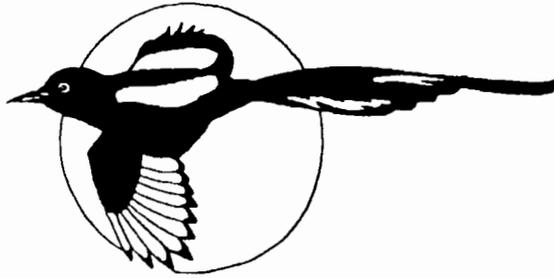

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PHOTOGRAPHS AND ILLUSTRATIONS

NORTHERN PYGMY-OWL: Scott Rashid, a wildlife artist and photographer from Estes Park, Colorado, has spent considerable time in the field studying the ecology of Northern Pygmy-Owls. See his article on pygmy-owls on page 91. These birds have the ability to raise tiny feathers (part of the facial disk) above their eyes when danger approaches.

Scott Rashid.....Front Cover

CHIMNEY SWIFTS: Joeseeph Rigli sketched this flock of Chimney Swifts with pen and ink.

Joseph Rigli.....93

NORTHERN PYGMY-OWL: Scott Rashid rehabilitates injured birds and bands birds in his free time. He took these photographs of a Northern Pygmy-Owl to show the owl's face (top) and a rear view of the head to show the eye spots (bottom). Scott lives in Estes Park, Colorado.

Scott Rashid.....94

JUVENILE NORTHERN PYGMY-OWL: JUST A HANDFUL: Jim Osterberg of Estes Park, Colorado, photographed this juvenile Northern Pygmy-Owl after Scott Rashid banded it.

Jim Osterberg.....101

SYLVIA AND BILL BROCKNER: Ron Ruhoff photographed Sylvia and Bill Brockner to accompany the article authored by Patty Echelmeyer, David Pantle, and Lynn Willcockson (see article on page 26).

Ron Ruhoff.....102

ROYAL TERN: Duane Nelson discovered and photographed this Royal Tern (bird on the far left; compare to the Forster's Tern on the far right) while conducting surveys of Least Terns and Piping Plovers at Neenoshe Reservoir, Kiowa County. If accepted by the Colorado Bird Records Committee, this will be the first Royal Tern recorded in Colorado.

Duane L. Nelson.....111

FORSTER'S TERN AND LEAST TERN: Kim Potter, a wildlife biologist with the U.S. Forest Service in White River National Forest, sketches birds in her free time. She created these two drawings with pen and ink.

Kim Potter.....115

BLACK-BILLED MAGPIES: Using pen and ink, Janet Ruth sketched these Black-billed Magpies. Janet is a wildlife research biologist with the U.S. Geological Survey-Biological Resources Division in Fort Collins, Colorado. Her current research entails studying habitat use of wintering sparrows in southeastern Arizona; she's also the USGS-BRD liason to Partners-in-Flight.

Janet Ruth.....116

UPCOMING CFO FIELD TRIPS

Sunday, 2 May 1999 -- Tamarack Tally. Species rarely found in other parts of Colorado can be tallied at Tamarack Ranch State Wildlife Area (SWA) in northeastern Colorado. Your leader, Bill Prather, will seek Red-headed and Red-bellied woodpeckers, as well as other northeastern Colorado specialties. This all-day trip will include local reservoirs: Red Lion and Jumbo Lake. Meet at the Colorado Division of Wildlife check station (house trailer) at Tamarack Ranch SWA at 7:30 a.m. Take I-76 east, exit #149 (~20 miles northeast of Sterling), go north on Route 55 about 0.5 miles to the trailer on the east side of the road. Please call Bill at least one week ahead for trip details: 303/776-2191.

Saturday, 8 May 1999 -- Colorado Migration Mecca. The woods behind Lamar Community College, as well as local SWAs and reservoirs, can produce surprising assortments of spring migrants normally considered rare in Colorado. Mark Janos will lead this all-day southeastern Colorado trip from Lamar Community College to Two-Buttes Reservoir SWA, Fort Lyon, and John Martin Reservoir SWA. Meet at the parking lot on the north side of Lamar Community College at 7:00 a.m. Please call Mark at least one week ahead for trip details and directions to the college: 719/544-5002.

NOTICE TO FIELD TRIP PARTICIPANTS

Please contact the field trip leader at least one week in advance if you intend to participate. Trips often go where the number of participants must be limited or where we must provide notice of how many participants there will be. Knowing the number of participants in advance also helps the leader to plan the best possible trip, ensures that you know where/when to meet, what to bring, etc. Please arrive no later than the scheduled meeting time; leaders may not be able to delay departure for late arrivals. Carpool drivers should inform passengers of their schedule prior to departure to avoid scheduling conflicts. Leaders will make every effort to keep the group together, and drivers should make every effort to stay with the group.

COLORADO FIELD ORNITHOLOGISTS' MISSION STATEMENT

The Colorado Field Ornithologists exists to: promote the field study, conservation, and enjoyment of Colorado Birds; review sightings of rare birds through the Colorado Bird Records Committee and maintain the authoritative list of Colorado birds; publish the *Journal of the Colorado Field Ornithologists*; and conduct field trips and workshops, and hold annual conventions.

**CALL FOR NOMINATIONS
FOR THE RONALD A. RYDER AWARD
FOR DISTINGUISHED SERVICE
TO COLORADO FIELD ORNITHOLOGY**

SELECTION CRITERIA

1. For distinguished service to the Colorado Field Ornithologists and its goals.
2. For scholarly contributions to the Colorado Field Ornithologists and to Colorado field ornithology.
3. For sharing knowledge of Colorado field ornithology with the people of Colorado.

NOMINATION & SELECTION PROCESS

1. The Award will be given every year.
2. Only living persons may be nominated.
3. Nominations may be made by the membership at large.
4. The Board selects and approves an awardee for announcement at the Annual Colorado Field Ornithologists' Convention.
5. The Award will be a plaque designed to match the original plaque given to Dr. Ronald A. Ryder.
6. Nominations should be submitted in writing to the Award Committee Chairperson on or before February 1 to be considered by the Colorado Field Ornithologists' Board of Directors.

Submit nominations to Award Committee Chair:
Rich Levad, 2924 Ronda Lee Road, Grand Junction, Colorado 81503
970/242-3979; levadgj@mesa.kl2.co.us

CFO WEBSITE

We invite you to browse the Colorado Field Ornithologists' website. If you don't own a computer, check your local library or ask one of the reference librarians to help you. Keep checking back, because new items and changes appear regularly on our website. The Internet "address" for the CFO website is:

<http://www.frii.com/~hopko>



Archaeopteryx lithographica EF

Erratum in Vol. 33, No. 1: On page 59, the third column heading from the left in the Appendix should be "Grassland."

THERE'S STILL TIME TO REGISTER FOR THE 1999 CFO CONVENTION!

The 1999 Colorado Field Ornithologists' Convention will be held at the **Marriott Hotel in Ft. Collins, 19 - 23 May 1999**. Rooms are being held at the Marriott for a special convention rate of \$89.00/double; you must mention CFO when making reservations: 1-800-548-2635. Workshops begin on Wednesday, 19 May, and continue through the weekend. **William S. Clark, author of the Peterson Field Guide, *Hawks***, will present "Raptor Migration World-Wide" at the evening banquet on Saturday, 22 May. Other activities will include: Beginning and Advanced Raptor ID. with Bill Clark, many great field trips, a scientific papers session, a birdwatching class, exhibits, a game of "Stump the Experts," and a member slide show. If you need more information, contact Rachel Kolokoff at 970/495-1751 or e-mail at hopko@frii.com for more information, or visit the CFO website at: <http://www.frii.com/~hopko>.

Join the North American Migration Count 8 MAY 1999

Have you ever wondered about the *shape* of migration? What paths do neotropical migrants follow as they move from Central and South America to their breeding grounds? You can help answer these questions and many more by participating in the annual **North American Migration Count (NAMC)**. The NAMC is like the Christmas Bird Count, but rather than count in a 15-mile diameter circle, you count across an entire county. The other major difference is that it all takes place on the second Saturday in May. While one day cannot capture peak migration in all areas, it does provide:

- o a "snapshot" of the progress of spring migration;
- o information on the abundance and distribution of each species;
- o more participation among birders within and between states;
- o and it aids the organization and centralization of data.

You are invited to participate this year--whether for the first time or not! To join the effort, contact **Linda Vidal, the 1999 Colorado NAMC Coordinator**, at 970/704-9950, or e-mail Linda at vidal@ref.net. Linda needs both counters and county coordinators. She will assign you to a county, fill you in on how to conduct the survey, and answer your questions.

