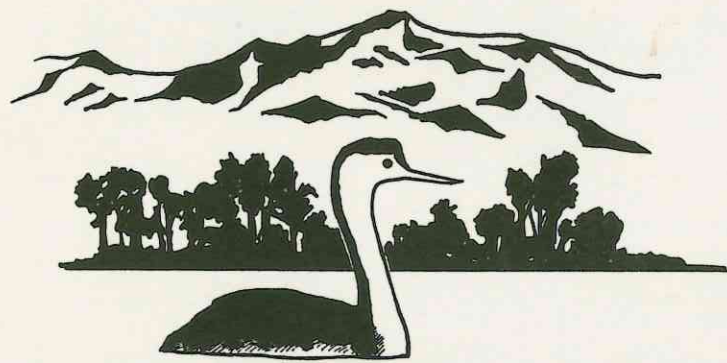

COLORADO BIRD



OBSERVATORY

NEWSLETTER
Winter 1989

DIRECTOR

Mike Carter

BOARD OF DIRECTORS

Bob Hernbrode -- President

Ives Hannay -- Secretary

Carol Leasure -- Treasurer

Johanna Billmyer -- Board Member

Leslie Stewart-Phelps -- Board Member

FROM THE DIRECTOR

I am very pleased to be writing this first letter to you, our members. The observatory is not yet a year old -- we were incorporated March 10, 1988 -- but our accomplishments have exceeded many of our expectations for the first year. Here are some of the accomplishments that I think the observatory and its members can be proud of:

We trained 32 bird banders and banded 1634 birds.

We obtained \$28,366 in grants.

We developed a brochure and a t-shirt.

We wrote by-laws and formed a board of directors.

We received state and federal nonprofit status.

We conducted banding demonstrations for 18 groups.

We started an ornithological library.

We had a computer donated and bought a printer.

We were featured in numerous newspaper articles and a Channel 9 spot that also aired four times on PBS.

We started research and education projects that will benefit birds now and for years to come.

We were supported by volunteers who contributed thousands of hours of their time.

We recruited 80 members.

These last two accomplishments -- achieving support from both volunteers and members -- in some respects are the most important. Members and volunteers have given this new organization the time and money necessary to take it through the first year and into many more.

Next year we plan to continue this pace by obtaining our own office space, hiring another staff member, conducting the Bald Eagle Watch, operating banding stations at Barr Lake, beginning a two-year Least Tern study, continuing work at the Alfred M. Bailey Bird Nesting Area, conducting birding/research trips in Colorado and out of the country, and starting research and education projects.

One of our members pleased me by writing, "Good luck in becoming the leader in Colorado bird research." Other observatories have become leaders in their regions: East Coast, West Coast, and Great Lakes. We are working to make this observatory the leader not just in Colorado but also in the Rocky Mountains and western Great Plains. I realize that sounds like a distant goal. But so was starting an observatory a year ago.

Michael Carter

ALFRED M. BAILEY BIRD NESTING AREA

In cooperation with the U.S. Forest Service, the observatory initiated our first Western Slope project -- an ornithological resurvey of the Alfred M. Bailey Bird Nesting Area. This site, located in the Blue River valley north of Dillon, was

originally set aside as a special management area because of the great diversity of bird species. It also honors Dr. Bailey, who was a prominent ornithologist and director of the Denver Museum of Natural History for 40 years.

Very little bird research has been conducted in the area since it was established in 1971, although birdwatchers occasionally visit. Because one of the observatory's goals is to maintain a banding/research station in each of Colorado's life zones, we have adopted this area as our montane study site.

The Bailey site is unique in that it is centered on a large, willow-dominated meadow that is adjacent to streams, bogs, beaver ponds, and stands of lodgepole pine, aspen, and Englemann spruce. The convergence of these habitats allows for many bird species -- diversity usually found over a much larger area. Some of the more than 40 breeding species include Red-naped Sapsucker, Dusky Flycatcher, American Dipper, Hermit and Swainson's Thrushes, Wilson's and MacGillivray's Warblers, and Fox Sparrow.

One goal of this project is to give area residents and visitors at the Blue River campground an opportunity to view birds during public banding demonstrations. Over 75 people took advantage of the program, and visitors from Missouri, Kansas, Texas, and Massachusetts got a close-up look at some of Colorado's many birds.

