute.

But this is not all there is to do. Once set, the mist nets must be checked frequently, usually every 20-30 minutes. Nets are “closed” (pushed up, together, so they are more visible to the birds, or furled and tied) when weather is too windy or rainy to protect the birds. A good day at this station may yield 40 birds, while 80 would be really busy.

Continued on page 7
Letter from the President
Sue Cass: suecass@comast.net

As is usually the case, your BCNA Board of Directors has been very busy this quarter and the following is a quick rundown of some of the projects on which we have focused our attention on your behalf!

- The 35th annual BCNA Wintering Raptor Survey got under way in mid-October with a training for new volunteers. We welcome all to the BCNA family and thank you for your support of this important, long running research project.
- Included in this issue is the 2018 schedule of classes that will be offered next spring and summer which includes a fascinating array of subjects taught by several instructors who are new to the BCNA education program. Education Committee chairperson, Mary Stuber, and her committee have reached out to a broad spectrum of educators and naturalists across the Front Range who have generously offered their services for the edification and enjoyment of our membership. This is one of the most diverse class schedules BCNA has put forth, so check it out and thank you to Mary and those instructors who make BCNA's mission to "educate, inform and inspire" a reality!
- BCNA is supporting the valiant efforts of the Save Our St. Vrain Valley group which appropriately uses the acronym S.O.S.V.V. to represent their cause. If you're not familiar with this issue, Martin Marietta is attempting to activate an old permit it pulled twenty years ago to mine sand and gravel on St. Vrain Creek east of Lyons that it failed to execute during the interim two decades.
- Needless to say, conditions have changed considerably since Permit SU 96-18 was issued, including more residents living in the affected area. Notably, a beloved pair of Bald Eagles that nest within the permit perimeter. If allowed, the amount of material that will be transported out of area by train and by truck will be staggering according to Martin Marietta’s operational plan. The impacts to wildlife and the environment and the sanity and property values of those living in the area will also be staggering and reversal of the permit is paramount! Help us make this happen!
- In recent months, the BCNA Board of Directors has invested a considerable amount of time and attention to updating and modernizing our organization’s bylaws. For a thorough review, you can access both the current bylaws and the proposed changes at http://bcna.org/about.html. The vote to approve will take place at the annual meeting, so be sure to do your homework in advance!
- The BCNA Board of Directors and the Ecosystem Committee are in the initial phase of planning next year’s symposium which will be held at the University of Colorado Sustainability, Energy and Environment Community (SEEC) facility on the East Campus on Saturday, March 17th, 2018. Save the date and if you would like to help shape and guide BCNA’s community outreach efforts let us know. Your succor and support will be most appreciated!

BCNA Annual Meeting and Elections
Mark your calendars!

The BCNA annual meeting, potluck supper and elections will be held at:

6:00 PM on Saturday, February 24, 2018
Arapahoe Ridge HOA Clubhouse,
1750 Powell St. Erie

Bring a main dish, salad or dessert to share and don’t forget your table service, serving utensils and drinks. After dinner we will elect four (4) new at-large members to the Board of Directors, the most in a single election in recent memory, and vote to amend the BCNA by-laws. The speaker has yet to be determined and will be a surprise! All are welcome!
Colorado Parks and Wildlife, Future of Hunting, Fishing and Outdoor Recreation, Summary Report on Public Outreach Efforts, Summer and Fall 2017,

Background: BCNA is part of the CPW Wildlife and Habitat Roundtable. One of the objectives of the Roundtable is to comment on State options, and develop additional options, to generate additional revenue to enable CPW to accomplish its mission as stewards of Colorado public lands. Current revenue sources, including hunting and fishing fees, are not sufficient. Once options are identified and vetted, they are incorporated into draft legislation, which may fail or pass. At this point, the Roundtable has not completed its task of developing and evaluating all options, but the State may proceed to develop legislation during 2018 to obtain passage of some options. Additional options developed could be included in future legislation.

