

LIBRARY
NC STATE MUSEUM
OF NATURAL SCIENCE

C.F.O. Journal

Official publication of the
Colorado Field Ornithologists

No. 26 Winter 1976

Mountain Plover--Eggs and Young

Photo / Alfred M. Bailey



CONTENTS

Announcement -- C.F.O. Meeting		3
Editorial Page	Hugh Kingery	4
Seasonal Summary Reports	Bob Andrews	5
Fall Migration - 1975	Bob Andrews	7
Location Guide		16
The Mountain Plover's Mating System	Walter D. Graul	17
Registration Form -- Annual Meeting		

XXXXXX

The C.F.O. Journal, formerly the Colorado Field Ornithologist, is a journal devoted to the field study of birds in Colorado. Articles and notes of scientific or general interest, and reports of unusual observations are solicited. Send manuscripts, with photos and drawings, to Hugh Kingery, Editor, 869 Milwaukee Street, Denver, Colorado 80206.

C.F.O. JOURNAL STAFF:

Editor	Hugh Kingery	Typists	Karen Miller
Assistant Editor	Bob Andrews		Vi Hubka

Send inquiries about membership to the Treasurer, and about subscriptions, address changes, and the like to the Executive Secretary.

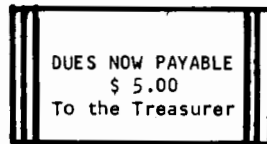
XXXXXX

OFFICERS AND DIRECTORS, COLORADO FIELD ORNITHOLOGISTS

President	David Griffiths, 27 Amherst #8, Pueblo 81005
President-Elect	Edward D. Curry, Jr., Box 6348, Colorado Springs 80934
Executive Secretary	Robbie Elliott, 220 21st St., Boulder 80303
Treasurer	Berniece Merry, 1551 E. Cornell Avenue, Englewood 80110
Directors	Paul Julian, Boulder Hugh Kingery, Denver Nyla Kladder, Grand Junction Jack Reddall, Englewood Robert Tully, Northglenn

OFFICIAL RECORDS COMMITTEE

Jack Reddall, Chairman, 4450 South Alton Street, Englewood 80110
Robert Andrews, Denver; David Griffiths, Pueblo; Harold Holt, Denver;
Paul Julian, Boulder; Hugh Kingery, Denver; Richard Stransky, Durango.



ANNOUNCEMENT - C.F.O. ANNUAL MEETING

The 1976 annual meeting of the Colorado Field Ornithologists will be held jointly with the Western Bird Banding Association on the campus of Colorado State University, Fort Collins, Colorado, 4-6 June. Dr. Ronald A. Ryder, Professor of Wildlife Biology at CSU, is chairman of local arrangements. Interesting bird habitats from high alpine tundra to arid, shortgrass prairie are within an hour's drive of the campus.

MEETING PLACES AND ACCOMMODATIONS

Registration will be Friday evening in the lounge of Parmelee Hall on the campus of Colorado State University. An informal get together and orientation will be held that evening. Those wishing to stay on campus will be housed in Parmelee Hall (rates follow). Those wishing to stay elsewhere will find numerous motels, public and private campgrounds within a few minutes driving.

Business meetings and technical papers sessions of the two organizations will be 8 a.m. - 5 p.m. Saturday, 5 June, in the nearby Student Center. Lunch and the buffet banquet (6:00 p.m.) will be served in the North Ballroom of the Student Center.

FIELD TRIPS

There will be a choice of two fieldtrips Saturday. One will go to over 12,000 feet elevation in Rocky Mountain National Park (White-tailed Ptarmigan, Brown-capped Rosy Finches, etc.), while a second trip will be to the Pawnee National Grassland average elevation about 5200 feet. (McCown's and Chestnut-collared Longspurs, Mountain Plover, Ferruginous Hawks, Prairie Falcons, etc).

Note: Box lunches available with pre-registration.

MAPS AND CHECKLISTS AVAILABLE

Anyone wishing maps or checklists of birds of either or both of the above areas can obtain them by writing Dr. R.A. Ryder, Department of Fishery and Wildlife Biology, CSU, Fort Collins, Colorado 80523.

CALL FOR PAPERS

CFO members are invited to present papers at the Saturday afternoon meeting. Please send titles, approximate times, and visual aids equipment needs to Dr. Ryder by 15 May.

COSTS

The registration fee is \$6.25 per person which includes program costs, reception and coffee breaks. The served meals and the field trip box lunch may be reserved on an optional basis. Pre-registration is encouraged as 48-hour notice is necessary for meal reservations.

Lodging per night - Parmelee Hall

Double - \$7.50 per person
Single - \$10.50

Couple - \$13.50
Family Suite - \$21.00 (up to 4 persons)

A list of local motels is available on request. Please make arrangement directly with the motel of your choice.

REGISTRATION FORM ON INSIDE BACK COVER

EDITORIAL PAGE

We generated Spring Count reports from several locales last year, only to set them aside because they used inconsistent criteria and rules. We think that information in the C.F.O. Journal should have some identifiable, lasting value; the widely varying Spring Counts seemed to lack any value for field ornithology, even though providing fun and satisfaction to the participants.

We identified about four types of counts:

1. The Big Bash: one to 35 observers spread out over as much territory as possible to find as many species as possible.
2. Traditional Spring Count A: one to 35 observers spread out over a territory established in years past, more or less consistently covered since then; could vary from 50-500 square miles. Colorado Springs does this.
3. Traditional Spring Count B: Covers a specific group of places, consistently from year to year, but not necessarily within the restrictions of Count 4. Like the Denver Fall Count.
4. Christmas Bird Count rules: Spring count conducted under the rules of Christmas Bird Counts. Durango does this.

We are seeking your advice as to the types of count which we should recognize by publication in the Journal. May we have your suggestions?

* * * *

Barry Knapp has put together a Colorado checklist, probably the most up-to-date one available at the present time. It lists 423 species; it differs from that published in the Summer 1975 C.F.O. Journal by adding Sharp-tailed Sandpiper, Alder Flycatcher, and Louisiana Waterthrush, and deleting New Mexican and Mottled Ducks, Glossy Ibis, Purple Gallinule, Iceland Gull, Olivaceous Flycatcher, and Smith's Longspur. Our editorial guess is that the C.F.O. Records committee will agree with all those changes, possibly excepting Olivaceous Flycatcher, but with a big IF on Smith's Longspur. The latter records have been questioned strenuously, and the Records Committee is studying the matter.

Copies of the checklist are available from Barry by sending a stamped self-addressed envelope to him at 4695 Osage Drive, Boulder, Colo. 80303. If you want more than one copy, send a quarter--he will send them for four for 25¢.

* * * *

The self-addressed stamped envelope (Barry calls them, acronymically, "Sases") brings up another subject. Many of us involved in the science or sport or study called bird-watching or field ornithology receive many communications on the subject, expecting answers. It's a great courtesy to strangers from whom you seek information to send along a Sase--the recipient will be more inclined to answer, and to answer promptly.

