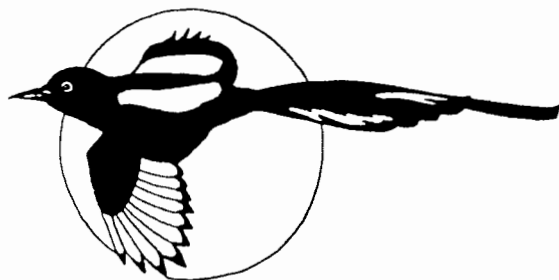

C.F.O. Journal

The Colorado Field Ornithologists' Quarterly





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PRESIDENT'S MESSAGE

Dave Silverman
P.O. Box 362
Rye, Colorado 81069

Thanks to Steve Bouricius, our February 13 field trip and Board meeting were successful. Despite gale force winds at timberline altitudes, a Ptarmigan was seen by those few who braved the elements under Steve's expert leadership. The challenge of the weather followed by a successful Ptarmigan discovery was a very exhilarating experience. Steve's hot chocolate, chile, and hospitality as host for our Board meeting were also much appreciated.

The Board firmed plans for our Memorial Day weekend Convention in Craig. Sage and Sharp-tailed Grouse trips plus other excursions are planned. The Board also decided to act in more strict accordance with the bylaws. Check the Journal's list of officers, directors, and Records Committee members. The year following each name indicates the end of their term of office. Some are eligible for reelection excepting Records Committee members who must take a mandatory one year furlough after 3 years of service. Officers' and directors' terms end at the annual Convention; Records Committee membership terminates at the end of the calendar year. By publishing the termination dates, we also hope to alert our membership when a new appointment must be made thereby encouraging volunteers. I feel each member of C.F.O. should serve at least once on our Board or Committees.

The Board also agreed that a closer working relationship with the Records Committee is necessary. Maintaining a state list with emphasis on birds requiring documentation was one important function we discussed. We also felt the Records Committee Chairman should attend Board meetings, circulate all evidence submitted to document a bird to all Committee members, regularly publish Committee proceedings in the Journal, and maintain records on file at the Denver Museum in orderly fashion. Finally, the Board felt that all Records Committee members should abide by the mandatory 3 year term of office. For this reason Coen Dexter, Mark Janos, Duane Nelson, and I are cycling off the Committee. Its new Chairman, Bill Prather, has agreed that the above concerns of the Board will be respected. If so, I am confident that many of the problems of the Records Committee discussed by the Board will be amicably resolved.

C.F.O. SPRING FIELD TRIP SCHEDULE

DINOSAUR RIDGE HAWKWATCH

Meet at 10:00 a.m., **Saturday April 24, 1993**, at the Rock Cut Park-n-Ride parking lot at the southeast corner of I-70 and the Morrison exit. From the parking lot, we will hike to the top of the Morrison Hogback and one quarter mile south.

This trip will take advantage of the peak of the spring raptor migration along the Front Range. Depending upon weather and wind conditions, we could see good numbers of 10-14 species of raptors. We'll work on the finer points of identification as well as rapid recognition techniques. Don't miss it!

Leader: Duane Nelson (303) 277-9748

WELD COUNTY SHOREBIRDS AND WATERFOWL

Meet at 7:00 a.m., **Sunday April 25, 1993**, at Jim Hamm Park, Weld County Road 1 and 17th St. (east of Longmont).

This all day trip is the perfect time to look for migrating spring waterbirds. Carpooling at Jim Hamm Park, we will visit Union and Latham Reservoirs as well as other Weld County hotspots. Bring lunch. This C.F.O. field trip is co-sponsored by the Foothills Audubon Society.

Leader: Bill Prather (303) 776-2191

NORTHWEST COLORADO COMPENDIUM

Meet at 6:00 a.m., **Saturday May 29, 1993**, at the Holiday Inn in Craig. Join us at the 31st Annual Convention of the Colorado Field Ornithologists for 3 days of great field trips in this seldom birded area of Colorado. For more details, consult the convention notices in this issue of the *C.F.O. Journal* and a forthcoming mailing.

PAWNEE NATIONAL GRASSLANDS

Meet at 6:00 a.m., **Saturday June 5, 1993**, at NIST (Broadway) and 27th in Boulder) or 7:00 a.m. along Highway 85 just north of Nunn.

On this all day trip we will visit some of the best of northeast Colorado including the Pawnee Grasslands, Crow Valley Campground and Lower Latham Reservoir. Expect McCown's and Chestnut-collared Longspurs, Mountain Plover, Burrowing Owl, Marsh Wren and rails. Bring lunch and expect a 5:00 p.m. return. This C.F.O. field trip is co-sponsored by the Boulder Bird Club.

Leader: Bill Kaempfer (303) 939-8005

C.F.O. FIELD TRIP LEADERS

If you would like to lead a field trip in your area of special interest, please write or call Steve Bouricius at (303) 747-2367. The C.F.O. welcomes the opportunity to co-sponsor field trips with other organizations. Deadline for inclusion in the next *C.F.O. Journal* is June 1.

NOTE FROM THE EDITOR

**Mona Hill
3410 Heidelberg Drive
Boulder, Colorado 80303
(303) 494-8135**

I am pleased to call everyone's attention to the back cover of this issue. Joe Rigli did many drawings for the *C.F.O. Journal* in the 1970s and 1980s. *Welcome back, Joe!*

C.F.O. BOARD MEETING FEBRUARY 13, 1993

David Pantle
1782 Locust Street
Denver, Colorado 80220

The C. F. O. Board met at the home of Steve Bouricius at Peaceful Valley, following a strenuous fieldtrip led by Steve and a delicious venison chili dinner prepared by Debbie Bouricius and Steve Bouricius.

Directors present: Dave Silverman (President), Steve Bouricius (Vice President), Mona Hill (*C.F.O. Journal* Editor), Beth Dillon, Coen Dexter, Bob Dickson, Dave Leatherman, Paul Opler, David Pantle (Secretary), Raymond Davis (Treasurer) (absent: Susan Allen, Linda Vidal). Other Members present: Debbie Bouricius, Brenda Wright, Dave Johnson, Randy Lentz, Kim Potter.

1. Board Member. Beth Dillon, who had served as Secretary for many years, was elected to the Board.
2. Minutes. Minutes of meeting Sept. 5, 1992, were approved.
3. Treasury. C.F.O. is in good financial condition with cash assets at year end of \$7,581.32, divided among a CD, a money market account, and a checking account.
4. *C.F.O. Journal*. The 1992 budget for the Journal was \$3,000, and expenses were \$3,149.51. A budget for 1993 of \$3,200 was approved. Black and white cover photos being used do not add much to the cost. If we were to use color cover photos that would add \$250 per issue. Covers have been printed for all of 1993 using the title *C. F. O. Journal*. Next year we may consider changing the name to Colorado Field Ornithologists' Journal. All agreed that Mona Hill is doing a good job as editor.
5. Membership. There are 314 active members. Membership has been flat for several years. We gain roughly 20-30 new members each year and lose about that many. Steve Bouricius and Linda Vidal have prepared a brochure for attracting new members which is about ready for the printer; they hope to have it ready to distribute at the convention in May. It was agreed that we will offer multi-year memberships for up to three years at the current rate, but without any discount. It was agreed that the full membership list will be published in the summer 1993 issue of the Journal and each two years thereafter, with a list of new members to be published in alternate years.

6. Records Committee. Because this is a sensitive as well as very important committee, Bylaws adopted May 20, 1978 (published in *C.F.O. Journal* Winter 1980, v. 14, no. 1, pp. 11-22) limit the term of office of each member. Each member, including the chairman, shall serve for a period of three years and then take a mandatory retirement of at least one year before being eligible to serve again. The President appoints the chairman and appoints new members after receiving suggestions from the committee. The chairman is to attend all Board meetings in a non-voting capacity.

Several members recently pointed out that these Bylaws were not being followed. The Board all agreed that the Bylaws must be followed. There was a recent exchange of cordial letters between Dave Silverman and Mark Janos, who had recently been appointed as chairman, and Mark resigned in order to observe the mandatory break in service. Coen Dexter has also reached the mandatory retirement. Dave Silverman has received suggestions from members of the committee and received suggestions from the Board as to possible new members and a new chairman of the Records Committee. Dave will appoint two new members and will appoint a new chairman.

In order to clarify the beginning and end of the three year term on the Records Committee, the Board adopted a resolution that members of the Records Committee serve for three calendar years beginning with the year of appointment, and that the final year of prospective service of each member be published inside the cover of the Journal.

Under the leadership of the retiring chairman, Duane Nelson, action on the records is up to date, and the 1991 records are ready to publish. 1992 records are still being compiled and have not yet been circulated to the Records Committee members.

7. 1993 Convention. The annual convention will be in Craig over Memorial Day. Dave Silverman has received many suggestions from members for papers, speakers and fieldtrips. Linda Vidal and Steve Bouricius are handling local arrangements and will organize fieldtrips. Dave Silverman will handle speakers and papers. The 1994 convention may be in Trinidad where there is local interest in hosting the meeting.

8. Field Trips. Steve Bouricius asks that any member interested in planning and leading a fieldtrip in their area of special interest contact him.

9. New Business. Dave Johnson has information about activities of the U.S. Forest Service for Pawnee National Grasslands concerning Mountain Plover. Dave Silverman has received a booklet from Colorado Division of Wildlife concerning efforts to re-establish Sharp-tailed Grouse; anyone can borrow it from Dave.

INTERNATIONAL MIGRATORY BIRD DAY

May 8, 1993

Sponsored by Colorado Partners in Flight

**Pat McClearn
444 Cherry Street
Denver, Colorado 80220**

Saturday, May 8, 1993, has been designated Migratory Bird Day by the Smithsonian Migratory Bird Center. The day is dedicated to increasing awareness of migratory birds - their habits, characteristics, and especially their conservation. Colorado Partners in Flight is sponsoring the day in our state.

In recent years concern has grown about the neotropical migratory birds which nest and raise their young in Colorado and other western states, but spend their winters in Latin America. Many factors, including loss of habitat in Colorado as well as on their wintering grounds south of the border, affect the survival of these birds. More than 400 bird species breed or winter in Colorado or migrate through the state. According to the U.S. Fish and Wildlife Service, 41% of our neotropical migrants experienced declines from 1980 to 1989.

Colorado Partners in Flight, a broad coalition of federal, state and nonprofit organizations, plus interested individuals, has been formed with the goal of promoting the conservation of Colorado migratory birds. It is part of an international effort - **Partners in Flight - Aves de las Americas**, Neotropical Migratory Bird Conservation Program, initiated in 1990 by the U.S. Fish & Wildlife Foundation.

There will be an article about Colorado Partners in Flight in the next issue of the *C.F.O. Journal*. For more information about International Migratory Bird Day, please contact Mike Britten, Wildlife Biologist, National Park Service Regional Office - (303) 969-2614, or Mike Carter, Executive Director, Colorado Bird Observatory - (303) 659-4348.

Joining the North American Migratory Count was easy for the Arkansas Valley Audubon Society (AVAS) of southeast Colorado. We have traditionally held our Birdathon the second weekend in May, selected also as Migration Count Day. The Birdathon is our biggest fund raising activity. We formally counted only number of species but now tally total numbers for each species similar to Christmas Counts. We also restrict ourselves to Pueblo County following Migration Count Day rules. Combining our Birdathon Day with the North American Migration Count has greatly increased the importance of our Count. It generates more interest, fund-raising, and participation. *Dave Silverman*

THE C.F.O. RECORDS COMMITTEE REPORT FOR 1991

Duane Nelson
1619 Ford Street
Golden, Colorado 80401

This report reviews records received by the Committee for the year 1991.

The members who voted on these records include Coen Dexter (Grand Junction), Peter Gent (Boulder), Joe Himmel (Greeley), Bill Howe (Laurel, MD), Mark Janos (Pueblo), Dick Schottler (Golden), David Silverman (Rye), and Van Truan (Pueblo).

The official bird list for the state of Colorado through December 31, 1991 stands at 445 species.

Part 1. Species Added to The C.F.O. State List.

No new species were added to the state list in 1991; see below for reports now being circulated to experts outside the region.

Part 2. Reported Species Not Added to the State List.

A. Change in the recognized status of a species reported in Colorado.

Whooping Crane (*Grus americana*). The issue of countability of birds from the Gray's Lake experimental flock was discussed by the committee. The committee has decided to delete sightings of birds from the "Gray's Lake Flock" from the official state list and retain all historical records made in 1973 and earlier.

The American Birding Association, in the October 1992 *Birding*, states that the foster chick experiment "has been declared a failure by the U.S. Fish and Wildlife Service, which plans to recapture all survivors for use in captive breeding and future introduction programs." The Whooping Crane numbers in this flock are currently down to 6, and there is no evidence that any Whooping Crane from that flock ever recognized another white crane as anything other than "just another crane." So far, Arizona and New Mexico have already deleted the bird from their official state lists.

Two recent eastern plains records, at Hudson and Severance in 1985, were banded birds originating from the Gray's Lake flock. The last accepted report of what may have been birds migrating south from Wood Buffalo National Park in Canada was on November 3, 1973 near Greeley (ORC File # 16-73-172).

It is possible that migrants from Canada will again pass through, due

to increases in the Canada flock, or exceptional weather forcing them west from their usual route. Be prepared, and note leg bands, colors and positions.

- B. Reports that are being recirculated to experts outside the region. Status of these species will be evaluated by the new Records Committee.

Ruby-throated Hummingbird (*Archilochus colubris*) 31-91-42. A male at a feeder in Rye, Pueblo County, on 7/13/91 was suggestive but did not rule out a non-trilling male Broad-tailed to one reviewer. The text referred to a forked tail, which was not evident in a photograph.

Buff-breasted Flycatcher (*Empidonax fulvifrons*) 34-91-47. It was seen and heard on 5/19/91 at Hanna Ranch State Wildlife Area, El Paso County, and reports were submitted by three capable observers.

Black-tailed Gnatcatcher (*Poliophtila melanura*) 45-91-53. A family group seen by many observers near Cameo, Mesa County, in July 1991 was felt by most committee members to be well described. Photographs and descriptions were received from several parties. One member felt that the description of the head pattern of the male did not eliminate Blue-gray Gnatcatcher even though the tail pattern, wing pattern, voice and habitat all suggested Black-tailed Gnatcatcher.

- C. Reported species not added to the state list.

Black-bellied Whistling Duck (*Dendrocygna autumnalis*) 8-91-14. An adult was photographed at a pond on the Pawnee National Grassland, Weld County, on 7/11/91. The photograph confirmed the identity. Half the committee members felt that the origin of the bird was questionable. It is a species not known for long-distance vagrancy. The status of this bird could change if a pattern of vagrancy is established regionally for this species.

Common Black-Hawk (*Buteogallus anthracinus*) 10-91-22. A reported Common Black-Hawk near Durango, La Plata County on 3/19/91 was described too briefly to qualify as a first state record.

Common Black-Hawk (*Buteogallus anthracinus*) 10-91-23. An adult was reported at Carrizo Mountain, Las Animas/Baca County on 6/15/91. This bird was well described, and came close to being accepted. One voter was troubled with a description of the tail as appearing "fairly long . . . head large and prominent." Those not accepting the report felt that the bird still could have been a Common Black-Hawk.