CPW Report Conclusion: In 2015, CPW started an extensive outreach program to capture the interests of Colorado sportspeople and outdoor enthusiasts. After the failure of H.B. 17-1321 in spring 2017, CPW continued to reach out to the public to gather input and share the story of how additional revenue would benefit the management of Colorado’s outdoor recreation resources through CPW. The 2017 public outreach efforts demonstrate that the majority of the public engaged in these recreation and conservation efforts support concepts presented to increase CPW’s revenue and avoid budget shortfalls.

Public input is a vital component of the decision-making process at Colorado Parks and Wildlife. The programs supported by CPW’s users ensure a bright future for the wildlife and park resources of the state. Looking ahead, CPW is considering all public opinions received to help inform concepts for a revised legislative proposal to support the future of hunting, fishing and outdoor recreation in Colorado. Once CPW is aware of whether there will be a bill in 2018, staff will inform interested public and share updates throughout the winter and spring.

Please email: dnr_cpw_planning@state.co.us if you are interested in receiving updates.

Link to obtain additional details, including specific revenue concepts being considered: http://cpw.state.co.us/Documents/Financial-Sustainability/CPWFutureOutreachSummary017.pdf

The Colorado Tax Return Checkoff to Support Colorado Wildlife

Please consider helping threatened and endangered wildlife with a voluntary contribution through the “nongame and endangered wildlife cash fund” on your Colorado tax returns this year. Filling out line No. 1 of Colorado tax form 104CH (the Voluntary Contributions Schedule form) supports wildlife rehabilitation and preservation of threatened and endangered species in the state through Colorado Parks and Wildlife programs.

http://cpw.state.co.us/tax-checkoff

The Boulder County Nature Association Request for Grant Proposals

Application deadline: Friday, February 1, 2018

(BCNA) is a private, non-profit membership organization committed to preserving the natural history of our region through research, documentation and public education. BCNA is pleased to offer research funding by giving small grants for projects consistent with our mission.

Grants are available in two categories:
The Ken Evenson Memorial Grant, up to $1500, is available specifically for research on our native cats (mountain lion, lynx, and bobcat). One grant may be awarded annually.

General BCNA grants, up to $3,000, fund projects that will add to our understanding of the natural history of Boulder County or will augment the existing documentation of the county’s ecosystems.

More information about grant applications and requirements at:

http://www.bcna.org/
We're pleased to introduce several instructors new to BCNA this year. First is Chris Brown of Chris Brown Photography, a familiar participant in Boulder’s Open Studios with his jaw-dropping photographs and prints of the American West. Chris says, “My life has been a love affair with the Earth… It is our Garden of Eden – and it is the only one we have. If I could do one thing in this life it would be to help people see what a beautiful and delicate place this Earth is.” Join him for Photography: Technique, Philosophy, and Practice as he shares the essentials of the art and craft of photography You’ll receive individual coaching, followed by an invaluable review and critique.

I’m so pleased to introduce another new instructor who’s not at all new to her subject. Sue Riffe, owner of She Flew Birding Tours and board member of Colorado Field Ornithologists, offers two classes – Foothills and Montane Bird Identification: Visual, Vocal, and Habitat Clues. Sue is an ear-birder “extraordinaire.” If you’ve resisted learning bird songs, once you’ve been in the field with her, your estimate of its value as a tool will skyrocket. Unlock your birding potential. Sighting possibilities are endless when you travel with this gifted and accessible teacher. Sue will show you how to do for yourself what she does.

Get down and dirty with Jennifer Ackerfield, another of our new instructors. If you have been waiting for a class on plants, you may already know her as the author of Flora of Colorado. Originating from keys she made for her students at CSU, where she is assistant curator at the Herbarium and teaches Plant Identification and Grass Taxonomy, she “wanted to create a Flora that nearly anyone with a little bit of botanical knowledge could pick up, use, and key out a plant with confidence and success.” She leads field trips for the Colorado Native Plant Society, Crested Butte Wildflower Festival, and the Colorado Native Plant Master Program. She offers Aster, Brassica, and Grasses because, if you know these three plant families (asters, mustards, and grasses), you can identify one of every eight plants in the world!

Rounding out our newest instructors, we’re delighted to bring you Roger Myers with Lost Worlds Underfoot: Looking Back at 300 Million Years of Boulder’s Geologic History. Boulder’s unique present-day land features provide insights into what has happened in this place we call home and what it looked like eons ago. Roger will bring those ideas into focus for those who suffer from geologic myopia.