SEASONAL SUMMARY REPORTS

by Bob Andrews

With this issue we begin to fill a gap in the reporting of Colorado birds that has existed for a number of years. From 1953 to 1967, Don Thatcher ably summarized the observations of each season in Colorado Bird Notes, published by the Colorado Bird Club, predecessor to the Denver Field Ornithologists. The last such article appeared in 1967. In the eight years since, the number of Colorado birders has increased and more birds are seen each year and it is now time to resume the seasonal summaries. This column will occupy the gap between Hugh Kingery's American Birds report (in which Colorado is lumped with Wyoming, Utah and Nevada) and the various reports published by local bird clubs and National Audubon Society chapters around the state. It will deal with all of Colorado and Colorado only, thus hopefully providing a detailed, comprehensive view of the ornithological events and trends of each season not available anywhere else.

For this column to provide the maximum interest and value to Colorado field ornithologists, present and future, amateur and professional, it is imperative that it receive full support from everyone in the state who is involved with field observations and studies of birds. With the concentration of birders and birding effort along the Front Range and in northeastern Colorado it would be easy for the column to become restricted to that area. But the scope is intended to be state-wide and it is therefore especially important that observers in the rest of the state participate fully.

The following is a guide as to what topics the column will aim to discuss; contributions by all Colorado observers will help. Your reports could contain:

- A. Migration dates: The earliest arrival date, the time when the bulk of the migrants arrived and departed, the latest departure date, the period(s) of peak movement. Were the dates or numbers earlier, later, higher or lower or about the same as in the previous year or with the average established over a period of years? Whenever necessary qualify your comparisons with dates and numbers from previous years.
- B. Populations levels: Populations of wintering and summering birds (including breeding species) and their arrival and departure. Make note of new or unusual breeders, wintering or summering species. Again, how do these compare with previous years?
- C. Rarities: Note location, date, number of individuals, sex or age if it can be determined in the field, name of observer (s). Make note not only of species rare to Colorado as a whole, but rare for the season, habitat, elevation, county or locality. For extremely rare species, submit a full detailed report to the CFO Official Records Committee; a copy can go with your seasonal report.
- D. Trends: Make note of any kind of trend, in specific families, groups or in a single species regarding any aspects of its local status or habitat preference such as changes in seasonal status or abundance, expansion or contraction of range, etc.
- E. Weather: How has the weather in general through the season affected bird activities? Cite specific cases such as effect of storms and fronts (or the lack of them) or abnormal cold, hot, dry or wet periods on

bird movements, nesting, etc.

- F. Food Supply: How has the food supply been in the area, and how has it affected the numbers and species of birds in the area?
- G. Human Effects: How has the activities of man, such as urban expansion, highway construction, mining, pesticides, hunting, agriculture, heavy recreation use, etc. affected the behavior, ecology or movement of birds?

Keep in mind the following points:

- A. Colorado has a very large elevation range (from 3,350 feet to 14,433 feet) and elevation exercises as much influence on bird distribution, abundance and movement as does latitude or longitude. Much is still not known about altitudinal migration and other aspects of elevation, so if you are in a position to observe such phenomena, please make note of them.
- B. Birding is far more than just seeing exciting rarities. Don't ignore or deemphasize the common species that form the vast bulk of the avifauna. Be alert to changes (or lack of them) in various aspects. Keeping a close watch on the common species is one of the best ways to detect changes in the environment. Keep in mind too, that population fluctuations are an integral part of the biology of many species, and they should also be documented.
- C. Don't ignore subspecies or color forms that are identifiable in the field.
- D. Remember no report is complete without species name, date (s), location (including elevation if it is significant or not readily available), number of individuals, sex and age in some cases, name of observer (s). The latter should be eliminated only in the case of the most common species.
- E. Colorado is a large state and, for the most part, poorly explored ornithologically. If you live or bird regularly in a relatively unknown area or locality, take advantage of this and contribute what you find to this column.
- F. In maximizing the value of field observations the key word is consistency. Few types of birding are more valuable than keeping detailed, consistent observations in one area or locality over a period of years. It is this type of work that best uncovers trends and changes. Such reports are also the most valuable in bringing comprehensiveness and accuracy to this column. If your own field observations lack consistency, try to correct that.
- G. Many of the topics discussed above can provide the basis for informative and valuable articles. If you have extensive knowledge or field notes concerning some of those topics in your area, think about sharing them with the rest of us by writing an article for the CFO Journal.
- H. Many observers now make reports to Hugh Kingery for American Birds (they are the source of the first seasonal summary which follows). He will use the reports for American Birds, then pass them on to me for the C.F.O. Journal summary.

For convenience, deadlines will be the same as for American Birds.

Spring-April 1-May 31

Deadline-June 15

Summer-June 1-August 31

Deadline-September 15

Fall-September 1-November 30

Deadline-December 15

Winter-December 1-March 31

Deadline-April 15

- I. Your comments (pro and con) and suggestions are wanted and strongly encouraged. Send them to Bob Andrews, 1390 S. Ivy Way, Denver, Colorado 80224.

FALL MIGRATION - 1975

by Bob Andrews

Observers around the state characterized the fall migration of 1975 as being rather dull and unexciting, due in large part to warm, dry weather with few strongly defined cold fronts that were capable of grounding numbers of migrants. Consequently, the migration, especially the latter part of it (October and November) lacked the numerous spectacular passerine rarities that made the 1974 fall season so notable in the Denver-Boulder area. The flight of pelagic and coastal water birds was generally poorer than last year, although loons, Black Scoters and jaegers had a better showing this year than last. Most montane or northern species were scarce or lacking, and the warbler migration, so unusual last fall, was comparatively unexciting.

However, the fall of 1975 was definitely not without its significant observations, the foremost of which was the appearance of Colorado's first Sharp-tailed Sandpiper and probably only the fourth inland United States record of the species. The bird remained for over a week and was seen by many observers and is one of the most outstanding birds ever recorded from Colorado. Other notable sightings include Colorado's second Trumpeter Swan, the unprecedented invasion of the Denver-Boulder area by six different Black Scoters (only four prior state records), a flight of transplanted immature Whooping Cranes through the San Luis Valley on their way from Idaho to New Mexico, Colorado's seventh and eighth Red Phalaropes, the eighth Pomarine Jaeger, a family of apparent Blue-throated Hummingbirds and the eighth Pine Warbler for the state.

Common Loon—There was an unusually strong flight of this species through eastern Colorado and locally on the west slope from October 19 through November.

An early bird was at Ramah Reservoir August 30.

Arctic Loon—Nine birds were reported this fall, with 15 state records prior to this season. This year's reports were: 1-2 at Baseline Reservoir October 25-November 1 (BA,BK,SL,JR,BW), 1-2 CF&I Lakes at Pueblo November 1-30 (DG,VT), 1 Union Reservoir November 1 (BA,ND,JR,BW), 1 Narraquinnep Reservoir, near Durango October 30-November 18 (KS), 1 CCRA November 15 (JR), 1 Minnequa Reservoir at Pueblo November 17 (CC). Clearly, this species is a regular migrant in small numbers each fall, a fact that should not prompt observers to be careless in this still difficult identification.

