C.F.O. Journal

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C.F.O. JOURNAL

A quarterly publication of the Colorado Field Ornithologists, c/o Kate Kittleman, 903 East Moorhead Circle, #2L, Boulder, Colorado 80303.

CFO JOURNAL is devoted to the field study of birds in Colorado. Articles and notes of scientific or general interest, and reports of unusual observations are solicited. Send manuscripts with photos and drawings to: Ann Hodgson and Steve Bissell, 6060 Broadway, Denver. Send rare bird reports to: CFO Official Records Committee, c/o Zoological Collections, Denver Museum of Natural History, City Park, Denver, Colorado 80205.

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TABLE OF CONTENTS

EDITORS MESSAGE 98

STATUS AND AVIFAUNA OF WILLOW CARRS IN BOULDER COUNTY
Dave Hallock 100

REPORT ON BIRD BANDING PROJECT
IN GUNNISON COUNTY, COLORADO FOR 1984
Sophie C. Mery 106

BROWN-HEADED COWBIRD PARASITIZING
MOUNTAIN CHICKADEE NEST
Winston William Brockner 109

OBSERVATION OF AN ALBINO BARN SWALLOW
Mark Janos 111

AN HISTORICAL LOOK AT BREEDING
BIRD CENSUS IN COLORADO
Dave Hallock 113

BOOK REVIEW: THE JOY OF BIRDING
By Chuck Bernstein
Mark Janos 117

ANNOUNCEMENTS 120

Art work by Carol Ann Moorhead
Cover Photo by Charlie Chase

EDITORS MESSAGE

As you can see by the lateness of this issue, we continue to have problems with The Journal. Some are monetary, which The CFO Board of Directors is working to solve, you will probably hear about them at the convention in Sterling. Other problems you can solve more directly.

CFO Journal is primarily intended to be a vehicle for field Ornithologists (bird watchers, birders, watever) to communicate with each other. We continue, issue after issue, to have a small (but highly talented) group contribute most of the articles. We can only repeat, all CFO members and CFO Journal readers have contributions if you will just write them down and submit them. If we decide not to publish it is not a personal indictment, but a learning experience for us and you.

A little further note. If you do write (hopefully) an article with literature cited, please consult a recent Journal for style. Also please use the most appropriate common and scientific names (consult AOU Checklist or 1982 Latilong).

The artwork in this issue is by Carol Ann Moorhead, naturalist and artist who lives in Telluride.

ADDENDUM AND ERRATUM

CFO Records committee Report 1981
CFO Journal 17(4):80
Charles Chase
Black-throated sparrow

(56-81-31) should read; "First east slope breeding record in recent times." This error was also spotted by Dave Griffiths sho submitted a listing of his observations of Black-throated sparrows from field notes. These include breeding records from: 1972 - Temp le Canon. 1979 - Baculite Mesa as well as the 1981 record. Mr. Bunn was credited by The Records Committee because he was the only person who submitted any documentation.

STATUS AND AVIFAUNA OF WILLOW CARRS IN BOULDER COUNTY

Dave Hallock
Flagstaff Star Route
Boulder, Co. 80302

INTRODUCTION

The major wetland from 8,000 feet to above treeline in Boulder County is the willow carr - a willow (Salix spp.) dominated plant association which has a flowing water system. Its distributional status in the county has not been documented. Few data are available on breeding species and populations in willow carrs. The objectives of this study were to: 1) determine the current distributional status of willow carrs, including threats to their continued existence, in Boulder County; 2) ascertain some measure of the importance of willow carrs to avifauna through studies of breeding birds; and 3) investigate some of the changes that occur in the ecology and avifauna relative to elevation change.

HABITAT DESCRIPTION

The lower elevational limit of willow carrs in Boulder County appears to be the eastern extent of Pleistocene glaciers. The flat U-shaped valleys provide good habitat for beaver which dam the streams, raise the water table and increase the cover of wetland shrubs, grasses and sedges.

Several vegetation studies have described the willow carrs most likely to be encountered on the east slope of the Front Range (Bierly 1972, Phillips 1977). The plant associations are dominated by one or several species of willow, reedgrass (Calamagrostis spp.), birch (Betula spp.) and sedge (Carex spp.). In general, shrub height decreases with increased elevation. Additionally, montane willow carrs (between 8,000 and 9,000 feet) have greater surface areas of ponded water and more active beaver colonies than the subalpine and alpine areas. Soil types also differ as montane carrs have mineral soils while those in the subalpine have substantial accumulations of peat. Montane carrs, being farther downstream and downhill, are subjected to greater stream scouring which prevents buildups of peat soil (Phillips 1977).

The ecology of breeding birds in willow carrs was described by Cody (1974) in his study of a willow habitat in Grand Teton National Park. He examined the habitat selection of breeding species and related foraging heights to vegetative density.

Studies of the White-tailed Ptarmigan in Colorado (Braun et. al., 1976) have shown that during winter this species is heavily dependent on subalpine and alpine willow carrs due to food preference.

METHODS

Using U.S. Fish and Wildlife Service Wetland Inventory Maps as a base, 73% of the identified carrs have been field checked. Field surveys were conducted in 1983 and 1984. Each area has been investigated (some briefly) in summer and winter on foot or skis. Summer investigations were conducted to compare, and amend as necessary, the size and location of carrs on the wetland inventory maps. Additionally, summer observers noted the presence of current or historical beaver activity (beaver sightings, tracks, lodges, dams, ponds or vegetative cuttings) and indications of domestic grazing by horses, cows or sheep of the carr (sightings and/or tracks and droppings). Threats to the continued existence of willow carrs (reservoirs, development, peat extraction and road construction) were identified through discussions with personnel of the Boulder County Land Use Department. Winter field investigators recorded all observations of White-tailed Ptarmigan and/or sign (tracks, roosts and droopings).