If you are so afflicted, don’t be “petrified.” Come get a clear look at what you’ve been missing.

We’re equally excited to have several past instructors back. Two introduce brand new classes and two have new takes on past favorites.

If you were lucky enough to enjoy Jennifer Frazer’s personality and knowledge of the obscure at BCNA’s October White Rocks event, where she turned unsuspecting hikers into lichen aficionados, or if you forayed for wild mushrooms with her in August, you’ll be glad to hear that she is teaching The Surprising and Beautiful World of Lichens. “These fascinating communities of organisms … can live in places most other life fears to tread.” A 10X hand lens gives you a glimpse down the rabbit hole, to a world rarely noticed, wonderous, and surreal.

We’re happy to welcome Paula Hansley back with Warblers of the Front Range just in time to look for spring migrants. I spent last spring in NYC’s Central Park looking for these small, active birds and can attest that knowing a bit about their songs, habitats, and where to look in the canopy will greatly increase your chances to spot these lovely “ornaments” of the forest.

Steve Jones returns with a new rendition of Grasslands Ecology. After an introduction to this unique ecosystem, we’ll camp under a full moon on the shortgrass prairie of northeastern Colorado in a remote part of Pawnee National Grassland. Later, we’ll explore a mosaic of native grasses closer to home. Participants can rendezvous with Steve in the Nebraska Sandhills in late summer/fall to experience that incomparable sea of grass as well.

Amy Yarger, Horticultural Director of Butterfly Pavilion and Colorado Native Plant Society board member, will offer Butterfly Habitats in Front Range Ecosystems. She’ll help us understand how to support and attract our native butterflies by attending to their specific needs around shelter as well as larval host and nectar plants. On visits to both manmade and natural butterfly habitats, she’ll explain how habitat diversity and structure affects different species and how seasons plays a role in what we’re likely to see.

What every wise naturalist knows – Pull your 2018 Ecology Field Class Schedule out of this newsletter and keep it with your day-planner to remind you of important registration and class dates. The brochure tells you exactly when enrollments open for the classes you want. Jot them down in your calendar. We’ll remind you, too, on Nature-Net. We hope to see you in class.
BCNA BOARD OF DIRECTORS
President Sue Cass 720-684-6922
Vice-President Megan Bowes 303-561-4883
Treasurer Claudia Van Wie 303-494-2250
Secretary Peter Kleinman 303-554-5320
Kerrie Bryan 303-834-8151
Viki Lawrence 303-913-2534
Vicki Braunagel 303-746-6039
Cindy Maynard 720-203-8211
Mary Stuber 303-720-9547

BCNA COMMITTEES
--Conservation (chair position open)
--Education Committee
Mary Stuber, Chair 303-720-9547, Megan Bowes, Vicki Braunagel, Mary Ann Hartigan, and Bev Postmus. Sue Cass-ex officio member.
--Ecosymposium Committee
Claudia VanWie, Chair, 303-494-2250, Sandra Laursen, Tim Seastedt, Viki Lawrence, Karen Hollweg, Deborah Price, Linda Andes-Georges, and Sue Cass
--Publications Committee
Sue Cass, Chair 720-684-6922; Steve Jones, George Oetzel, Lysa Wegman—French
--Research Grants Committee
Looking for a new Chair person
Peter Kleinman 303-554-5320; Megan Bowes, Kerrie Bryan, Viki Lawrence
--Finance Committee.
Treasurer Claudia Van Wie 303-494-2250
--State and Regional Wildlife Issues
Gerry Kelly, 720-839-5210

BCNA RESEARCH PROJECTS
--Allegra Collister Bird Banding Project
Maggie Boswell, Coordinator picab@qwest.net
--Avian Species of Special Concern
Dave Hallock, Coordinator dheldora@rmi.net
Steve Jones, Coordinator curlewsj@comcast.net
--Burrowing Owls Survey
Sue Cass, Coordinator 720-684-6922
--Butterfly Surveys
Jan Chu, Coordinator 2chuhouse2@gmail.com
--Ecosystem Stewardship Project
Steve Jones, Coordinator 303-494-2468
--Indian Peaks Bird Count
Dave Hallock, Coordinator 303-258-3672
Bill Kaempfer, Coordinator 303-954-8998
--Wintering Raptor Survey
Sue Cass, Coordinator 720-684-6922