During our eight-day effort over a three-week period in July, we banded 27 species and observed or banded a total of 48 species. Primarily through banding efforts, 26 species were documented as breeders. Next year we plan to continue the survey and possibly expand the project to

include the Blue River valley. Our ultimate goal is to document the breeding birds and publish a complete area checklist.

COLORADO LEAST TERN INVENTORY

Least Terns, which are listed as an endangered species, have been found to nest occasionally in Colorado. Eleven years ago, before Least Terns reached endangered species status, three nests were found in the Arkansas River valley. To gather more current data, the Nongame and Endangered Species Program of the Colorado Division of Wildlife has funded the Colorado Bird Observatory to inventory breeding areas of Least Terns in Colorado.

Beginning in the spring of 1989, areas of historical and potential nesting will be surveyed during weekly trips to southeastern and northeastern Colorado. The goals for this project include finding breeding areas, determining factors necessary for successful nesting, and making recommendations to state agencies to begin protecting this endangered species.

In a first step last August, observatory staff members visited potential nesting areas. During the two-day trip, 14 Least Terns (six adults and eight juveniles) were found on one Colorado reservoir. Because the juveniles were able to fly, it is unknown if they actually hatched at the reservoir. This first finding is encouraging, however, and we hope this project will enable observatory staff members and volunteers to locate actual Least Tern nesting areas.

The observatory needs volunteers to help with this survey during May through August 1989. (See the article on volunteer opportunities in this issue of the newsletter.)

UPDATE ON BANDING STATIONS

During the observatory's first year of banding, volunteers have banded approximately 1600 birds. Most of these were banded in two areas -- the Alfred M. Bailey site (about 150 birds banded) and, of course, at Barr Lake. However, the major accomplishment for the year was training bird banders. The observatory now has about 15 active and accomplished banders. An additional 15 to 20 have been trained, but are not active; for these banders we have great hopes.

Again this year the observatory staff will be training more banders to fulfill one of its goals of having a banding station in each of Colorado's life zones. (See the article on volunteer opportunities in this issue of the newsletter.)

It is difficult to give an update on species and numbers of birds banded because the staff is still working furiously to enter and analyze data. However, interesting trends are beginning to emerge. Keep an eye open for a full report about the observatory's banding stations in the annual report.

GRANTS RECEIVED IN 1988

During this first year of operation, individuals have been essential to the observatory by becoming members and donating volunteer time. State

agencies and private organizations have also recognized the value of the observatory and have been generous with their grants. Here, in chronological order, are the grants received so far, totaling \$28,366.

The Colorado Wildlife Commission gave \$16,000 to set up the Colorado Bird Observatory.

The Zoology Department of the Denver Museum of Natural History granted \$300 to help equip the banding station.

The Denver Field Ornithologists donated \$777.50 for equipment for the banding station.

The Colorado Department of Natural Resources, Natural History Grants, gave \$3500 to study Barr Lake Bald Eagles.

The Colorado Chapter of the Wildlife Society donated \$358 to buy a spotting scope and tripod.

The Colorado Division of Wildlife, Watchable Wildlife Program, granted \$1000 to conduct banding programs at the Alfred M. Bailey Bird Nesting Area.

The Colorado Field Ornithologists provided \$178 to buy film for the banding stations.

The Colorado Division of Wildlife, Nongame and Endangered Species Program, gave a grant of \$6666 to survey Least Terns in Colorado.

The Rocky Mountain Nature Association donated \$1200 toward the purchase of a computer.

Our thanks to all of these organizations!

BARR LAKE BALD EAGLE WATCH

The Bald Eagle nest at Barr Lake, only one of nine active nests in Colorado, is uniquely located on the Front Range. In 1988, in a project funded and co-administered by the Division of Wildlife, the Colorado Bird Observatory began the first Bald Eagle Watch project. The observatory trained over 200 volunteers in classroom and outdoor sessions to observe and collect data on the Barr Lake nest.

The nest was unsuccessful (it blew over in an April storm), and no eggs were found. But because an eagle watcher saw the nest down the next day, Division of Wildlife personnel quickly constructed a new nest and put it in a much more stable live cottonwood tree. The eagles showed interest in the new nest, attending to it daily, but they laid no eggs. The pair left in July and returned in September. This winter they have been seen daily at the nest, presumably preparing to nest in 1989.