Ruby-throated Hummingbird (*Archilochus colubris*) 31-91-43. A hummingbird, banded near Steamboat Springs, Routt County, on 6/26/91 was tentatively identified as a male Ruby-throated due mainly to feather measurements. The wing length (43 mm) did not overlap measurements of Broad-tailed (45-52 mm) or Ruby-throated (37-40 mm), and no mention was

made of whether the tail was forked. Photographs weren't taken.

Part 3. Category A Records (Submitted Documentation Supports the Recorded Description).

Red-throated Loon (*Gavia stellata*) 1-91-1. One adult was seen and photographed at Vega Lake, near Collbran, Mesa County between 10/20 and 10/26/91. (Coen Dexter).

Red-throated Loon (*Gavia stellata*) 1-91-2. One bird in first winter immature plumage was seen by many observers between 12/2 and 12/6/91 at Chatfield Reservoir, Douglas County (Joey Kellner).

Yellow-billed Loon (*Gavia adamsii*) 1-91-3. One in winter plumage was seen by many observers between 12/2 and 12/6/91 at Chatfield Reservoir, Douglas County (Joey Kellner).

Brown Pelican (*Pelecanus occidentalis*) 3-91-4. An immature was photographed atop the Limon McDonald's Restaurant, Lincoln County on 5/9/91 (Bob Davis, photographed by Shelley Hendrix).

Brown Pelican (*Pelecanus occidentalis*) 3-91-5. An adult was seen and photographed at Union Reservoir, Weld County, on 6/3/91 (Report and photos by Mark Nikas).

Brown Pelican (*Pelecanus occidentalis*) 3-91-6. One adult was found on 6/23/91 at Chatfield Reservoir, Jefferson/Douglas Counties on 6/23 - 6/27/91. By 6/26, a second adult was seen with the first. One of the birds was probably the same individual that first appeared at Union Reservoir three weeks earlier (Dick Schottler, Mark Janos, Peter Gent).

Brown Pelican (*Pelecanus occidentalis*) 3-91-7. One adult was seen and photographed at Antero Reservoir, Park County, from 7/1 - 7/10/91. It was probably one that had been at Chatfield (Report and photos Laurens Halsey, report by Chuck Loeffler).

Little Blue Heron (*Egretta caerulea*) 5-91-8. One adult was seen and sketched at Soda Lake, Jefferson County, on 9/14/91 (Margaret and Bill Elliot).

Tricolored Heron (*Egretta tricolor*) 5-91-11. One immature was seen and photographed at Hidden Lake, Adams County between 8/16 and 8/21/91 (Photographed by Duane Nelson, reports by D. Nelson and Phil Hayes).

Reddish Egret (*Egretta rufescens*) 5-91-9. One adult, Colorado's first since 1875 was found at Adobe Creek Reservoir, Kiowa County, on 5/27 - 5/28/91 and was seen by many observers (Photographed by Karl Overman, reports by Mark Janos, Peter Gent, Dick Schottler, Dan Bridges).

Yellow-crowned Night-Heron (*Nycticorax violaceus*) 5-91-12. An adult was seen and photographed at Tamarack Ranch near Crook, Logan County on 6/17/89 (Mark Nikas).

Yellow-crowned Night-Heron (*Nycticorax violaceus*) 5-91-13. An adult was at Fountain Creek Regional Park, El Paso County, on 7/28/91 (Mark Janos).

Eurasian Wigeon (*Anas penelope*) 8-91-17. One adult male was seen on 3/25/91 at Monte Vista National Wildlife Refuge, Rio Grande County (Mark Nikas).

Eurasian Wigeon (*Anas penelope*) 8-91-18. Two adult males were seen by many observers on Sloan Lake, Denver County on October 29, 1991 (Dick Schottler).

Oldsquaw (*Clangula hyemalis*) 8-91-19. A female was seen and sketched at Chatfield Reservoir, Douglas County on 11/7/91 (Joey Kellner).

Surf Scoter (*Melanitta perspicillata*) 8-91-20. A female was photographed at Prospect Pond, Wheat Ridge Greenbelt, Jefferson County, on 11/9/91 (Joey Kellner).

Surf Scoter (*Melanitta perspicillata*) 8-91-21. An adult female was seen at Colorado City, Pueblo County, on 10/31/91 (Dave Silverman).

Ruffed Grouse (*Bonasa umbellus*) 13-91-24. One female was seen by a party of nine at Hoy Mountain, near Dinosaur National Monument on 9/28/91. It was photographed, and a photo appeared in American Birds, Spring 1992, p. 128 (Photo, Duane Nelson, reports by Dan Bridges, Peter Gent).

Black Rail (*Laterallus jamaicensis*) 17-91-26. One was seen and heard by many between 5/18 and 5/27/91 at Bent's Old Fort, Otero County (Photographs and report by Dan Bridge, reports by Hugh Kingery, Peter Gent, Mark Janos).

Lesser Golden-Plover (*Pluvialis dominica*) 18-91-27. One was seen at Orchard Mesa, Mesa County, on 11/12/91. The photographs were suggestive of *P. d. fulva* (Photo, Coen Dexter, reports by C. Dexter and Rich Levad).

Red Knot (*Calidris canutus*) 19-91-29. Two adults in breeding plumage were seen and heard on 7/24/91 at Nee Noshe Reservoir, Kiowa County (Duane Nelson).

Pomarine Jaeger (*Stercorarius pomarinus*) 22-91-30. One light phase adult was seen at Barr Lake, Adams County, between 6/29 and 7/4/91 (Linda Hedl and Bill Fink).

Pomarine Jaeger (*Stercorarius pomarinus*) 22-91-31. One dark morph in juvenile plumage was seen between October 30th and November 10th at Pueblo Reservoir, Pueblo County (Bob Dickson, Mark Janos, Peter Gent).

Lesser Black-backed Gull (*Larus fuscus*) 23-91-34. A first-winter bird was seen at Chatfield Reservoir, Jefferson/Douglas Counties, on 12/14/91 (Jack Reddall and Joey Kellner).

Glaucous Gull (*Larus hyperboreus*) 23-91-35. A first-winter bird was seen at the Clifton Oxidation Ponds, Mesa County, on 11/2/91 (Coen Dexter).

Black-legged Kittiwake (*Rissa tridactyla*) 23-91-36. A first winter bird was seen and photographed at Connected Lakes, Mesa County, on 11/16/91 (Coen Dexter).

Arctic Tern (*Sterna paradisaea*) 23-91-37. An adult in alternate (breeding) plumage was photographed at Adobe Creek Reservoir, Bent County, on 6/12/91 (Duane Nelson).

Spotted Owl (*Strix occidentalis*) 28-91-38. One was seen and heard at Mesa Verde National Park on 4/5/91 (Dan Bridges).

Lesser Nighthawk (*Chordeiles acutipennis*) 29-91-39. Two (one male and one female) were seen on 5/24/91 at the Clifton Oxidation Ponds, Mesa County (Vic Zerbi and Peter Gent).

Blue-throated Hummingbird (*Lampornis clemenciae*) 31-91-40. A female was seen about 5 miles southeast of Durango in La Plata County at a feeder by many observers on 9/1/91 (Mark Janos).

Yellow-bellied Sapsucker (*Sphyrapicus varius*) 33-91-44. An immature male was well described at Mancos, Montezuma County on 1/17/91 (Alan Versaw).

Yellow-bellied Sapsucker (*Sphyrapicus varius*) 33-91-45. An immature was in Greeley, Weld County, on 12/12/89. This species should no longer be considered rare in winter in eastern Colorado (Mark Nikas).

Red-naped Sapsucker (*Sphyrapicus nuchalis*) 33-91-46. A very rare winter report, from the Redlands area near Grand Junction in Mesa County on 12/27/91 (Alan Versaw).

Black Phoebe (*Sayornis nigricans*) 34-91-48. An adult was seen at Fountain Creek Regional Park, El Paso County, on 3/31/91 (Toni Brevillier).

Ash-throated Flycatcher (*Myiarchus cinerascens*) 34-91-50. One was at Chatfield State Park, Douglas County, on 5/11/91 (Hugh Kingery).

Great-crested Flycatcher (*Myiarchus crinitus*) 34-91-51. One was seen near Jefferson, Park County, on 10/13/91 (Kathy Hawkins).

Sedge Wren (*Cistothorus platensis*) 42-91-52. One was at Meadowbrook, Colorado City, Pueblo County, on 10/16 and 10/17/91 (Bob Dickson, Mark Janos).

Sprague's Pipit (*Anthus spragueii*) 46-91-54. Two were seen 7 miles east/southeast of Julesburg between 10/12 and 10/19/91 (Dan Bridges, Peter Gent, Mark Janos).

White-eyed Vireo (*Vireo griseus*) 51-91-55. One was found dead at Barr Lake State Park, Adams County on about 11/1/91 by Joe Roller. It was photographed by Duane Nelson, and prepared as specimen 39956 at the DMNH.

Gray Vireo (*Vireo vicinior*) 51-91-56. One was seen and heard at Badito, Huerfano County, on 7/28/91. Diligent field work is revealing small numbers of this species in southeast Colorado (Dave Silverman).

Blue-winged Warbler (*Vermivora pinus*) 52-91-57. One singing male was seen at Castlewood Canyon, Douglas County, on 6/11/91 (MarkJanos).

Golden-winged Warbler (*Vermivora chrysoptera*) 52-91-58. A male was seen on 5/20/91 at Hannah Ranch SWA, El Paso County (Mark Janos).

Golden-winged Warbler (*Vermivora chrysoptera*) 52-91-59. A male was seen and heard at the Bear Creek Nature Center in Colorado Springs, El Paso County, on 6/6/91 (Toni Brevillier).

Golden-winged Warbler (*Vermivora chrysoptera*) 52-91-60. An adult female was seen between 8/20 and 8/26/91 at the Wheat Ridge Greenbelt, Jefferson

County, (Duane Nelson and Bob Spencer).

Northern Parula (*Parula americana*) 52-91-61. A female was seen near Whitewater, Mesa County, on 9/1/91 (Rich Levad).

Magnolia Warbler (*Dendroica magnolia*) 52-91-62. A male was seen by Jim and Barbara Fay between 7/8 and 7/12/91 at Boyd Lake State Park, Larimer County (Jim and Barbara Fay).

Cape May Warbler (*Dendroica tigrina*) 52-91-63. A drab immature was seen and photographed at Fountain Creek Regional Park, El Paso County, on 11/25 and 11/26 91 (Photo and report by Ann Higgins, reports by Toni Brevillier, Robert Joyce and George Maentz).

Hermit Warbler (*Dendroica occidentalis*) 52-91-64. An adult male was seen in Mineral Palace Park, Pueblo, Pueblo County, on 4/30/91 (Mark Janos).

Hermit Warbler (*Dendroica occidentalis*) 52-91-65. An adult male was seen at Fountain Creek Regional Park, El Paso County, on 5/4/91 (Toni Brevillier).

Hermit Warbler (*Dendroica occidentalis*) 52-91-66. An adult female was seen in a shelterbelt 15 miles northwest of Burlington, Kit Carson County, on 5/6/91 (Hugh Kingery).

Prairie Warbler (*Dendroica discolor*) 52-91-68. An adult male was seen on 9/25/91 in the Clifton Marsh Wildlife Area, Mesa County, for a very rare west slope record (Coen Dexter).

Palm Warbler (*Dendroica palmarum*) 52-91-69. One in basic plumage was seen on 10/3/90 at the Plum Creek area in Chatfield State Park, Douglas County (Hugh Kingery).

Bay-breasted Warbler (*Dendroica castanea*) 52-91-70. An adult male was seen by many observers at Hannah Ranch, El Paso County, on 5/20/91 (Mark Janos).

Worm-eating Warbler (*Helminthos vermivorus*) 52-91-72. One was seen in the grove behind Lamar Community College, Prowers County, on 5/15/91 (Duane Nelson).

Kentucky Warbler (*Oporornis formosus*) 52-91-74. One male was seen on 4/18 and 4/20/91 in the Olive Marsh, Pueblo County (Mark Janos).

Kentucky Warbler (*Oporornis formosus*) 52-91-75. An adult was seen in the Lake Henry grove, Crowley County, on 5/9/91 (Dan Bridges).

Painted Bunting (*Passerina ciris*) 56-91-76. A male was seen on 5/12/91 at the Wagon Wheel Campground at Bonny Reservoir, Yuma County (Joe Tenbrink).

Field Sparrow (*Spizella pusilla*) 56-91-77. One adult was seen below the dam of Lake Beckwith, Colorado City, Pueblo County, on 10/20/91 (David Silverman).

Leconte's Sparrow (*Ammodramus leconteii*) 56-91-84. Six or more were seen at the marsh on the west side of John Martin Reservoir, Bent County, on 11/9/91. This is the same location where several wintered in 1990-1991 (Dan Bridges).

Rusty Blackbird (*Euphagus carolinus*) 56-91-80. A female was seen at

Clifton, Mesa County, on 10/31/91 (Coen Dexter).

Purple Finch (*Carpodacus purpureus*) 56-91-83. A male was seen at Colorado City, Pueblo County, on 3/3/91 (David Silverman).

Part 4. Category B and C Records. (Submitted documentation probably indicates a misidentification or is too brief or incomplete to support the stated identification).

Reddish Egret (*Egretta rufescens*) 5-91-10. A split vote. One adult was reported at Hart's Basin, Delta County on 8-11-91. The distance from observer to bird was too far to give the detail needed according to some reviewers.

Trumpeter Swan (*Cygnus buccinator*) 8-91-15. A split vote. A swan was seen on 4/21/91 in Bent County. Some felt that the description was too brief.

American Black Duck (*Anas rubripes*) 8-91-16. Two May birds at Lake George, El Paso County, were described too briefly, and the report failed to describe the speculum or rule out hybrids.

Greater Prairie Chicken (*Tympanuchus cupido*) 13-91-25. The observation period was too short and the vehicle speed too great to positively identify eight seen in flight over I-76 in Morgan County on 11/24/91.

Lesser Golden-Plover (*Pluvialis dominica*) 18-91-28. A report of three at Prewitt Reservoir, Washington County, on 9/14/91 was thought to be too brief by some members.

Little Gull (*Larus minutus*) 23-91-32. A juvenile was seen at Bonny Reservoir, Yuma County, on 5/12/91. A split vote; some voters felt the report was too brief.

Lesser Black-backed Gull (*Larus fuscus*) 23-91-33. A report of a winter adult at Pueblo Reservoir on 11/14/91 was felt not to completely eliminate similar species.

Blue-throated Hummingbird (*Lampornis clemenciae*) 31-91-41. A female near San Isabel, Custer County on 8/2/91 received a split vote, some voters feeling that female Magnificent was not ruled out.

Black Phoebe (*Sayornis nigricans*) 34-91-49. A November 15th record in Louisville, Boulder County, was feeding on sunflower seeds, and was probably a junco.

Blackburnian Warbler (*Dendroica fusca*) 52-91-67. A description of a male seen on 5/13/91 near Ft. Morgan, Morgan County, was felt by some to be too brief.

Prothonotary Warbler (*Protonotaria citrea*) 52-90-71. A bird on the north shore of Pueblo Reservoir, Pueblo County, on 4/20/91 was described too briefly to be accepted.

Louisiana Waterthrush (*Seiurus motacilla*) 52-91-73. A report, sent in as "Possible Louisiana Waterthrush" was suggestive, but lacked a description of flank color.

