Participants were “wildly” enthusiastic about the array of field ecology classes BCNA offered this summer and fall. As chair of the BCNA Education Committee, I decided to participate in all the classes offered this season and can personally attest to the high quality of these classes and the expertise of the instructors who taught them. Each class was like a semester-long course condensed into 2 or 3 sessions, full of fascinating information and hands-on experiences.

In mid July, alpine ecologist and long-time BCNA instructor Joyce Gellhorn led us up the trail from Long Lake to the top of Niwot Ridge in her “Flowers of the Alpine Tundra” class to share her stories about how plants adapt to life above the tree line. We marveled at the diversity of plants and plant habitats that exist in this seemingly harsh environment. Using hand lenses and field guides, we learned to identify many plants, including magenta pigmy bitterroot, sky blue hairbells and bright yellow alpine avens.

During the “Exploring Colorado Hummingbirds” class in late July, hummingbird banders Steve and Debbie Bouricius provided a fascinating insight into the lives of these flying jewels of the bird world. After observing and learning to identify the main species of Colorado hummingbirds, we watched Steve and Debbie capture and band hummingbirds at their beautiful property in Peaceful Valley. A highlight of the class: being able to hold the birds and feel their heartbeats (78 beats per second!) before they were released.

Chris Ray, pika researcher and instructor for the “Pika Encounter” class, took us up to tundra on Niwot Ridge in early August to look for pikas, also known as “rock rabbits”. We observed them darting around talus slopes, collecting mouthfuls of leaves and flowers and storing them under rocks to dry in hay piles. (Because pikas don’t hibernate, their hay piles supply them with food during the winter; a thick insulating cover of snow is also key to their survival.)

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Chris also spent time talking about the possible effect of global warming on pika populations, a question that has not yet been resolved by researchers.

Which mushrooms are edible and which are poisonous? This was one of the main questions on the minds of participants in "Mushrooms of the Front Range", taught by mushroom expert Rob Hallock in mid August. Identifying various mushrooms and where they grow was the focus of this class. We learned about the key characteristics of the most common and important species during the indoor session and in the woods off the Peak-to-Peak highway where we searched for these elusive fungi. By the way, you need to learn from an expert like Rob and be 100% sure of your identification of a mushroom before you decide to eat it!

While exploring the grasslands along South Boulder Creek with Steve Jones, instructor for the "Grassland Ecology" class, we found out what makes grasslands so unique and ecologically important in Colorado. The diversity of grasses, wildflowers, and animals on the prairie is amazing, with different species adapted to different water, soil and sun conditions. Using hand lenses, we could see colorful male and female parts dangling down in rows from the seed heads of grasses. We also discovered a wide variety of insects: grasshoppers of all sizes and colors, soldier beetles mating on sunflowers, and a plump monarch butterfly caterpillar on a milkweed leaf. The second field class will take place in late September when participants will camp overnight on the Pawnee Grasslands and explore the surrounding prairie.

Be on the lookout for BCNA's 2010 Winter-Spring list of classes this coming January in the January 2010 newsletter and on-line (www.bcna.org).

—Carol Kampert

Costa Rica!!

Join BCNA naturalists Sue Cass, Tim and Ann Henson, Steve Jones, and Jim McKee for a celebration of the peaceful beauty and bounty of Costa Rica: Thursday, December 3, at the Boulder Reynolds Branch Library (Table Mesa Drive across from King Soopers), beginning at 7 p.m. Tim and Ann will show a short DVD of their 2008 trip to a half dozen of the country’s finest biological preserves; Steve will talk about budget travel and peaceful, out-of-the-way places; and Sue and Jim will show images from last year's county naturalists trip. We'll also share tropical fruits and Costa Rican music (come at 6:30 for refreshments, conversation, and a look at the maps).

A Mixed Year for Nesting Raptors

More than 100 volunteers monitored Boulder County nests of cliff-nesting and other raptors this past spring and summer. Highlights this year include 14 prairie falcons fledging from 6 observed nests in the Boulder Mountain Park, 7 bald eagles fledging from 5 nests throughout the county, and the county's first successful northern harrier nest since 2004.

However, several monitored golden eagle nests, one monitored bald eagle nest, and two monitored prairie falcon nests failed. Causes of nest failures are always difficult to determine, but our moist late spring and early summer may have contributed. In past years, prairie falcon nesting ledges have been flooded by heavy spring rains. Here's a brief summary of the nesting reports for Boulder County raptors of special concern that we've received to date:

Osprey (Boulder County isolated)

There are now a dozen or more osprey nesting territories in Boulder County, with four nests this year at Boulder Reservoir, alone. Those 4 nests fledged 8 young around the end of July.