The observatory hopes to expand the 1988 monitoring and education program by observing the behavior of the pair, noting the habitats they use within the park, and determining types of food brought to the nest. The 1989 project will also add a significant educational component that will feature nature walks for the public to view the nest and learn about eagle ecology and habitat needs.

The observatory is looking for volunteers to be Bald Eagle watchers. (See the article on volunteer opportunities in this issue of the newsletter.)

BANDING BASICS: PLUMAGE

Editor's Note: This column by Ives Hannay will be a regular feature of our newsletter. Ives has had wide experience banding birds on the East Coast, in Belize, and now in Colorado.

You know, of course, the importance of plumage characteristics in identifying birds in the field as to species and, in many cases, as to sex. The tall, feathered crest and intense blue color proclaim a Stellar's Jay even at a fleeting glimpse; the feather patterns and colors of House Sparrows or Cardinals or Black-throated Warblers are unambiguous indicators of males and females.

John James Audubon knew this as well. But he and subsequent researchers, wanting a closer look, used the expedient of "collecting" birds (in other words, shooting them) to determine the subtler details of plumage characteristics. Bird banders share Audubon's intense interest in the "close focus" possible with birds in the hand. However, we use mist nets (and sometimes traps), rather than guns, as our gathering devices. Birds are released promptly and unharmed in a matter of minutes after we carefully examine them. In this way, banders have discovered plumage clues, often not readily seen in the field, that help us determine such things as age, sex, and growth history.

AGE

As an example, consider the Catharus thrushes (Hermit, Swainson's, Grey-cheeked, Veery). In the fall, if we see a small buffy spot or streak at

the tip of one or more of the great coverts, we age the thrush as a bird hatched that year (HY, or hatch year); if we find such marks in the spring, we age the bird as one hatched the calendar year before (SY, or second year). Banders must take care with this characteristic, however; the lack of such marks does not, in itself, indicate that the bird should be aged as older than a hatch year bird (AHY, or after hatch year), since this mark can wear off even in an HY bird.

We also use feather wear and shape to determine age. In many species, especially in summer, flight feathers of adults are noticeably more faded and worn than those of birds hatched that summer. And in many species, young birds can be seen, in the hand, to have narrower, more pointed wing and tail feathers than adults. How banders use molt, which governs these observable differences, will be covered in a future article.

SEX

Birdwatchers can easily sex many birds in the field. Common examples in our area include Western Tanager, Lazuli Bunting, and Red-winged Blackbird. Banders, however, are able to take a closer look. For example, we can ruffle the head feathers of a Ruby-crowned Kinglet to discover the usually concealed scarlet crown of the male. Or we can measure the width of the small, black chin patch on a Cedar Waxwing -- over 8 millimeters indicates a male and 6 millimeters or under indicates a female.

GROWTH HISTORY

"Fault lines" across individual flight feathers are very narrow bands that are thinner in texture

than the rest of the feather. They result from a deficient diet during the growth of the feather. Finding fault lines in an individual or a population raises important questions about whether the lines were caused by insufficient food, deficient nutritive value in the food, or some other factor. These fault lines can also help indicate a bird's age. If the lines are at the same point in all feathers, the bird is young, since young birds grow all their wing and tail feathers at the same time. However, if the lines are at different points in the length of the feathers, the bird is an adult, since adult perching birds lose and grow flight feathers asynchronously. (Yes, you're right. The bird in the first example could also be an adult that lost all its tail feathers in an accident and had to regrow them all at once.)

"Feather bars," which are alternating light and dark bars across flight feathers and are visible when the bird is in the hand, are the subject of new interest. Researchers believe that the width and color of these bars result from differential growth patterns. Furthermore, they believe that these bars can be analyzed with a view to discovering the factors that influence the varying patterns.

All of these examples demonstrate some of the significant knowledge gained from close, in-hand study of plumage. As banders, we are excited about (and addicted to!) the process of adding substance to previous findings and making discoveries of our own.

I hope you will follow the future articles in this newsletter in which we will delve into other techniques used in avian research.