Eared Grebe—1 at Cabin Creek Reservoir (9500 feet), Clear Creek Co., November 27 was unusual (JRO).

White Pelican—Flocks of up to 200 remained at Barr Lake and Jackson Reservoir into late October, and the last report was 1 at Barr November 15.

Double-crested Cormorant—250 were still at Jackson Reservoir October 26. Last report was 1 at Pueblo November 27-30.

Green Heron—Up to 5 (2 adults, 3 immatures—did they nest there?) were present at Sawhill Ponds, Boulder Co. through August. Other reports were 1 at Fountain August 17, 1 Dye Reservoir September 6, 1 CF&I Lakes September 7, 1 Pueblo Reservoir September 2-12.

Cattle Egret—Up to 6 were reported at Latham Reservoir from August 7 through September 6 (m.ob.), with at least 1 still there September 30. This locality has become the most regular spot in the state for this species, especially in fall.

Little Blue Heron—1 was at Pueblo Reservoir September 1 (JL).

- Great Egret-3 near Boulder August 5-10, 1 CF&I Lakes September 4-6, 1 Fowler September 6, 2 Barr Lake September 10-13.
- Snowy Egret-Late reports were 1 at Totton near Durango September 26 and 1 Pueblo September 28.
- Yellow-crowned Night Heron-An immature was at Sawhill August 14-19 (BK,m.ob.).
- White-faced Ibis-Latham Reservoir August 11-20 (only report from NE Colorado where the bird is very scarce in fall), 1 Totton September 4, 1 Pastorius near Durango September 5 and up to 25+ at Pueblo to September 14.
- Whistling Swan-6 Marston Reservoir November 15-16, 1 CF&I Lakes in mid-November, 2 CCRA November 27, 4 Fruita November 22 on, 1 Big Johnson Reservoir at Colorado Springs November 29.
- Trumpeter Swan-One of the most notable observations of the season was an immature of this species at Bow Mar on December 1 (WG). The bird had been banded in the Grand Prairie area some 280 miles northwest of Edmonton, Alberta on September 9, 1975, and is part of a population that winters along the Snake River in Idaho. This is the second record of the species from Colorado.
- White-fronted Goose-5 CF&I Lakes September 26, 1 Julesburg Reservoir Oct. 18, 1-3 Barr Lake Oct. 19-22, 1 Valmont Reservoir Oct. 25, 3 McIntosh Reservoir, 1 Larimer County Nov. 15, 1 Fruita Nov. 20.
- Snow Goose-First was 5 at Lake Meredith, on Sept. 28. An unusually high count was 135 at Barr Lake Nov. 8 (BA,JC).
- Ross' Goose-2 Fruita Nov. 15-18 (DGA).
- Blue-winged or Cinnamon Teal-A late bird was at MHDC Nov. 6.
- Wood Duck-Up to 6 were reported from Waterton Aug. 16-Oct. 22, and 2 adults and 2 juveniles were at Pueblo from Sept. through Nov.
- Canvasback-An unusually high count was 500 at Barr Lake Nov. 8.
- Lesser Scaup-A high count was 2000 at CCRA Nov. 9.
- Common Goldeneye-Early reports of females came from Pueblo Sept. 4-27 and Prewitt Reservoir Sept. 28, all others from late October on as usual.
- Barrow's Goldeneye-Two males were at Baseline Reservoir in mid-November, but they had not appeared at Estes Park by the end of the season.
- Oldsquaw-1 at Pastorius Nov. 16-20 (KS), 1 Baseline Reservoir Nov. 17-18 (BW,m.ob.).
- White-winged Scoter-1 Mead, Weld Co. Oct. 25 (JS), an adult male at Baseline Reservoir Nov. 28-29 (BA,BK,BW).
- Surf Scoter-Eastern Colorado had only one (at Longmont Nov. 16-JG) after last fall's strong flight, but elsewhere there were 4 at Highline Lake, Mesa Co. Oct. 19 (LG), and 2 at Pastorius Nov. 12-15 (KS).
- Black Scoter-With only 4 previous state records, Colorado had an unprecedented and amazing flight by this species, totaling 6 different individuals (all were seen on Nov. 15 eliminating the possibility of duplication). All but one were in female or immature plumage. The records are: 1 at Baseline Reservoir Oct. 26, joined by a second several days later, with the 2 remaining at least until Nov. 18 (BW,m.ob.), 1 Kendrick Lake, Jefferson Co. Nov. 15-16 (SM,HH), 1 at CCRA Nov. 9, joined by a second Nov. 15 (not seen after that date) (BA,JR) and a subadult male at CCRA Nov. 14-22 (BA,MS). Because most of the same observers were covering the same areas last fall, this invasion appears to be genuine and not merely a discovery of a species that has been around all the while.
- Hooded Merganser-A very early bird was a female at Horsecreek Reservoir, Adams Co. Sept. 13 (BK,SL,VR). An unusual mountain record was 1 at Cabin Creek Reservoir Nov. 27 (JRO).