Breeding birds were censused by the teritory mapping method (Williams 1936) as standardized by the International Bird Census committee (1970). Four locations were censused: 1) Copeland Carr (8,320 feet) in 1983 and 1984: 2) Tucker Carr (8,480 feet) in 1983 and 1984; 3) Brainard Lake Carr (10,280 feet) in 1983; and 4) Bunker Hill Carr (11,100 - 11,400 feet) in 1984. Censuses were conducted from mid-May until the end of July with 10 censuses conducted in each study area.

Fifteen additional willow carrs were surveyed during the breeding season in 1983 for species composition. The sites ranged in elevation from 8,400 to 12,000 feet as 5 montane, 8 subalpine and 2 alpine locations were investigated. Researchers randomly walked each site for a minimum of 1 hour recording nesting and territorial species. A minimum of two surveys were made at each site.

RESULTS AND DISCUSSION

Status of willow carrs in Boulder County.

Willow carrs comprise approximately 1% of the lands in Boulder County above 8,000 feet. Their locations, being glaciated stream valleys, have made them vulnerable as flat land and flowing water have also attracted human activities. At least 20% of the montane and subalpine carrs have been lost to housing developments, grazing pasture, peat extraction and reservoirs. It is probable that other sites were once carrs.

Montane carrs, due to their proximity to human development, are the most threatened of the three life zones as most subalpine and alpine carrs are within the Indian Peaks Wilderness Area. The greatest threat to montane carrs is grazing of horses and cattle (Table 1). Preliminary field observations suggest that the result of long-term over-grazing in the carrs is the destruction of the willows and disturbance of the native grasses leading to invasion of exotics such as timothy (Phleum pratense). Willows decrease in cover while timothy, other grasses and shrubby cinquefoil (Pentaphylloides floribunda) increase.

TABLE 1

Current Status of Willow Carrs in Boulder County[1]

	MONTANE	SUBALPINE	ALPINE
Remaining	530	1,207	418
Acres Lost	100	281	0
Carr Acreage affected by grazing, %	74	21	8
Carr acreage with no known threat from development, %	11	75	83

[1]Based on 73% of all willow carrs being field checked and expanded to total acreage from U.S. Fish and Wildlife Service Wetland Inventory Maps.

Only 11% of the montane carrs, primarily that portion of the Copeland Carr inside Rocky Mountain National Park, appear not to be threatened from grazing or development.

Importance of Willow Carrs to Avifauna and Elevation Differences.

The censuses indicated that willow carrs have relatively high densities of breeding birds. Overall density and species diversity decreased with increasing elevation (Table 2).

Wilson's Warbler and Lincoln's Sparrow were the most common breeding species in the montane and subalpine willow carrs and were present in the alpine carrs. Other species, such as Song Sparrows, Yellow Warblers and Black-headed Grosbeaks, appear to reach an elevational maximum in the montane carrs. White-crowned Sparrows were rarely found in montane carrs as their presence began at about 8,700 feet and increased in density with increased elevation; they were the most common breeder in alpine willow carrs. In most carrs, scattered coniferous trees were present and species including Mountain Chickadees, Ruby-crowned Kinglets, Yellow-rumped Warblers and Pine Siskins were occasionally found breeding.

There have been several interesting finds. One is the substantiation of Fox Sparrows as fairly common breeders in mountain riparian ecosystems of Boulder County. They had been listed as winter visitors in Latilong 4 and the level of abundance was "unusual" (Chase, et. al., 1982). Additionally, Ring-necked Ducks were found breeding at two locations in the County. Both sites have a willow carr adjacent to a fairly large (10-30 acres) body of water. Finally, a singing male Tennessee Warbler (Vermivora peregrina) and a singing male Canada Warbler (Wilsonis canadensis) were found on the ecotones between a willow carr and forest. Both sightings were in an alder (Alnus tenuifolia)/spruce (Picea spp.) plant association.

Table 2
Breeding Bird Species and Density
In 6 Censuses of Willow Carrs
In Boulder County

SPECIES	Density/100 acres[1] Montane	Subalpine	Alpine
Green-winged Teal (Anas crecca)	9	(2)	
Mallard (Anas platyrhynchos)	11	(2)	
Ring-necked Duck (Aythya collaris)	(2)		
White-tailed Ptarmigan (Lagopus leucurus)			+(3)
Sora (Porzana carolina)		(2)	
Killdeer (Charadrius vociferus)		(2)	
Spotted Sandpiper (Actitis macularia)	5	(2)	
Common Snipe (Gallinago gallinago)	10	6	
Broad-tailed Hummingbird (Selasphorus platycercus)	44	(2)	
Belted Kingfisher (Ceryle alcyon)	+		
Yellow-bellied Sapsucker (Sphyrapicus varius)	+	(2)	
Dusky Flycatcher (Empidonax oberholseri)	50	4	6
Black-capped Chickadee (Parus atricapillus)	+		
Mountain Chickadee (P rus gambeli)		4	
House Wren (Troglodytes aedon)	+		
Ruby-crowned Kinglet (Regulus calendula)	+		
Swainson's Thrush (Catharus ustulatus)	23	(2)	
American Robin (Turdus migratorius)	51	4	
Water Pipit (Anthus spinoletta)			+
Warbling Vireo (Vireo gilvus)	34	(2)	
Orange-crowned Warbler (Vermivora celata)	+		
Yellow Warbler (Dendroica petechia)	15		

Table 2 (Continued)
Breeding Bird Species and Density
In 6 Censuses of Willow Carrs
In Boulder County