Bald Eagle (Boulder County rare)

A total of 7 young fledged from 5 nests throughout the county. This fledge number is equal to the previous high, from 2007. Bald eagles were first documented nesting in Boulder County in 2004.

Northern Harrier (Boulder County rare and declining)

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Wintering Raptor Survey

The BCNA Wintering Raptor Survey season begins October 15th and the call goes out to any and all who would like to participate in this important ongoing research project. Surveyors are asked to travel one or more of seven distinct routes in the eastern part of the county once each month for the five month season. This is a great way to get out in the countryside during the winter months and learn about our impressive birds of prey. Volunteers, both new and old, can meet at the picnic shelter at Lagerman Reservoir (located between N. 63rd and N. 75th off Prospect or Pike Road) on Sunday, October 11th from 10:00 AM until noon to discuss protocol and methodology and share a few "big bird" stories. Birders of all ability are welcome. For additional information go to www.BCNA.org and click on Publications and Research or contact Sue Cass at 720-684-6922, suecass@comcast.net.

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A single nest west of Boulder Reservoir fledged four young in mid-July. This was the first documented successful nest in Boulder County since 2004, when two nests near Boulder Reservoir fledged eight young. These ground-nesting raptors are particularly vulnerable to predation, and nest monitors observed this year’s nesting pair chasing coyotes away from the nest on two occasions. We believe that extreme fragmentation of wetland and grassland nesting habitats makes harriers particularly vulnerable to predators.

Golden Eagle (Boulder County isolated and restricted)

Two of the three nests on Boulder Open Space and Mountain Parks land failed this year, with the third nest fledging two young. We'll provide a countywide summary in a future edition of the newsletter. There are typically 10-12 active territories in the county, and golden eagle populations appear to have been stable or increasing during recent years.

Prairie Falcon (Boulder County isolated and restricted)

A total of 6 nests in the Boulder Mountain Park fledged 14 young. We've yet to receive fledge numbers from additional nests in the foothills. During 2008, 7 Boulder County nests fledged 19 young.

Peregrine Falcon (Boulder County isolated and restricted)

It was a relatively good year for peregrine falcons in the Boulder Mountain Park, with 3 nests fledging 5 young. During 2008, a total of two Boulder County territories fledged six young.

Burrowing Owl (Boulder County rare and declining)

Boulder County Audubon and BCNA partnered with Boulder County Parks and Open Space to search for burrowing owls in each of more than 80 prairie dog colonies on parks and open space land. Staff and volunteers located 8 territories and at least 5 active nests. However, volunteers reported fewer than 3 visible young per nest, which is considerably below the North American average and may be below the number needed to sustain a nesting population. An additional 5 nests and 8 fledglings were located on City of Boulder open space. However, it appears that few of these fledglings survived.

Much thanks to Lisa Dierauf and Christian Nunes, of Boulder Open Space and Mountain Parks, Mark Brennan of Boulder County Parks and Open Space, and Boulder County Audubon's Chris Abrahamson for contributing information to this summary.

- Steve Jones
Ecostewards Find Bobcats, Pine Martens, Hooded Warblers, and Much More

The Boulder County Ecosystem Stewardship Initiative is entering its fifth full year, and more than 40 ecostewards are becoming intimately familiar with their adopted wild areas. As this happens, rare critter encounters seem to increase, and we’ve already received several amazing reports:

In July, Walker Ranch (Meyers Gulch) steward Laura Osborn found a family of four dusky grouse foraging beside a quiet trail. She heard a rustling sound in the bushes just above the grouse, and suspecting another interesting bird, stopped for a couple of minutes to look and listen. Up popped the head of an agitated black bear, who let out a couple of warning barks, prompting Laura to evacuate the area. On other trips to Meyers Gulch, Laura has seen wild turkeys, elk, and a bobcat with cub.

Jeanne Scholl reports a scintillating encounter with a pine marten in an unlikely place, Buttonrock Preserve just west of Lyons. The marten scurried across the dirt road, climbed a ponderosa pine, and sat there for several minutes staring down at Jeanne. Does anyone know of previous pine marten sightings this low in the foothills (around 6200’)? Cindy Carlisle and Baine Kerr also encountered a pine marten this summer, in a more likely location near Hessie.