LETTER FROM THE EDITOR

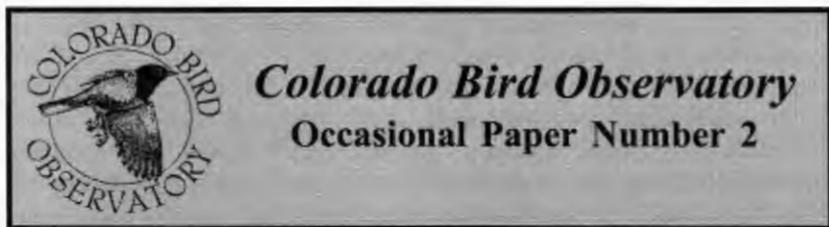
With much regret, I must announce Dave Ely's resignation as editor of the *News from the Field* column in the *Journal*. For three years, Dave worked hard to report on the more common species, as well as the more unusual birds. He gave the column his attention to detail and his own extensive field experience with Colorado's birds. Dave wrote the column with a flair that made the reports interesting, and he found clever ways of keeping readers on their toes by lacing the column with his wit and specially chosen words that would send us to our dictionaries! Finally, Dave accomplished all of this while juggling grad school, two jobs, his wedding, and more. Dave, on behalf of CFO, *Thank You* for your generous service to Colorado Field Ornithology and for a well-done column. Good luck to you as you begin the next ventures in your busy life!

Fortunately, two willing souls who have agreed to succeed Dave as editors of the *News from the Field* column, and I would like to welcome them and thank them in advance. Peter Gent will be writing the fall and winter reports (appearing in the spring and summer issues of the *Journal*), and Tony Leukering will be writing the spring and summer reports (appearing in the fall and winter issues). Both Peter and Tony also have extensive field experience with Colorado's birds, and I know that they will do an excellent job of writing the column. In the upcoming July issue of the *Journal*, there will be an in-depth article, authored by Dave, Peter, and Tony, that will introduce and detail new reporting procedures for the column.

Meanwhile, if you have **field reports for spring or summer 1999 (March through July)**, please send them to **Tony Leukering at: Colorado Bird Observatory, 13401 Piccadilly Road, Brighton, Colorado 80601; or e-mail them to Tony at: CBO Trends@aol.com**. Later in the year, when you have **field reports for fall and winter (August through February)**, please send them to **Peter Gent at: 55 South 35th Street, Boulder, Colorado 80303; or e-mail them to Peter at gent@ucar.edu**. Remember, to ensure that your reports go into the *News from the Field* column, you must send them directly to the appropriate column editor as soon as the reporting period ends.

Best,
Cynthia Melcher





Breeding Distribution and Numbers of Eared, Western, and Clark's Grebes in Colorado

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303/659-4348

Abstract

During the spring and summer of 1998, we conducted a survey of nesting Eared (*Podiceps nigricollis*), Western (*Aechmophorus occidentalis*), and Clark's (*Aechmophorus clarkii*) grebes throughout Colorado. We surveyed most known, suspected, and potential grebe-nesting locations for adult and juvenile grebes, as well as grebe nests. We surveyed 93 lakes, reservoirs, and ponds, and found 2601 adult Eared Grebes with 78 juveniles and 1187 nests; 850 adult Western Grebes with 61 juveniles and 27 nests; and 1678 adult Clark's Grebes with 70 juveniles and 2 nests.

Introduction

Eared (*Podiceps nigricollis*), Western (*Aechmophorus occidentalis*), and Clark's (*Aechmophorus clarkii*) grebes are common breeding birds of Colorado (Bailey and Niedrach 1965, Andrews and Righter 1992). All three species nest on marshes and lakes, where they build floating nests of fresh and decaying vegetation (Ehrlich et al. 1988). Eared Grebes primarily nest on shallow ponds and lakes bordered with cattails (*Typha* spp.), although they will nest on lakes with no cattails (Andrews and Righter 1992). Andrews and Righter (1992) considered Eared Grebes to be abundant summer residents of North Park and the San Luis Valley, with large nesting colonies having been documented at Walden Reservoir and San Luis Lake (Nelson and Carter 1990). Western and Clark's grebes, once considered conspecific, nest on large reservoirs (rarely on small ponds) in shallow water with dense emergent, or flooded, vegetation such as cattails, smartweed (*Persicaria* spp.), or willows (*Salix* spp.) (Andrews and Righter 1992). Andrews and Righter (1992) considered Western Grebes

to be locally uncommon to abundant summer residents in western valleys and mountain parks, and Clark's Grebes to be locally fairly common to common summer residents on the eastern plains. Although they are common birds of Colorado, the distribution and abundance of breeding grebes in the state are not well known. During the spring and summer of 1998, as part of an extensive breeding-bird monitoring project conducted by the Colorado Bird Observatory, we surveyed nesting Eared, Western, and Clark's grebes throughout Colorado.

Methods

From 23 May through 28 July 1998, we visited known, suspected, and potential grebe-nesting locations across Colorado to survey the three species of colonially nesting grebes. We conducted a literature review to locate historical grebe-nesting locations, and we referred to the *Colorado Atlas and Gazetteer* (Delorme Mapping 1997) to locate any other potential grebe-nesting sites (lakes, ponds, and reservoirs). Based on the distribution of these locations, we divided the state into survey areas (see Table 1). We searched many of the water bodies in each area for suitable nesting habitat (areas of shallow water and emergent vegetation) and counted all adult and juvenile grebes, and grebe nests. At most sites, we conducted counts from shore using spotting scopes, scanning the entire surface of each water body. All water bodies were surveyed from vantage points that allowed us to make accurate identifications of the three species (Western and Clark's grebes can be difficult to distinguish from large distances). Water bodies too large to be surveyed adequately from shore (Walden Reservoir, Hebron Waterfowl Area, and Fruit Growers Reservoir) were surveyed by canoe. To account for diving grebes, we surveyed each water body at least twice, and recorded the average of the two counts. We made multiple visits to three sites (Browns Park, North Park, and Fruit Growers Reservoir) because we were in those areas conducting other work at the same time; in those cases, the maximum counts were used. Because grebes were active and easily observed throughout the day, we were able to conduct surveys throughout the day as well.

Results and Discussion

We surveyed 93 lakes, ponds, and reservoirs in Colorado (Appendix A). Most of the water bodies had no nesting grebes; however, non-nesting grebes were present on many of them. We found 2601 adult Eared Grebes with 78 juveniles and 1187 nests; 850 adult Western Grebes with 61 juveniles and 27 nests; and 1678 adult Clark's Grebes with 70 juveniles and 2 nests.

Eared Grebes--Of 27 water bodies with Eared Grebes, we found the largest nesting colonies in North Park, Jackson County (447 nests on Walden Reservoir and 282 nests at the Hebron Waterfowl Area), and in the San Luis Valley,

Table 1. Number of Grebes found during 1998 statewide surveys of Colorado reservoirs, lakes, and ponds. A=adults, J=juveniles, and N=nests.

Location	Eared Grebe	Western Grebe	Clark's Grebe
Browns Park			
Flynn Bottom	0	29A, 17J	2A, 4J
Hog Lake	13A	0	0
Northeast			
Barr Lake	0	90A	1A
Horse Creek Reservoir	0	72A	0
Ireland Reservoir #5	0	10A	2A
Lower Latham Reservoir	0	300A	85A
Calkins Lake	0	55A, 18J	65A, 33J
North Park			
Arapaho NWR	33A	0	0
Boettcher Lake	9A	2A	0
Cowdry Lake	2A	0	0
Hebron Waterfowl Area	804A, 53J, 282N	0	0
Lake John	10A	17A	
MacFarlane Reservoir	126A, 28N	0	0
Walden Reservoir	949A, 7J, 447N	0	0
San Luis Valley			
Davey Lake	0	7A, 5J	3A, 3J
Head Lake	0	16A, 2J	6A
Johnson Lake	0	6A, 6J	3A, 4J
Kimme Lake	0	2A, 4J	0
La Jara Reservoir	427A, 351N	18A, 1J	0
Parker Pond	32N	0	0
Pond A	2A	3A	0
San Luis Lake	10A, 15J	10A	5A
Smith Reservoir	35N	14N	0
Trites Lake	0	10A, 5J	35A, 25J
Blanca Wetland 016	8A	0	0
South Park			
Antero Reservoir	40A	0	0
Fairplay Pond	2A, 1N	0	0
Milligan Lakes	12A	0	0
Red Hill Pass Pond	2A	0	0
Southeast			
Cheraw Lake	60A	0	75A

Table 1, continued.

Location	Eared Grebe	Western Grebe	Clark's Grebe
Lake Henry	0	2A	52A
Holbrook Reservoir	0	11A	11A
Huerfano Lake	27A, 3J	11A, 3J	9A, 1J
Lower Queens Reservoir	12A	0	0
Maria Reservoir	0	2A	46A, 2N
Lake Meredith	0	70A	1260A
Upper Queens Reservoir	0	16A	17A
Southwest			
Sullenberger Reservoir	1A	38A, 12N	0
West central			
Casto Reservoir	17A, 6N	0	0
Fruit Growers Reservoir	0	53A, 1N	1A
Sweitzer Lake	1A	0	0
Thompson Reservoir #2	6A, 1N	0	0
Unaweep Divide Lakes	8A, 4N	0	0
Totals	2601A, 78J, 1187N	850A, 61J, 27N	1678A, 70J, 2N

Conejos County (351 nests on La Jara Reservoir) (Table 1). During an early survey of North Park (23 May), we observed large numbers of Eared Grebes gathering on Walden Reservoir and at the Hebron Waterfowl Area. We returned on 30 June and observed several groups on the reservoirs, but we were unable to find any nests. We returned again on 17 July with a canoe and found the nests reported herein. All nesting colonies were located in shallow areas of the reservoirs in emergent vegetation. Nests were clustered into large groups, with very few nests isolated from these groups. We found several smaller colonies on water bodies across the state.