SPECIES	Density/100 acres[1] Montane	Subalpine	Alpine
Yellow-rumped Warbler (Dendroica coronata)		8	
MacGillivray's Warbler (Oporornis tolmiei)	28	(2)	
Wilson's Warbler (Wilsonia pusilla)	132	101	24
Black-headed Grosbeak (Pheucticus melanocephalus)	12		
Green-tailed Towhee (Pipilo chlorusus)	+		
Fox Sparrow (Passerella iliaca)	24	2	
Song Sparrow (Melospiza melodia)	67		
Lincoln's Sparrow (Melospiza lincolnii)	90	81	28
White-crowned Sparrow (Zonotrichia leucophrys)	(2)	36	49
Dark-eyed Junco (Junco hyemalis)	3	6	
Red-winged Blackbird (Agelaius phoeniceus)	27		
Brown-headed Cowbird (Molothrus ater)	5	(2)	
Pine Siskin (Carduelis pinus)	+	4	
Total Density	640	256	107
Total Number of Species[4]	21	12	6

(1) Territorial males or females.

(2) In less detailed surveys of carrs, were found to be either nesting or present during breeding season and are suspected nester.

(3) + = less than 0.5 territories.

(4) Average of actual breeding bird censuses.

Less detailed surveys revealed that indications of current or past beaver activity decreased with increasing elevation. Species associated with beaver ponds such as Mallard, Green-winged Teal and Spotted Sandpiper were more common in montane carrs adding to their species diversity and density.

None of the montane carrs showed winter signs of White-tailed Ptarmigan while in 21% of the surveyed subalpine carrs and 58% of the alpine carrs their signs were present indicating the importance of these high altitude habitats.

SUMMARY

Willow carrs are important avian habitats comprising about 1% of the mountain landscape in Boulder county. They have relatively high breeding bird densities. Montane carrs have the greatest number of breeding bird species and highest breeding bird density. Species diversity and density decreases with increasing elevation. Montane carrs are the most threatened due to grazing.

ACKNOWLEDGEMENTS

Principal researchers for this project were M. Figgs, D. Hallock and N. Lederer. The Center for Mountain Bird Ecology of the Boulder County Nature Association thanks the Colorado Audubon Council and the Boulder Audubon Society for financial support. I especially thank Bill Baker of the Colorado Natural Heritage Inventory for help with the vegetation analysis. The Colorado Chapter of the Nature Conservancy, U.S. Forest Service, National Park Service, Marion Geick and Dr. Henry Toll, Jr., allowed access to their property. Constructive comments on this paper were provided by R. G. Beidleman and C. E. Braun.

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REPORT ON BIRD BANDING PROJECT IN GUNNISION COUNTY, COLORADO FOR 1984

Sophia C. Mery
Oklahoma Ornithological Society
34 S. E. Boston Avenue
Bartleville, OK 74006

Summer Address: May 15 - October 15

Rt. 4, Box 36
22821 Hiway 149
Gunnison, CO 81230

This was an unusual year for birds at Wildcat Gulch, elevation 9000 feet, in Gunnison County, Colorado. Spring was delayed by snow thru June 9, and cool wet weather persisted all summer. Birds did not have to depend for water on our pool in the willows or the bird bath. There was water everywhere. For the first time in eighteen years our springs gushed and Wildcat Gulch ran water thru the meadow all summer. The natural food supply was excellent; grasses and flowers, slow in the spring, were heavy with seeds by the time a delayed fall migration developed. From August 28th thru September 26th I banded three times as many birds as the first three months of the summer - over 900 individuals, bringing the total banded for 1984 to 1200 birds of 32 species. The birds came in waves thru the sage, down from the timber and along the gulch in the meadow. I doubt that I netted even one percent of them. An estimated 2500-3000 Sandhill Cranes with at least four fledged foster Whooping Cranes came flying over the valley between 4:00 and 5:00 p.m. on September 28th.

A list by species of the total birds banded in 1984:

Yellow-bellied Sapsucker	1	Song Sparrow	4
Red-shafted Flicker	8	Lincoln's Sparrow	18
Western Flycatcher	1	Green-tailed Towhee	145
Hammond's Flycatcher	3	Lazuli Bunting	10
Dusky Flycatcher	1	Western Tanager	10
Brown-headed Cowbird	31	Warbling Vireo	6
Red-winged Blackbird	1	Solitary Vireo	1
Brewer's Blackbird	8	Orange-crowned Warbler	19
Cassin's Finch	113	Yellow Warbler	1
Pine Siskin	40	Audubon's Warbler	172

Vesper Sparrow	76	MacGillivray's Warbler	12
Lark Sparrow	6	Wilson's Warbler	8
White-crowned Sparrow	26	House Wren	14
Chipping Sparrow	250	Mountain Chickadee	5
Brewer's Sparrow	141	Ruby-crowned Kinglet	4
Gray-headed Junco	34	American Robin	31

In addition 60 birds banded in previous years were recaptured. The lower number of recaptures was probably due to the severe previous winter and the cold wet spring.

Yellow-bellied Sapsucker	1	Gray-headed Junco	1
Brown-headed Cowbird	5	Green-tailed Towhee	17
Cassin's Finch	25	Western Tanager	1
Vesper Sparrow	9	Mountain Bluebird	1

Of these 60 returns, 6 had first been banded in 1980, 13 in 1981, 13 in 1982, and 28 in 1983; whereas in 1983 of the 90 returns, 4 had first been banded in 1978, 3 in 1979, 8 in 1980, 22 in 1981, and 53 in 1982, indicating a better survival rate for the winter of 1982-83 than in 1983-84. A banded male Mountain Bluebird returned to nest but fledged only one bird from the first brood. The first four eggs laid must have frozen and only the last egg, incubated immediately, hatched. A second nesting by the pair was successful in fledging four young.