Ives Hannay

ABOUT THE DIRECTOR

Mike Carter has packed a lot of education, research, and conservation work into his 30 years. It is this mix of experiences that make him exceptionally well qualified to be the observatory's founder and first director. In fact, his background in both academic ornithology and enjoyment of birds has led him to his goal for the observatory -- to support research and education that leads to the conservation of birds. He hopes that the Colorado Bird Observatory will bridge the gap between professional ornithologists and birdwatchers.

His enjoyment of birds and his commitment to conservation began while taking a field ornithology course. But the union of these interests occurred during his Peace Corps assignment in Liberia. While in Africa, he was given a grant from the World Wildlife Fund to survey birds in an unstudied park. He documented one species not seen in this century, he found several endangered species living in the park, and he documented range extensions for other species. He has returned to Liberia under an American Museum of Natural History grant and will be returning soon to help with an ornithological survey of an area scheduled to become a park.

Mike was granted his MS in zoology from Oklahoma State University with his thesis "Comparative Winter Ecology of the Northern Harrier and Red-Tailed Hawk."

He has been well recognized for his overseas work and his research. But in addition, he has been selected for scholarships, research stipends,

and conservation awards. In the past year while setting up the Colorado Bird Observatory, he has received grants from organizations and agencies to fund the observatory and start the initial research projects.

Barr Lake seemed to be an obvious place for an observatory, Mike realized during his six months as a seasonal Division of Wildlife employee at Barr Lake. He noticed the great variety of birds at the park, the diversity of habitats, the migrations of shorebirds, the Bald Eagle nest, and the several threats to the bird populations and habitat. So he conceived of the observatory, got initial funding for it, and is now serving as its first director.

On the personal side, Mike, his wife Joanne, and their daughter Erin live in Brighton. He enjoys softball, racquetball, and bicycle touring. (He built his own touring bike.) Mike uses birdwatching as a hobby, and while he says he is not a "pathological birdwatcher," he does keep a life list and travels to see birds.

TRIP TO THE NORTHWEST TERRITORIES

The Colorado Bird Observatory is sponsoring a nine-day bird, plant, and mammal observing trip to the Northwest Territories in early July.

We will be comfortably housed at Oldsquaw Lodge, which is located about 200 air miles northeast of Whitehorse, Yukon Territories, in a 50,000-acre, gently rolling plain of alpine tundra between the MacKenzie and Selwyn Mountains.

The cozy lodge acts as a blind allowing us to view the biological richness of the Barrens -- caribou, grizzly bears, moose, wolves, wolverines, foxes, Dall's sheep, numerous smaller mammals, 200 plant species, and, of special interest to observatory members, 100 species of nesting birds.

The owner and manager of Oldsquaw is Sam Miller, a wildlife biologist who, during his 18 years in the north, has studied polar bears, grizzlies, gyrfalcons, Dall's sheep, caribou, and musk oxen. Among those joining the observatory for this trip will also be experts in ornithology and botany. Sam Miller and our own experts will be available whether we are taking day hikes or relaxing at the lodge.

The climate at Oldsquaw Lodge is hospitable early in July. Temperatures range from 27 to 85 degrees F, the sun shines almost continuously, and there are few biting insects.

The cost of about \$1800 covers airfare between Denver and Whitehorse and between Whitehorse and Mac Pass in the Northwest Territories. It also includes 4-wheel drive transportation between Mac Pass and Oldsquaw Lodge; all meals, lodging, and facilities at the lodge; and all guide services.

If you are interested in this trip, send a letter or postcard with your name, address, and phone number. Mention that you are interested in the Northwest Territories trip. Mail it to the Colorado Bird Observatory, 13401 Piccadilly Road, Brighton, CO, 80601.

DONATIONS AND VOLUNTEER SUPPORT

We are very grateful to the following individuals and organizations that have donated equipment, supplies, and/or time to the observatory. Many efforts have been truly herculean, and without this support the observatory could not have had its early successes.

Bob Andrews donated complete sets of the Colorado Field Ornithologists' Journal, American Birds, and Lark Bunting. He also donated 10 year's worth of Wilson Bulletin, Condor, and The Auk.

Barr Lake State Park and its staff have supported the observatory since its inception and have provided much day-to-day assistance.

Johanna Billmyer is a board member and wrote our 501(c)(3) application and by-laws.