Western Grebe--We found Western Grebes on 25 water bodies (Table 1). The largest nesting colonies were on Smith Reservoir in Costilla County (14 nests) and on Sullenberger Reservoir in Archuleta County (12 nests). The shore of Sullenberger Reservoir, also called Pagosa Lake, is highly developed, and we were surprised to find such a large colony there. All nests were in a shallow, vegetated area of the lake, and they were clustered into one large colony, which we were able to survey easily from the shore. We found another large colony of Western Grebes on Fruit Growers Reservoir (also called Harts Basin) in Delta County, but due to water-level fluctuations in the reservoir, the colony's nesting attempt failed. During an early survey of the reservoir (9 June), we counted 53 adults, nearly all of which were nest-building. On a follow-up

survey (3 July), we discovered that the water level in the reservoir had dropped and withdrawn two meters (6.56 feet) from the previously built nests, and nest-building had discontinued. By 23 July, the water level of the reservoir had returned to its previous level, and during a survey of the colony by canoe, we found 46 adults and only one nest.

Clark's Grebe--We found only two Clark's Grebe nests, both on Maria Reservoir in Walsenberg County; however, adults and juveniles were found on several water bodies throughout the state (Table 1). A very large group of 1260 adults (a new state maximum; Andrews and Righter 1992) was found on Lake Meredith in Crowley County (Christopher Wood, personal communication). Fifteen other water bodies in the state contained smaller groups of this species.

Because we were unable to survey most water bodies in northeastern Colorado, where Western Grebes normally outnumber Clark's Grebes (Andrews and Righter 1992, Kingery 1998), our results may not be adequate for comparing the relative abundance of Clark's versus Western grebes in Colorado. Both Andrews and Righter (1992) and Kingery (1998) listed Western Grebe as the most abundant *Aechmophorus* species in Colorado, and we believe that more thorough surveys of northeastern Colorado would lead to the same conclusion.

Overall, our results were consistent with breeding distributions of all three grebe species reported in previous surveys, although we found some notable differences. Nelson and Carter (1990) had documented a large colony of Eared Grebes on San Luis Lake (450 nesting pairs), and Kenvin et al. (1993) had found large colonies of adult Eared grebes on San Luis Lake (200 in 1992, 800 in 1993), Head Lake (308 in 1992), and Flume (169 in 1992). During our surveys, the colony at San Luis Lake, where we found no nests and only 15 juvenile grebes, was small. However, we found a large, previously undocumented colony (Dave Kenvin, personal communication) of Eared Grebes (351 nests) on La Jara Reservoir in the San Luis Valley (Conejos County). Overall, the number of adult Eared Grebes that we found in the San Luis Valley was approximately half that recorded in past surveys. We did find a large, active colony of Eared Grebes on Walden Reservoir (447 nests), where up to 750 nesting pairs had been recorded by Nelson and Carter (1990). Neither of the two large colonies of Western Grebes (Smith Reservoir in Costilla County, and Sullenberger Reservoir in Archuleta County) were mentioned in Andrews and Righter (1992); the *Colorado Breeding Bird Atlas* (Kingery 1998), however, does indicate confirmed breeding at those locations. We also confirmed Clark's Grebe breeding in Moffat County (Browns Park), which was not documented in Kingery (1998).

Conclusion

Eared, Western, and Clark's grebes are difficult species to monitor in Colorado. Year to year fluctuations in reservoir water levels most likely lead grebes, particularly Western and Clark's, to utilize breeding sites in irregular and unpredictable patterns, and may cause established colonies to fail (Andrews and Righter 1992); such was the case at Fruit Growers Reservoir this year. Also, the large number of water bodies in the state, the distances between them, and the brevity of the nesting season all make it difficult to monitor the entire state during the breeding season. We surveyed all major, historical grebe-nesting sites in Colorado; however, we were unable to survey most water bodies north of the South Platte River and many minor water bodies in other areas of the state. Considering that we found large, previously unrecorded Grebe colonies, it is likely that other undocumented colonies of grebes are present in Colorado.

An annual survey of nesting Grebes and their habitat in Colorado will allow a better understanding of the unpredictable nesting patterns, colony locations, and population size in the state. Coordinating the efforts of state and federal wildlife agencies, National Audubon Society chapters, and other interested people, will make it possible to survey the entire state during the breeding season. Anyone interested in participating in this survey is encouraged to contact the Colorado Bird Observatory. By accurately mapping and annually surveying Colorado grebe habitat, we may gain a better understanding of changes in habitat availability and quality, as well as the effects that they have on numbers of breeding Eared, Western, and Clark's grebes in Colorado.

Acknowledgments

This project was part of *Colorado Birds Monitored by 2001*, which is funded largely by Great Outdoors Colorado Trust Fund, through Colorado Division of Wildlife (contract # 2183-98). We would like to thank the many people and organizations without whom this project would have not been possible: Chris Wood surveyed the Arkansas River Valley and much of eastern Colorado; Dave Hallock surveyed the San Luis Valley; Dave Hedeem surveyed the South Platte River and Republican River drainages; Mike Carter and Scott Hutchings helped with the design of this project; the staff members of Arapaho National Wildlife Refuge (NWR), and of Monte Vista NWR allowed access to all wetland areas in the refuges; Tom Goff allowed access to Boettcher Lakes in North Park; Mike Bryant and Christopher Lapp at Browns Park NWR were extremely helpful in permitting access to all wetland areas in the refuge, and providing a vehicle; Rich Levad and Susan Bonfield helped with surveys in North Park, Browns Park NWR, and Fruit Growers Reservoir; and Susan Bonfield and Coen Dexter provided canoes.

Literature Cited

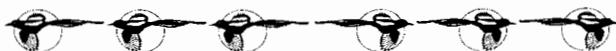
- Andrews, R., and R. Righter. 1992. *Colorado Birds: A Reference to Their Distribution and Habitat*. Denver Museum of Natural History, Denver, Colorado. 442 pages.
- Bailey, A.M., and R.J. Niedrach. 1965. *Birds of Colorado, Volume 1*. Denver Museum of Natural History, Denver, Colorado. 895 pages.
- Delorme Mapping. 1997. *Colorado Atlas and Gazetteer*. Delorme Mapping, Freeport, Maine. 104 pages.
- Ehrlich, P.R., D.S. Dobkin, and D. Wheye. 1988. *The Birder's Handbook: A Field Guide to the Natural History of North American Birds*. Simon and Schuster, New York. 785 pages.
- Kenvin, D., R. Rilling, and D. Falzone. 1993. Survey of Eared Grebes in the San Luis Valley 1992-1993. Unpublished report, Colorado Division of Wildlife, Monte Vista, Colorado.
- Kingery, H.E. (editor) 1998. *Colorado Breeding Bird Atlas*. Colorado Bird Atlas Partnership, Denver, Colorado. 636 pages.
- Nelson, D., and M. Carter. 1990. Birds of selected wetlands of the San Luis Valley. Unpublished report to Colorado Division of Wildlife, Denver, Colorado.

Appendix A. Reservoirs, lakes, and ponds surveyed during summer 1998. Asterisks indicate locations where we found no grebes.

County	Lake (Survey date)
Adams	Barr (7/18), Horse Creek (7/18)
Alamosa	Adams (7/9*), Head (7/14), San Luis Lakes SWA Pond A (7/14), San Luis Lake (7/14), Blanca SRMA Wetland 016 (7/15), Blanca SRMA Wetland 133 (7/5*)
Archuleta	Echo Canyon (7/27*), Sullenberger (7/28)
Baca	Two Buttes (7/9*)
Conejos	La Jara (7/27), Terrace (7/28*)
Costilla	Smith (7/14)
Crowley	Meredith (7/9)
Delores	Belmear (7/29*)
Delta	Fruit Growers (7/23), Sweitzer (6/9)
El Paso	Big Johnson (7/8*)
Grand	Granby (7/9*), Grand (7/9*)
Gunnison	Blue Mesa (6/19*), Paonia (6/19*), Taylor Park (6/19*)
Huerfano	Maria (7/7)
Jackson	Arapaho NWR (7/1), Boettcher (7/2), Cowdry (6/30), East Delaney (6/30*), Hebron Waterfowl (7/18), Lake John (6/30), MacFarlane (7/18), North Delaney (6/30*), South Delaney (6/30*), Walden (7/17)
Kiowa	Adobe Creek (7/7*), Neegronda (7/10*), Neenoshe (7/10), Neeskah (7/10), Neesopah (7/10*)
La Platta	Lemon (7/27*), Vallecito (7/27*)

Appendix A, continued.