The results of our efforts to provide a better wildlife habitat are astounding. The first year of banding, 1977, netted only 250 birds in contrast to 1200 for 1984. Our place is truly an oasis surrounded by over-grazed sage-brush desert - and after only six years of allowing nature to recover!

BROWN-HEADED COWBIRD PARASITIZING MOUNTAIN CHICKADEE NEST

Winston William Brockner
5965 South Herzman Drive
Evergreen, Colorado 80439

On June 17, 1984, I received a telephone call from Mrs. Eleanor Hoover, (Evergreen, Colorado) telling me that a recently hatched, "cowbird was in a Mountain Chickadee's nest in a bluebird box, with four young chickadees". I was surprised at this information!

The Hoover property is located at about 7,600 feet, less than a mile from the center of Evergreen. The bluebird box has a 1 1/2 inch diameter entrance hole; the box is in her yard, about forty feet from the house.

Brown-headed Cowbirds (Molothrus ater) have been common at feeders all spring. Most Front Range nesters commenced nesting a week to two weeks later this year. This might have caused concentrated competition to nest-seeking cowbirds.

Herbert Friedmann, quoted by Bent, observed that, "Paridae are of little importance in the economy of the cowbird". Further, Bent noted that, "Birds nesting in holes are mostly free from cowbird interference". Friedmann (1949) says that woodpeckers, house wrens, nuthatches, chickadees, and bluebirds are, "very seldom molested, in fact the bluebird is the only one of these birds for which I have found more than a very few records".

Bent, reporting on the Carolina Chickadee, wrote, "That the cowbird occasionally imposes its domestic duties on the chickadee is shown by Friedmann (1938), who writes of, "a nest containing 5 eggs of the chickadee and 2 of the cowbird, collected at Piney Point, St. Mary's county, Maryland, April 25, 1934, by E. J. Court, who tells me that he caught the female cowbird on the nest, about half an hour after daylight'."

Friedmann (1949) further reported that 276 species and subspecies of birds had been victims of the Cowbird.

Terres (1980) lists, "only four records of host to cowbirds for the Black-capped Chickadee", and for the Carolina Chickadee, "Rarely, only 2 records (Friedmann, 1963)". Thus, at this time there are only six records of parasitism by cowbirds in chickadee nests. This appears to be the seventh record, and the first for the Mountain Chickadee.

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OBSERVATION OF AN ALBINO BARN SWALLOW

Mark Janos
860 Sharpe Circle
Delta, CO. 81416

At about nine-forty a.m. on October 3, 1984 I observed a small white bird flying low over Sweitzer Lake, one mile S.E. of Delta, Colorado. The all-white appearance and the habitat of open water made me think at once of a small tern. However, the very small size, the low darting flight and the long pointed wings showed that the bird was a swallow. It was in the company of a loose flock of Barn Swallows (Hirundo rustica).

I watched the bird for three or four minutes as it fed. A normal Barn Swallow repeatedly harrassed the white bird from above, diving at it and driving it down towards the surface of the water where the white bird would veer off and escape. The bird flew off to the east and disappeared shortly after I had found it. I drove to the west end of the lake where a large mixed flock of swallows rested in an adjoining cornfield. There were hundreds of Barn Swallows there as well as a few Cliff Swallows (Petrochelidon pyrrhonota), Violet-green Swallows (Tachicineta thalassina) and N. Rough-winged Swallows (Steligidopteryx ruficollis).

At about nine-fifty a.m. the white bird reappeared and fluttered down to perch on the tip of a corn stalk. Although nearly all white, and therefore lacking the normal field-marks, the overall small size, the deeply forked tail and the short bill with a wide gape showed that the bird was a Barn Swallow. I was able to observe the bird for about ten minutes as it rested and preened.

The bird was almost entirely white except for an uneven light cinnamon-buff wash to the feathers of the head, especially the face auricular patch, forehead and chin. There was a grayish wash to the scapulars that nearly met over the rump to form an indistinct "V" as seen from the rear. The eyes were dark but the bill and feet lacked pigment and were a very light pinkish-orange. In flight and from a distance none of the light buffy or grayish coloration could be seen and the bird appeared all white.

Terres (1980), Pettingill (1970) and Gross (1965) describe degrees of albinism in birds. These are generally termed: 1. total albinism, 2. incomplete albinism, 3. imperfect albinism and 4. partial albinism. Only total albinism shows a complete lack of pigmentation; incomplete albinism shows pigment completely absent from feathers, skin or eyes but not all three; imperfect albinism shows pigment reduction in all three areas but not usually totally absent from any; partial albinism shows local absence of pigment and is the most common type of albinism. While usually genetically determined, albinism can develop spontaneously during the life of a bird (Gross (1965) and Terres (1980)). This Barn Swallw exhibited either incomplete or partial albinism.

The observed albino Barn Swallow was being harrassed by a normal bird as it attempted to feed. Terres describes two similar examples of incomplete albino Barn Swallows being chased by others of their kind. Adult albino birds are rarely seen in the wild as the white color may render them more easily detected by predators.

A significant paper on the incidence of albinism is that of Alfred O. Gross who compiled records of 952 incidences of albinism in North American birds. It is interesting to note that of the 54 families of birds in which albinism was described, the family Hirundinidae was represented by 67 individuals, the eighth highest family total. And when ranked by species, the Barn Swallow came in twelfth highest among all those listed. It may be that the relatively high incidence of albinism in this species has more to do with familiarity that many people have with Barn Swalows and with their habit of living in close association with the habitat of man rather than with an inherently higher genetic tendency towards albinism.