- Common Merganser-Early reports came from Chatfield and Totton Sept. 21.
Goshawk-Two plains reports were 1 at RMA Nov. 15 (BA) and 1 in Colorado Springs Nov. 25.
- Sharp-shinned Hawk-A total of 24 were reported, from Sept. 1 to Nov. 13, with 4 from the first half of September, 16 from the last half of Sept., 3 in October and 1 in November. The records were: 1 Pueblo Sept. 1, 1 Julesburg Reservoir Sept. 7, 1 Crow Valley Park at Briggsdale, Sept. 12, 1 MHDC Sept. 13, 2 near Durango Sept. 15, 1 Longmont Sept. 15, 1 Pueblo Sept. 16, 2 Durango Sept. 17, 1 Ft. Morgan Sept. 21, 1 Pueblo Sept. 22, 1 Boulder Sept. 24, 1 Longmont Sept. 26, 1 Estes Park Sept. 27, 5 Ft. Collins Sept. 27, 1 Pueblo Oct. 1, 1 Longmont Oct. 15, 1 Longmont Oct. 21, 1 Pueblo Nov. 13.
- Cooper's Hawk-Eleven were reported, most in September: 1 McCoy Aug. 15, 1 Boulder Sept. 5, 1 Prewitt Reservoir Sept. 7, 1 Barr Lake Sept. 13, 1 Ft. Morgan Sept. 20, 1 RMNP Sept. 21-24, 1 Totton Sept. 26, 2 Ft. Collins Sept. 27, 1 Pawnee NG Oct. 11, 1 Pueblo Nov. 15.
- Swainson's Hawk-Latest report was 1 in Carrizo Canyon, Baca Co. Oct. 27.
- Rough-legged Hawk-Although there were several early reports, including 1 in Routt National Forest Aug. 30 (NG,NGO,GW) and 1 at McCoy Sept. 17, this species was late in arriving, with very few in the Denver area until the second week of November.
- Bald Eagle-Earliest reports were 1 on the Poudre River near Rustic, Larimer Co. Sept. 27 and an immature at Barr Lake Oct. 17 on.
- Marsh Hawk-This species was very scarce in NE Colorado, but Pueblo observers found it coming through in better numbers than last fall.
- Osprey-1 Sawhill Sept. 12-13, 1 Durango Sept. 22, 1 Chatfield, Jefferson-Douglas Co. Sept. 27, 1 Valmont Reservoir Sept. 27, 3 Lake Meredith Sept. 6, along the Arkansas River in Pueblo to mid-November.
- Peregrine Falcon-1 Pueblo Aug. 23 to mid-September and again Nov. 8 (VT), 1 Routt Co. Aug. 30 (NG,NGO,GW), 1 Adams Co. Sept. 10 (BA), 1 Rio Grande Co. Sept. 24 into early December (CB), 1 Larimer Co. Nov. 1 (BM), 1 Boulder Co. in mid-November (SL).
- Merlin-About 10 reported, the first at Murphy Pasture on the Pawnee NG Sept. 22.
- Bobwhite-Reddall wonders "what's happened to the Bobwhite population in north-eastern Colorado?"
- Whooping Crane-Immatures that were hatched by Sandhills in Idaho this summer after being transferred as eggs from Canada came through Colorado this fall. Five birds were seen in the San Luis Valley (3 on the Monte Vista NWR) Oct. 9-Nov. 20, and 1 was reported from Hotchkiss Oct. 18.
- Sandhill Crane-The flight started early (mid-September) but peaked late (3rd week of November at Monte Vista NWR, with a peak of 4000 on the refuge and 10,000 in the San Luis Valley. On the plains however, smaller numbers were reported than last fall's unusually strong flight. Earliest was 1 at Union Reservoir Sept. 6 and the highest count was 1500 at Holbrook Reservoir, Otero Co. Nov. 8.
- Piping Plover-1 Julesburg Reservoir Sept. 7 (SL,VR), 2 Lake Meredith Sept. 13 (VT).
- Snowy Plover-The only report away from the normal location of Cheraw was 1 Sept. 22 at the CF&I Lakes.
- Mountain Plover-Last report was 20 on Pawnee NG Oct. 11.
- American Golden Plover-Fewer were reported after last fall's strong flight: 2 Latham Reservoir Sept. 27, 2 Barr Lake Oct. 11, 1 Jackson Reservoir Oct. 12, 1 Lafayette Nov. 9.

- Ruddy Turnstone-1 Cheraw, Sept. 6 (CFO).
- Upland Sandpiper-1 Sterling Aug. 4, 1 Lake Henry, Crowley Co. Sept. 6 and a very late bird at Chatfield Lake Sept. 21 (HK).
- Solitary Sandpiper-1 Barr Lake Oct. 24 (BA).
- Willet -20 Totton Aug. 21, 1 Baseline Reservoir Aug. 19-21, 1 CF&I Lakes Sept. 4, 1 Prewitt Reservoir Sept. 28.
- Red Knot-1 at Nee Grande Reservoir, Kiowa Co. Aug. 30 (TG).
- Sharp-tailed Sandpiper-Unquestionably the best bird of the season was Colorado's first Sharp-tailed Sandpiper, found by Conry and Webb in a flock of 4 Pectorals Oct. 26 at Lafayette, Boulder Co. and subsequently seen by many observers until Nov. 7. The bird was an immature, as are virtually all of the 25-30 continental United States records. This apparently constitutes only the 4th inland United States record. During its stay, the bird was photographed in the field and in the hand, banded, measured, weighed and plucked of some of its diagnostic feathers. Complete details will be published elsewhere.
- Short-billed Dowitcher-1 at Lake Meredith Sept. 6 (VT) and 1 at Baseline Reservoir Oct. 4 (BA,BK,SO,BW).
- Stilt Sandpiper-The trend of large numbers showing up at eastern plains reservoirs, which started several years ago, continued this fall. High counts included 45 at Julesburg Reservoir Sept. 7, up to 100 at Lake Meredith Sept. 13-14 and up to 110 at Barr Lake Sept. 13-20. A late bird was 1 on the Pawnee NG Oct. 19.
- Marbled Godwit-1 Tower Road, Adams Co. July 19, 1 Loveland Aug. 6, 1 Barr Lake Aug. 30, 1 Lake Henry Sept. 6, 2 CF&I Lakes Sept. 7, 2 Lake Meredith Sept. 27.
- Sanderling-Unusually high counts were 22 Julesburg Reservoir, 5 Sterling Reservoir and 62 at Prewitt Reservoir Sept. 7 (SL,VR). Latest was 1 at Jackson Reservoir Oct. 12.
- American Avocet-50+ were still at CF&I Lakes Nov. 1.
- Red Phalarope-2 were at Barr Lake on Sept. 16 and 20 for the 7th and 8th Colorado records (BA,HH,JR), with the former collected to provide the 2nd Colorado specimen (DMNH 36147).
- Pomarine Jaeger-1 was at CCRA Oct. 5 for the 8th record for the state (JR,m.ob.).
- Parasitic Jaeger-1 Cherry Creek Reservoir Aug. 15 (MS), 1 Lake Meredith Sept. 13 (VT).
- Herring Gull-Early reports were 3 immatures at Totton Sept. 4 (KS), and an adult at Julesburg Reservoir Sept. 7 (SL,VR).
- Thayer's Gull-1 CF&I Lakes Nov. 1-5 (DG,VT,m.ob.) and a probable bird at Barr Lake Oct. 24 (BA).
- California Gull-Latest was 1 at Baseline Reservoir Nov. 18.
- Laughing Gull-Two adults were at Union Reservoir Oct. 31-Nov. 1 (BW,BA,SL,ND,JR,DG).
- Franklin's Gull-Over 100 were observed Sept. 27 from Trail Ridge (DA) and Wild Basin (TE) in RMNP.
- Bonaparte's Gull-Fewer reported in NE Colorado than last fall. An unusually early bird was 1 at Lake Meredith Sept. 6.
- Sabine's Gull-After last fall's strong showing (at least 7), only 3 were reported this year: 1 Julesburg Reservoir Sept. 7 (SL,VR), 1 Chatfield Sept. 13 (HK), 1 CF&I Lakes Oct. 16-Nov. 30 (DG,JL).
- Forster's Tern-Not many reported, with the species leaving rather early.
- Common Tern-1 Sloans Lake in Denver Aug. 11 (BA,JC,HH,JR,JEC,BW), 2-3 CF&I Lakes Sept. 6-27 (DG), 3 Chatfield Sept. 20 (HK).
- Black Tern-Scarce in NE Colorado.
- Yellow-billed Cuckoo-1 Waterton and 1 Ft. Collins Sept. 27.