Baird's Sparrow (*Ammodramus bairdii*) 56-91-78. A suggestive look at one, near Walsh in Baca County, on 4/16/91. The vote was divided, with some feeling that the face was not described nor all similar species eliminated.

Baird's Sparrow (*Ammodramus bairdii*) 56-91-79. One reported on 9/14/91 in Clifton, Mesa County, was narrowly voted down, because of concern with habitat and description of face.

Rusty Blackbird (*Euphagus carolinus*) 56-91-81. A close vote, from Fountain Creek Regional Park, El Paso County, on 12/7/91. A minority felt that other blackbirds were not eliminated.

Scott's Oriole (*Icterus parisorum*) 54-91-82. One was reported from Denver, Denver County, on 6/2/91. The report was missing some key field marks.



Creede Boreal Owl subadult plumage, September 2, 1992.
Photo by Robin Sell.

YOUNG BOREAL OWLS FOUND IN THE SAN JUAN MOUNTAINS, COLORADO

by

John J. Rawinski, Robin Sell, Pat Metzger and Hugh and Urling Kingery

For many years, naturalists have speculated about the breeding range and distribution of Boreal Owls (*Aegolius funereus*) in the Rocky Mountains. Evidence of breeding was only recently documented in Idaho (Hayward and Garton 1983) and in Colorado (Palmer and Ryder 1984). More recently, Boreal Owls were found in southern Colorado and northern New Mexico during the breeding season (Ryder, et. al, 1987; Stahlecker and Rawinski 1990). Confirmed breeding evidence in southern Colorado has been lacking.

This paper presents evidence that Boreal Owls breed in the San Juan Mountains of Colorado based on discovery of two young Boreal Owls found in 1992 near Creede and Pagosa Springs.

The first observation was made on July 24, 1992 when Hugh and Urling Kingery were doing field work on the Granite Lake Breeding Bird Atlas block (37107E3), about 24 miles northwest of Pagosa Springs. Scolding chickadees drew them to a spruce tree where they observed a juvenile-plumaged Boreal Owl sitting about 10 feet up in a tree. The general coloration of the bird was chocolate brown with white above the eyes. The light-yellowish bill and yellow eyes distinguished it from the similar Northern Saw-whet Owl and the Flammulated Owl. The habitat was medium-sized spruce of 20 to 30 feet high and the elevation was 9,400 feet.

A second observation occurred on September 2, 1992, when Rio Grande National Forest Wildlife Biologist Robin Sell, her assistant Pat Metzger and a crew were evaluating wildlife habitat in the Ivy Creek drainage about 12 miles south of Creede. Pat was walking along and suddenly felt as if she were being watched from behind. She turned and saw the bird about 10 feet up in a tall spruce tree. She called Robin, who then photographed the bird which was unafraid. Robin later wrote that 'it was evident that the owl was a juvenile showing a lot of downy feathers.' The habitat was Engelmann spruce (*Picea engelmannii*) forest at about 10,400 feet.

The Creede bird was the size of an adult Boreal Owl and had the pale-colored bill. We believe this bird to be a "subadult" because, unlike the adult plumage, this bird lacked the distinct black facial disc edge and also lacked the brown streaks on the breast. The breast was light brown to gray, and showed a downy appearance, suggesting a transition phase between the chocolate brown breast feathers of the juvenile and the streaked brown and white breast feathers of the adult. We believe the bird to be a recently-fledged individual, and was likely in the same general area as its nest site. We note

that none of the field guides to bird identification shows the subadult plumage.

Other evidence suggest that Boreal Owls have an intermediate plumage between the chocolate brown juvenile adult. On September 9, 1984, a Boreal Owl was photographed on Slumgullion Pass that had a subadult plumage and lacked the dark edge of the facial disk. While the Slumgullion Boreal Owl suggested breeding of the species in that area, it was not conclusive because it had brown streaks on the breast and other characteristics typical of adult plumages. However, the Slumgullion bird is very similar in plumage to that of the Creede Boreal Owl described previously.

The age of the Creede bird is estimated to be about 45 days (personal communication with Ryder). This means that hatching took place around mid July. This is consistent with the hatching dates of the Cameron Pass population which hatched in early July. Incubation takes approximately three weeks (Bent, 1938), which would place egg laying date for this particular bird around the end of June. Cameron Pass Boreal Owls laid eggs in early June and early May.

These two observations are not the southernmost breeding record for North America. During this same field season, a discovery of subadult Boreal Owls in northern New Mexico extended the breeding range even farther south (Stahlecker 1993, personal communication).

Boreal Owls are seldom seen during the daylight. Even people who have done extensive research on Boreal Owls have not seen them naturally-occurring during daytime. The discoveries by Hugh and Urling, Pat and Robin were very fortunate experiences. These observations establish important new confirmed breeding records for boreal owl in Colorado. They confirm breeding in the San Juan Mountains and represent the southernmost breeding records for Boreal Owls in Colorado.

Acknowledgements:

We would like to thank Dr. Ronald Ryder, Professor Emeritus, Colorado State University; Dr. Gregory Hayward, Wildlife Research Ecologist, US Forest Service, Laramie, Wyoming and Mr. Dale Stahlecker, Wildlife Biologist with Eagle Ecological Services, Box 126Z, Santa Fe, New Mexico 87505 for reviewing parts of this manuscript.

About the authors: John J. Rawinski is Soil and Minerals Manager, Rio Grande National Forest (RGNF); Robin Sell is Wildlife Biologist for the Creede Ranger District, RGNF; Pat Metzger is Forestry Technician, RGNF; Hugh Kingery is the Project Director for the Colorado Breeding Bird Atlas Program. Hugh and his wife Urling spend many hours outdoors documenting breeding birds through the State.

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**US FOREST SERVICE
SEEKING COMMENTS ON MOUNTAIN PLOVER**

As C.F.O. members may already know, the mountain plover is a declining species. Best estimates place the drop in numbers at just over 60% since 1966. The reasons for this are not well understood. Over 50% of the mountain plover's remaining population breeds in Weld County, Colorado on the Pawnee National Grassland and in Phillips County, Montana. The US Forest Service is in the process of developing a management strategy for this species and as part of the process, is writing an Environmental Impact Statement (EIS). Initial public scoping has been completed. Information and data gathering is scheduled for summer 1993, with final EIS preparation slated for fall 1993. If you have anything to contribute or have questions, the responsible official for this EIS is Skip Underwood, Supervisor, Arapaho-Roosevelt National Forest, 240 W. Prospect, Fort Collins, Colorado 80521 (303) 498-1100. Further information could be obtained from: Jeff Losche, Pawnee National Grassland, Mountain Plover EIS, 660 "O" Street, Suite A, Greeley, Colorado 80631 (303) 353-5004.

**MOBBING OF AN INJURED HERMIT THRUSH
BY BROAD-TAILED HUMMINGBIRDS**

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At about 7:50 p.m. on July 18, 1992, I noticed a juvenile Hermit Thrush (*Catharus guttatus*) on the ground below the picture windows of my mountain home. The bird was erect on its legs but apparently stunned--opening its eyes intermittently and breathing heavily. Birds often collide with my windows and occasionally there are fatalities. In this case, it appeared that the bird would survive to fly away. While the Hermit Thrush was still on the ground, I approached the bird to examine the fine white spotting in its upper wings, back and crown. Soon after, it became alert and flew to a nearby Engelmann Spruce (*Picea engelmannii*). It teetered for a while, gradually slowed its movements and closed its eyes. I presumed its eventual recovery and went back to watching the considerable hummingbird activity near my home. At this time I was providing nearly two gallons (7.5l) of sugar water per day in 25 nectar feeders. Of particular interest were visits by a rare male Calliope Hummingbird (*Stellula calliope*) (Andrews and Righter 1992).

About five minutes passed when I became aware of an increasing chorus of hummingbird "chips" and wing trills from the nearby spruce. The Hermit Thrush remained motionless with its eyes shut. Surrounding the thrush was a group of up to 20 Broad-tailed Hummingbirds (*Selasphorus platycercus*) making short 6"-12" (15cm-30cm) flights in various directions, with each stop lasting about a second. The hummingbirds were constantly giving the familiar "chip" call normally used to warn an intruder and/or claim a feeding territory. Some would perch briefly and "chip", but most remained in motion from about 8 inches to 5 feet (0.2m-1.5m) from the thrush. No physical contact occurred, nor was there any of the rapid back-and-forth or "shuttle" display male hummingbirds sometimes perform on females (Stokes and Stokes 1989, Tyrrell 1985). At a point when the mobbing seemed to reach a crescendo, the thrush opened its eyes a few seconds, then closed them again. During this time, normal hummingbird feeder activity continued, with dozens of birds coming and going. This was "prime time" on the hummingbird network.

The number of mobbers would vary from 5 to 25, as some would break away to feed and others would join in. Nearly all the mobbers were mature male Broad-tailed Hummingbirds, although a few were females or immatures. Once, a mature male Rufous Hummingbird (*Selasphorus rufus*) entered the group of mobbers, looked about, and left without engaging in the short flight and "chip" behavior of the Broad-tails.

In time, the thrush opened its eyes, turned its head back and forth, and hopped across several branches to an area full of needles offering more visual protection. The bird seemed alert but remained still. The mobbing continued a few more minutes until, like the dimming of a lantern, both the hummingbird feeding and mobbing activities ceased. It was 8:48 p.m. and nearly dark. At 2 a.m., July 19, I noted the thrush roosting in the same tree, and by 5:30 a.m. it was gone.

Often, my experience and intuition will give me clues to the reasons for unusual bird behaviors. This time I found myself unsure of what I was seeing. I suspected the hummingbirds' behavior toward the juvenile Hermit Thrush was a different sort of mobbing. A few times, I have watched similar behavior of short flights and "chip" calls by individual hummingbirds around unattended nestlings of other bird species. Were the mobbing hummingbirds saying "wake up, get moving, there's danger all around?" Or might they have been saying "move along" to a threatening intruder?

On many occasions, I have seen Northern Pygmy-owls (*Glaucidium gnoma*) and Northern Saw-whet Owls (*Aegolius acadicus*) furiously mobbed by mixed flocks of forest birds (Bouricius 1987, 1988, pers. obs., Martin 1990). Sometimes these mobbers actually made physical contact with their predatory enemies, even knocking them off their perches to get them to move. But at such times when hummingbirds were in the area, I have never seen them engage in owl mobbing. Twice, I have seen hummingbirds continue to feed in the presence of a Sharp-shinned Hawk (*Accipiter striatus*).

I also recall occasions when flocks of Pine Siskins (*Carduelis pinus*), Dark-eyed Juncos (*Junco hyemalis*) or Mountain Chickadees (*Parus gambeli*) would gather around a window-injured comrade, apparently warning and calling it to action. These incidents involved birds in conspecific flocks and seemed non-aggressive.

From the first moments I realized the hummingbirds were actually mobbing the thrush, I believed it to be an extraordinary event and began taking notes. In my subsequent review of numerous hummingbird articles (Montgomerie and Gass 1980, U.S.F.W.S. 1991), I have found few references to hummingbird mobbing. Referring to tropical species in the State of Colima, Mexico, Des Granges (1978) stated that "on rare occasions a hummingbird tried to exclude another bird from its territory. Most chases were directed against warblers, flower-piercers, and kinglets, but on a few occasions groups of hummingbirds attacked larger birds which were non-nectar feeders. Species which were "mobbed" included the Ferruginous Pygmy-owl (*Glaucidium brasilianum*), the American Kestrel (*Falco sparverius*), the Rough-winged Swallow (*Stelgidopteryx ruficollis*), and several passerine species which form flocks of feeding birds." Skutch (1973) also reported that in the tropics, hummingbirds are often present in the gatherings of small birds mobbing predators. In Colorado, individual Broad-tailed Hummingbirds commonly chase intruders from their territories (Benedict 1991, Bouricius 1992, Tyrrell

1985), but mobbing by hummingbirds in a flock has not been reported.

Although teaching or social play may have been involved (Curio et al, 1978, also see Ortega and Bekoff 1987), male Broad-tailed Hummingbirds do not participate in the rearing of young after mating and are not typically characterized as having helpers. In a review of literature of observed predation on adult hummingbirds in temperate habitats, Miller and Gass (1985) concluded that predation is not a significant risk factor in survivorship.

Mobbing is commonly seen as an antipredator strategy which functions to divert predators from breeding grounds (Shedd 1985, Sordahl 1990). Sometimes, however, mobbing occurs in feeding areas and outside the breeding period or territories (Bouricius 1987, Erlich et al, 1988, Shedd 1985). The evolutionary or ecological adaptive value of a behavioral trait such as mobbing usually is assessed in terms of its costs and benefits (Curio 1978, Lima and Dill 1990, Sordahl 1990). In this case, both the risk and advantage to the hummingbirds would seem to be minimal because the Hermit Thrush is neither a predator nor a resource competitor. But often the assessment of an observer is quite different from the perceptions of risk by the animals observed (Lima 1987), so I would not rule out the possibility that the hummingbirds perceived the thrush as a dangerous threat. Referring to feeding hummingbirds, Lima (1991) stated that "an apparent lack of predation does not necessarily imply a lack of behavioral sensitivity to potential predators" (Lima and Dill 1990). Because of their considerable energetic requirements (Ewald 1979), hummingbirds have developed the behavior of food hoarding. Since hoarding activity would result in significant exposure to predators, it follows that hummingbirds would be sensitive to predation. Clearly, the presence and possibly the stunned condition of the juvenile Hermit Thrush provided sufficient stimulus to divert the hummers from feeding during a critical period before roosting.

I contacted Professor Dr. Eberhard Curio, a specialist in the biology of avian predation at Ruhr University in Germany, about this incident. Curio suggested that the function of the mobbers was to "move on" the injured thrush because injured prey falls victim preferentially to raptors (e.g., Aiken and Warren 1914 in Bailey and Niedrach 1965). Therefore, the mobbing hummingbirds were aiming to forestall an imminent attack from a raptor that by chance might have discovered the injured bird. To forestall a successful attack denies the potential predator sustenance and to become conditioned to the place of its attack. A successful attack would have endangered the avian community at large.

A similar incident which shows this function of mobbing is reported by R. B. Root (1969) occurred when a pair of Blue-gray Gnatcatchers (*Poliophtila caerulea*) mobbed for more than two hours a fledgling Western Bluebird (*Sialia mexicana*) that could not fly well enough to flee from the gnatcatchers' nest tree. Again, the mobbers incurred risk to eject an especially vulnerable potential prey in order to preclude a predatory incursion within

their territory. But it seems that in both cases, since the mobbers were unsuccessful in quickly displacing the potential prey, they may have placed themselves at even greater risk, negating the principal benefit of mobbing.

North American hummingbirds are nectarivorous, highly territorial and not generally known to utilize flocking. Apparently, the feeder environment provided a social facilitation. And perhaps more was involved here than the typical foundational element of mobbing where animals perform an altruistic act in which an individual sacrifices personal security for the benefit of the group. Note that most if not all the mobbing hummingbirds were male. I think the hummingbirds were collectively expressing their basic aggressive nature in their effort to move along the thrush. Among the most outwardly aggressive of all birds, North American hummingbirds are constantly engaged in conflict. Their world is one of threats, chases, fights, deception, and theft to procure and protect a limited and often declining food resource. To ensure survival, the males have evolved so that at the pinnacle of their productive years they can produce the loudest trill, the sharpest "chip", the fastest shuttle display, and the most frightening shudder in their dive display. I believe hummingbirds although often solitary, are really very gregarious creatures, in an aggressive, hummingbird sort of way. In the social situation existing at artificial nectar feeders, there is much competition for a valuable food resource and the simple instincts of aggression that drive these animals are inescapable. Yet the penchant for hoarding must often acquiesce to cooperation, and that Broad-tailed Hummingbirds would gather as a flock to mob a vulnerable intruder should not be surprising.