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AN HISTORICAL LOOK AT BREEDING BIRD CENSUS IN COLORADO

(A Review of Censuses Published in Audubon Field Notes and American Birds)

Dave Hallock
Boulder County Nature Association
Flagstaff Star Route
Boulder, Colorado 80302

Since 1937, the National Audubon Society has annually published the results of breeding bird censuses conducted by amateurs and professionals across the country. The purpose of a census is to provide information about the species composition and density of breeding birds in a particular type of habitat. A census conducted for more than one season has the added advantages of providing information on yearly variations in breeding bird densities as well as the effects of various land use practices on bird populations and associated habitats.

The first Colorado breeding bird censuses published by the National Audubon Society appeared in 1949. Meredith Morris of Colorado A & M College in Fort Collins conducted three censuses within different types of agricultural fields. For two of the sites, the Ring-necked Pheasant was the only breeding species. Also that year, Virgil Rosenbaum of Denver conducted a census of a plains cottonwood habitat located "between the north bank of Clear Creek and interurban tracks" west of Denver, while Paul Lawhead of Fort Collins conducted a census in a ponderosa pine/brush/grassland habitat.

Since then, with the exception of 1950 and 1959, Colorado has been represented annually by a census submitted for publication in Audubon Field Notes and subsequently American Birds. Chart I shows the number of Colorado breeding bird censuses that have appeared in the above stated publications. Interest in conducting such field research declined in the late 1950's and the 1960's, but picked up again in the 1970's, a sign of the greater environmental activism that occured throughout the decade.

In the early 1950's, the dominant figure in Colorado breeding bird censuses was Donald Thatcher of Denver. From 1951 - 1956 he conducted 15 censuses at three locations in Genesse Mountain Park 15 miles west of Denver (with assistance from members of the Colorado Bird Club). One of the more unique features of his census in an upper foothills ponderosa pine forest occured in 1952. Coverage that year began in the winter and he and Lang Bailey found three Red Crossbill nests in the plot (and 13 others within 2000 feet).

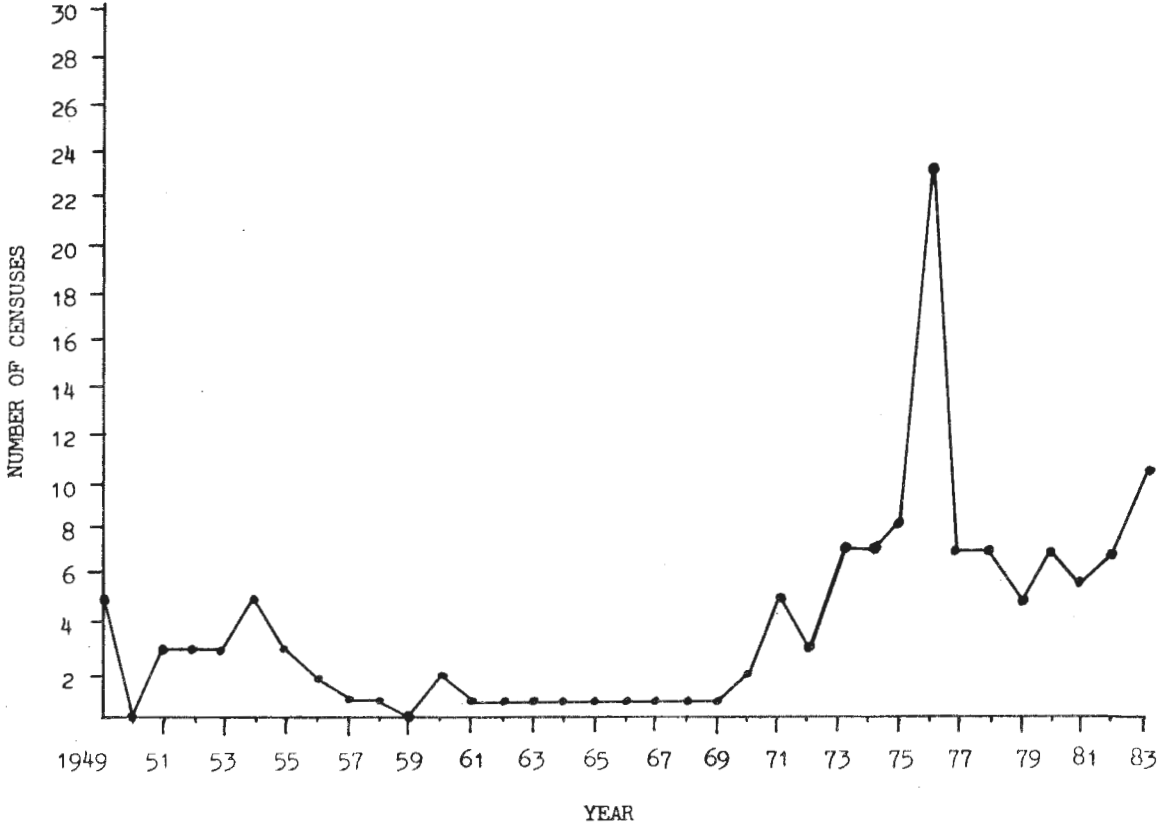
In the second half of the 1950's and during the 1960"s, the efforts of Boulder's Louise Hering, Colorado Springs' Richard Beidleman, and Douglas County's Mildred Snyder kept Colorado on the breeding bird census map.

Louise Hering's Enchanted Mesa census began in 1954 and is still being conducted. Additionally, in 1957 she studied a pinon/juniper forest near Mesa Verde National Park, while in 1958 she censused an open ponderosa pine forest near Rocky Mountain National Park.