- Black-billed Cuckoo-1 at Barr Lake (BA) and Castlewood, Douglas Co. (JR) on Aug. 30.
- Great Horned Owl-Reported in good numbers at Pueblo, with 9 in a ½ mile area at Pueblo Reservoir in mid-November.
- Pygmy Owl-Immature found dead at Bayfield, La Plata Co. Nov. 7.
- Long-eared Owl-This scarce bird was reported only from the Sullivan Ranch near Boulder and 1 on Pawnee NG Oct. 19.
- Saw-whet Owl-1 was killed by a car at Eldora, Boulder Co. Aug. 28 (GS), 1 was at Castlewood Sept. 1(JR) and 1 at Buelah, Pueblo Co. Sept 17 (DS).
- Poor-will-1 Ft. Morgan Sept. 24 (JRG).
- Black Swift-6 were seen on Florida Mesa near Durango Oct. 11 (KS).
- Chimney Swift-The latest was at Pueblo Oct. 1.
- White-throated Swift-50 were found on Florida Mesa Oct. 11, but in the Denver area none were reported after Sept. 4.
- Rufous Hummingbird-Almost all observers found this bird to be scarce this fall, with most of the few birds seen coming in July.
- Rivoli's Hummingbird-1 Evergreen July 19 (JM).
- Blue-throated Hummingbird-5 immatures or females were seen in the West Animas Valley, La Plata Co. Sept. 7 (KS), a record that suggests breeding, which seems amazing if true.
- Calliope Hummingbird-1 Evergreen Aug. 7 (DSZ), 1 Steamboat Springs Aug. 10 (DSZ).
- Common Flicker-A minor wave of hybrids (probably migrating) occurred in mid-October with 1 at Longmont Oct. 11 and up to 4 (including 1 "pure" Yellow-shafted) at Barr Lake Oct. 11-14. Migration was also noted at Prewitt Reservoir Sept. 28 with 56 counted.
- Red-bellied Woodpecker-2 Prewitt Reservoir Aug. 7 (BB).
- Red-headed Woodpecker-Late birds were reported at Barr Lake Oct. 11, Larimer Co. Oct. 22 and near Boulder in late October.
- Lewis' Woodpecker-Reported to be common in suitable habitat in western Colorado. As usual small numbers reported from various spots on the plains just east of the Front Range foothills, the farthest out being at Horse Creek Reservoir Sept. 13.
- Yellow-bellied Sapsucker-Latest bird was 1 at Boulder Dec. 1.
- Williamson's Sapsucker-Reported in good numbers at Evergreen. An unusual plains report was 1 at Crow Valley Park Sept. 26 (BW).
- Northern Three-toed Woodpecker-2 Greenhorn Mtns., Pueblo Co. Sept. 7, 1 Balarat, Boulder Co. Sept. 27.
- Western Kingbird-Late reports were 1 at Hasty, Bent Co Sept. 28, 1 Waterton Oct. 3.
- Great Crested Flycatcher-Well reported this fall, with 1 at Prewitt Reservoir Aug. 7, 1 Nee Grande Reservoir Aug. 30 (TG), 1 Two Buttes Reservoir, Baca Co. Sept. 7, 1 Littleton Oct. 2-7, 1 Boulder Oct. 13.
- Ash-throated Flycatcher-1 Spring Canyon, Larimer Co. Aug. 25 (RB), 1 Timber Lake, Bent Co. Sept. 6, 1 Ft. Morgan Sept 7, (JRG).
- Eastern Phoebe-1 Timber Lake Sept. 6 (JR), 1 Barr Lake Oct. 14 (BA), 1 Ft. Morgan Oct. 22 (JRG).
- Say's Phoebe-A late bird was seen at Bodo Wildlife Area near Durango Nov.15 (KS).
- Empidonax sp.-A late one, possibly a Least, was on the CU Campus at Boulder Oct. 13.
- Western Flycatcher-1 Barr Lake Aug. 19 was an early plains report.
- Eastern Wood Pewee-1 banded at Longmont Sept. 15 (AC).
- Olive-sided Flycatcher-An early plains report was 1 at Chasteen's Grove, Larimer Co. Aug. 6.
- Vermillion Flycatcher-A female was observed at Pastorius Oct. 20 (DT, Four

Corners Bird Club)

- Violet-green Swallow-Good numbers were reported from the mountains and west slope, with 4000+ at Breen, La Plata Co. Sept. 20, but this and all other swallows (except Barn) were very scarce most everywhere on the eastern plains, which was also the case last fall. Only Denver area report was 5 on the Fall Count Sept. 13.
- Purple Martin-3 at Summit, Montezuma Co. August 14-28 (KS).
- Gray Jay-1 at Evergreen Aug. 31 seems low for that time of year.
- Blue Jay-Sightings in unusual locations were 1 at Evergreen Oct. 1-2, 1 on Red Creek west of Pueblo Oct. 5 and 1 at Durango Oct. 12.
- Blue X Steller's Jay hybrids-Several in Boulder as usual.
- Steller's Jay-A flock of 15-20 at Lykins Gulch, Boulder Co. Sept. 1 (to Oct. 27) was early. The species also wandered onto the plains at Waterton Sept. 13-Nov. 9.
- Scrub Jay-On plains at Waterton Sept. 13-Nov. 9.
- Common Raven-1 at CCRA Oct. 5 was an unusual spot.
- White-necked Raven-Flocks of 50-85 birds were seen at Sugar City, Crowley Co. July 26 and Sept. 6. The species is not often reported in such large numbers here in Colorado.
- Common Crow-Migratory movements were indicated by 50 at Ken Caryl Ranch, Jefferson Co. Oct. 1, 50 on Pawnee NG Oct. 19 and 500 at McCoy, Eagle Co. Nov. 1, and 17 were seen flying south at timberline in the Gore Range Oct. 4. Up to 200 were in October and November at Boulder as usual.
- Pinyon Jay-5 were seen west of Loveland Sept. 1, and flocks of up to 35 birds were seen Sept. 26 at Crow Valley Park and Prewitt Reservoir Sept. 28.
- Clark's Nutcracker-A low observation was 1 at Great Sand Dunes Nat'l Monument Oct. 4-16.
- Mountain Chickadee-Observed early on the plains at Pueblo, but there were no plains reports in northeastern Colorado.
- Common Bushtit-Observed at Spring Canyon, Aug. 26, 12 Boulder Sept. 8 and 12 west of Loveland Nov. 15, all along the east slope where the species is erratic.
- White-breasted Nuthatch-Reported on the plains early at Pueblo, but plains reports in NE Colorado were few: 1 Barr Lake Aug. 27-30, 1 Crow Valley Park Sept. 12 and 21.
- Red-breasted Nuthatch-Only small to moderate numbers were seen on the eastern plains, from Sept. 30 at Pueblo and Oct. 24 at Denver.
- Pygmy Nuthatch-On the plains at Pueblo City Park early.
- Brown Creeper-Early at Boulder, but about normal (mid-October on) at Denver.
- Dipper-1 along Cherry Creek in Denver November.
- Winter Wren-Only a few reports after last year's invasion: 1 Colorado Springs Nov. 26-29, 1 Waterton Nov. 29.
- Rock Wren-Scarce in the Denver area, most coming in late September. A late bird was at Longmont Nov. 1.
- Sage Thrasher-Quite scarce on the northeastern plains, but fairly common through September at Pueblo.
- Varied Thrush-1 came to a feeder in Boulder Nov. 19 (EH).
- Swainson's Thrush-Quite scarce at Denver. A very late one was at Colorado Springs Dec. 2 (SS).
- Eastern Bluebird-3 Crook, Logan Co. Oct. 18, 1 Ft. Morgan Nov. 1.
- Townsend's Solitaire-1 at Julesburg Reservoir Sept. 7 was early for that far out on the plains. Another early one was at Aurora Sept. 9.