Acknowledgements I thank Mike Carter, David Leatherman, and Ronald A. Ryder for reviewing an earlier draft of this paper, and for providing valuable references and useful suggestions which improved it. I am especially grateful to Eberhard Curio for reviewing a draft of this paper, for providing important references, and for leading me to accept the obvious and logical explanation for this unusual incident.

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BREEDING BIRD ATLAS UPDATE

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Field workers in 1992 turned in 444 field cards on Atlas priority blocks. They started 198 new blocks and completed a total of 152 blocks. Our Atlas database (priority blocks only; we also have several thousand records from non-priority blocks) contains 49,500 bird records.

Use of our database ballooned this winter. The Forest Service has called on the data to generate lists of breeding birds for each National Forest unit in the state. The Division of Wildlife called on data from three blocks for a similar list for two State Wildlife areas. The Environmental Protection Agency used another block listing in connection with an Environmental Impact Statement.

Jim Chace, an Atlas volunteer and a volunteer for the Breeding Bird Survey routes, is pursuing a degree at the Department of E.P.O. Biology at the University of Colorado. Inevitably, since Alex Cruz is his major professor, he's studying cowbirds. He used the Atlas data to find out what species cowbirds had parasitized.

That's past; for 1993, we need more block coverage. Though last year we achieved record participation, we still have surveyed only 68% of the blocks in the state, and completed only 37%. In order to improve coverage geographically we have divided the blocks in the state into groups of four and will make sure that we have a completed block in every group of four; we have 116 to go. Block assignments will reflect that goal.

Our Rendezvouses this year will aim at poorly covered parts of the state--and we will also offer two Atlas field trips at the C.F.O. convention in May. A Rendezvous June 18-20 will follow up on those trips. Here's the tentative Rendezvous schedule--*come join us:*

RENDEZVOUS SCHEDULE

June 11-13 Kim, Las Animas County
Beth Dillon, 1225 W. Myrtle, Ft Collins 80521 490-2610 (h), 484-2836 (w).

June 18-20 Maybell, Moffat County
John Toolen, 711 Independent Ave., Grand Junction 81505 245-2027 (h),
248-7175 (w).

Mid-June, mid-week
Duane Nelson, 1619 Ford St., Golden 80401 277-9748.

June 26-28 Garfield Atlas block, Fooses Creek, south of Monarch Pass.
Dick Roth, 1920 Valley Dr, Pueblo 81008 719-545-6454 (h), 545-8737 (w).

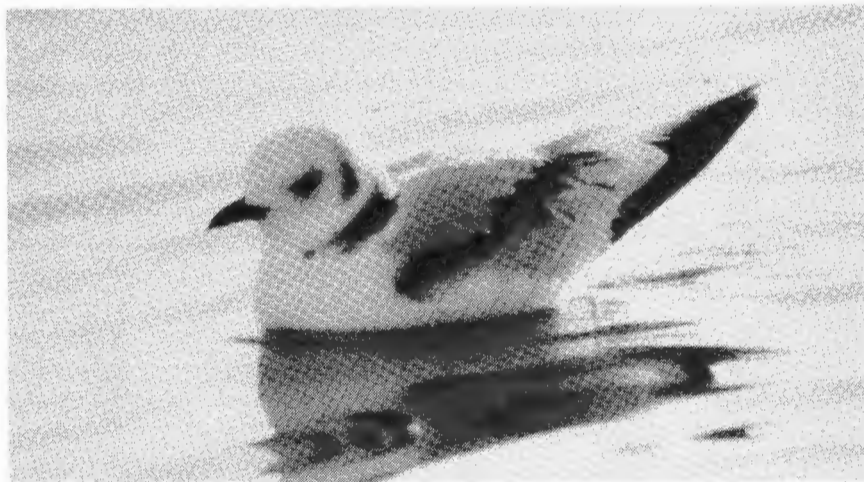
July 3-5 Slide Creek Atlas block
Roxanne Falice, 356 Ranney St., Craig 81624 824-9438 (w).

July 9-11 Middle Park, blocks to be selected
Norm Barrett, Box 758, Kremmling 80459 724-9284 (h), 724-9004 (w).

July 16-18 Sand Point Atlas block (west of Yampa)
Kathleen Nelson, Box 7, Yampa Ranger District, Box 7, Yampa 80483
638-4475 (h), 638-4516).

Date to be determined Aspen/Glenwood/Rifle area
Linda Vidal, 1305 Snowbunny Lane, Aspen 81611 925-7134.

Date to be determined Ute Mountain Ute Reservation
Dick Guadagno, Box 208, Paonia 81428 527-4563.



**First Year Black-legged Kittiwake. First Latilong Record
Walsh Sewer Ponds. November 7, 1992. Photo by Janeal Thompson.**

THE LEPIDOPTERISTS' SOCIETY AND THE XERCES SOCIETY

The Lepidopterists' Society and the Xerces Society will have a concurrent conference on butterfly and moth biology at Colorado State University from July 8-11, 1993. The meeting is open to all. For registration materials, write Dr. Boris Kondratieff, Department of Entomology, Colorado State University, Ft Collins, Colorado 80523 (303) 491-7314.

NEWS FROM THE FIELD

SEASONAL REPORT FALL 1992 (August - November)

**Bill Prather
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Longmont, Colorado 80504**

Judging from the reports it seems most Colorado birders had a great fall season. After a poor spring the warblers came back in good numbers. Yellow-rumps, Wilson's, Townsend's, Chestnut-Sideds and Nashvilles made notable showings practically state-wide. Three reports of White-eyed Vireos and 2 of Yellow-throated Vireos completed a record year for those species in Colorado. Most observers reported good numbers of shorebirds also. The "southern invasion" of recent years continued with the appearance of the Thick-billed Kingbird, Brown Pelican, Magnificent Hummingbirds, and Laughing Gull. We had the first report of a Snowy Owl since 1985 although the bird was very hard for observers to relocate. Yellow-bellied Sapsuckers again appeared in good numbers.

I would like to say a little about the appearance of the Long-billed Thrasher, found by Urling and Hugh Kingery, that occurred during the time period that will be covered by the next season's report. Why would an essentially non-migratory sub-tropical bird show up in Colorado in mid-winter? Inez Prather suggested a possible explanation: Thompson Marsh, always one to appreciate a good bird and a good joke, sent the Long-billed Thrasher to us while on his way out of this world. Thanks, Thompson, it was a good one!

Reports were obtained from those sent to Hugh Kingery by individuals or regional editors for use in American Birds, from field trip and "additional reports" in the *Lark Bunting*, and from reports made to the Colorado Bird Report, sponsored by the Denver Field Ornithologists (DFO).

All the statements of status for species in the state are adapted from Colorado Birds - a reference to their distribution and habitat by Robert Andrews and Robert Righter. The abundance definitions are:

Abundant: more than 100 per day in appropriate season and habitat.
Common: 25-100 per day
Fairly Common: 10-25 per day
Uncommon: 1-10 per day; usually seen daily
Rare: 1-5 per day; usually not seen every day
Casual: 4-9 records
Accidental: 1-3 records

In many cases I just listed the part of the status that dealt with the specific time period and part of the state that was relevant to the reports. Comments about status in parentheses are my opinions. Any reports of birds considered less common than "Rare" are listed with date, location and observers. "Rare" category birds are listed with location only. Also any statements of trends in more common birds or exceptional numbers were included. I made no judgements of authenticity, the reports will live or die based on the documentations that were sent in. Colorado Birds is a terrific book, full of information that is known about Colorado birds and shows where we need to report and document our sightings. Please continue to send your reports to your regional reporters or Hugh Kingery. Look in Colorado Birds to see what needs to be documented. When making documentations make sure that you put down everything you saw that helped you make the identification and eliminate other, similar species so that there will be absolutely no doubt when the report is read by the C.F.O. records committee or in 100 years by someone who has never heard of any of us. Thanks to Duane Nelson and the Denver Field Ornithologists for providing reports on the Colorado Bird Report. Thanks to Phil Hayes for the reports in the *Lark Bunting* and for compiling the field trip reports for the last 8 years. Thanks to the regional reporters and Hugh Kingery for forwarding information. * Indicates an observer has sent a documentation-watch for the C.F.O. records committee report on these sightings in a future *C.F.O. Journal*. Thanks to everyone who sent in reports, keep them coming!

Red-throated Loon very rare fall and early winter migrant on eastern plains, accidental in western valleys. 1 at Cherry Creek Res. 11/14-17 (Mark Janos* and others); 1 at Highline Lake State Park 10/31 (Rich Levad*, Coen Dexter).

Pacific Loon accidental in summer, rare to uncommon in fall. 1 at Chatfield 8/29 (DFO Fieldtrip) - this bird apparently spent all summer in the area; many fall sightings on eastern plains.

Common Loon rare fall migrant in western valleys and mountain parks, uncommon on eastern plains. Reported from Eagle, Grand Junction area, Pueblo (21 on 10/31), many other eastern plains sightings.

Yellow-Billed Loon casual late fall migrant on eastern plains. 1 at Pueblo Res. 11/26-29 (Mark Janos* and others).

Horned Grebe uncommon to fairly common fall migrant on eastern plains, rare in western valleys. Reported from Grand Junction area.

Red-necked Grebe very rare fall migrant on eastern plains. 1 at Union Reservoir 10/23-10-28 (Bill Prather, Inez Prather and others).

American White Pelican rare in western valleys. Reported from Craig, Delta, and Grand Junction area (4).

Brown Pelican casual in summer, no fall records. 1 at Nee Noshe Res. 8/18-19 (Duane Nelson).

Great Egret rare fall migrant on eastern plains, casual in western valleys. Reports from Ordway (2), Union Reservoir (up to 9), Red Lion state wildlife area (5), Cherry Creek Reservoir (3).

Cattle Egret rare fall migrant in western valleys and in the San Luis Valley. Reported from Cortez (2), Grand Junction area, Delta, many eastern plains reports.

Green-backed Heron rare fall migrant on eastern plains, very rare in western valleys, accidental in mountains. 1 on 8/18-29, 11/17-24 and 2 on 8/18-29 in Grand Junction area (Rich Levad, Coen Dexter); 1 at Evergreen 8/31-9/2 (Dieter Kamm); other reports from Pueblo (3 including 2 flightless young), Walden Ponds, east of Boulder.

Tundra Swan rare fall migrant in western valleys, mountain parks, and on eastern plains. Reported from Highline Lake, Debeque, Eagle (5), northeast lakes (5,2), Jackson Reservoir (9), Denver area.

Greater White-fronted Goose rare fall migrant on eastern plains, very rare in western valleys. 1 near Grand Junction 11/11-13 (Coen Dexter, Rich Levad); other reports from Swink (17), Canon City (7), Denver area (total of 5 on 3 DFO field trips), Severance, Hamilton Reservoir (5), Barr Lake (5), northeast Colorado (2), Chatfield (3).

Ross' Goose rare to uncommon fall migrant in western valleys, the San Luis Valley, and on the eastern plains. Reported from Highline Lake, Mack, Hamilton Reservoir, Barr Lake, Denver area.

Canada Goose abundant fall migrant. 6306 reported on 16 DFO Denver area field trips, high total for previous 7 fall seasons was 4838 (Phil Hayes).

Greater Scaup rare fall migrant on eastern plains. Only report was from Chatfield (2).

Tufted Duck no records. 1 in Lafayette in October and November had a bright red tie on one leg and is assumed to have escaped from captivity.

Oldsquaw rare fall migrant on eastern plains. Reported from Hamilton Reservoir (up to 2).

Black Scoter very rare fall migrant on northeastern plains. 1 at Union Res. 11/14 (Bill Prather*).

Surf Scoter rare fall migrant on eastern plains. Only report was from Hamilton Reservoir.

White-winged Scoter casual fall migrant in mountains, rare on eastern plains. 1 at Silverthorne 11/15 (Linda McMenamy*); others reported from Union Reservoir, Hamilton Reservoir (up to 3), Chatfield area.

Barrow's Goldeneye Rare fall migrant in western valleys, mountain parks and on eastern plains near foothills. 9 broods with 49 young found in Flattops Wilderness area (Mary Cunningham, Jim Ringleman, Monica Mellaci, Dave Freddy, Alyssa Freddy). Others reported from Grand Junction area (15 on 11/18), Eagle, Longmont area, Lafayette area.

Hooded Merganser rare fall migrant in western valleys, mountain parks and on the eastern plains, may be uncommon or even common very locally.

Reported from Delta (20 total on 10 dates), Highline Reservoir, Denver area, Boulder, Evergreen, Pueblo, Hamilton Reservoir.

Northern Goshawk rare to uncommon resident in foothills and mountains, rare fall migrant. 4 on Indian Peaks fall count 9/19 - most in recent years (Dave Hallock), Reported from San Isabel (2), Eagle, Grand Mesa, Prewitt Reservoir, Redfeather Lakes, South Park, Cherry Creek Reservoir.

Broad-winged Hawk very rare fall migrant on eastern plains. 1 dark "Alberta Race" in Fort Collins 9/21 (Dave Hawksworth); 1 near Ted's Place (Larimer County) 9/6 (Paula Lisowsky).

Peregrine Falcon rare fall migrant-population rebounding in Colorado. Reported from Rocky Mountain Arsenal, Prewitt Reservoir, Union Reservoir, Boulder area (1,1), Jumbo Reservoir, DFO northeast Colorado field trip, Otero County.

Ring-necked Pheasant fairly common to common on eastern plains. "Declining in Ft Morgan area due to burning of weedy fence rows - only 1 observed during period" (Joe Rigli).

Sharp-tailed Grouse uncommon resident in western Colorado, very local south of Routt and Moffat counties, rare and local on eastern plains. 1 at Black Canyon of the Gunnison National Monument 8/6 (Larry Norris); 2 at Crow Valley campground 11/28 (Dan Bridges).

Sandhill Crane rare fall migrant in North, Middle, and South Parks, few records in mountains east of continental divide. 17 on 9/5 and 2 9/18,19 in Evergreen (Else Van Erp, Dave Keegan, Bill Brockner); 4 in Salida end of August (Jane Owens), many reports from eastern plains.

Black-bellied Plover rare to uncommon fall migrant on eastern plains, very rare in western Valleys. 1 at Clifton 9/27 (Coen Dexter), many reports from eastern plains.

Lesser Golden Plover rare fall migrant on eastern plains. Reported from Jumbo Reservoir (7 on 10/4).

Semi-palmated Plover uncommon fall migrant on eastern plains, very rare in western valleys. 1 on 8/24-9/1 and 8/28-9/13 in Grand Junction area (Rich Levad, Coen Dexter).

Mountain Plover common to abundant local fall migrant on eastern plains. High of 78 reported from Two Buttes area; 1 at Union Reservoir 8/9 was outside normal migration area.

Black-necked Stilt uncommon to fairly common summer resident on southeastern plains. No longer nest in Great Plains Reservoir System (Nee Noshe area reservoirs) (Duane Nelson).

Willet rare to uncommon fall migrant on eastern plains, rare in western valleys. Reported from Grand Junction area.