County	Lake (Survey date)
Las Animas	Model (7/10*)
Logan	Sterling (7/20*), Jumbo (7/20*)
Mesa	Casto (7/22), Cheney (6/11*), Thompson #2 (6/12), Unaweep Divide Lakes (6/11)
Moffat	Butch Cassidy (6/5*), Flynn Bottom (6/4), Hog (6/5), Hoy Bottom (6/5*), Nelson Bottom (6/4*), Yampa River gravel pits (6/7*), Yampa River Deerloge Park (6/8*)
Montezuma	Mancos (7/27*), Naraguinsep (7/27*), Summit (7/27*), Totten (7/27*)
Morgan	Jackson (7/22*)
Otero	Cheraw (7/9), Henry (7/9), Holbrook (7/9), Horse Creek (7/9*)
Park	Antero (7/20), Como (7/20*), Fairplay Pond (7/20), Milligan (7/20), Red Hill Pond (7/20)
Prowers	King (7/7*)
Pueblo	Huerfano (7/8)
Rio Blanco	Piceance (7/10*), Rio Blanco (7/10*)
Rio Grande	Bowan Pond (7/8*), Parker Pond (7/7)
Saguache	Davey (7/9), Harrence (7/10*), Johnson (7/9), Kimme (7/9), Trites (7/9), Unnamed Pond-Russell Lakes SWA (7/16*)
San Miguel	Cone (7/29*), Miramonte (7/29*), Groundhog (7/29*), Gurley (7/29*)
Washington	Prewitt (7/25*)
Weld	Ireland #5 (7/18), Klug (7/18*), Lower Latham (7/18), Prospect (7/18*), Calkins/Union (7/18)
Yuma	Bonny (7/18*)



Black Swifts (*Cypseloides niger*) in Fulton Resurgence Cave

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I learned recently that Kim Potter, a Biological Technician for the U.S. Forest Service in Rifle, was conducting a project to evaluate the status of Black Swifts in White River National Forest. The Black Swift is a poorly understood and very specialized species that inhabits mountainous regions of North and Central America. Among the fastest-flying birds in the world, they feed on insects high in the air and never alight on the ground or in trees; they come to earth only to roost and nest as small colonies, typically in the niches of cliffs adjacent to moss-bordered waterfalls. In Colorado, Black Swifts seem to attain their greatest abundance in the San Juan Mountains and surrounding ranges of the southwestern corner of the state (Kingery 1998). Small colonies also occur in scattered locations along, or near, the Continental Divide and on the White River Plateau (Potter 1997, Kingery 1998).

In 1962, I had discovered two Black Swift nests in Fulton Resurgence Cave (Davis 1964), the only known colony on the White River Plateau that Kim still had not visited. Therefore, she was anxious to include me on a trip that she was planning to the cave. Others included on the trip would be a caver--Rich Wolfert, Rachel Reichardt (Kim's colleague), Rich Levad of the Colorado Bird Observatory, and my partner, Chester McQueary. On the afternoon of 9 September 1998, we drove to the ridgetop of Blair Mountain and then hiked for about two hours, descending 1,200 feet (367 meters) to the cave mouth in a box canyon below.

Fulton Resurgence Cave is a rectangular opening in a formation known as the Devonian Dyer Dolomite. The cave's entrance, located approximately 150 feet downslope from Fulton Cave proper, is about 20 feet wide by 30 feet high (6.1 x 9.1 meters). Before the cave's formation, a stream believed to originate from the nearby Blair Lake sink ran through, and out the entrance of, Fulton Cave. Eventually, the stream was swallowed into rubble before reaching the cave entrance, forming a new cave below. Now, the stream resurges as a spring from a rubble slope at the back of Fulton Resurgence Cave, about 150 feet (46 meters) from the cave entrance. Several feet wide and a few inches deep in autumn, the stream descends gently through the resurgence cave before dropping a few feet over a waterfall below the entrance and cascading down a steep ravine below.

Rather than nest near the waterfall, the swifts at Fulton Resurgence Cave use niches inside the cave itself. (Interestingly, this remains the only reported case of Black Swifts nesting in a limestone solution cave.) Once inside the cave, we found the Black Swift colony alive and well. When I had originally discovered the colony in 1962, I saw just two nests, both on the left (looking outward) wall. This time we observed six nests, all 12-25 feet (3.7-7.9 meters) up from the cave floor on the vertical faces of the two walls. The innermost nest was about 77 feet (23.5 meters) from the cave entrance, in the dimness of what cave specialists call the “deep twilight zone.”

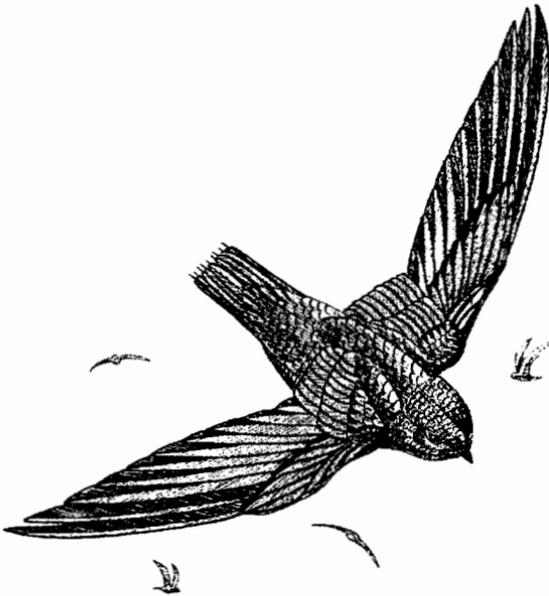
The Black Swift's way of life renders the species relatively safe from predators, which may explain their unusual strategy of laying only one egg per nesting attempt. [The only other North American land birds with this habit are the Band-tailed Pigeon (*Columba fasciata*) and the now-extinct Passenger Pigeon (*Ectopistes migratorius*)]. They build their neat, cup-shaped nests of moss and mud in suitable hollows of vertical rock walls. In Colorado, Black Swifts typically lay their eggs in early July, and the young fledge in late summer. At the time of our visit on 9 September, each nest held a nearly mature nestling, which rested quietly upon its pedestal-like nest with its head and wings extending well outside the nest wall. We observed no adult swifts; presumably they were out feeding away from the cave.

The biologists had come prepared to band the young if possible, but only the lowest nest was reachable, and then only with an improvised ladder (from a spruce tree)! Rich climbed up and grasped the young bird carefully, then brought it down to be weighed and banded. Close inspection revealed an exquisite creature, as perfectly adapted for its aerial life and dark nesting locations as you can imagine. It had a tiny beak and a wide, insect-catching mouth. The stiffly-curved wings, normally held like scimitars crossed over the back, extended far beyond the tail. It had huge, dark eyes, and the feathers were black with lighter edges, giving a pretty, scaled effect on the head. The young bird tolerated the handling with little sign of fear, and allowed itself to be replaced on its nest and released without flopping away in a panic, as many songbirds would do. We then left the birds in peace.

Whether or not the Black Swift colony in Fulton Resurgence Cave has actually increased in size since I discovered it in 1962 is not clear. I had used a carbide lamp at the time, which was not as effective at focusing light on the walls as the spotlights we had on Kim's trip, thus I easily could have missed seeing more obscurely located nests. Either way, I was pleased to see that the colony is still doing well after 36 years.

Literature Cited

- Davis, D.G. 1964. Black Swifts nesting in a limestone cave in Colorado. *Wilson Bulletin* 76:295-296.
- Kingery, H.E. (editor). 1998. *Colorado Breeding Bird Atlas*. Colorado Bird Atlas Partnership and Colorado Division of Wildlife, Denver, Colorado. 636 pages.
- Potter, K. 1997. Black Swift (*Cypseloides niger*) colony at Rifle Falls. *Journal of the Colorado Field Ornithologists* 31:187-189.



Joseph C. Rigli - 11-24-78

Cimney Swifts
by Joseph Rigli



Top: Front view of Northern Pygmy-Owl
Bottom: Rear View Showing Eye-Spots on the Back of the Owl's Head
by Scott Rashid

NORTHERN PYGMY-OWLS (*Glaucidium gnoma*) IN ROCKY MOUNTAIN NATIONAL PARK

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While hiking on a mid February day in Rocky Mountain National Park, I hear off in the distance a distinctive series of single-note, whistled toots. As I get closer to the sounds, I notice that Pygmy Nuthatches (*Sitta pygmaea*) and Mountain Chickadees (*Poecile gambeli*) seem nervous. Then I see the reason for their discontent. It's a Northern Pygmy-Owl (*Glaucidium gnoma*), "public enemy number one." Often songbirds mob these little woodland owls because they will prey on small birds. From hummingbirds to Steller's Jays (*Cyanocitta stelleri*), few songbirds are safe when the Northern Pygmy-Owl is on the prowl.