Dr. Beidleman of Colorado College studied for one of his censuses the ponderosa pine habitat of the Black Forest. It is a montane woodland that extends east into the Great Plains. The census revealed the likeness of this area to typical montane ponderosa pine woodlands.

COLORADO BREEDING BIRD CENSUSES

Number Per Year Published in Audubon Field Notes or American Birds



Mildred Snyder began her census in 1958 and looked at the breeding birds of a ponderosa pine/scrub oak/mountain mahogany habitat near Franktown. Her census is another that is still being conducted.

During the 1970's, interest in conducting breeding bird censuses greatly increased. Much of the work during this decade was performed by faculty and students of Colorado State University in Fort Collins (Bruce Johnson, Ronald Ryder, Herman Griese, Ladislay Hanka, et. al.). One such study looked at the effects of the Fort St. Vrain Nuclear Power Plant on breeding birds of adjacent areas. The year 1976 saw the Ecological Systems Division at the Rocky Mountain Arsenal conduct 15 censuses of selected grasslands and weedy fields.

One study which highlights the information that can be gained from a long term census was set up in 1971 in a floodplain cottonwood forest at Chatfield State Park. The plot was established before the dam and reservoir existed and included a Great Blue Heron rookery. The primary participants were Richard Bottorff, Hugh and Urling Kingery, Nancy Hurley and Jo Trainer (the census is still being conducted, principally by Hugh Kingery). The filling of the reservoir in 1979 resulted in an expected loss of ground and shrub nesters and an unexpected arrival of double-crested cormorants. Another finding has been that cormorants are more sensitive than herons to boating and recreational activities on the reservoir. An interesting event occured in 1974 when 75 cottonwood trees died due to the dewatering of a nearby sand and gravel extraction operation which lowered the water table below the roots of the cottonwoods.

The censuses of the early 1980's have been dominated by birders from the Colorado Springs region, particularly those associated with the Univeristy of Colorado at Colorado Springs. The interest level seen during the 70's seem to still be present in the 80's.

Habitat types which have been censused in Colorado over the 35 years have been as varied as the numerous lifezones and ecosystems present in the state. Thirty-two percent of the censuses have been within ponderosa pine dominated habitats though the vegetative descriptions have varied greatly: ponderosa pine/mountain mahogany; ponderosa pine/scrub oak; ponderosa pine/brush/grassland; upper foothills ponderosa pine; and lower foothills ponderosa pine. Another 22% of the censuses have been within habitats dominated by cottonwoods, but again there is wide variation in site specifics: floodplain cottonwood forest; plains riverbottom; cottonwood riverbottom pasture; cottonwood/willow creekbottom; and urban cattail marsh and cottonwod woodland. Other habitat types that have been censused are grasslands, argicultural fields, oak/mountain mahogany, Douglas fir forests, aspen forests, and willow carrs. Additionally, there have been studies of man-made habitats - suburban college campus, and city streets (Denver).

The geographical distribution of the 141 Colorado censuses shows Jefferson County to be the leader with 27 followed by Boulder (21), El Paso (20), Weld (19), Adams (17), and Douglas (16). Censuses have been conducted in five other counties and only six censuses have been on the western slope.

Several significant long-term efforts by individuals should be acknowledged. Donald Thatcher conducted 15 censuses between 1951 and 1956. Mildred Snyder has conducted 16 consecutive counts near Franktown from 1968 to the present. Hugh Kingery has been involved in 16 counts including the floodplain cottonwood forest study which started in 1971 and is still being conducted.

The longest running count in Colorado has been Louise Hering's. From 1954 to the present she has submitted 15 intermittent counts for publication about a lower foothills ponderosa pine habitat on Enchanted Mesa near Boulder. during the 1960's, however, there was a threat to its continuation. Miss Hering reported after the 1961 season, "Despite efforts of nature lovers, this beautiful and ecologically interesting mesa land at the base of Boulder's famous Flatirons is endangered by the current real estate boom. But in 1962 she was pleased to write, "In a July election, Boulder taxpayers voted to apply a $105,000 park bond issue toward the purchase of this entire mesa". Public ownership has also had its impacts on the census for after the 1983 census it was reported that the population density was the lowest in several years possibly due to extensive thinning of the forest that occured the previous year. The beauty of this long-term study is that it can now provide information about the impacts of forest management practices on breeding bird populations.

CLOSING NOTE

The author realizes a major short-coming of this paper is that it fails to recognize the contributions of those who have conducted breeding bird censuses and have not submitted them to the National Audubon Society. The paper may be viewed as an historical perspective through the eyes of the readers of Audubon Field Notes and American Birds.

REFERENCES

Information for this paper and quotes are from breeding bird censuses as published in

Bird Lore (1937 - 1940)
Audubon Magazine (1941 - 1943)
Audubon Field Notes (1944 - 1970). Audubon Field Notes were a supplement to Audubon Magazine from (1944 - 1946).
American Birds (1971 - 1984)

BOOK REVIEW
THE JOY OF BIRDING

Chuck Bernstein
Capra Press, Santa Barbara, California
$8.95, Paper

I found this short (195 pages) book to be an enjoyable change of pace from the usual "birding" book. I sometimes tire of the assorted "pictorial encyclopedias", "guides", "source books" and "Birdwatcher's Bibles of . . .", all of which have the same information presented in a slightly different format. This book, which fits none of these single categories, bills itself as a "Guide to Better Birdwatching" and at this it succeeds.

The chapters are arranged in no particular order, but are rather like a series of essays, one often unrelated to the next. The chapters have such titles as "A Birding Diary", "Identifying Immatures", "Birding by the Numbers", and "Birding at Its Best". The common thread that holds these all together is Bernstein's obvious excitment about birding.