Whimbrel casual fall migrant on eastern plains. 1 at Walsh 9/5 (Janeal Thompson).

Long-billed Curlew rare fall migrant in western valleys, mountain parks and on the eastern plains away from southeast. Reported from Delta, Hamilton

Reservoir.

Ruddy Turnstone very rare fall migrant on eastern plains. 1 at Jackson Reservoir 8/29 (Dave Leatherman); 1 at Prewitt Reservoir 9/24 (Karleen Schofield, Joe TenBrink); 1 at Little Jumbo Reservoir 10/3 (Karleen Schofield).

Red Knot rare fall migrant on eastern plains. Reported from Rocky Ford, Neesopah Reservoir (up to 4).

Sanderling rare to uncommon fall migrant on eastern plains, very rare in western valleys. 1 in Grand Junction area 9/26,27 (Coen Dexter); up to 70 near Swink; many other eastern plains reports.

Semipalmated Sandpiper very rare migrant in western valleys. 2 on 8/12 and 3 on 8/30 in Grand Junction area (Rich Levad, Coen Dexter).

Pectoral Sandpiper very rare fall migrant in western valleys. 2 near Delta 8/26 and 1 near Grand Junction 9/13,26 (Coen Dexter, Rich Levad).

Dunlin very rare fall migrant on eastern plains. 1 near Cheraw 9/26 (Brandon Percival, Sylvia Wheelock); seen on 4 days near Swink with a high of 5 on 11/7 (C.F.O. Fieldtrip, Mark Janos); 1-3 at Cherry Creek Reservoir 11/13 and into winter (Phil Hayes, Al Hay, Karleen Schofield, Walt Hackney and others).

Stilt Sandpiper very rare fall migrant in western valleys, accidental in mountain parks. 1 at Cheney Lake between Grand Junction and Delta 8/28, 9/10 (Coen Dexter).

Buff-breasted Sandpiper very rare fall migrant on eastern plains. 1 at Prewitt Reservoir 9/16 (Joe Roller).

Short-billed Dowitcher very rare fall migrant on eastern plains, accidental in mountain parks. 1 at Union Reservoir 8/13 (Mark Nikas); 1 on DFO northeast Colorado field trip 8/30; 3 at Lower Latham Reservoir 8/18 (Karleen Schofield); 1 at Barr Lake 9/5 (Ray Davis) and 9/13 (Bob Righter); 4 at Arapahoe National Wildlife Refuge 9/9 (Bob Righter); 1 at Chatfield 11/5 (Karleen Schofield).

Red Phalarope very rare fall migrant on eastern plains. 1 at Lake Holbrook near Rocky Ford 10-11 (Mark Janos*); 1 at Union Reservoir 9/13,14 (Mike Britten, Mark Nikas); 1 east of Last Chance 10/26 (Joe Roller).

Parasitic Jaeger accidental fall migrant on eastern plains. 1 at Union Reservoir 9/1-7 (Mike Britten).

Laughing Gull casual in late summer and fall. 1 at Cherry Creek Reservoir 9/17 (Bob Righter).

Mew Gull accidental fall migrant on southeastern plains - no records for western Colorado. 1 near Mack 11/15 (Rich Levad*, Tom Moran); 1 at Pueblo Res. 11/29-12/6 (Mark Janos*).

Herring Gull rare migrant in western valleys. Reported from Mack.

Thayer's Gull apparently a rare winter resident on eastern plains (but more reports as we learn to recognize them). Reported from Union Reservoir, Jumbo Reservoir.

Lesser Black-backed Gull accidental in fall and winter. 1 at Cherry Creek Res. 11/11-19 (J.B. Hayes, Randy Lentz, Mark Janos*).

Black-legged Kittiwake very rare late fall and early winter migrant on eastern plains. 1 at Walsh 11-7 (Janeal Thompson).

Sabine's Gull rare fall migrant on eastern plains. Reported from Pueblo (2,3).

Caspian Tern very rare fall migrant on eastern plains. 1 on 8/12 and 2 8/18 at Nee Noshe Reservoir (Duane Nelson), 1 on 8/8 and 9/19 at Union Reservoir (Mark Nikas), 2 on 8/10 at Ish Reservoir near Longmont.

Common Tern casual spring migrant in west-central valleys in Mesa and Delta counties. 1 at Hart's Basin 5/25 (Coen Dexter); several reports from eastern plains.

Arctic Tern accidental fall migrant. 1 at McPhee Res. 9/22. (C.T. Lurie*, Dave Stejskal, Jeff Kingery, John Coons); 1 at Union Reservoir 10/13 (Mark Nikas).

Inca Dove no previous records. 1 in Lafayette 11/4 to end of period (Dave Menough and many observers), 2 in Vineland 11/15 to end of period (Joan Williams and many observers), 3 in Lamar 11/23 (Slater).

Greater Roadrunner casual on southeastern plains. 1 at Holbrook Reservoir near Swink 11/7 (Mark Janos).

Barn Owl Rare and locally uncommon migrant and summer resident on Eastern Plains and in Western Valleys. Reported from Grand Junction-Delta area (2 on 4 dates), Pueblo, Walsh, Berthoud area, north of Hamilton Reservoir (2 downy young on 8/4), Hasty, Cimmaron River, Baca County.

Snowy Owl rare winter visitor on northeastern plains, no records since 1985. 1 at Jumbo Res. 11/23,28 (Joe Himmel, Joe Roller and others).

Northern Pygmy-owl apparently a rare resident in foothills and mountains. Reported from south of Buford (1,1), Evergreen, Meeker, Lyons (2), Colorado State Forest.

Long-eared Owl rare resident except very rare in higher mountains. Reported from Fruita (8), Lyons Area, Crow Valley campground, Ft Morgan area.

Short-eared Owl uncommon to rare but very spotty and probably declining. Reported from Cortez (2,1), Fowler, Berthoud area, Ft Collins area (1,1).

Boreal Owl rare to locally uncommon resident in higher mountains. 1 heard in Deep Lake atlas block, Garfield County (Dan Bridges).

Northern Saw-whet Owl uncommon to fairly common resident in foothills and lower mountains. Observed south of Buford 10/18,20,21,22,23,24 (3), (2 Northern Pygmy-owls also seen during this period). These were apparently all different birds but it is not known if it was just a high resident population or a migration as has been reported in some other states (Steve Bouricius).

Black Swift very rare in foothills, mountain parks, western valleys, and on eastern plains. 7-8 at Cheney Lake 8/24 (First record for Mesa County) (Coen Dexter).

Magnificent Hummingbird very rare in summer and early fall in foothills and lower mountains. 1 in Estes Park 9/17-24 (Scott Roederer, Warner Reeser*); 1 or 2 in Salida 8/26 (Ruby Ebright).

Rufous Hummingbird no previous records from southeastern plains. 1 at Walsh 8/18 (Janeal Thompson).

Red-headed Woodpecker rare on eastern plains from Morgan and Otero counties westward. Reported from Ft Collins area (4 singles), Loveland, Rocky Ford.

Red-bellied Woodpecker very rare in fall and winter on eastern plains away from extreme northeastern areas where they breed, no records for mountain parks. 1 in Alamosa 9/30-10/1 (John Brandt).

Yellow-bellied Sapsucker Very rare winter resident on northeastern plains near foothills, accidental on extreme eastern plains and in western valleys. (Numerous sightings in the past 2 winters would put this bird in rare category.) 1 in Loveland 10/31 (Jean Christensen*); 1 in Ft Collins 11/13,24 (Glenn Hageman, Dave Leatherman); 1 in Greenwood Village 11/27 (Gail Evans); 1 in Boulder 11/20 (Susan Ward); 1 below Prospect Reservoir 10/1 (Colorado Bird Report).

Red-naped Sapsucker one documented record on eastern plains - status unclear. 2 at Bonny Reservoir 9/18 (Hugh Kingery).

Three-toed Woodpecker rare or very locally uncommon resident in higher mountains, rare in lower mountains and foothills, primarily in winter. Reported from Taylor Park Res., Wet Mountains, Sangre de Cristo Mountains, Meeker (adult feeding fledged young), Jackson County, Quandry Peak Quadrangle, Mt Evans.

Eastern Wood-pewee accidental summer resident. 1 lingered at Pueblo West until 8/2 (Dave Silverman, Van Truan).

Least Flycatcher uncommon fall migrant on extreme eastern plains, rare west to base of foothills. Reported from Lyons (2), DFO northeast Colorado and north central Colorado field trips.

Eastern Phoebe rare fall migrant on eastern plains. Reported from Pueblo.

Great Crested Flycatcher uncommon fall migrant on extreme northeastern plains, rare on eastern plains west to foothills and on southeastern plains. Reported Wheat Ridge greenbelt and Barr Lake.

Cassin's Kingbird rare fall migrant on eastern plains. Reported from Ft Morgan Area, southeast Colorado "big day" (7 on 8/29).

Eastern Kingbird rare in foothills, lower mountains and mountain parks. Reported from Minturn.

Thick-billed Kingbird no previous records. 1 at Chatfield 10/23 (Doug Ward, Jack Reddall, Joey Kellner).

Blue Jay very rare visitor to mountains. 1 in Evergreen 9/14 (Miriam Marshall, William Marshall).

Scrub Jay fairly common in eastern foothills from central Jefferson County southward, uncommon and local northward. 15 were seen on DFO

Roxborough State Park field trip but on no other DFO Denver area trips - low total for previous 7 fall seasons was 26 (Phil Hayes); Foothills Audubon Club reports totaled 33 verses 75 in 1991 (Ann Means).

Winter Wren rare fall migrant on eastern plains. Reported from Chatfield Reservoir, Boulder.

Blue-gray Gnatcatcher rare fall migrant on eastern plains. Reported from Ft. Morgan area, Pueblo, Lyons (5 total).

Eastern Bluebird rare migrant on northeastern plains near foothills. Reported from Ft. Morgan area, Hanna Ranch area.

Swainson's Thrush uncommon to fairly common fall migrant on eastern plains, very rare in western valleys. 1 at Ridgeway 9/13 (Coen Dexter).

Gray Catbird rare to uncommon fall migrant on eastern plains, rare in western valleys, foothills, lower mountains and mountain parks. Reported from south of Montrose, Eagle.

Sprague's Pipit uncommon and very local fall migrant. 2 or more were seen several times at the location east of Julesburg found by Dan Bridges several years ago.

White-eyed Vireo accidental fall migrant - all previous fall records on eastern plains. 1 in Vail 9/18 (Will Risser*); 1 in Pueblo 8/16-18 (Mark Janos* and others); 1 in Lyons 8/18 (D.W. King*).

Yellow-throated Vireo very rare spring migrant on eastern plains, casual in summer, no previous fall records. 1 in Lyons 8/28 (D.W. King); 1 at Chatfield 9/12 (Browns).

Philadelphia Vireo casual fall migrant on eastern plains. 1 on DFO fall count 9/12.

Tennessee Warbler rare to uncommon fall migrant on eastern plains, very rare in mountains. 1 at Evergreen 8/26 (Dieter Kamm); many reports from eastern plains.

Nashville Warbler rare fall migrant in western valleys, foothills, and on eastern plains. Reported from Ridgeway, Elkhorn Quadrangle, Pueblo, Rangely, Colorado City, Wheat Ridge greenbelt, Fountain area, Boulder area, Ft. Collins area (several reports).

Northern Parula Warbler very rare fall migrant on eastern plains. 1 in Wheat Ridge greenbelt 9/14-19 (J.B. Hayes and others).

Chestnut-sided Warbler very rare fall migrant on eastern plains, casual in western valleys. 1 at Dolores 10/21 (Gerald Flyer, Maxine Flyer); 1 at Waterton 9/12 (DFO fall count), 1 at Crow Valley campground 9/19 (Arlene Kramer, Dick Kramer); 1 in Arapahoe County 9/28 (Tina Jones); 1 in Wheat Ridge greenbelt 9/27 (Joe Roller); 1 at Barr Lake 9/7 (Norm Erthal).

Magnolia Warbler rare fall migrant on eastern plains. Reported from Pueblo, Ordway, Crow Valley campground, Boulder area.

Black-throated Blue Warbler rare fall migrant on eastern plains, no previous reports from western valleys. 1 north of Durango 10/25 (Gloria Childress*); another reported from Fountain Creek Regional Park.

Yellow-rumped Warbler fairly common to abundant fall migrant. "An unprecedented invasion in Ouray and surrounding counties mid August to mid October - about four times as abundant as usual" (Dick Guadano).

Black-throated Gray Warbler rare migrant away from normal breeding areas in south and west. Reported from Lyons, Rocky Mountain Arsenal, Waterton, Conifer.

Townsend's Warbler rare to uncommon, occasionally fairly common fall migrant. "Definitely an invasion year" (Mark Janos); many reports statewide. Black-Throated Green Warbler rare fall migrant on eastern plains. Reported from Boulder, Ft. Collins.

Blackburnian Warbler very rare fall migrant on eastern plains. 1 at Barr Lake 9/6 (Jean Maguire*, Joe TenBrink; 1 at Lake Henry 9/26 (Brandon Percival*, Sylvia Wheelock); 1 at Hanna Ranch (Toni Brevillier).

Pine Warbler casual fall migrant on eastern plains. 1 in Boulder from 11/20 to end of period (Steve Feldstein*).

Prairie Warbler accidental in fall on eastern plains. 1 in Boulder 9/16,18 (Susan Ward and others).

Palm Warbler rare fall migrant on eastern plains. Reported from Boulder, Jackson Reservoir.

Blackpoll Warbler very rare fall migrant on eastern plains. 1 at Boulder 10/16 (John Prather).

Black and White Warbler rare fall migrant on eastern plains. Reported from Hanna Ranch, Crow Valley Campground, Ft. Collins, Denver area.

American Redstart uncommon fall migrant on eastern plains, rare in western valleys. Reported from Whitewater, many reports on eastern plains.

Prothonotary Warbler very rare fall migrant on eastern plains. 1 at Crow Valley Campground 9/7 (C.F.O. fieldtrip).

Ovenbird rare fall migrant on eastern plains. Reported from Pueblo, Waterton (2), Lyons, Boulder, Ft Collins, Jackson Reservoir, Ft. Morgan area, Denver (remained into winter).

Northern Waterthrush uncommon to rare fall migrant on eastern plains, rare in western valleys. Reported from Delta, many reports from eastern plains.

Mourning Warbler accidental fall migrant on eastern plains and adjacent low foothills. 1 on 9/11 at Wheat Ridge Greenbelt (William Schreier*).

Hooded Warbler very rare fall migrant on eastern plains. 1 at Fountain Creek Regional Park (Toni Brevillier).

Wilson's Warbler common to abundant fall migrant. "A fall out" in Colorado Springs area "saw mostly groups of 40-50 at Fountain Creek Regional Park" (Toni Brevillier), big movements noted in Denver, Ft. Morgan and Ft. Collins area also.

Hepatic Tanager uncommon and very local summer resident in central and eastern Las Animas county, 1 previous record from western valleys. 1 near Cortez 9/13-10/4 (Gerald Flyer*, Maxine Flyer* and other observers), 1 in Canon City 8/23 (Dave Silverman).

Scarlet Tanager rare fall migrant on eastern plains. Accidental in western valleys. Reported from Boulder.

Rose-Breasted Grosbeak rare fall migrant on eastern plains. Reported from Rocky Ford, Lyons, southwest of Denver.