Diurnal Life

At a height of approximately six and a half to seven and a half inches (16.51 to 19.05 centimeters) from head to tail (Bailey and Niedrach 1967), the Northern Pygmy-Owl is one of the smallest owl species in North America (Johnsgard 1988). They are typical raptors in that the females are slightly larger than the males (Holt 1989). Unlike most owls, however, these little owls are active primarily during the day, particularly at dawn and dusk. Their short, rounded wings and long tails enable them to fly very rapidly, and their flight is relatively noisy compared to that of other owls; presumably, diurnal birds have little need for silent flight (Johnsgard 1988). Another important distinction between the Northern Pygmy-Owl and other owl species lies hidden in the facial disk (an area of tightly woven feathers around the birds eyes that help funnel sounds to the birds ears); pygmies may have the most poorly defined facial disk of all the North American owls. Again, predators that hunt by sight more than by sound probably have no need for such adaptations.

Most owl species either have a pair of "ear" tufts, [e.g., the Great Horned Owl (*Bubo virginianus*) and the Long Eared Owl (*Asio otus*)] or they have no ear tufts at all [e.g., the Snowy Owl (*Nyctea scandiaca*) and the Barn Owl (*Tyto alba*)]. Here again, pygmies represent an exception to the rule. While they do not have true "ear" tufts, they do have the ability to raise tiny feathers (which are part of the facial disk) above their eyes when danger approaches, thus giving them the appearance of having "ear" tufts. This adaptation may help the birds remain concealed by breaking up their silhouettes (Holt 1990). Another of the pygmy-owl's unique adaptations is the feathered eyespots on the back of

its head. These eyespots serve as a defense mechanism to deter potential predators from attacking the owls from behind (Latorre 1990). These adaptations would be of little value to a nocturnal species.

Tracking the Forest Gnome

Locating a Northern Pygmy-Owl around Rocky Mountain National Park is not as difficult as you might think. I spent the better part of spring and summer in 1998 monitoring a pair of these little forest gnomes, and I never had much trouble finding them. Within the park, the owls prefer riparian areas dominated by ponderosa pine (*Pinus ponderosa*) and aspen (*Populus tremuloides*). I found that the easiest way to locate them was to go to their preferred habitat and listen for their vocalizations. Starting around early February, pygmy-owls begin their distinctive, territorial calling, which is composed of whistled, single-note toots (Johnsgard 1988). On many occasions, I would enter the pair's territory before the birds started to call, and then locate them when they started calling. The cold seems to make little or no difference in whether or not the birds call, but time of day does. While I heard pygmy-owls calling any time between 6:00 a.m. and 11:00 p.m., the majority of their calling occurred at dawn and dusk. At dusk, I often found them with blood stains on their bills, as if they had just finished eating. On at least one occasion, I saw a pygmy-owl capture a meadow vole (*Microtus pennsylvanicus*) at 6:01 p.m. For two minutes thereafter, the bird sat in a tree twitching its tail from side to side--an indication of excitement--and then flew into the woods; at 6:15 p.m., the bird began to call. These observations led me to believe that the owls feed each afternoon before vocalizing.

Generally, the pygmy-owl's toots are spaced approximately one second apart. The birds often toot for about five minutes at a time, after which they either move to another perch and begin calling again, or simply pause before calling from the same perch. When vocalizing, the bird usually perches on an exposed tree limb, sometimes as high as 60 feet (18.2 meters) from the ground. As it calls, the bird faces forward, raises its head and toots, revealing its attractive white necklace (this is the best time to see the necklace); with each toot the owl pumps its tail.

Be careful when listening for pygmy-owls, because the call note of the Townsend's Solitaire (*Myadestes townsendi*) may sound similar to the pygmy-owl's toot. The solitaire's call, however, is higher-pitched and the calling pattern is more sporadic. Also be aware that the call of the female pygmy-owl is slightly higher than the male's, even though the female is larger than the male.

Interactions with Other Species

While studying the pair of Northern Pygmy-Owls in Rocky Mountain National Park, I observed them interacting with a number of other species. One especially intriguing event occurred late in the afternoon as I watched a pygmy-owl calling. At the same time, I heard a Great Horned Owl call off in the distance. When the pygmy-owl heard the larger owl, it stopped calling, flew to a higher perch, faced the direction of the Great Horned Owl, and then started calling again. It was as if the bird was saying, "This is my territory, stay out!" On three occasions during that nesting season, however, I saw a Great Horned Owl within the pygmy-owl's territory.

Another interspecific incident took place one February afternoon as I observed a pygmy-owl perched in a cottonwood tree near a small meadow at the middle of its territory. A Northern Shrike (*Lanius excubitor*) overwintering in the same area made many passes at the pygmy-owl, although the little owl apparently felt no threat from the shrike. (When a pygmy-owl feels threatened, it will puff out its head and body feathers, extend its wings slightly, and snap its bill; often this is enough to deter most medium-sized birds.) After about 10 minutes, the shrike moved to another perch and seemed to forget about the owl.

One morning at about 10:30, I watched an adult pygmy-owl begin to call from a live ponderosa pine, and it seemed that within seconds the tree filled with Pygmy Nuthatches. The tiny birds scolded the owl and tried to harass it, but again the owl ignored the mob, and after about six minutes the nuthatches moved on. American Robins (*Turdus migratorius*) also seemed to track the pygmy-owls and scolded them often, especially in the afternoons and at dusk.

Prey and Hunting

Identifying what larger owls feed on can be simple if you can find their pellets --compact masses of regurgitated indigestible material, such as fur, bones, and feathers (Terres 1982). Because larger owls usually swallow their prey whole, their pellets may contain most--if not all--bones of their prey. The tiny pygmy-owls, however, rarely swallow their prey whole because they often prey upon birds and mammals as large, or larger, than themselves. When eating, they generally take small bites and discard most of the bones, thus their pellets rarely contain bones that would allow most observers to identify their prey.

In and around Rocky Mountain National Park, where elk (*Cervus elaphus*) are common, it can be difficult to find the pellets of pygmy-owls because they look very much like elk droppings. I was fortunate enough, however, to identify

a number of prey items by watching what the female pygmy-owl brought to her nest and what the male brought to the female. The first such prey item I saw was a pocket gopher (*Thomomys* sp.), which the male dispatched and delivered to the female; it seemed to take everything he had to carry that gopher, which appeared as large as he was and might have been heavier.

During the nesting season, I watched the female owl capture a western jumping mouse (*Zapus princeps*). She was perched in a dead ponderosa, then flew to the branch of a live spruce about 15 feet (4.5 meters) from the ground. She walked toward the tree trunk and dispatched the long-tailed rodent before delivering it to her eagerly awaiting nestlings. The female delivered a number of other small mammals to her nestlings, including a vole (*Clethrionomys* sp.), a shrew (*Sorex* sp.), a deer mouse (*Peromyscus maniculatus*), and a least chipmunk (*Eutamias minimus*). One afternoon, I also found her hunting directly from the nest. As I observed her looking out of the nest cavity, she suddenly flew to the ground, caught a small rodent, and delivered it to her nestlings.

I never observed the female owl attack any birds while her young were in the nest, even though there were a number of instances when she was within a foot or two of a songbird. Perhaps the female owl ignored potential avian prey while her young were in the nest. This may have been intentional to keep songbirds in the area from bothering her nestlings. I never observed the male pygmy-owl feeding the young directly, although he did feed both adult and nestling songbirds to the female, who in turn fed these birds to her young. I saw the male with a nestling Downy Woodpecker (*Picoides pubescens*), an adult Mountain Chickadee, an adult Pygmy Nuthatch, and three birds that I could not identify. This past November, when I vacuumed out the nest, I found the remains of a House Wren (*Troglodytes aedon*), a Pine Siskin (*Carduelis pinus*), and a Townsend's Solitaire. The only bird that I saw the female prey on was a nestling Broad-tailed Hummingbird (*Selasphorus platycercus*), which she caught after her young had fledged. The female owl had attempted to catch the female hummingbird on her nest, but at the last second the hummer flew, and the owl got the hummingbird's nestling instead.

Like many other owl species, pygmies will cache, or store, excess food. One afternoon, I watched the female pygmy-owl cache a Mountain Chickadee in one of two live spruce trees just west of her nest tree. In another instance, I observed her remove a chipmunk from the same cache.

Territory, Nesting, and Vocalizations

Northern Pygmy-Owls defend fairly extensive territories. The territory used by the pair I observed covered almost 190 acres (75 hectares) at elevations

that ranged from 7800-8600 feet (2366-2608 meters) above sea level. A number of songbirds, as well as birds of prey, nested within this territory. Just east of the owls' nest was Sharp-shinned Hawk's (*Accipiter striatus*) nest, and to the northeast was a Red-tailed Hawk's (*Buteo jamaicensis*) nest. Surprisingly, I observed no interactions between these species.