Cathy Comstock has adopted Bluebell Canyon, a brushy area overflowing with songbirds just above Chautauqua. So she’s never surprised to find warblers singing in the lush vegetation beside the trail. But this summer she was astonished to discover an adult male hooded warbler singing there on two occasions. Though hooded warblers have nested in Baird Canyon, below the Amphitheater rock formation, Cathy’s observations suggest they may be spreading out. Christian Nunes has found territorial hooded warblers along the Fowler Trail, just above Eldorado Springs, the last two summers, and Paula Hensley and I have heard migrants singing along Coal Creek south of Marshal Mesa.

My group had a fairly quiet summer in Long Canyon, but we did call in a pair of flammulated owls on June 6. The male hooded softly from the ponderosas for five minutes or so while a second owl (presumably the female) flew back and forth over our heads.

Elaine Hill, Carol Kampert, and Maureen Lawry documented 47 breeding bird species in Skunk

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Canyon below the Mesa Trail. Their most scintillating outing may have been the morning of June 17, when they found (are you ready?) baby magpies, bushtits, house wrens, blue-gray gnatcatchers, American robins, gray catbirds, yellow-breasted chats, spotted towhees, chipping sparrows, and house finches.

A scissor-tailed flycatcher appeared in Janet McLaughlin’s South Boulder Creek West area (South Boulder Creek Trail west of Broadway) in late August. Literally hundreds of birders walked up the trail to see this locally rare bird.

Christian Nunes, Wildlife Monitoring Technician for the City of Boulder OSMP, with experienced eyes and camera found Two-spotted Skippers, *Euphyes bimacula*, in Nebraska Sedge, west of Cherrystone’s new bridge. This was the 199th butterfly species to be recorded in Boulder County. Much research has occurred in these university-influenced environs, which makes it more difficult to find a first-of-a-species to be confirmed. Christian also located a colony of Least Skippers, *Anelyoxpha numitor*, along the banks of Boulder Creek in their host plant Reed Canary Grass. For this butterfly the first county record was found by Cathy and Donn Cook and Jan Chu in 2002-2003.

The 200th species was found after years of chiding from Jan’s dear mentor Ray Stanford, to get out where the *Eriogonum effusum* grows and find the Rita Blue. Finally in early September; Larry Crowley and Jan found the tiny blue nectaring on *Liatris punctata*. In the same area the blue butterfly with sparkling greenish metallic scintillations Lupine (texanus) Blue, *Plebejus texanus*, was found by Amy Chu. This will be a first-recorded ‘subspecies’ of this type in the county, which soon will be elevated to species status.

Added to late season finds in grassy marsh edges were great numbers Peck’s Skippers, *Polites peckius*, found by Natalie Robinson, CU.

Two years ago the surprise was finding seven Mexican migrants visiting Boulder County. In 2009, with the poor wet-cloudy season, butterflies were not as numerous which gave us added incentive to continue looking in September.

These and numerous other discoveries remind us of how much there is to see for those who walk and wait patiently. If you’d like to adopt a wild area of your very own, just give me a call.

- Steve Jones (curlewsj@comcast.net; 303-494-2468)

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**SEARCH FOR THE ELUSIVE PIKA**

Anyone who has stared at a rock pile high in the tundra trying to spot the source of the high pitched ‘eenk’ sound should take Chris Ray’s pika class.

First the class met to learn what’s known and to view photos about this unique relative of rabbits. Then the day long class hiked up Niwot Ridge above Brainard Lake. At the first opening in the spruce/fir forest we broke out near a sunshine filled steep rock fall.

Chris signaled for silence while the group waited impatiently to see the little critters sometimes described as ‘baked potatoes with ears’. Eventually we heard the first ‘eenk’. We peered at the jumble of boulders and imagined we saw a pika until we realized it was just a pointed rock. Then there was another call. All eyes focused on the wiggling in a tangle of tall bluebells adjacent to the boulder field. Out popped the pika, dragging a long stem of grass. It scampered uphill and disappeared under a boulder.

Finally we had gotten a glimpse of one of the most industrious residents of the tundra.

Chris explained the pika colony’s behavior. They harvest forbs and grasses all summer to store in crevices between the rocks. Since they do not hibernate, a successful harvest sustains them during the harsh winter. Then she challenged us to spot any pikas with brightly colored ear tags. She had marked them last summer as part of her 20 year study of their behavior. Finding a marked individual indicated it had survived the winter. With the gradual loss in the snowpack due to climate change, some pika populations are decreasing, especially in the smaller mountain ranges to the west of the Rockies. Survivors are found at higher altitudes where increased snow depth helps maintain a constant temperature in their dens. Thus, Chris explained, the study of pikas is relevant to global warming research.