- Blue-gray Gnatcatcher-3 Castlewood Aug. 30, 1 Berthoud Sept. 3 and 2 at Waterton Sept. 13 were all along the foothills and adjacent plains where most NE Colorado observations come from, but 1 at Prewitt Reservoir Sept. 28 was unusually far east and may have come from a different geographical area.
- Golden-crowned Kinglet-Only a few were reported on the plains, Sept. 28-Nov. 15.
- Northern Shrike-1 at McCoy Sept. 11 was very early with none reported elsewhere in the state until early November.
- Bell's Vireo-1 Tamarack Ranch at Crook, Logan Co. Sept. 7.
- Solitary Vireo-Several of the blue-headed form were seen in the Denver area in mid-October. Observers should always make note of race of this species as the relative abundance and times of occurrence for the races may be different.
- Red-eyed Vireo-1 at Evergreen Sept. 3 was at a rather high elevation, and 1 at Boulder Nov. 2 was very late (JC).
- Philadelphia Vireo-1 was seen at Boulder Oct. 13 (SL,BW) and 2 were at Barr Lake Oct. 17 (BA).
- Black-and-white Warbler-1 Evergreen Sept. 1, 1 west of Longmont Sept. 13, 1 Horse Creek Reservoir Sept. 13, 1 Fruita Oct. 29 (third year in a row at that time and location), 1 Indian Hills Nov. 2 (PF,DMNH).
- Tennessee Warbler-Only report came from Ft. Collins Sept. 3-14.
- Nashville Warbler-A good number of reports: 1 Buelah Sept. 15, 1 Pueblo Sept. 28, 1 Barr Lake Oct. 11, 1 Longmont Oct. 11-13, 2 Boulder Oct. 13, 16, 1 Lathrop State Park, Huerfano Co. Oct. 19, 1 Boulder Nov. 1.
- Virginia's Warbler-1 at Red Rocks Park Oct. 1 was late.
- Magnolia Warbler-1 Ft. Collins Sept. 27, 1 Longmont Sept. 28, 1 Barr Lake Oct. 22, 1 Lakewood Oct. 29.
- Yellow Warbler-1 Ft. Collins Sept. 27 was quite late.
- Black-throated Blue Warbler-Not as many this fall as last: 1 Hygiene, Boulder Co. Oct. 4, 1 Boulder Oct. 15, 1 Carrizo Canyon, Baca Co. Oct. 27.
- Townsend's Warbler-Earliest was 1 at Mesa Verde NP Aug. 11 (Aug. 29 on East slope). A late bird was 1 at Longmont Oct. 27.
- Black-throated Green Warbler-This species staged a fairly strong flight: 4 different individuals at Barr Lake Oct. 11-25, 2 at Crow Valley Park Oct. 12, 1 Evergreen Oct. 13, 1 Jackson Reservoir Oct. 26.
- Blackburnian Warbler-1 at Crow Valley Park Sept. 12 (VR) and 1 at Horse Creek Reservoir Sept. 13 (VR) were notable.
- Chestnut-sided Warbler- 1 Horse Creek Reservoir Sept. 13, 3 Ft. Collins Sept. 27, 1 Barr Lake Sept. 30.
- Bay-breasted Warbler-Only 1 seen this fall after last year's good number: 1 at Barr Lake Oct. 14-22 (BA,BL,SO).
- Blackpoll Warbler-This species has been reported far more often in recent falls. The first fall record for Colorado was in 1969, with 6 fall records through 1974, and no less than 6 reported for the fall of 1975: 1 Crow Valley Park Sept. 12 (VR), 1 Horse Creek Reservoir Sept. 13 (SL,VR), 1 Waterton Sept. 14 (JR), 1 Aurora Sept. 22 (MS), and 2 near Ft. Collins Sept. 27 (TB,TC,DL).
- Pine Warbler-The best warbler of the season was Colorado's 8th Pine at Crow Valley Park Sept. 12 (JC,VR).
- Palm Warbler-1 Deer Creek Canyon, Jefferson Co. Sept. 6.
- Ovenbird-1 Castlewood Aug. 30 and Sept. 1, 1 Wheatridge Aug. 25 and Sept. 13, 1 Two Buttes Reservoir Sept. 7 and 1 west of Loveland Oct. 14 (very late as most fall observations come in late August and early September).
- Northern Waterthrush-1 at Pueblo Sept. 1 and 13, 1 Pueblo Reservoir Sept. 2,

- 1 west of Longmont Sept. 3 and a very late bird in Carrizo Canyon, Oct. 27.
MacGillivray's Warbler-1 at Muir Springs, Morgan Co. Aug. 13 was early.
Yellow-breasted Chat-A very late bird was seen at Colorado Springs Oct. 28 (SH).
Hooded Warbler-A male was on the CU Campus at Boulder Sept. 11-12 (SL,m.ob.).
Wilson's Warbler-Late reports were 1 at Jackson Reservoir Oct. 26 (JR) and 2 at Barr Lake Nov. 6 (BA).
Canada Warbler-1 on CU Campus at Boulder Oct. 13 (BW,m.ob).
American Redstart-A very late bird was seen at Boulder Oct. 27 (JC). There was also a west slope record of 1 at Summit near Durango Aug. 27.
Orchard Oriole-An early (late July or early August)-departing species, late birds were seen at Barr Lake Aug. 27-30 and Fowler Sept. 6.
Bullock's Oriole-Somewhat late in leaving, with unusually late birds at Colorado Springs Sept. 29 and Red Rocks Oct. 1.
Rusty Blackbird-Normally a few are seen each fall, but none were reported.
Common Grackle-1 was at Eldora Nov. 7-23, which is not only late but high. The species was present into December at La Junta. From the West Slope comes a report of 1 at Steamboat Springs Aug. 10.
Summer Tanager-1 female was seen at Mesa VerdeNP Aug. 10(DMW), and a male was at Crow Valley Park Oct. 12 (JR). A male tanager probably of this species was briefly observed at Horse Creek Reservoir Sept. 13 but could not be positively identified.
Cardinal-A male came to a feeder in Lakewood irregularly from Oct. 23 on (JC).
Rose-breasted Grosbeak-1 Pueblo Sept. 14, 1 Rocky Ford Sept. 14, 2 Barr Lake Sept. 27, at Longmont Oct. 3 and 14, 1 Boulder Oct. 10-27, 1 Waterton Nov. 9. A hybrid was seen in Four Mile Canyon at Boulder Oct. 2-12.
Black-headed Grosbeak-There were a number of late records: 1 Deer Creek Canyon Oct. 10, 1 Waterton Oct. 22, 1 Louviers, Douglas Co. Oct. 25 (all JC), 1 Barr Lake Nov. 6 (BA).
Blue Grosbeak-Recorded late (to Oct. 4) at Pueblo Reservoir.
Indigo Bunting-2 Red Rocks Aug. 10, 1 Waterton Sept. 9, 1 Barr Lake Oct. 19, 1 Evergreen Oct. 15.
Lazuli Bunting-A male was at the Hack Ranch near Jefferson, Park Co. (9800 ft.) for the first local record Aug. 29.
Evening Grosbeak-Moderate numbers reported in foothills and low mountains.
Purple Finch-1 female at Barr Lake Oct. 24-25 (BA).
Cassin's Finch-2 were on the Pawnee NG Sept. 27.
Pine Grosbeak-A pair was seen in Longmont Nov. 18 (TE).
Common Redpoll-1 at Colorado Springs Nov. 23 was the harbinger of a major invasion later in the winter.
Pine Siskin-In small numbers at most plains locations.
Lesser Goldfinch-Last was at Pueblo Nov. 15.
Red Crossbill-Reported in fairly small numbers in the Front Range and Gore Range.
Green-tailed Towhee-Quite scarce on eastern plains with only 2 in the Denver area: 1 Barr Lake Sept. 10, 1 Cherry Creek Village Sept. 20.
Lark Bunting-One appeared at Evergreen Sept. 12, and a late bird was at Prewitt Reservoir Sept. 28.
Vesper Sparrow-Very scarce, with only 39 on the Denver Fall Count Sept. 13 (previous low count was 156 in 1971!).
Lark Sparrow-A late record was 1 at Totton Oct. 28.
Cassin's Sparrow-1 Punkin Center, Lincoln Co. Sept. 6.
White-winged Junco-This form was more common than ever before in NE Colorado, both on plains and in the mountains, from Oct. 7 on.
Gray-headed Junco-Some were on the plains at Pueblo in September, but there