The author is an active birder in California and come of these chapters have appeared previously in Bird Watcher's Digest. A quick look at those who submit their bird lists to A.B.A.'s Birding shows Bernstein among the top in "listing" as a sport and as such he has learned a great deal about bird migrations, plumage characteristics, behavior, song and distribution. It is this information, as well as tips on how to become a better bird watcher that makes this book so enjoyable.

One chapter that I found very interesting was the first, titled "Leave Those Field Guides at Home: Birding British Style". The familiar tone that Bernstein uses, frequently injected with humor, is present here. He argues that we need to depend less on our field guides and more on our eyes. The usual method whereby we match up an unfamiliar bird with a picture in a field guide causes us to miss much that is essential in the bird. He says to leave the field guides at home and really look at the unfamiliar (and even the familiar) bird and accurately describe what was actually seen in field note, then later refer to a guide. He gives us the good advice to read and study the books, but leave them at home or in the car and take a notebook into the field.

Bernstein follows with chapters such as "Some Birds That Got Away" which are much lighter and are really fun to read. I am sure that we can all see a little of ourselves in the adventures that he relates here. After all, we have all read time and again of the account of finding the "big bird", that new state record or first Asian stray, but here we get to read accounts of just missing those rare birds. The stories he tells are just as interesting as if he had seen the bird.

Within nearly every chapter Bernstein gives valuable bird identification tips. Almost none of these were in any field guides until the National Geographic Society's Field Guide to the Birds of North America appeared last year. Unless you subscribe to a number of regional and national birding journals you will find some of these tips new to you.

Something that I found interesting was his frequent descriptions of his birding companions. I have always found birders to be an interesting group of people who are sometimes irritating, often eccentric, but always fascinating. Bernstein shares this interest and his accounts are sometimes hilarious.

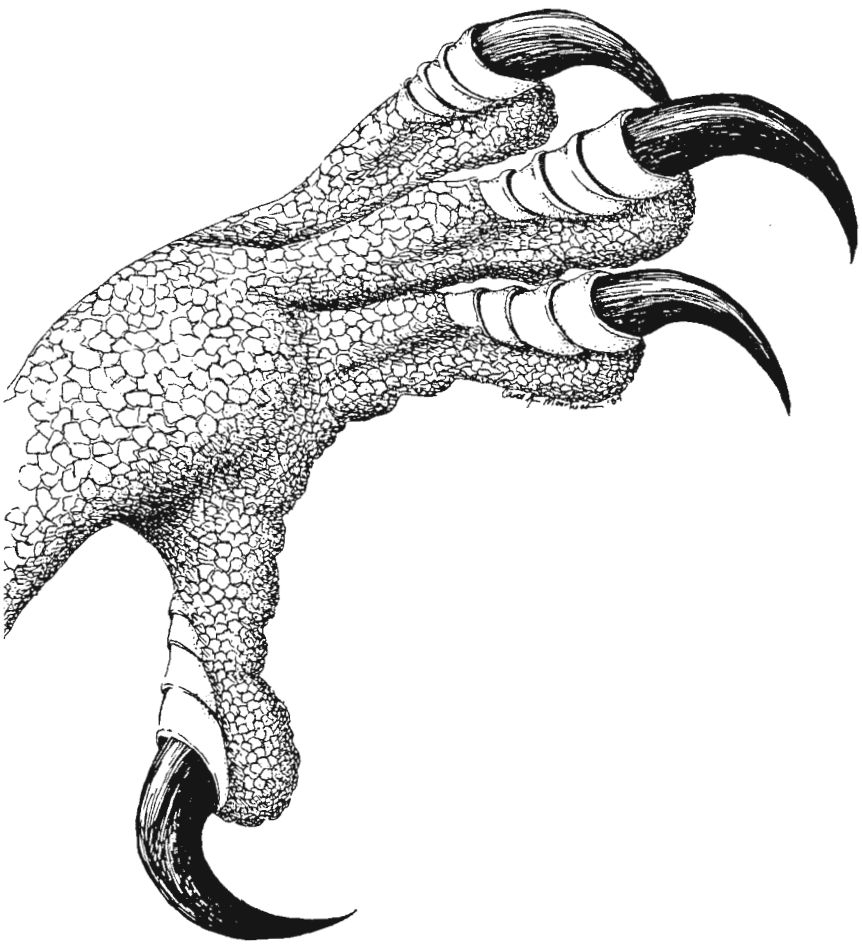
Most chapters are followed by a list of birds seen and mentioned in the preceding chapter, a feature that I found of no interest. However, it does remind us that Bernstein is an avid birder.

On the other hand I found the small pen and ink drawings by Karen Foster and Daniel Randolf that head each chapter were pleasant, light and humorous. They perfectly fit the tone of the book and the contents of the chapter that followed.

I read this book almost straight through the day I received it as a gift. It is a wonderful, easy reading experience that combines the best features of field guides, site guides, birding encyclopedias and narratives into a new kind of bird book. Lest I leave the impression that his book is for the "serious" birder, or bird-lister only, I want to say here that this is not the case. After all the good information and agreeable reading that this book affords I will leave you with Bernstein's words:

> "Of course, there is nothing wrong with going birding just to enjoy birding, but I can testify that there is a great depth to the kind of birdwatching that I've been describing. The more you know about the birds, the more you want to know, and indeed the more there is to know; and the more you know about the birds, the more you will enjoy birding."

Mark Jamos
860 Sharpe Circle
Delta, Colorado 81416



FIRST CALL FOR PAPERS - CFO CONVENTION

The Colorado field Ornithologist's Annual Meeting will be held 1-2 June 1985 at Sterling Junior College, Sterling, Colorado. Field trips to the Red Lion State Wildlife Area and Pawnee National Grasslands will be held Saturday and Sunday mornings. Key species we can expect to see are Bobolink, Dickcissel, Bell's Vireo, Broadwing Hawk, and Longspurs.