As the nesting season approaches, both male and female Northern Pygmy-Owls become quite vocal. By exploring their territory in the breeding season, I was able to hear and identify a number of their vocalizations. As mentioned earlier, the territorial call is a single-note, hollow, whistled toot. When the males become excited, however, they pair these single notes into couplets. I heard these coupled toots when the female moved close to the male early in the breeding season and when the female entered the nest cavity for the first few times. As nesting season progressed, the female uttered a series of *kewing* notes (Johnsgard 1988)--usually five to seven rapid notes followed immediately by three or four slower notes. Apparently, the female's *kewing* notes are food-begging calls that she utters to the male from before incubation commences until the young fledge.

Northern Pygmy-Owls typically nest in abandoned woodpecker cavities (Terres 1982). The pair I observed selected an old woodpecker cavity in an aspen. The opening was 16.13 feet (4.9 meters) above the ground and 2.2 inches wide by 2.4 inches high (5.6 x 6.2 centimeters); the cavity itself was 17 inches (43.2 centimeters) deep. The female started incubating on about 27 April. When I was sure that incubation was underway, I reduced my visits to one time per week to avoid disturbing the female. During that time, I could hear the female food-begging from within her nest.

Most owls lay one egg every day or so and start incubating as soon as the first egg is laid. As a result, the eggs hatch asynchronously and the first hatchling is often much larger than the last one to hatch. If prey is in short supply, the largest (usually the oldest) chick may eat the youngest--a strategy that helps to ensure at least one will survive to fledge (Toops 1990). Once again, however, Northern Pygmy-Owls are different. They start incubating when the last egg is laid (Johnsgard 1988), and their eggs all hatch at the same time. (Presumably, Northern Pygmy-Owls rarely encounter shortages of prey during the nestling season.) I estimated that the eggs of the pair I followed last summer hatched on either 18 or 19 June. From then on, the female owl spent considerable time looking out of her nest cavity, thus she was very much aware of her surroundings and seemed to miss little. For the first two weeks after the young hatched, I never saw her go farther than about 50 yards (45.5 meters) from the nest tree.

By 28 June, I could hear the young food-begging from within the nest cavity, and the begging increased as they grew. When the male arrives near the nest with food, he utters a three-note toot to let the female know that he has food. If either bird senses danger, it will give a rapid, five-note toot. On one occasion, as I approached the nest, the male, who was perched nearby, uttered this five-note toot, and instantly the female flew out of her nest cavity. On another occasion, I saw a Peregrine Falcon (*Falco peregrinus*) fly over the nest tree. As the falcon flew over, the male tooted twice, and after the falcon had passed by, the female tooted once.

The nestlings grew fast, and on 4 July I saw the young peer out of the nest cavity for the first time. Just eight days later, on 12 July, one of the chicks fledged. I found it perched on a spruce tree, about 10 feet (3 meters) from the nest tree and at the same height as the nest cavity from which it had fledged. As I watched the owlet, he made every attempt to remain concealed by squinting his eyes, raising his ear tufts, and pulling his wing over his breast. After about 10 minutes, however, he started to relax and seemed to pay little attention to me. At this time, the adult female flew in with a vole and enticed the owlet to fly about 75 feet (22.9 meters) to her to receive the food.

The next day, 13 July, I found that the other two owlets had fledged. All three were about 100 yards (91 meters) south of the nest tree. The young owlets, brownish-grey in color and lacking the white spots that they would later develop on their heads and backs, blended perfectly with the bark of the dead trees in which they were perched. Like the adults, the young pygmy-owls had short, rounded wings, but unlike the adults their tails were quite short. It took about three more weeks for their tails to grow fully. During this three-week period, I located the owlets easily by listening for their food-begging twitters, which resemble the trilling songs of Chipping Sparrows (*Spizella passerina*). The last day that I was able to locate the owlets was 31 July, when I found two of the owlets, as well as the adult female, about 300 yards (273 meters) south of their nest tree. By then, the owlets had attained adult size, and their tails were full-length. As I approached, I was able to see a young male feeding on a least chipmunk, and a young female was perched about 20 feet (16.1 meters) away on a spruce snag. I later heard the third owlet about 30 yards (27 meters) from the other two. At that point, it began to rain, and the adult bird gave a warning call--a loud *eevert*, which sounds like a fingernail dragged across a chalkboard. As the rain got heavier I left. I returned two days later, but could not locate the owls.

Before the owlets dispersed, I was able to capture and band two of them in hopes of learning more about these tiny birds. According to the Bird Banding

Laboratory in Laurel, Maryland, 194 Northern Pygmy-Owls were banded from 1966-1997, but only two of those have been recovered. Thus, many questions remain about their longevity, dispersal, and migration (if any). Perhaps the two banded owlets will reappear at another time, and let us peek a little further into the mysteries of their lives.

Literature Cited

- Bailey, A.M., and R.J. Niedrach. 1967. *Pictorial Checklist of Birds of Colorado*. Denver Museum of Natural History, Denver, Colorado.
- Holt, D. 1989. Nongame sampler, "glaring gnome." *Montana Outdoors* 20(3):13-15.
- Holt D., Kline R, and Holt L. 1990. A description of "tufts" and concealing posture in Northern Pygmy-Owls. *Journal of Raptor Research* 24:59-63.
- Johnsgard, P. 1988. *North American Owls: Biology and Natural History*. Smithsonian Institution Press, Washington, DC.
- De Latorre, J. 1990. *Owls: Their Life and Behavior*. Crown Publishers, Inc., New York.
- Terres, J.K. 1982. *The Encyclopedia of Birds of North America*. Alfred A. Knopf, New York.
- Toops C. 1990. *The Enchanting Owl*. Voyager Press, Stillwater, Minnesota.



Northern Pygmy-Owl
by Jim Osterberg

Sylvia and Bill Brockner
by Ron Ruhoff



**BILL AND SYLVIA BROCKNER:
PARTNERS IN "SERVICE TO AVES AND *HOMO SAPIENS*"**

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Introduction

In 1965, when Bill and Sylvia Brockner moved from Buffalo, New York to Evergreen, Colorado, they quickly became interested in Colorado ornithology. Each was already an accomplished birder and naturalist devoted to community service. Bill, a childhood friend of Roger Tory Peterson, ranks near the top in the American Birding Association's (ABA) listing derby, for which his record now stands at 749 species. As a long-time executive with General Motors (GM), he traveled widely, which allowed him many opportunities to chase birds. His ability to locate White-tailed Ptarmigan (*Lagopus leucurus*), and then Evergreen's infamous Baikal Teal (*Anas formosa*), has brought many birders to Evergreen to seek his help. Sylvia, a botanist as well as a birder, helped to organize The Evergreen Naturalists Audubon Society (TENAS)--

now celebrating its 30th year. She also writes and illustrates a weekly nature column for the Evergreen newspaper, and she is an avid bird bander.

Bill and Sylvia met with us and Lynn's wife, Liz, at their home in Evergreen on 16 January 1999. They live about two miles from the center of Evergreen, on a hill surrounded by ponderosa pine forest--a birder's paradise! Paintings and carvings of birds enliven the living room walls and shelves, tiles painted with pictures of birds border the fireplace, and a clock chimes the songs of birds. On a table, Liz spied a book entitled, *Evergreen, Our Mountain Community*, by Barbara and Gene Sternberg (first edition published in 1987). Perusing the book, she found the phrases that follow:

"Part of the privilege of living in Evergreen is Sylvia Brockner's Canyon Courier column, with its weekly interpretation of what is going on in the natural world around us.... If there are 'indispensable' people in the life of a community, this couple [the Brockners] belongs in that category for Evergreen. They are Mr. and Mrs. Naturalist here..."

We found Sylvia's writing desk in the dining room next to large windows that offer views of backyard bird feeders. Books about flowers and other botanical topics fill the shelves above her desk. Bill enjoys an open, spacious study at the front of the house, with large windows that also overlook a bird feeder. His bookcases, rich with ornithology books and journals, adorn the study walls. We also spotted two plaques on his wall; one that honored Bill as president of Evergreen Kiwanis from 1985-86, and another that recognized his "55 Years of Service to Aves and *Homo sapiens*" for the Buffalo Ornithological Society. Thus began our introduction to Bill and Sylvia Brockner, who freely discussed their fascinating and productive lives with us. We want to share their stories with you, for we feel that their contributions to several communities serve as models that may inspire us to become more active for the sake of birds and people who love nature.

Early Years in Buffalo, New York

Sylvia grew up 20 miles from Buffalo before her family moved to that city in 1934. Her mother taught her about flowers, and Sylvia pressed her first collection when she was just eight years old. After completing high school, she took courses in botany at the Buffalo Museum of Science, where she met Bill. Bill admitted, "I saw this young chick and said hello just to be sociable." Thus began their life-long partnership.