- were no plains reports in NE Colorado.
- Brewer's Sparrow-Seemed scarce in the Denver area.
- Field Sparrow-1 Barr Lake Sept. 6 (BA), 2 Dixon Reservoir, Larimer Co. Sept. 11 (JG,BK), 1 Ft. Collins Sept. 27 (TB,TC,DL).
- Harris' Sparrow-An unusual west slope record was 1 at Durango Nov. 30.
- White-crowned Sparrow-At Longmont, Collister found the first Gambel's race (*Z.1. gambelii*) Sept. 10 and the first black-lored birds (*Z.1. leucophrys*) Sept. 21, and both on through October, with the former much more common. It is the habit of most observers to completely ignore subspecies, even those that can be safely identified in the field (such as Downy and Hairy Woodpeckers, Solitary Vireos and White-crowned Sparrows). This is unfortunate because different subspecies occupy different ranges and there may be as much difference in the relative abundance and time of occurrence between the various subspecies of a single species as there is between closely related species.
- White-throated Sparrow-There were good numbers on the plains (late September on) with two mountain sightings: 1 Estes Park Sept. 27, 1 Evergreen Oct. 7-30.
- Swamp Sparrow-Fewer reported this year after last fall's strong flight: 1 Lykins Gulch Oct. 15 (the first there in 18 years of banding), 1 Barr Lake Oct. 14 and several at Pueblo mid-October on.
- McCown's Longspur-Last was 1 at Barr Lake Nov. 15.
- Lapland Longspur -2 Pawnee NG Oct. 27, 15+ at Lake DeWeese, Custer Co. Nov. 15 Ft. Morgan Nov. 16, 2 Pueblo West Nov. 18, 2 Monte Vista NWR Nov. 27.
- Smith's Longspur-More longspurs with white shoulder patches were seen on the Pawnee National Grasslands (in smaller numbers than in previous years though), but whether any of them are actually Smith's is now debatable as the majority are clearly Chestnut-collareds.
- Chestnut-collared Longspur-Last was 5 on RMA, Adams Co. Nov. 15
- Boulder-Narca DeWoskin, Louise Hering (33 observers); Colorado Springs-Elinor Wills (8); Denver, NE Colorado-Bob Andrews (17); Durango-Kip Stransky; Estes Park-Warner Reeser; Evergreen-Bill Brockner (19); Ft. Collins-Jan Boyd (17); Ft. Morgan-Joseph Rigli; Fruita-David Galinat (2); Hack Ranch-Carol Hack and Kathy Hawkins; Hotchkiss-Theo Colburn; Longmont-Allegra Collister (12); McCoy-Mrs. Kenneth Ewing, Clark Ewing; Monte Vista NWR-Charles Bryant; Pueblo-Dave Griffiths, Jerry Ligon, Van Truan (11); also Carrizo Canyon, Baca Co.-Helen Downing (Sheridan, Wyoming).
- Initialed observers: David Alles (DA), Bob Andrews (BA), Ted Bodner (TB), Roger Boyd (RB), Bill Brockner (BB), Charles Bryant (CB), Charles Campbell (CC), Tonnie Casey (TC), Jeanine Conry (JeC), John Cooper (JC), Allegra Collister (AC), Narca DeWoskin (ND), Tony Esposito (TE), Polly Field (PF), David Galinat (DGA), Tom Gatz (TG), Nancy Gleason (NG), Nike Goodman (NGO), Walter Graul (WG), Dave Griffiths (DG), Jack Grugan (JG), Loma Gustafson (LG), Harold Holt (HH), Scott Horton (SH), Eleanor Hough (EH), Hugh Kingery (HK), Barry Knapp (BK), Dave Laliberte (DL), Steve Larson (SL), Jerry Ligon (JL), Bill Lybarger (BL), Jerry Mallow (JM), Doug McWhirter (E. Lansing, Michigan)(DMW), Elizabeth Mekelsen (EM), Brett Morris (BM), Sadie Morrison (SM), Scott O'Keefe (SO), Jack Reddall (JR), Van Rensen (VR), Joseph Rigli (JRg), Joe Roller (JRO), Gail Shickley (GS), Dave Silverman (DS), Jennie Slater (JS), Mildred Snyder (MS), Sally Sorenson (SS), Doug Stotz (DSZ), Kip Stransky (KS), Donna Thatcher (DT), Van Truan (VT), Greg Warren (GW), Bruce Webb (BW).

Abbreviations: CCRA-Cherry Creek Recreation Area (same as Cherry Creek Reservoir), m.ob.-many observers, MHDC-Mile High Duck Club, RMA-Rocky Mountain Arsenal, DMNH-Denver Museum of Natural History, CFO-Colorado Field Ornithologists.

LOCATION GUIDE

The list which follows will serve as a key to the locations mentioned in Bob Andrews' report on the Fall Migration, as well as to other articles discussing bird occurrences in Colorado. While we may not repeat the guide in the next issue, we probably will repeat it for reference at least once each year.