Clay-colored Sparrow rare in eastern foothills and mountains, casual in western valleys. 1 at Ridgeway 9/13 (Coen Dexter); 1 on Indian Peaks Fall Count 9/19 (Dave Hallock).

Field Sparrow uncommon fall migrant on extreme eastern plains, rare to base of foothills, accidental in mountains. 1 on Indian Peaks fall count 9/19 (Dave Hallock).

Lark Bunting rare to uncommon on the mesas of northwestern Colorado and in mountain parks. Up to 25 on 3 dates at Cheney Lake between Grand Junction and Delta.

Fox Sparrow (rusty form) rare fall migrant on eastern plains. Reported from Fountain, Union Reservoir, Crow Valley campground.

Swamp Sparrow rare fall migrant on eastern plains, may be locally common, very rare in western valleys. 1 near Grand Junction 11/1-30 (Coen Dexter); other reports from Canon City, Walsh, Chatfield, Wheat Ridge greenbelt, Union Reservoir.

White-throated Sparrow rare fall migrant in western valleys and on eastern plains, very rare in foothills, lower mountains and mountain parks. 1 at Kremmling 10/13,14 (Norman Barrett). Also reported from Grand Junction area (1,1), Rocky Ford; Rocky Mountain Arsenal, Ft Collins, DFO southcentral Colorado field trip (3), Arvada.

Harris' Sparrow rare in western valleys, very rare in foothills, lower mountains and mountain parks. Reports from Fruita, Grand Junction area, Eagle, Aspen, many reports from eastern plains.

Snow Bunting irregular but generally rare winter resident in northern half of state, more rare in southern Colorado. 1 in Pueblo 11/26,28 (Mark Janos, Cliff Smith, Pearle Sandstrom-Smith).

Rusty Blackbird rare fall migrant on eastern plains. Reported from Cherry Creek Reservoir, Union Reservoir.

Purple Finch rare in fall in lower foothills and adjacent eastern plains, no records from mountains. 1 male in Kremmling 9/4 (Norman Barrett); another reported from Colorado City.

Red Crossbill irregular resident in foothills and mountains, in favorable years common to abundant. A total of 31 were seen on 3 Denver Field Ornithologist fieldtrips - high total for previous 7 fall seasons was 24 (Phil Hayes).

White-winged Crossbill irregular resident in mountains, usually rare. 8 on Indian Peaks fall count 9/19 (Dave Hallock).

Pine Siskin irregular, common to abundant resident in foothills and mountains. A total of 137 were seen on 8 DFO fieldtrips - high total for previous 7 fall seasons was 125 (Phil Hayes).

**C.F.O. PTARMIGAN FIELD TRIP
FEBRUARY 13, 1993**

**POWER BIRDING THE WINTER ALPINE ENVIRONMENT:
AN UNFORGETTABLE (AND UNFORGIVABLE) EXPERIENCE**

**Steven M Bouricius
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Thirteen hardy birders gathered at the trailhead for a promising cross-country ski and snowshoe trip to the Lefthand Park willow carr (Hallock et al. 1986, Windell et al. 1986). The prospects for finding some interesting Colorado birds were good. On each of 3 preliminary scouting trips to the area, I was easily able to find several groups of White-tailed Ptarmigan. All the interpretive signs were there too: the tracks, droppings, snow burrows and wing prints were abundant. A Three-toed Woodpecker was regularly working a patch of spruce on a ridge nearby where I had found roosting Blue Grouse. Three flocks of Bohemian Waxwings were in the area, and just the day before the trip, a dipper and a flock of Common Redpolls visited the cabin where the apre-ski gathering would take place.

But even with the most ardent scouting efforts, locating ptarmigan and other specialty species on a given day can often amount to a calculated stroke of luck. After three weeks of relatively warm and calm weather, the morning of this C.F.O. field trip brought blustery winds with temperatures in the teens. After carefully getting signatures from everyone on C.F.O. release of liability forms, we embarked.

The wind kept most birds tight in the trees, giving the sharp-eyed among us little more than brief glimpses of movement. But a pair of Gray Jays came to hand for food, a few Mountain Chickadees followed along, and a Steller's Jay watched jealously from a safe distance. Despite the paucity of birds, the steady two mile climb up the Lefthand Reservoir road was really a very pleasant time to talk birds and get the blood flowing.

Lefthand Reservoir was once a vast sub-alpine wetland dominated by willow. Decades of peat mining activity and the subsequent construction of the reservoir destroyed the best of this area which ptarmigan depend on for winter habitat (Hallock et al, 1986). The more exposed nature of the remaining habitat creates a shallower snow cover which is less suitable for burrowing. This lessened snow cover in the willow carr also makes the area more accessible to coyotes and their tracks suggest they know a willow-to-willow search can be productive. The tundra on adjacent Niwot Ridge was also subjected to uses detrimental to ptarmigan. For the first half of

the century, domestic sheep grazing damaged the vegetative resource by cutting trails across the slopes and trampling bedding areas. Unfortunately, these examples are only some of the human caused stresses placed on White-tailed Ptarmigan populations in Colorado (Braun and Rogers 1971, Braun et al, 1976, Hoffman and Braun 1975).

Arriving at the willow area below the dam where 5 ptarmigan were located a few days before, the searchers spread out to begin a slow sweep. In order to avoid stressing the birds, the prime directive was to not flush or otherwise interfere with the birds once located. Since shrubs are the principal winter food source, we took care not to crush, break or even touch the willow whenever possible. As we moved west, the wind speed increased and horizontal snow began sweeping across the landscape. (Imagine a snowflake moving so fast that it flattens out as it careens through the air.) This was the time to put on all the clothes we had. The group scrambled to fit the extra face masks that I had handed out. Staying alive in these conditions requires wearing enough of the right clothing, consuming extra calories and the motivation of seeing some very good birds. As ice crystals closed in around Bob Dickson's eyelashes, I began to wonder if I should have mentioned goggles in the list of things to bring.

Finding no sign of bird life, we headed for a forested area to search for Blue Grouse and get that Three-toed Woodpecker. With 6 inches of fresh snow the night before, movement became more difficult. Trudging up the ridge, the faint sounds of gasping, grunting and wheezing behind me brought to mind my recent CPR training. I too was struggling to keep up with the three women in our group. I don't think a single bird was seen by anyone. We stopped for a brief lunch, noticing that half the group had turned back, presumably to re-locate the Mountain Chickadees. In plain view was the weather station on Niwot Ridge where the highest wind velocities in North America have been recorded. Still, we remained optimistic.

We spread out again, but despite the recent occupation, our systematic search failed to produce a single sign of the birds. Nearing the end of our journey, Randy Lentz spotted our first sign of ptarmigan...droppings! Heartened, we rushed on. Soon we found a few track pillars: the hardened compressed snow held high by the wind-eroded softer snow beneath were monuments to ptarmigan feet gone by. Not a creature stirred. As a last ditch effort, we decided to backtrack our initial route below the dam. Kim Potter, who could run faster on snowshoes than I could on skis, entered the willow area first. Suddenly, a flurry of wings exploded from the undisturbed snow. A single White-tailed Ptarmigan rewarded our perseverance and 5 lucky birders stood in awe as the exquisite all white bird began foraging from willow to willow.

I've made this and similar trips for ptarmigan perhaps 40 or 50 times and each time I find the birds is just as special as the first. I felt the field trip write-up should have provided sufficient forewarning that the participants

should indeed "be prepared for severe winter weather conditions." As a field trip leader, one cannot escape responsibility for both the birds and the birders (and I think the jury is still out on this trip). In the end, we all escaped with our good spirits intact, our senses charged and our bodies invigorated. My experience has taught me that there are risks to exploring the elements of wilderness, but the benefits of "power birding the winter alpine environment" are unequalled.

"When the going gets tough, the tough go birding."

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Species seen or heard at Lefthand Park and Peaceful Valley

White-tailed Ptarmigan	Mountain Chickadee
Downy Woodpecker	Red-breasted Nuthatch
Three-toed Woodpecker	White-breasted Nuthatch
Gray Jay	Brown Creeper
Steller's Jay	Golden-crowned Kinglet
Clark's Nutcracker	Townsend's Solitaire
Common Raven	Dark-eyed Junco
Black-capped Chickadee	Pine Grosbeak



**Piping Plover (Adult Male) Nee Grande Reservoir
July 1992. Photo by Duane Nelson.**



**Piping Plover nest within enclosure. Nee Grande Reservoir
July 1992. Photo by Duane Nelson.**

**PIPING PLOVERS:
A CASE FOR HOW THEY COLONIZED SOUTHEAST COLORADO
AND IMPLICATIONS BASED ON THAT SCENARIO
FOR THEIR FUTURE AS A BREEDING SPECIES**

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March, 1993**

INTRODUCTION

The discovery of Piping Plovers (*Charadrius melodus*) nesting in the Lower Arkansas Valley in 1989 was quickly recognized as a monumental occurrence. They were unknown as a breeding species in Colorado in historic times, except for one unsuccessful nesting attempt at Prewitt Reservoir in 1949 (Bailey and Niedrach 1965).

Of all federally listed endangered bird species nesting in Colorado, the Piping Plover is arguably the rarest, both in Colorado and throughout their North American range. Only about 2100 pairs nest in their exclusively North American range (Haig et al. 1992). The population in Colorado has varied between 3 and 8 pairs during the period between 1989 and 1992. In most years, there has been an excess of between 4 and 8 unmated males.

Colorado's birds are part of the Great Plains population, currently classified as threatened by the United States Fish and Wildlife Service (USFWS). The U.S. Great Lakes population (currently nesting only in Michigan) and the Canadian population are classified as endangered. The populations along the Atlantic Coast from the Carolinas north to Maine are classified as threatened. The federal Piping Plover recovery team is attempting to reclassify the Great Plains population to endangered (Haig et al., 1993). We believe that reclassification of the Great Plains population to endangered would more accurately reflect the true status of the species.

Colorado's Piping Plover nesting habitat is not static. Evaporation or drawdown of water in these reservoirs exposes nesting habitat and allows shorebirds to nest. New habitat at the Great Plains Reservoirs has been exposed annually as the water levels have dropped to expose sand beaches. While the quality of habitat has remained high, as lakes have gotten smaller the quantity of prime habitat has been much reduced. At Neesopah and Upper Queens Reservoirs, which are in danger of going dry, the remaining beaches are mostly barren alkali flats instead of sandy beaches.

The lakes in the Great Plains Reservoir System (Nee Noshe, Neegrande, Neesopah and Queens Reservoirs) receive new water only after

exceptionally snowy winters in the Upper Arkansas River Basin. On average, this occurs only once every decade (Jennie Slater, Colorado Division of Wildlife, pers. comm. 1990). The Great Plains Reservoirs are currently entering into the eighth year of the dry cycle. If no new water enters the Great Plains system, it is only a matter of time until all the lakes are dry. Without the input of water via canals, projections can be made for when each of the remaining bodies of water will become dry: Neesopah 1993, Upper Queens 1994, Nee Noshe 1996, and Neegrande after 1996. This estimate is based on current water depth and an average evaporation rate of 60 inches per year. (Based on a snowpack well above average through March of this year, 1993 holds promise for filling some or all of the Great Plains Reservoirs).

Nest site fidelity of Piping Plovers is strong. Studies in Minnesota have indicated that 92.3 % of all Piping Plovers there return to the place they nested the year before (USFWS 1988). Nest site fidelity has been less in some Atlantic populations. It appears that two factors interact: most Piping Plovers return to established nesting areas, but they are also capable of locating new nest sites, even at relatively great distances, especially when old nesting areas are no longer usable. Colonization of new nest sites may be a response to the disappearance or degradation of previously acceptable habitat. The ability of Piping Plovers to find adequate nesting habitat and find mates at new sites is critical to the survival of Piping Plovers at the periphery of their range as nesting species in Colorado.

In this paper, the primary objective is to document population dynamics within Colorado's population. A secondary objective is to offer a probable explanation for the origins of Colorado's current Piping Plover population. This will be done by examining the colonization process within Colorado during the last five years. By investigating population shifts within Colorado, past shifts can be explained. Anticipating abandonment or relocation of colonies will be essential to proper management in the future.

The conclusion reached is that the extralimital nesting attempts documented at Optima Reservoir in the Oklahoma Panhandle in 1986 and 1987 (Boyd 1991) were the probable source of Colorado's present population (Figure 1.).

THE HISTORY OF PIPING PLOVERS IN COLORADO

Historical bird inventories of lakes in the lower Arkansas Valley (Bailey and Niedrach 1965, Chase 1979) did not locate Piping Plovers in the breeding season. Chase's discovery of nesting Least Terns at Blue Lake and Nee Noshe Reservoir sparked interest in the Front Range birding community. These isolated lakes were visited several times annually after 1979. If Piping Plovers had been nesting between 1979 and 1988, it is likely that someone would have come across them.

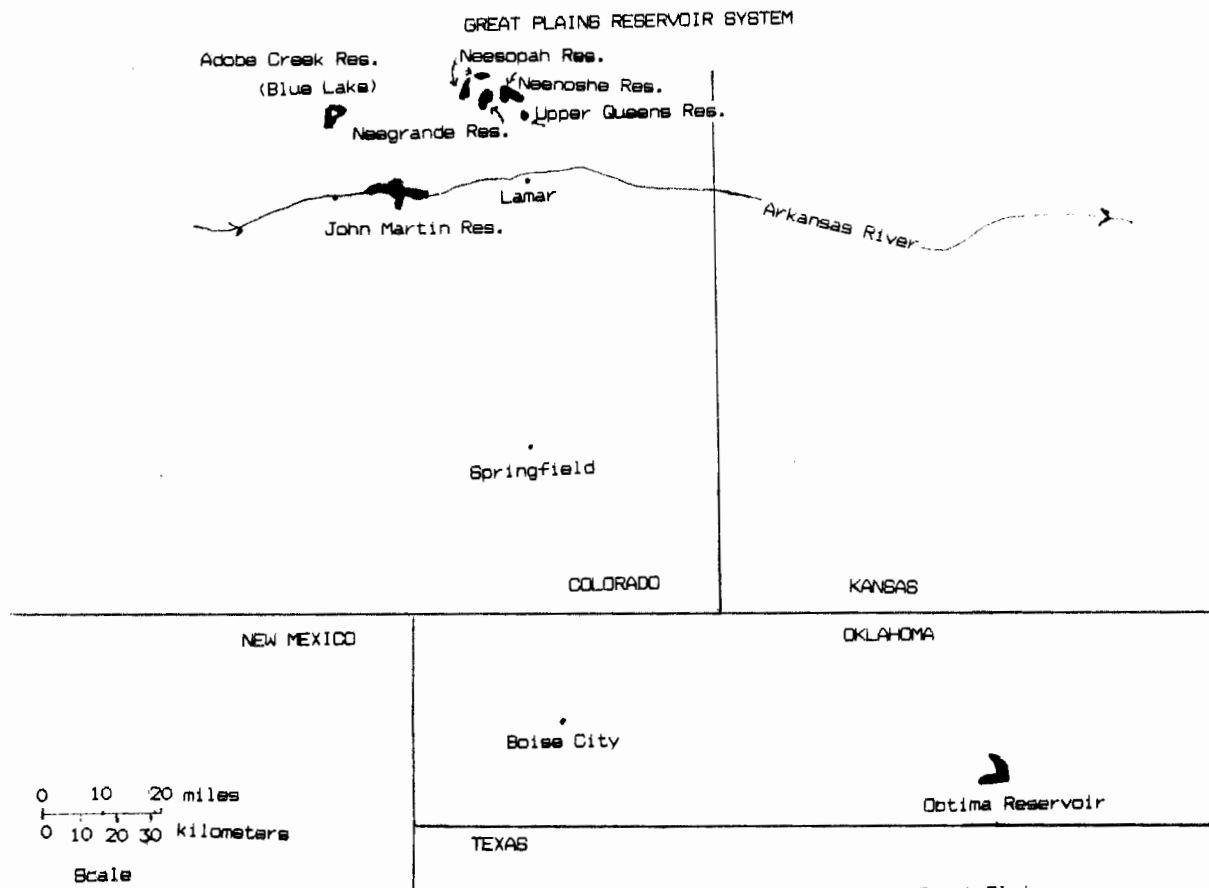


Figure 1. Reservoirs with nesting Piping Plovers in the southern Great Plains.