Bill was born in Buffalo in 1915 and claims he can't remember any time in his life when he wasn't "nuts" about birds. His parents were not birders, but they enjoyed nature and cultural activities. Bill's mother read to him from nature stories by Thornton W. Burgess, and by the time he was seven, Bill was

identifying birds. In his teens, Bill developed an appreciation for the drawings and paintings of birds by another teenager--Roger Tory Peterson--an "up and coming" artist from Jamestown, New York. It was not long before the two teenagers met and became friends. Some time later, Harold Mitchell of the Buffalo Museum asked Bill if he'd like to go to Gowanda to see a Northern Cardinal (*Cardinalis cardinalis*), the first one in many years to appear in New York. When they stepped out of the car in Gowanda, there was the bird, and within 30 seconds, Roger came roaring up on a bicycle, also in pursuit of the cardinal. At 14 or 15 years of age, Bill had beaten Roger Tory Peterson to see the bird!

Military Service and Careers

After high school, Bill felt fortunate to have found a job because the Great Depression had taken hold of the country. While working, he also studied accounting by taking night classes at the University of Buffalo. It was not long before he was offered a position with Chevrolet, where he received training in GM's accounting system. In 1940, when he was with Chevrolet, Bill and Sylvia were married. However, World War II had begun, and Bill was drafted into the infantry and sent to North Africa. While there, he took opportunities to keep notes on the birds he saw and sent them to Sylvia. She had accepted a position at the Buffalo Museum, and she used the Museum's library resources to identify the birds that Bill described. Bill admits that the codes he had devised for birds he observed and described "...drove the [military] censors nuts." One time he wrote to Sylvia about seeing a Portuguese Man-of-War (jellyfish) floating on the Mediterranean Sea and glowing in the dark, but the censors "deleted" it. Had they believed his note was about Portuguese soldiers working under the cover of night with special lights?

Sylvia worked for the Buffalo Museum for 25 years. She started as a docent and led tours for children. Later, she moved to adult education, prepared catalogues, and served as registrar for the evening-course program. While Bill was overseas, she also worked in Nashville, Tennessee for a year to help develop a children's museum there.

When Bill was discharged from the Army, Chevrolet's comptroller rehired him. Bill explained that, "General Motors leaned over backwards to rehire military people." Subsequently, he moved into dealership work, where he spent the rest of his career with Motors Holding Division arranging for loans to get new dealers started. When hiring their employees, GM looked for people who could "...stand up under pressure." Bill met this rigorous standard, and worked for many years out of their Buffalo office before transferring to their Denver office.

According to Sylvia, Bill always carried a pair of binoculars in his briefcase so "...he could go birding every morning." Bill's boss kept track of Bill's interest by asking, "What bird are you chasing now?" In his work, Bill met hundreds of birders. As a life member of the AOU, he carried the AOU membership list with him when he traveled to meet with GM dealers, and used it to locate other AOU members.

When Bill turned 65 in 1980, he retired from GM. Subsequently, his former co-employees at GM asked how he could possibly fill his time. Bill responded by saying that he wished he could buy more time, that he didn't see now how he ever had time to work. His former boss joked, "You never did any work anyway, you were always just looking for birds."

Competitive Listing

While living in Buffalo, Bill and Sylvia invited Dr. Harold Axtell to their home for dinner. After studying recordings of bird vocalizations at Cornell with Peter Paul Kellogg and Arthur A. Allen, Harold had accepted a position at the Buffalo Museum. Bill recounted for us one of Harold's questions the night he came for dinner. "Do you have a [life] list?" Bill replied, "No, but I go out for a big day in May to see how many species I can see then." Harold replied, "You're all right!.... Listing, it's terrible." Bill then explained that he thinks listing is good for pulling people into birding. Sylvia agreed, remarking that it is "...especially [good] for teenage boys." Bill mentioned that listing also provides an organized system for learning about birds, and he feels that these things "...make [listing] respectable."

Bill did like to chase species of birds that he had never seen, however! For example, while attending an annual AOU meeting in Salt Lake City, Bill told his friend, Roger Tory Peterson, that he was going to the mountains to chase ptarmigan. A fellow birder, Earl Green, overheard them, and said, "I'll buy lunch if you take me." Off they all went. They found no ptarmigan, nor did they find any Black Rosy-Finches (*Leucosticte australis*), which Roger had hoped to see, but they did see American Dippers (*Cinclus mexicanus*). Earl asked Bill and Roger, "How many [bird species] are on your life list?" Bill replied that he did not know." Earl, who was setting up a "300 Club," exclaimed that Bill had to have at least 300 on his life-list," and, pinning down Peterson, he asked, "Are you way over?" Peterson also replied that he did not know. Earl made them both swear then and there to put together their life lists.

For the next two to three years, Bill did little about a life list, but he knew that "...Earl was knocking me flat." Eventually, Bill and Roger discussed it, and they decided that each of them had seen more than 300 species. After joining

the "300 Club," Bill received a bulletin that included all the members' names--only 40 people. Within a month, however, it was the "400 Club," and within a year it was the "600 Club." When Bill's list had reached 594 species, Earl, who had retired and moved to California, said, "I'll look up six [species] for you." When Bill got an assignment in San Francisco, Earl indeed showed him six new species, and Bill became a member of the "600 Club." Eventually, however, Harold Axtell "...became the greatest lister of them all."

Bill once ranked 25th on the ABA's Area List (the 49 continental United States and Canada). Today, he has 749 species on his ABA list, but he laments, "I'm going backwards, the group behind me is roaring up so fast.... There are now 15 [people] with over 800 species [on their lists]." Sylvia does not know how many species she has seen. "I never kept a list. I'm not a competitive person. I just like to look at birds. Bill is always polite, but can still be competitive. I've seen most of what he's seen." She added that she was injured in a bicycle accident on their first trip to Attu and subsequently spent two weeks looking at plants!

On occasion, Bill has gone to great lengths to "chase" birds. His most memorable chase--the most "impressive" bird--was a Steller's Sea Eagle (*Haliaeetus albicilla*) he saw near Juneau, Alaska. He had word that it was there, and he flew up to meet Bob Odear of Nashville, Tennessee and Dick Spight of San Francisco, California. They haggled for a helicopter to fly them over a large glacier 20 miles north of town. As it turned out, the pilot knew the area and had taken a bunch to see the eagle already. As they flew up, the pilot pointed out the bird in a tree. They landed by a hedgerow, and the pilot grabbed a gun as they got out. When they asked about the gun, the pilot said, "Didn't you see the grizzlies?" The pilot ordered them not to go beyond the hedgerow, and not to scare the bird. They approached within 100 yards of the eagle and watched it for 30 minutes. Bill admitted going "nuts" over seeing that bird. It was the largest, most gorgeous eagle he had seen in his life.

In early 1997, Bill drove to Idaho with Warren Finch, Norm Erthal, and Dick Schottler to see a Siberian Accentor (*Prunella montanella*) that had shown up there. The weather was good all the way to Twin Falls, Idaho, but when they stopped at a truck stop for coffee, snow began sifting from the sky. They had 20-30 miles still to go, but they went on and "...got the bird!" Then they turned around and drove all the way back to Fort Collins in heavy snow. Bill confessed, "If we had known in advance what the weather would be, we wouldn't have gone."

For all the chases, Bill is "sick" about never chasing a Bachman's Warbler (*Vermivora bachmanii*) while he had the chance. In the late 1940s, when he was in the Washington D.C. area, he heard rumors of the warbler occurring near Atlanta. Alexander Sprunt, who saw them quite a bit, told Bill, "Get down here and I'll show you one," but Bill never did get down there, and today the accepted opinion is that the species has become extinct. Bill also searched all over Big Thicket, Texas for an Ivory-billed Woodpecker (*Campephilus principalis*). Although he never saw the bird, he's happy that Roger Tory Peterson had a chance to see it.

"Our Evergreen World"

In 1955, when Bill and Sylvia attended an AOU meeting in Colorado at the Denver Museum of Natural History, Dr. Alfred Bailey urged them to take a tour west on old U. S. 40 to Genesee Park, through the little village of Evergreen, and then back by Bear Creek to Red Rocks. They took his advice and fell in love with Colorado. Bill promised Sylvia, "If we're ever transferred, we will buy a home in Evergreen." Ten years later, Bill's boss felt that he needed Bill in either San Francisco, Houston, or Denver, and Sylvia agreed with Bill that Denver was the right choice.

At the time, Evergreen was a mere summer colony, and Bill and Sylvia's real estate agent could find only three houses to show them. As Sylvia exclaimed, "Today it would be 3,000!" The home they selected--and have lived in since 1965--was originally a summer home in a location where winter snows fell often. Because Bill frequently needed to get to the Denver airport by early morning, Sylvia shoveled snow off the driveway many times to help him on his way!