Location	Nearby Town	County	Location	Nearby Town	County
Antero Res.	Fairplay	Park	Lathrop St. Park	Walsenburg	Huerfano
Balarat	Jamestown	Boulder	Lykins Gulch	Lyons	Boulder
Barr Lake	Brighton	Adams	Marston Res.	Bow Mar	Jefferson
Baseline Res.	Boulder	Boulder	McCoy		Eagle
Big Johnson	Colo. Spgs.	El Paso	McIntosh Res.		Larimer
Cabin Creek Res.	Georgetown	Clear Cr.L.	Meredith	Ordway	Crowley
Castlewood St. Park	Franktown	Douglas	MHDC-Mile High Duck Club	Brighton	Adams
CCRA-Cherry Creek Recreation Area	Denver	Arapahoe	Narraguinnep Res.	Durango	La Plata
CF&I Lakes	Pueblo	Pueblo	Nee Grande	Eads	Kiowa
Chasteen Grove	Loveland	Larimer	Pastorius Lake	Durango	La Plata
Chatfield St. Park	Littleton	Jefferson	Pawnee Nat'l Grassland	Weld	Washington/
		Douglas	Prewitt Res.	Brush	Logan
Cobb Lake	Ft. Collins	Larimer			El Paso
Crow Valley Park	Briggsdale	Weld	Ramah Res.	Ramah	Jefferson
Lake DeWeese	Westcliffe	Custer	Red Rocks Park	Morrison	
Dixon Res.		Larimer	RMA-Rocky Mtn. Arsenal	Denver	Adams
Dye Res.	Rocky Ford	Otero		Estes Park/	Larimer/
Florida Mesa	Durango	LaPlata	RMNP-Rocky Mtn. Nat'l Park	Grand Lake	Boulder/
Gore Range	Dillon	Summit/ Eagle		Boulder	Grand
Greenhorn Mtns.	Rye	Pueblo	Sawhill Ponds	Boulder	Boulder
Hack Ranch	Jefferson	Park	Spring Canyon	Ft. Collins	Larimer
Lake Henry	Ordway	Crowley	Sterling Res.	Sterling	Logan
Highline Lake	Gr. Jctn.	Mesa	Tamarack Ranch	Crook	Logan
Holbrook Res.	Rocky Ford	Otero	Timber Lake(Adobe Creek)	Rocky Ford	Otero
Jackson Res.	Goodrich	Morgan		Durango	La Plata
Julesburg(Jumbo)Res.	Sedgwick	Sedgwick	Totton	Two Buttes	Baca
Kassler-same as Waterton	Waterton	Jefferson	Two Buttes Res.	Longmont	Weld
Kendrick Lake	Lakewood	Jefferson	Union Res.	Boulder	Boulder
Latham Res.	Greeley	Weld	Valmont Res.	Boulder	Boulder
			Waterton-same as	Kassler	Jefferson

THE MOUNTAIN PLOVER'S MATING SYSTEM

by
Walter D. Graul

In recent years there has been much discussion about the new "human sexual liberation movement." I do not profess to be an authority on human behavior, but I do think that an examination of the Mountain Plover's mating system will reveal that a sexual liberation movement is certainly nothing new in the realm of nature.

I had my first encounter with the Mountain Plover on the Pawnee National Grassland in 1964 while I was a student at CSU. Quite frankly, I was, and still am, captivated by this "waterbird" which seems completely out of place on an arid shortgrass prairie. My fascination with this species has developed into a long-term affair. I returned to study the Pawnee plovers in 1965, 1969-72, and 1974-75.

Although my investigations have revealed many interesting aspects of the behavior of the Mountain Plover, its mating system is especially fascinating. Prior to my work it was assumed that in this species, as with most birds, a pair forms and both the male and female share the duties associated with raising the young. There were, however, some conflicting statements about this in the literature. Charles Laun reported that at least during the daytime only one adult sat on a given nest. In *Birds of New Mexico*, there is a statement that only the male attends the chicks. Bailey and Niedrach in *Birds of Colorado* indicated that both adults shared incubation duties at a nest they had under investigation. None of the preceding statements, unfortunately, are based on observations of marked birds.

When I began observing color-banded and dyed birds in 1969, I soon discovered some startling surprises. I soon found that only one adult attends each nest and resultant brood, but some nests are attended by males while others are attended by females.

The above phenomenon remained a puzzle until in 1972 when I was able to follow two marked females closely. Female 1 laid a set of eggs which her mate then took over completely. The female continued to associate with the male until she laid a second clutch of eggs which she took over herself.

Female 2 behaved similarly, but her story is more complex. She laid a clutch of eggs for her mate, but when he began incubating the eggs she began associating with another male on an adjacent territory. This second male, however, was already attending a set of eggs laid by another female. Female 2 eventually laid her second clutch of eggs and attended it alone. Coupled with this system, I also documented several cases of a male copulating with more than one female.

Observations in 1974 provided indirect evidence that the above findings are not unusual. In early May six adults on nests were marked and each was attending a nest alone - all turned out to be males. Three females, all being courted by males, were collected and an examination of their ovaries yielded the following: (1) one female had already laid a clutch, but would not be laying another clutch in the next few days (2) the other two females were both in the process of laying a clutch, and each had laid a separate clutch several days earlier.

Thus, it appears that the Mountain Plover has a mating system where some

females lay more than one clutch in some seasons, and may or may not switch mates between clutches. Taking advantage of the potential mate switching situation, males on nests court additional females and sometimes this results in copulation. Thus, it looks like there is a stand-off between males and females in the quest for sexual superiority.

I should point out that the above basic system is not unique to the Mountain Plover. A very similar system has been described for the Temminck's Stint, and apparently also occurs in its near relative, the Sanderling. Think about all of this the next time you are watching one of the many shorebirds species on migration - there may be more to them than meets the eye!

Photos / Courtesy Denver Museum of Natural History/Alfred M. Bailey



-- Registration Form --

WBBA-CFO, 4-6 June, 1976

Please return to: Offices of Conferences and Institutes
Rockwell Hall
Colorado State University
Fort Collins, Colorado 80523

NAME _____

ORGANIZATION: WBBA _____ CFO _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

_____ \$6.25 per person registration fee \$ _____

MEAL AND LODGING OPTIONS: (Pre-registration is encouraged as
48-hour notice is necessary for meal reservations.)

_____ \$3.50 lunch Saturday 5 June \$ _____

_____ \$6.25 banquet Saturday 5 June \$ _____

_____ \$3.50 box lunch Sunday 6 June \$ _____

_____ \$7.50 per person double occupancy \$ _____

_____ \$10.50 single occupancy \$ _____

_____ \$13.50 couple occupancy \$ _____

_____ \$21.00 family suite (up to four persons) \$ _____

MAKE ALL CHECKS PAYABLE TO COLORADO STATE UNIVERSITY

TOTAL ENCLOSED.....\$ _____

LODGING REQUESTED _____ 4 June _____ 5 June _____ 6 June

Registration deadline is 25 May 1976. Confirmation of registration with campus map and campus parking information will be forwarded. Refunds can be made; please notify this office by 5:00 p.m. (MDT) 3 June 1976.

COLORADO STATE UNIVERSITY
THE LIBRARIES
FORT COLLINS, COLORADO 80521

COLORADO FIELD ORNITHOLOGISTS
c/o Robbie Elliott
220--31st Street
Boulder, Colorado 80303



STILL AVAILABLE
Birds of Western Colorado
W. A. Davis
\$ 2.25 Post paid
To the Treasurer

C.F.O. ANNUAL MEETING
Fort Collins
June 4-6
Information Inside