Sylvia Brockner donated 10 year's worth of North American Bird Bander and Inland Bird Banding Newsletter.

Joanne Carter typed hundreds of pages of letters and proposals and sewed 100 bird bags.

Mike Carter donated 17 year's worth of The Auk.

Dermott Cooper donated 10 year's worth of Ringers' Bulletin and Ringing and Migration.

Pam Curella maintains the nest boxes at Barr Lake and bands the nestling House Wrens.

The Denver Field Ornithologists donated a complete set of Colorado Bird Notes.

Ives Hannay is a board member, attended the Western Bird Bander's Association meeting, and spent more than 25 days at the banding station.

Karen Hardesty and Mike McHugh, past and present directors of the Barr Lake Nature Center, have donated the use of their office and office equipment.

Bob Hernbrode is a board member who was instrumental in getting the observatory its first large grant. He also donated a 200-mm Nikon camera lens.

Carol Leasure is a board member who undertook getting the observatory a computer, a t-shirt, and a sponsor-a-bird certificate.

Bobbie Martine helped significantly with the brochure.

Tom Parchman is compiling the historical and current breeding bird list for Barr Lake.

Diane Picken donated a large bulletin board.

Nickie Pliler organized the observatory slide file and is working on the annual sightings book.

George Rick has done a significant portion of the data entry and analysis of banding data. He also helped select the computer and set it up.

Lance Rockwell is the artist responsible for the logo and the artwork in the brochure.

Ray Sperger is writing a proposal for a study at Pawnee National Grasslands.

Leslie Stewart-Phelps is a board member and editor of the brochure and newsletter.

Joe TenBrink took many slides of birds at the banding station and donated them to the observatory.

Janice Upp has input many banding records and the membership mailing list into the computer.

Jean Van Loan is writing computer programs to help organize and compile the banding data.

Mary Kay Waddington spent more than 30 days at the banding station, attended the Western Bird Bander's Association meeting, and is compiling a banding station reference book.

The following active bird banders have also helped immeasurably by giving a total of 1616 volunteer banding hours: Julie Barraza, Virginia Bleck, Merlynn Brown, Mike Carter, Dermott Cooper, Pam Curella, Ty Fitzmorris, Ives Hannay, Cecile La Forge, Debbie O'Brien, Tom Parchman, Nickie Pliler, Diane Picken, George Rick, George Rick Jr., Stephan Rick, Lance Rockwell, Ray Sperger, Leslie Stewart-Phelps, Jan Upp, Jean Van Loan, Mary Kay Waddington.

VOLUNTEER OPPORTUNITIES

The Colorado Bird Observatory relies heavily on volunteers. So far, volunteers have been mostly interested birders or naturalists who have become Bald Eagle watchers or bird banders. These activities continue to be vital to the observatory, and we are definitely looking for more volunteers for these activities. However, with our organization growing and gaining strength, it is requiring more labor and diverse skills.

The observatory is looking for volunteers to help with many activities, such as the following:

Participating in the Least Tern surveys During May, June, July, and August of 1989, volunteers will visit reservoirs near Ft. Morgan and La Junta to locate and identify Least Terns. Surveys will be done one or more days at a time, any days of the week. Mileage will be reimbursed; lodging and food will be negotiable. Training sessions will be held. Some birding skills are required. (See the article on Least Terns in this issue of the newsletter.)

Analyzing data Much data has been gathered this year, especially for the Bald Eagle study and the banding efforts at Barr Lake and the Alfred M. Bailey Bird Nesting Area. We need people experienced in data analysis, especially programmers and statisticians.

Entering data and word processing Enter membership lists, bird-banding data, and Least Tern data. Type information for the newsletter, letters, proposals, and so forth. You can do this work on the observatory's computer or at home if your computer is compatible.

Writing and editing The observatory will be requiring press releases, proposals, articles for the newsletter, and brochures to be written. This work can sometimes be done at home.

Coordinating photography So far, this involves setting up and maintaining slide files. Eventually, it may include developing scientifically credible ways of documenting birds in the field using consistent photographic methods.

Accounting and bookkeeping With the observatory's finances becoming more complex, we need a qualified person to set up and maintain the books and produce our annual report. Knowledge about nonprofit organizations would be helpful, but the observatory may pay for a relevant course.