OUTREACH
--Facebook Moderator and BCNA Buzz Editor
Cindy Maynard, 720-203-8211 cmaynardre@gmail.com
--Membership Committee
Terry Escamilla, 303-888-1510
--Nature Net Moderator
Scott Severs, scottsevers@gmail.com
--Newsletter
Kerrie Bryan (content editor) aussee@comcast.net
Cindy Maynard (layout) cmaynardre@gmail.com
--Website and Support for Newsletter
Claudia Van Wie 303-494-2250; webmaster@bcna.org
George Oetzel 303-543-3712

Membership Season is Here!
Memberships run from Jan. 1 to Dec 31 each year. All members receive our quarterly newsletter. Supporter-level members and higher also receive a complimentary copy of each BCNA publication. (notify Membership Chair if you want one of these)

THE EASIEST AND BEST WAY TO JOIN IS: http://bcna.org
Click “Join” at the top of the page. You can use credit card or PayPal account.

Alternately, you can join/renew by mail:
FILL OUT MEMBERSHIP FORM COMPLETELY AND LEGIBLY
Membership form is on back of newsletter

Make check payable to:
Boulder County Nature Association or BCNA
Mail to: BCNA, PO Box 493, Boulder, CO, 80306.
Bird banding is both a delicate art and a precise science. The safety and welfare of the birds takes precedence over everything else. Becoming a licensed bird bander is a lengthy process, and all research studies must be conducted by licensed banders under a permit from the USGS. Certain species, like hummingbirds, or some capture methods, require special authorizations. Banding helps conserve our native birds and the places where they live.

The BCNA board is grateful to the dedicated volunteers who have continued this important work for so many years. And we sincerely appreciate them opening their study area to us for a close-up look at the process.


Photo of bird wing from the McGill Bird Observatory Photo Library at www.migrationresearch.org.

Warbler photos on this page by Mary Stuber

---

The following recap of our free October 20, 2017 hike, *Explore White Rocks Natural Area with BCNA*, is just a sample of the wonderful educational opportunities BCNA offers! Check out the enclosed list of paid classes planned for 2018.

White Rocks Natural Area is an unusual, fragile Cretaceous sandstone outcropping that is not only aesthetically attractive, but contains geological features not commonly seen in our area, like polygonal jointing, hummocky “turtlebacks” and honeycomb hollows. It is also home to numerous common and rare species of plants and animals. This extremely diverse habitat spans the short distance from the top of the bluff to the floodplain of North Boulder Creek, 70 to 80 feet below. Constantly exposed to sunlight, the south-facing light-colored sandstone provides the warmest and most protected environment found in the immediate area. Part of the plains grassland region, White Rocks is recognized as a haven for birds as well, and includes federally regulated eagle nesting habitat.

From 1963 until her death in 2002, this parcel was home to early Boulder environmental advocate, Ricky Weiser, and we owe her much for preserving and protecting this exceptional place. When the state wanted to extend McCaslin Blvd. through the area, and a sand and gravel company wanted to mine up to the base of the rock formation, she fought tirelessly for the land. Her decision to keep the riparian wetlands intact enabled them to absorb the flood waters of 2013 and quickly recover. Boulder OSMP, purchased it from her heirs in 2011 to prevent development.

To protect the many sensitive natural resources that occur here, White Rocks can only be accessed by permit and is closed to the general public. In October, fourteen lucky people joined OSMP Education Coordinator, Lynne Sullivan, OSMP Plant Ecologist, Lynn Riedel, and lichen expert, Jennifer Frazer for a tour of this special area.
Support the Boulder County Nature Association

Name ____________________________________________________________

Address _________________________________________________________

Email ______________________________________ Phone ____________

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.

The easiest and best way to join is to go to http://bcna.org and click on “JOIN” at the top of the page. Then just follow the directions. You can pay using your PayPal account or another credit card.

Thanks!

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