1988. In 1988 at Neesopah Reservoir in Kiowa County, two Piping Plovers were found over the Memorial Day weekend by Joe Tenbrink and Jean McGuire (pers. comm. J. Tenbrink to H. Kingery, 1988). At the time, they were

inexperienced observers, and their report was not taken as seriously as it could have been. The site was visited a few days later by other birdwatchers, who didn't relocate the birds. No additional Piping Plovers were reported in 1988.

1989. The first nesting record from southeast Colorado came one year later, in 1989. The location was only 4 km to the east of Neesopah Reservoir. Carter and Reddall, looking for nesting Interior Least Terns at Nee Noshe Reservoir, found three dependant young being defended by two adults on June 24th, 1989 (Carter and Reddall 1991). A fourth juvenile was found the next day. Later in the summer, two more pairs with dependant young were found. Mark Janos found a family group in July and Peter Gent found a family group with newly hatched young in August (Janos and Gent, pers. comms. 1989) These nests were on the north side of the lake. There were no additional reports of territorial Piping Plovers in Colorado in 1989.

Shortly after nesting was confirmed at Nee Noshe, Carter and Reddall speculated on the origins of the nesting birds (Carter and Reddall 1991). They believed "this new group of nesting birds was started by northward-migrating birds that stopped to nest."

1990. In 1990, I began the first comprehensive studies of Piping Plovers (as well as Interior Least Terns) undertaken in Colorado. The work was done for the Colorado Bird Observatory. My field studies allowed me to check all suitable habitat in the Arkansas River Valley in southeast Colorado.

In 1990, eight pairs of Piping Plovers were counted during the breeding season in Colorado. Six pairs were at Nee Noshe in suitable barren beach habitat. An additional two pairs were at nearby Neegrande Reservoir. A nest found at Neegrande was the first direct evidence of a minor range extension within Colorado. There were also 4 territorial male Piping Plovers, one at Upper Queens Reservoir, two at Nee Noshe and one at Neegrande. Successful fledging of young occurred only at Nee Noshe Reservoir. Eight to twelve young fledged in 1990 (Nelson and Carter 1990).

1991. Fewer Piping Plovers returned to nest in 1991 than would have been anticipated with the successful breeding season in 1990. Winter or migration mortality was the probable cause for the loss of several Piping Plovers. The record cold winter of 1990-91 along the Gulf Coast from Texas south into Mexico may have been a factor.

Only three definite pairs of Piping Plovers were located in 1991. Only one pair was at Nee Noshe. A second pair was at Neegrande. A third pair was at Upper Queens Reservoir, 5 kilometers to the southeast of Nee Noshe. Nests were found at Nee Noshe and Neegrande. A nest scrape was found at Upper Queens over the Memorial Day weekend by Bob Spencer. Two days later, the pair had abandoned the nest site.

Both nests failed in 1991. The Nee Noshe nest failed due to depredation by gulls. The Nee grande nest was destroyed by high winds. No young were produced in 1991.

At Blue Lake in 1991, a displaying male Piping Plover was present on "Tern Island" (a large island in the middle of the lake) in May, and was territorial through June. This was a significant attempt at range extension. Blue Lake is about 50 kilometers west of the Nee Noshe. During the early part of the summer, no other Piping Plovers were present there. The last week of June, a second Piping Plover was present on the south side of the island. It was seen with the original male. No Piping Plovers were seen at Blue Lake after the 1st of July.

After 1991, it became clear that Piping Plovers would disperse significant distances in response to changes in habitat. This had both positive and negative ramifications. On the positive side, it minimized the chances of one environmental catastrophe eliminating the entire population. A possible problem with colonization in extremely small populations is the difficulty of males and females finding each other.

Blue Lake is currently filled each fall for the winter storage of water. Several months of submergence kills most emergent growth, including cottonwoods and tamarisks. The water is used for irrigation beginning in May. The quality of the habitat is regenerated at the same level each year.

If Piping Plovers could be enticed to nest at Blue, the long-term outlook of the species in Colorado would be much better. Since all used habitat is on one or two islands, it has been possible to keep cattle, terrestrial predators and people out of the habitat. The habitat available for Piping Plovers would support more than 10 pairs.

1992. 1992 was a pivotal year for the future of Piping Plovers in Colorado. Failure to fledge young for a second consecutive year would have been a serious setback. The field season began with a mixture of hope and despair.

By May 21st (the first visit of 1992), it was clear that Blue Lake had become the future for Piping Plovers in Colorado. Instead of only one male, there were six adult Piping Plovers present. It is unknown how all six plovers found this lake, but the presence of the two birds in 1991 must have been at least a part of the answer. It took a while to sort through territories, pairs and boundaries, but it eventually turned out there was one pair and four unmated males. The nest was only 16 meters from the nearest Least Tern (*Sterna antillarum*) nest, and an American Avocet (*Recurvirostra americana*) nest was also within 25 meters. Those birds acted aggressively to keep California Gulls (*Larus californicus*) away. On June 26th, all four young hatched. All four young also fledged.

Piping Plovers nested for the first time at John Martin Reservoir in 1992. Two Piping Plovers were first observed by Greg Everhardt of the U.S. Army Corps of Engineers in early July. Amazingly, they successfully nested

on the periphery of the swim beach on the south side of the reservoir. When nesting was confirmed, there was a young plover about 10 days old tended by both parents. The adult male and fledgling were followed until the young bird was old enough to fly.

John Martin is 30 km southeast of Blue Lake 30 km southwest of the Great Plains Reservoirs. The U.S. Army Corps of Engineers manages the site. The sand beach chosen by the plovers is the most popular recreation area in the region, and on the Memorial Day Weekend, before the birds were found, Greg Everhart counted more than 120 vehicles on the beach adjacent to the nest site. The Corps posted and closed the beach after consulting with Jennie Slater, Bryant Will (both with the CDOW) and me. In 1993, Piping Plover nesting areas will be fenced, posted and patrolled if the plovers return. Future nesting at John Martin may become regular, and habitat should be acceptable whether water levels are high or low.

Two pairs of Piping Plovers were present at Nee Noshe Reservoir in late May, 1992. Nests were found for both. Eventually, both nests failed due to depredation. For the first time since 1989, renesting followed failed first attempts. A possible stimulus was the atypical cool, wet weather, which persisted throughout the summer. One pair renested at Nee Noshe, and one pair moved over to Neegrande. Predator exclosures were used for the first time in 1992, patterned after models used in Massachusetts (Melvin et al., 1992). Both fenced nests eventually hatched three young. The Nee Noshe nest did not fledge any young. The Neegrande nest fledged one young.

A total of six Piping Plover young fledged in 1992, for an average of 1.5 young/pair. While less than the 8-12 young fledged in 1990 (Nelson and Carter 1990) it is an optimistic sign for the future.

Four years of observations indicate that there has not been a total abandonment of nesting colonies as the habitat has gradually changed. However, when the habitat at a given location becomes unusable, whole colonies will disperse significant distances to find suitable habitat.

THE OKLAHOMA CONNECTION

A lone territorial male Piping Plover spent June and July of 1986 at Optima Reservoir, 27 kilometers southeast of Guymon in the Oklahoma Panhandle (Boyd 1991).

In 1987, a pair nested at Optima. Four 8-10 day old hatchlings were seen on June 17th of that year. After July 8th, no Piping Plovers were seen. Boyd suspected no fledglings survived. Based on a 25 day minimum to fledging (Haig et al., 1988), it is possible that fledging occurred.

In 1988, three adults were seen. One nest was found, but it was destroyed by a heavy rainstorm.

In 1989 and 1990, no Piping Plovers were seen in the area. The

water level was 4 to 5 feet higher, and all nesting habitat was inundated.

There is no suitable nesting habitat for Piping Plovers elsewhere in Oklahoma or in neighboring Kansas. The beaches around large wetlands in Kansas are mostly alkali flats (Boyd 1991), not the sand and gravel substrates preferred or required for nesting Piping Plovers. The closest sandy beaches to Optima Reservoir are in the Arkansas Valley in southeast Colorado. When the Piping Plovers abandoned Optima Reservoir, Colorado was the nearest "local" option, based on their colonization pattern within Colorado.

CONCLUSIONS

The distances that Piping Plovers can disperse in response to changing habitat can be impressive. Breeding birds have been known to disperse as far as 300 to 600 kilometers from natal areas "where few local options exist" (Haig and Oring 1988). Additionally, one year old birds coming into their first breeding season usually nest at sites between 5 - 273 kilometers distant from where they were hatched (Haig and Oring 1988).

The distance from Optima Reservoir to Nee Noshe Reservoir, as the plover flies, is about 210 kilometers. This is well within the annual dispersal range of older adult or one year old Piping Plovers.

A more difficult question is where the Optima Reservoir birds came from. The single male from 1986 could have originated from Nebraska. The distance from Optima to the Platte is about 500 kilometers, still within range of possible annual dispersal. Although Piping Plovers are only rarely seen on migration, it is probable that Optima was closer to the flyway most Piping Plovers use. Somehow, in the spring of 1987, the Oklahoma bird was able to entice a female to stay to breed. That 1987 pair seems likely to be the source of the current Colorado population.

The future of Colorado's Piping Plovers is much brighter because of their ability to find new habitat when old habitat is not acceptable. In our first years of study, there was considerable concern about what would happen to the population when the Great Plains Reservoirs finally were filled again. For at least one year, there would be no beach habitat. At this point, it looks like Piping Plovers are capable of finding acceptable habitat when necessary. This could conceivably move them up the Arkansas River, to reservoirs near the South Platte River, or even back to Optima Reservoir.

ACKNOWLEDGEMENTS

Field studies of Piping Plovers and Least Terns have been possible because of funding provided by the Colorado Division of Wildlife and the Bureau of Land Management. Special thanks go to Judy Sheppard, Chuck Loeffler Jennie Slater, Bryant Will and Steve Keefer of the CDOW and Erik Brecke of the BLM. Their commitment to protecting these birds and their

nesting habitat is evident and essential to any possible recovery. Thanks also go to Mike Carter of the Colorado Bird Observatory for helpful editorial and content comments.

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FOOD ITEMS OF COLORADO BIRDS (X)

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A general description of the format, purpose, and reporting procedures for this column can be found in the introductions of previous columns (see *C.F.O. Journal*, Volumes 24, 25 and 26).

This edition contains feeding observations for 64 species, mostly from the period September 1992 through February 1993.

Observations are those of the author unless followed by initials. I thank those who sent materials and shared their interesting observations.

KEY TO ABBREVIATIONS USED:

Places:

Co.	County
CSU	Colorado State University campus, Fort Collins
CVCG	Crow Valley Campground, Briggsdale
Dixon	Dixon Reservoir, Larimer Co. west of Fort Collins
FC	Fort Collins
HR	Hamilton Reservoir, Larimer Co. n. of Wellington
GC	Grandview Cemetery, Fort Collins
NCELC	Northern Colo. Environmental Learning Center, FC
PNG	Pawnee National Grassland, northeastern CO
Res	Reservoir

People:

PB	Pat Buckhaults
SB	Steve Bouricius
DFO	Denver Field Ornithologists
DH	Dave Hawksworth
JM	Joe Mammoser
HM	Helen Mills
DM	Diane Mullineaux
DN	Duane Nelson
SR	Scott Rashid
KS	Karleen Schofield
JT	Janeal Thompson

BIRD	FOOD ITEM	LOCATION	DATE/OBSERVER
Cattle Egret	Grasshoppers near horses	Jackson Res, Morgan Co	20 Oct
Snow Goose ("blue")	Bluegrass (<u>Poa</u> sp.)	HR	7 Dec
Hooded Merganser	Crayfish	Arvada, JeffCo	Feb KS/DM
Bald Eagle	Dead Canada goose	Jumbo Res, Sedgwick Co	27 Nov
Northern Harrier	Blk-t jackrabbit (roadkill)	PNG	26 Nov DH
Northern Harrier	Garter snake (roadkill)	Walsh, Baca Co	28 Sept JT
Northern Harrier	Assoc. with prairie-dog town	Jumbo Res	27 Nov
Northern Goshawk	Stellar's Jay	Estes Park, Larimer Co	3 Nov SR
Swainson's Hawk	Pine (= "bull") snake	Walsh	19 Oct JT
Red-tailed Hawk	Jackrabbit sp. (roadkill)	Walsh	19 Oct JT
Red-tailed Hawk	Desert Cottontail	Browns Park, Mesa Co	5 July DH
Ferruginous Hawk	Assoc. with prairie-dog town	Jumbo Res	27 Nov
Rough-legged Hawk	Assoc. with prairie-dog town	Jumbo Res	27 Nov
Golden Eagle	Assoc. with prairie-dog town	Jumbo Res	27 Nov
Golden Eagle	Red-winged blackbird (female)	Walsh	19 Feb JT
Kestrel	Horned lark	Jumbo Res	27 Nov
Merlin	Chasing Eur. starling	FC	13 Oct DH
Merlin	Horned lark (immature)	Blackhollow Res, Larimer Co	7 Nov '91 DH
Prairie Falcon	Black-billed magpie	Denver	2 Jan KS/DFO
Prairie Falcon	Chasing Eur. starling	FC	9 Oct DH
Prairie Falcon	Chasing Eur. starling	FC	13 Nov DH
Dave notes that following these two incidents, no starlings were noted in this area. Apparently they either all became prey or were frightened into choosing a new roost.			
Prairie Falcon	European starling	Walsh	30 Oct PB
Prairie Falcon	Mallard (hen)	Estes Park	Dec '92 SR

Ring-billed Gull Crayfish (live) Baseline Res, Boulder Co 21-26 Feb

During the period of ice melt at this reservoir, gulls in large numbers were seen feasting on large (3-5 inches long) live crayfish, particularly along the shallow west edge. The normal procedure was for a flying gull to hover briefly over a swimming crayfish, followed by a wheeling dive. The crayfish was carried to shore or to ice. First the front legs bearing claws were pulled off, followed by the eight small clawless legs. The entire body was gulped in one piece and swallowed (usually with some difficulty). Then the small legs were eaten and the clawed legs left behind. The shore of this reservoir is littered with hundreds of claws.

Ring-billed Gull Common merganser food Union Res, Boulder Co 15 Nov

Several gulls were attempting to steal from mergansers as they came up from dives. The gulls were good at figuring out where the mergansers would surface. They were not successful (from what I could see) at getting the ducks to give up their prey (fish?). This is another example of attempted kleptoparasitism (an avian misdemeanor).