Fund raising The observatory needs qualified people to help with fund raising by contacting foundations and generally organizing the fund raising efforts.

Staffing the office The office needs the attention of someone with the skills necessary to maintain files of articles and scientific papers, maintain Barr Lake bird records, stuff envelopes, and do mailings.

Preparing publications for print This involves doing artwork, layout, and paste-up.

Participating in the Bald Eagle Watch From February through August 1989, watchers will keep track of all activities in the Bald Eagle nest at Barr Lake. Training sessions will be held. (See the article on the Bald Eagle Watch in this issue of the newsletter.)

Bird Banding This activity requires participants to be knowledgeable about birds, to commit to studying about banding, to be at the banding station at dawn on your scheduled days, and to remain actively involved all year. During spring and fall, the volunteers tend mist nets, band birds, and record data. At other times, banders help analyze data and produce reports. Banders can work at the Barr Lake banding stations and at other stations that may be established around the state. Volunteers can be trained by the observatory to become master banders. Then they are

qualified to run banding stations elsewhere in the state for the observatory. Banding workshops have been scheduled for March and April.

These volunteer opportunities are all important to the success of the Colorado Bird Observatory. If you are interested in any of these positions, send a letter or postcard giving your name, address, phone number, what you would like to be involved in, and your experience with the activity. Mail it to the Colorado Bird Observatory, 13401 Piccadilly Road, Brighton, CO, 80601. If you would like to know more before offering your services, call Mike Carter at 659-1160.

WISH LIST

As a fledgling organization, the Colorado Bird Observatory has been coping with start-up issues such as finances, organization, and housing. Much of this may be beyond many of you to affect, but here is an easy way to contribute to the observatory in a non-monetary, non-time-consuming way -- donate equipment or supplies.

We are just setting up our offices, so of course we're looking for all kinds of office equipment:

- * File cabinet for hanging files
- * Bookshelves
- * Desks
- * Message recorder
- * 3-ring binders
- * Bulletin boards
- * Trash cans

- * Hole punch and stapler
- * Work tables and chairs
- * Typewriter
- * Paper clips, rubber bands, manila envelopes, etc.
- * Telephone
- * Fishing tackle box for banding equipment

Of course, a bird observatory also needs photographic equipment:

- * Flash unit
- * Film -- 35 mm, 64 ASA Kodachrome
- * Olympus macro lens

And computer equipment:

- * 5 1/4 inch computer diskettes
- * Computer paper
- * Diskette storage box
- * Computer table
- * Printer stand (wide carriage)

If you are already an avid birder, you might have some of the following:

- * Reference books on birds
- * Ornithology journals
- * Bird-banding equipment

If the idea of the Colorado Bird Observatory really captures your imagination, you may want to help in a major way:

- * A vehicle

* Tents to use on banding or survey expeditions

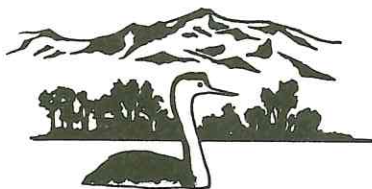
* A trailer for an office

Whatever you feel the observatory could use, please feel free to communicate with us. Your donation would be greatly appreciated, and it is tax deductible for you!

BIRD SPONSORS

To help fund its banding station programs, the observatory has instituted a banded bird sponsorship program. For \$10, an individual or group can choose among 11 groups of

birds or select a specific species. The sponsor will receive a certificate (like the one shown below) describing the chosen bird -- species, band number, age, sex, weight, date and place banded. If the bird is later recaptured or recovered somewhere other than where it was banded, the observatory will send the sponsor a second certificate describing where the bird was found, who found it, and under what circumstance it was found. Sponsorship can also be a thoughtful gift for a bird lover. By sponsoring a banded bird, you will receive the satisfaction of supporting scientific research and education programs that will further the understanding and conservation of birds.



Certificate of Sponsorship

is hereby named the sponsor of the

banded by the

COLORADO BIRD OBSERVATORY

on _____ *at* _____

Band Number _____

age _____ *sex* _____ *weight* _____

MEMBERSHIP LEVELS

Student/Senior -- \$8

Individual -- \$15

Family -- \$20

Life -- \$300

Organization -- \$250

Patron (Corporation or Individual) -- \$500