The annual business meeting and paper session and banquet will be conducted Saturday afternoon at Sterling Junior College.

This is the first call for papers. Abstracts should be sent to the CFO Journal Editors at 6060 Broadway, Denver, Colorado 80216. CFO members will receive a separate mailing describing accomodations and reservations prior to the convention.

NEW MEXICO ORNITHOLOGICAL ANNUAL MEETING

THE NMOS ANNUAL MEETING WILL BE HELD THIS YEAR IN

LAS CRUCES, NEW MEXICO
APRIL 20, 21

The annual meeting will have morning field trips and, on April 20, an afternoon paper session and evening speaker. since the meeting is somewhat later in the year than usual, there should be good weather and good birding in the Las Cruces area.

If you would like to present a paper at the meeting on any aspect of ornithology or birding, contact Dustin Huntington (505) 836-4109.

ADDITIONAL DETAILS ON THE MEETING WILL BE SENT OUT IN MARCH.

COOPER-WILSON ORNITHOLOGICAL SOCIETIES MEETING

A joint annual meeting of the Cooper and Wilson Ornithological Societies will be held 6-9 June 1985 in Boulder at the University of Colorado campus. For information call Betsy Webb, Local Arrangements Committee, at 370-6353. CFO members are welcome (and urged) to attend!

WESTERN FIELD ORNITHOLOGISTS 1985 ANNUAL MEETING

The 1985 Annual Meeting of Western Field Ornithologists, publishers of WESTERN BIRDS, will be held on Thursday through Sunday, 2-5 May 1985, at the Palm Springs Desert Museum Palm Springs, California. The business meeting and paper sessions will be on Saturday. Field trips to such birding hotspots as the Salton Sea, Morongo Valley and Joshua Tree National Monument are planned for Thrusday, Friday and Sunday. A preregistration discount will be given to participants who register by mail before April 12. For information and registration forms, please write Narca A. Moore-Craig, P.O. Box 254, Lakeview, CA 92353 or call Peter Gent (303) 494-1750.

FINAL ANNOUNCEMENT

XIX CONGRESSUS INTERNATIONALIS ORNITHOLOGICUS

The 19th International Ornithological Congress will be held in Ottawa, Canada, from 22 to 29 June 1986. Its President is Prof. Dr. Klaus Immelmann. The scientific programme has been determined and comprises plenary lectures, symposia, contributed papers (oral and posters), round table discussions, special interest group meetings, and workshops. Pre and post-congress excursions and workshops are planned, as well as early morning bird walks and other activities for members and accompanying members.

The deadline for registration and submission of contributed papers is January 1986. Additional information, the final circular and registration forms are available from:

Dr. Henri Ouellet
Secretary General
XIX Congressus Internationalis Ornithologicus
National Museum of Natural Sciences
Ottawa, Ontario, Canada
K1A 0M8

GROUSE FIELD TRIP

A field trip to observe Sage and Sharp-tailed Grouse will be held 27-28 April 1985. Saturday the trippers will be in Walden to observe Sage Grouse and shorebirds, Sunday in Hayden for Sharp-tailed Grouse. Please call Vic Zerbi for information on reservations and accomdations at 945-6017.

BOREAL OWL COUNT

A CSU-CFO effort to locate Boreal Owls will be held March 30, 1985. For more information contact Ron Ryder at 491-6547 or Charlie Chase, 370-6353.

WESTERN BIRD BANDING ASSOCIATION ANNUAL MEETING

WHEN: June 3-5, 1985 (prior to joint Cooper-Wilson Ornithological Society Meetings in Boulder, Colorado)

WHERE: YMCA of the Rockies, Estes Park, Colorado (Adjacent to rocky Mountain National Park)

WHO: Members of the WBBA and anyone interested in bird banding, and their guests, spouses and/or family

ACCOMMODATIONS

We've reserved rooms in Eastside Lodge at the Y camp as a package deal providing 2 nights lodging and 5 meals (see registration form for rates). The Y provides activities for all ages of children, pre-school through high school, at modest additional cost: hiking, bowling, swimming, horseback riding, arts and crafts are a few. All participants are urged to use Eastside Lodge. A few housekeeping cabins on the YMCA grounds may be available. Write UMCA of the Rockies, Box 578, Association Camp, Co 80511 (Phone 303, 586-3341) for detils. Motels and other accommodations are available in Estes Park, but early reservations will be needed as June is peak season, the same applies to campgrounds in Rocky Mountain National Park. Important: If you stay overnight off the Y grounds, you must pay a daily grounds use fee.

Our reservation deadline with the YMCA is April 1.

GETTING THERE

Estes Park is 70 miles northwest of Denver, and all roads to it should be open. From Estes Park, take Colorado 66 southwest about 3 miles to Spur 66. A sign at this junction points to the YMCA. Follow Spur 66 about 2 miles to the YMCA Camp entrance, on the right.

PROGRAM IN BRIEF

Monday 3 June
PM Registration
Informal Workshops and demonstrations at Eastside Lodge
Evening - owling, possibly even Boreal Owls

Tuesday 4 June
AM Paper sessions
PM Business meeting and more papers
Evening - more owling, or films

Wednesday 5 June
AM Field trip to alpine (or head to Boulder meetings)

PAPERS

Participants are encouraged to present a 10- or 15-minute paper. Please send title and an abstract of about 200 words to Ronald A. Ryder, Department of Fishery and Wildlife Biology, Colorado State University, Fort Collins, Co 80523. If you are using any visuals other than 35 mm slides please let him know. Papers deadline is May 15, 1985.

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