Members of the class will never again hear a high pitched ‘eenk’ without reflecting on these brave pikas and how their lives help in understanding climate change.

-Marty Dick
**Sightings: Ecosystem Stewardship Field Notes 2009**

Spring and summer seem to sprint by so quickly, it feels like living on fast forward. Below are some of the highlights of a year with birds in the ponderosa pine and aspen forest between 8300 and 8700 feet, near Allenspark, on the Roosevelt National Forest.

**April: Signs of Spring.** A pine siskin feeds on aspen catkins. Near the pond, red-breasted nuthatches call, a Cassin’s finch sings, and a hairy woodpecker carves out a new tree cavity. The early migrants begin to return to our forests and meadows: mountain bluebirds, mourning doves, band-tailed pigeons, Williamson’s sapsuckers, and turkey vultures.

After three months of above average temperatures and below average moisture, April clouds bring a welcome reprieve. According to our local weather expert, April—with 6.05 inches of precipitation (over the twice the average)—was the fourth wettest in 50 years! Concerns about a summer drought and an early fire season dissolve.

**Early May.** Tree swallows, house wrens, black-headed grosbeaks, broad-tailed hummingbirds, and chipping sparrows are back. By the middle of May the first aspen leaves are emerging, but morning temperatures are still dipping down in the 20s. “Candles” on the pines (new leaf clusters) are elongating. Near the pond two red-breasted nuthatches call to one another and consider a small snag where house wrens have nested in years past.

**Late May.** Hummingbirds feed in the wax currant flowers, while mountain bluebirds check out a cavity in an aspen snag. A flicker flies into a cavity in a tall ponderosa pine—is she preparing a nest? (A week later I see both parents enter and leave the cavity.) Two Steller’s jays fly down to an ephemeral creek, then one flies up with moss in its beak for their nest. The red-breasted nuthatches are on their nest near the pond, the female calling energetically whenever the male approaches with food. A western tanager pair calls and forages in the aspen glen near the pond.

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pond. By the end of May over 40 species of birds are nesting along the forest trail or nearby; over half of them are migrants here for the summer to raise their families.

**June.** The hermit thrushes are singing now, the cordilleran flycatchers are back, and pale yellow bitterbrush flowers perfume the air. Mountain bluebirds and pygmy nuthatches inhabit cavities in the same small aspen snag. They're cranky neighbors and bicker with each other, perhaps trying to establish personal boundaries. A pair of mountain chickadees is on the nest in a large ponderosa pine snag near the ridge, and the red-breasted nuthatches are still in their small snag near the pond. By the end of the month all of these parents are feeding their young.

I watch a pair of white-breasted nuthatches near the ridge—are they nesting? A pair of western tanagers seems to be on their territory near the pond, but I never catch sight of a nest. I have yet to find nests of many species I see frequently in the forest—hummingbirds, green-tailed towhees, western bluebirds, and many others. Last year I located nests of a house wren, warbling vireo, Williamson's sapsucker, and hairy woodpecker, but not this year. Each year brings its own discoveries.

**July.** Though I've been away for two weeks this month, I record nearly five dozen species of birds on the forest trail and nearby, up from two dozen in February. Near the end of July I list over 30 kinds of wildflowers in bloom, the beneficiaries of abundant moisture earlier in the season. Green-tailed towhees and pygmy nuthatches are still feeding their young. Already the season, which began such a short while ago, is winding down. I miss the songs of warbling vireos, black-headed grosbeaks, western tanagers, and hermit thrushes.

**Autumn.** Now that the seasons are changing again I savor all the time I spent this year watching the birds, and the small discoveries that are the delight of all naturalists. This year, my third in our mountain home, we added a few new birds to our Pine Valley list: a pair of ring-necked ducks on the pond, a flock of American white pelicans and a great blue heron flying over, and in the forest a Hammond's flycatcher, Wilson's warblers, and a brown creeper.

I recall a day in early June when I was walking up a favorite mountain trail. A mountain chickadee landed on the ground right in front of me and began picking up fibers from what turned out to be a decaying conifer cone. When she could hold no more in her beak she flew off and I bent down to examine the gray fibers. What a soft lining they will make for her nest! How long does it take these cones to decompose, I wondered? How long have chickadees been collecting this small forest resource? As a friend once remarked, "We learn about the world one detail at a time." Other creatures surely do the same.

- Dianne Andrews
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