California Gull Crayfish (live) Baseline Res 21 & 26 Feb

(see discussion under ring-billed gull)

Herring Gull Crayfish (live) Baseline Res 21 & 26 Feb

(see discussion under ring-billed gull)

Lesser Blk-backed Gull Crayfish (live) Baseline Res 21 & 26 Feb

(see discussion under ring-billed gull)

Glaucous Gull Crayfish Baseline Res 26 Feb

This immature was not seen actually catching and eating live crayfish like the others, but it was seen picking meat from a freshly discarded clawed leg (from the unclawed end of the leg).

Great Horned Owl Diving on cottontail (unsuccessful) CSU 17 Nov

About midnight, the bird flew out of an American elm about 60 yards from where the rabbit was grazing on grass in the open. At the last second, the rabbit retreated to a dense shrub thicket, where I saw it shaking intensely. Upon my approach (I could have touched it with my shoe) it showed no willingness to move. The owl was perched above us on a building roof, peering down. In anthropomorphic terms, this rabbit was apparently choosing to take its chances with a human (who does not eat carrots very often), as opposed to the owl that

probably killed one or more of its relatives. This owl is part of a well-known pair that has nested on campus for the past few years. Their primary prey would appear to be rock doves, as evidenced by the feathers scattered about the building grounds within sight of their nest.

Black-chin. Hummingbird	Canada thistle nectar	Rio Blanco Co	June DH
Belted Kingfisher	Rainbow trout fingerlings	Watson Lake, Larimer Co	9 Jan

These fish were being taken from the Colorado Division of Wildlife hatchery near Bellvue. Apparently kingfishers and herons (both great blue herons and black-crowned night-herons) are known for their unwanted fish predation here and at other fish-rearing facilities in CO. Tactics for discouraging this activity are being investigated.

Yellow-b. Sapsucker	Austrian pine sap wells	GC	22 Feb & later
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The Austrian pine grove just south of the Grandview Cemetery is a long-used winter resource for sapsuckers for the past several years. However, during the winter of '92-'93 no sapsuckers were seen in these trees until late February. The one individual (an adult male) utilizing the cemetery during this winter favored an American linden. This is the only sapsucker ever observed by me feeding on this species of tree, although they are known to use a wide variety of deciduous trees in the heart of their reported range in the eastern U.S.

Yellow-b. Sapsucker	American linden sap wells	GC	6 & 17 Dec, 4 Jan
Yellow-b. Sapsucker	Black walnut sap wells	Golden	10 Jan, etc DN/KS/DM
Yellow-b. Sapsucker	Scots pine sap wells	GC	24 Nov
Red-naped Sapsucker	Tamarisk (= "salt-cedar") sap wells	Rio Blanco Co	29 Sept DH
Sapsucker sp.	Siberian elm sap wells	FC	30 Nov

Sap wells in this species have been found before and are apparently made by sapsuckers during migration. This tree is not native or common within the normal nesting habitat of the red-naped sapsucker and wintering yellow-bellied sapsuckers have only rarely been seen on this tree in urban areas where this tree is common.

Downy Woodpecker	Western dusky-winged oak aphids	FC	6 Oct
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(These aphids, Tinocallis alhambra, were very heavily infesting leaves of a bur oak. During fall 1992 this tree was a center of bird attention, even after the aphids had been killed by subfreezing temperatures. Their cadavers continued to provide food (see yellow-rumped warbler and black-capped chickadee, and white-breasted nuthatch)

Downy Woodpecker	At sapsucker Siberian elm sap wells	FC	30 Nov
Downy Woodpecker	Sml Euro. elm bark beetles in Sib. elm	NCELC	31 Oct
<u>Scolytus multistriatus</u> is the common elm bark beetle in Colorado and is expected to burgeon with the large numbers of dead elms resulting from the October 1991 freeze. This beetle vectors the causal fungus for Dutch elm disease. Thus, woodpecker predation of this type is quite beneficial, both in terms of eliminating individual insects and also alerting urban foresters to infested trees which might need to be removed. While perhaps useful to cavity-nesting birds, most of the dead elms are being removed in the name of disease, esthetics and potential hazard.			
Downy Woodpecker	Giant willow aphids on willow trunk	CSU	18 Nov
<u>(Tuberolachnus salignus)</u>			
Downy Woodpecker	Willow aphids (unknown sp.)	GC	12 Oct
Downy Woodpecker	Sml. Euro. elm bark beetles in Sib. elm	CVCG	7 Feb
Hairy Woodpecker	Sml. Euro. elm bark beetles in Sib. elm	Jumbo Res	27 Nov
Horned Lark	Spilled corn	Rockport, Larimer Co	11 Jan
Violet-g. Swallow	Damselflies (blue & gray) fed to young	Rio Blanco Co	2 July DH
Blue Jay	Great mullein seed	Waterton Canyon, JeffCo	24 Oct DH
Blue Jay	Boxelder seed	NCELC	31 Oct
Blue Jay	Spilled corn	GC	6 Nov
Scrub Jay	Mouse sp. (<u>Mus musculus</u> ?)	Golden	5 Jan DN
Black-b. Magpie	Examining cliff swallow nests	Rio Blanco Co.	6 June DH
Magpies were looking into nests, which at the time were not occupied by adults. They were possibly looking for eggs, swallow bugs (nest parasites) or just doing some general investigating of sites that have been productive in the past.			
Black-b. Magpie	Mule deer carcass	La Porte, Larimer Co	9 Jan
Black-b. Magpie	Cake doughnuts	Boulder	21 Feb JM
Common Raven	Mule deer carcass	La Porte, Larimer Co	9 Jan
Black-c. Chickadee	Ponderosa pine seeds in cones	Cherry Crk Res, Arap Co	6 Feb KS
Black-c. Chickadee	Ants (v. sml sp.) on rabbitbrush flowers	Cameo, Mesa Co	30 Sept

Black-c. Chickadee	Green ash seeds	GC	10-12 Oct
Black-c. Chickadee	Green ash seeds	Brighton, Adams Co	8 Dec
Black-c. Chickadee	W. dusky-winged oak aphid cadavers	FC	30 Nov
Black-c. Chickadee	Willow aphids (unident. sp.)	NCELC	31 Oct
Black-c. Chickadee	Willow aphids (unident. sp.)	GC	12 Oct
Black-c. Chickadee	Spruce seed	GC	10-12 Oct
Black-c. Chickadee	Unident sawfly larvae w/in willow twigs	NCELC	23 Jan
Black-c. Chickadee	Silver maple sap	GC	5 Feb
Mountain Chickadee	Ants (v. sml sp.) on rabbitbrush flowers	Cameo	30 Sept
American Dipper	Annelid worms	Peaceful Valley, Boulder Co	summer'92 SB
White-br. Nuthatch	W. dusky-winged oak aphid cadavers	FC	30 Nov
Ruby-cr. Kinglet	Unident. aphid sp. on Sib. elm trunk	CVCG	25 Sept
Ruby-cr. Kinglet	Linden aphids (<i>Tinocallis tiliae</i>)	GC	6 Oct
Mountain Bluebird	Russian olives	Rangely, Rio Blanco Co	8 Sept DH
Towns. Solitaire	Old chokecherries	w of FC	17 Oct DH
American Robin	Crabapples	FC	8 Jan
American Robin	Netleaf hackberry fruits	Sunshine Canyon, Boulder Co	14 Jan
American Robin	Russian olives	CVCG	25 Sept
American Robin	Rocky Mountain juniper berries	GC	27 Sept
Long-bill. Thrasher	Unknown	Chatfield Res, JeffCo	31 Jan

The following is highly speculative but would seem worthy of mention. While the objects of its searching could not be determined, this bird was very intent on turning over leaves with its bill. It did this non-stop for hours, presumably in search of arthropod prey. The only insects abundantly obvious at the time were ground-dwelling leafhoppers. The "near-sighted," consistent intensity of this bird's foraging, if typical, could almost be used as a field identification clue. I have never seen brown thrashers forage in such a concentrated manner in such a small area for this length of time.

Bohemian Waxwing	Juniper berries	Peaceful Valley, Boulder Co	7 Feb SB
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Berries were eaten from both Rocky Mountain (Juniperus scopulorum) and ground (J. communis) junipers.

Cedar Waxwing	Crabapples	FC	8 Jan
Northern Shrike	Chasing white-cr. sparrow	Walsh	15 Nov JT
Loggerhead Shrike	Cicada (<u>Tibicen dorsata</u>)	Walsh	7 Sept JT

The cicada was flushed by a dog. The shrike swooped down and caught the large insect. The cicada made its characteristically shrill sound and the shrike let it go. Birds are known to prey on cicadas but in this instance the cicada's noise-making worked as a defense tactic.

Loggerhead Shrike	Annelid worms and grasshoppers	FC	12 Aug DH
European Starling	Crabapples	FC	8 Jan
European Starling	Hackberry fruits	FC	26 Oct
European Starling	Fallen crabapples	Lakewood, JeffCo	28 Oct
European Starling	Crabapples	Brighton	8 Dec
Yel-rump. Warbler	W. dusky-winged oak aphids	FC	6 Oct
Yel-rump. Warbler	Russian olives	Rangely	12 Sept DH
Blk-thr. Green Warbler	Cottonwood leaf aphids	NCELC	31 Oct
Pine Warbler	Pine tortoise scale	Boulder	26 Feb
Pine Warbler	Boxelder sap	Boulder	26 Feb
Pine Warbler	Bean sprouts	Boulder	26 Feb

A discussion of the feeding habits of this winter's Boulder pine warblers is planned for a future C.F.O. Journal article.

Wilson's Warbler (<u>Hyadaphis tartaricae</u>)	Honeysuckle witches-broom aphids	GC	10 Oct
Green-t. Towhee	Annelid worms to nestlings	Rio Blanco Co	26 June DH
Am. Tree Sparrow	Wild sunflower seeds	n of Windsor, Weld Co	11 Jan
Song Sparrow	Wild sunflower seeds	Walsh	13 Oct JT
White-cr. Sparrow	Wild sunflower & pigweed seeds	n of Windsor	11 Jan
White-cr. Sparrow	Russian olives	Rangely	12 Sept DH

White-cr. Sparrow	Knapweed sp. seeds	CVCG	21 Sept
White-cr. Sparrow	<u>Rhus trilobata</u> fruits	Dixon	7 Oct
Dark-eyed Junco	Cornflower seeds	FC	21 Nov DH
Lapland Longspur	Spilled corn	Rockport	11 Jan
Red-w. Blackbird	Russian olives	Wellington, Larimer Co	11 Nov
Red-w. Blackbird	Wild sunflower seeds	Jumbo Res	27 Nov
Great-t. Grackle	House sparrow	Walsh	2 Nov HM
Common Grackle	Unident. grasshopper sp. (green)	Walsh	28 Sept JT
Common Grackle	Unident. grasshopper sp. (brown)	Walsh	28 Sept JT
House Finch	Hawthorn (ornamental) fruits	Grand Junction, Mesa Co	30 Sept
House Finch	Green ash seeds	GC	10 Oct
House Finch	Green ash seeds	Wheat Ridge, JeffCo	28 Oct
House Finch	Lilac seeds	GC	30 Nov
Red Crossbill	Colo. blue spruce seeds from cones	GC	26 Oct
Common Redpoll	Alder seeds from catkins	Peaceful Valley	28 Dec/12 Feb SB
Pine Siskin	Monument plant (<u>Swertia radicata</u>) seed	FC	6 Aug DH
Pine Siskin	Russian olive buds	FC	13 Feb
American Goldfinch	Wild sunflower seeds	n of Windsor	11 Nov
Evening Grosbeak	Crabapples	FC	8 Jan

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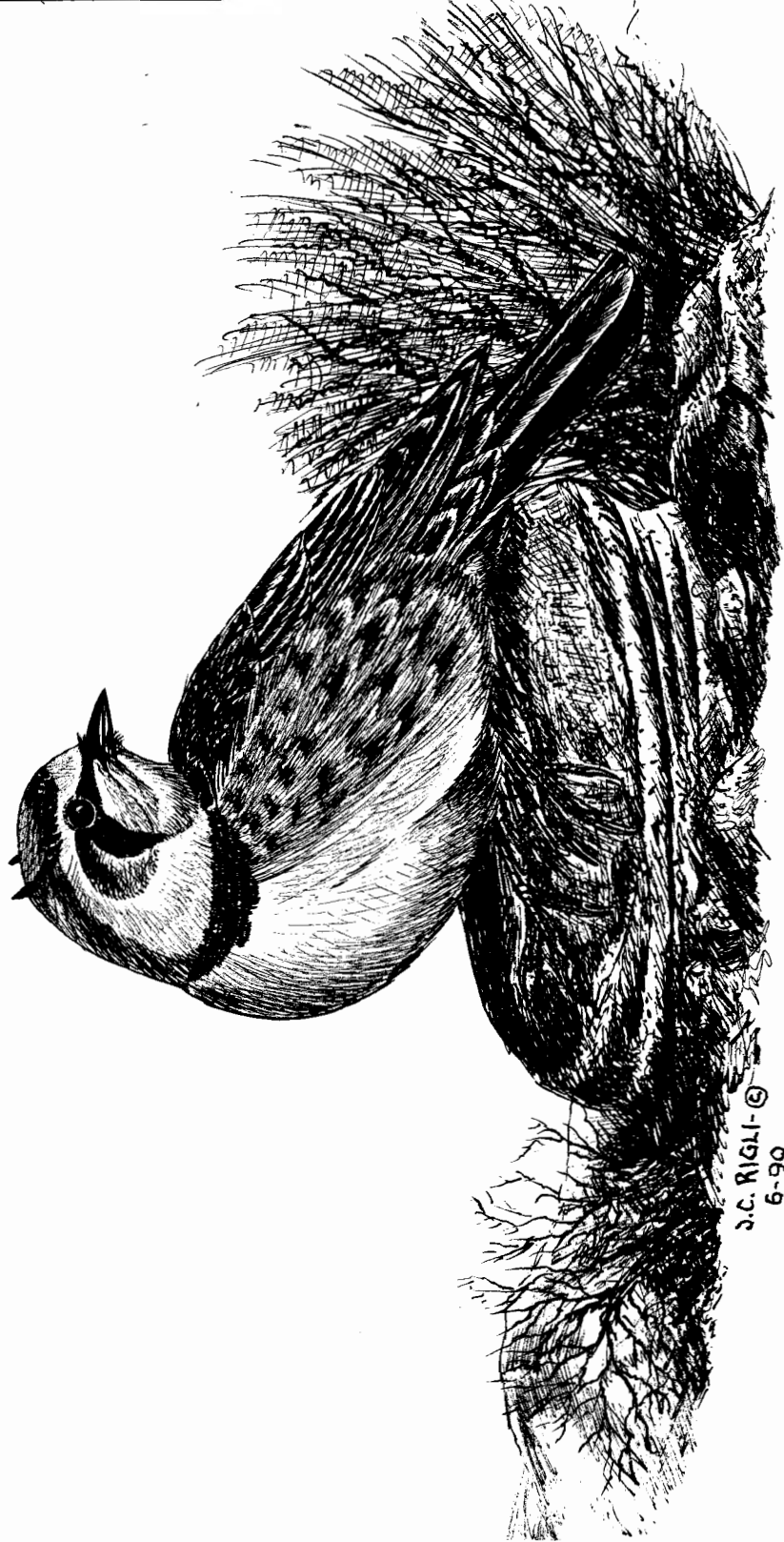
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