In 1969, Sylvia founded the Evergreen Naturalists so that she could have people to go birding with when Bill was away on business. She advertised her idea in the Canyon Courier, announcing a first-time meeting place and date for persons interested in birds. Six or eight people showed up for that meeting, and now the group has 500 members. Their monthly newsletter, *The Dipper*, is in its 29th volume. Bill produces a monthly column for it entitled, "Bird Business," in which he writes about birds in the Evergreen area.

The Evergreen Naturalists became an Audubon chapter (TENAS) within four or five years, mainly for a fundraising purpose that still has not succeeded. They wanted to develop a land-acquisition fund to buy and manage a bird sanctuary. Having conducted fundraising for The Nature Conservancy in western New York, Sylvia knew the group might have better success as an Audubon chapter.

Concerned about preserving open space in her area, Sylvia started a campaign that led to preservation of Lair O' The Bear park, which encompasses the last 1.5 undeveloped miles of Bear Creek. She wrote a prospectus and tried to get Jefferson County Open Space to buy it with the agreement that TENAS would manage it for wildlife. Unfortunately, appeals for wildlife failed, and popular recreation became the county's focus for acquiring the land. It seems that Jefferson County Open Space had also acquired Grant's Ranch for a golf course, and needed more water for it, so they acquired Lair O' The Bear in order to obtain its terrific water rights. Subsequently, they turned the land into a park.

Sylvia also writes a column, "Our Evergreen World," each week for the Canyon Courier newspaper. In her column, she discusses whatever has been of interest that week--birds, flowers, foxes, or turtles, and she makes a drawing for each article. Fifty of her articles were collected for publication in a book that is now out of print, but a revised edition is underway. In explaining why she originally started the column, Sylvia said, "I was new. I was constantly looking up things, meeting people, people would bring me something and ask what is this?" Many who lived in Evergreen were new there as well, and they wanted to know what nature was doing around them. The column also allows her to cover issues people need to know about, get them fired up, and encourage them to write letters. Bill explained that Sylvia's column has had a tremendous impact on the community, and he knows of cases where people have moved to Evergreen as a result of reading the column. Her articles even inspired one resident, Doug Stotz, to become a professional ornithologist; now Doug works at the Field Museum in Chicago.

Bird Banding

Sylvia, who began banding birds in New York, has held a banding permit for many years. In Colorado, most of her banding efforts have taken place in her own yard. One species that she captures quite often is the Cassin's Finch (*Carpodacus cassinii*)--up to 100 at time. As a result, she has learned quite a bit about the species, and believes that these finches migrate north and south, as well as up and down the mountains. In fact, one of her banded Cassin's Finches was recovered in Butte, Montana. Her most exciting band recovery, however, was from a Pine Siskin that had been banded five years earlier in western New York by a very good friend of hers!

Sylvia has also color-banded American Dippers. To capture these birds, she explained that she "...sets the nets so they kiss the water, otherwise Dippers will fly under. They have excellent eyesight and see the net at the last minute and duck under. You have to watch the net all the time, for if they hit the net and submerge, they will drown, so you must run and release them quickly."

This work nearly caused her a fatal accident one time when she slipped on an algae-covered rock and her wader filled with water. Fortunately she was able to slip out of the wader before she was pulled under. Her perseverance has taught her that a pair of nesting dippers will claim a territory of about 1.5 miles along a stream. Except during winter, they will not tolerate other dippers in their territories.

White-tailed Ptarmigan

The White-tailed Ptarmigan is the species people most often ask Bill to help them find. He claims that "...we get them three times out of four." This has led to some difficult trips to Guanella Pass, including one time when three environmental attorneys visiting Denver came to him dressed in business suits and shoes, and asked him to take them to Guanella Pass. When they got there, a white-out blew in. While Bill made sure they did not get lost, they never did find any ptarmigan. On another occasion, when the ABA Board met in Denver before it moved to Colorado Springs, the Board members decided that they wanted to see ptarmigan. So Bill led the 15 people through the snow for a mile, and again there was a white-out. One Board member said, "Mr. Brockner, your reputation will be nil with me if I don't get a ptarmigan." Just then, the sun came out, and Bill retorted, "Just move a little bit and look down." They had walked right beside the ptarmigan! Sylvia went on to explain that "...it is hard to find them when the weather is bad. They hunker down to get out of the wind, and the snow blows over them. It's also hard to find them in the summer. The hens won't move when they're incubating unless you almost step on them."

Records Committee

As a birder, Bill was "raised" by a disciplined statistics committee of Harvard, Princeton, and Yale men. He learned to respect their rigorous approach to bird records, and if they turned down one of his records, he was never disappointed. "It is vital to adhere to this discipline." He once sent in an autumn record of a Connecticut Warbler (*Oporonis agilis*), not knowing that in New York it was a rare fall migrant. He got back a seven page letter from Clark Beardslee, who was with the Buffalo Museum and co-author of *Birds of the Niagara Frontier Region*, that questioned the record. Bill was "exceedingly impressed" that such a busy man would take the time to respond to his record.

Bill served on the Colorado Field Ornithologists' (CFO) Bird Records Committee (RC) from 1985-1992. As a member of CFO, Bill felt a responsibility to serve on the RC for a while. He explained that it's a thankless job, because "...you get all the flak when you turn down a record." He once spent a full hour explaining to a birder why their record was turned down. Still he didn't mind. "Somebody's got to be on it—I feel it's vital. You need to

have some semblance of sanity in bird records and then [people] need to accept the decision." When he was a member of the RC, he respected the leadership of chairmen Peter Gent, Richard Bunn, and Duane Nelson. "The end results were proper and correct."

Baikal Teal In Colorado

In November 1992, a woman telephoned Sylvia to report a "strange looking duck" on Bear Creek where it runs through downtown Evergreen. From the notes Sylvia had made, Bill felt that the bird had to be a female Baikal Teal! Bill and Sylvia raced over and quickly identified it--sure enough, a Baikal Teal. There had been only a few sightings in the U.S. of this rare Siberian duck, and word of the new record rapidly spread through birding hotlines. More than 1,000 people came to see the teal, and 99% of them found it! Bill kept track of the bird's location, and guided birders to it every day until it left in January 1993. Denver newspapers published several articles--complete with photographs--about Bill and the teal.

A friend of Bill's wrote over 400 pages on why the Baikal Teal in Evergreen should be considered a legitimate Colorado record. Another friend, Boyd Norton--a Sierra Club photographer--had studied Lake Baikal and showed Bill many photos that depicted the area around Lake Baikal as being just like Evergreen, with mountain streams feeding into the lake. By a split vote, however, the RC rejected the record because it was impossible to be certain whether or not the teal was a wild bird. As a result, the ABA also did not accept the record. Bill still believes that it was a bona fide record, but he appreciates why the RC decided to reject the record.

Thank You, Bill and Sylvia!

We were amazed to learn that Bill and Sylvia will celebrate their 60th wedding anniversary in the millennium year, 2000! All through those years, they have long shared with one another their enthusiasm for birds and nature. In fact, Bill was pleased that he and Sylvia would be featured together in this article, and several times he expressed surprise that we would include him in such company as Ron Ryder and others who have been written about for the *Journal of the Colorado Field Ornithologists*. Modesty aside, they shared themselves openly with us for hours, and we truly appreciated having a chance to know them better. Thank you Bill and Sylvia, for all that you are doing for birds, for birders, for your community, and for each other.



Royal Tern (far left) Compared to Forster's Tern (far right)
by Duane Nelson



FIRST RECORD OF ROYAL TERN IN COLORADO

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From April to September, I monitor the reservoirs of southeastern Colorado to document nesting activities of Least Terns (*Sterna antillarum*) and Piping Plovers (*Charadrius melodus*) for the Colorado Division of Wildlife. On 15 July 1997, I arrived at Neenoshe Reservoir, Kiowa County shortly after noon. I had hoped that the absence of wind would allow me to canoe to a point on the south shore, where I needed to record the fledgling production of a small colony of Least Terns. Until then, heavy vegetative cover and shrinking beach margins (rising water due to canal inflow) had made observations from land difficult, while persistent winds had made observations from water impossible. Obtaining accurate counts of fledgling terns or plovers is the ultimate measure of nesting success, and that day appeared to be the best opportunity I would have for collecting data at the fledgling stage of the nesting cycle.

As I approached in my canoe, I observed a mixed flock of migrant shorebirds, including Long-billed Curlews (*Numenius americanus*), Marbled Godwits (*Limosa fedoa*), Forster's Terns (*Sterna forsteri*), and Ring-billed Gulls (*Larus delawarensis*). In the middle of the flock was a large tern, which towered above the nearby Forster's Terns (see photo above), and appeared almost as bulky as the Marbled Godwit standing only a few feet away. The tern's yellow-orange bill and white forehead immediately eliminated Caspian Tern (*Sterna caspia*), a regular visitor in southeastern Colorado between late April and September. I quickly narrowed the possibilities to Elegant Tern (*Sterna elegans*) and Royal Tern (*Sterna maxima*).

Since I was alone, I decided to photograph the bird in case no additional observers arrived before it departed. Paddling toward the bird in water only inches deep, I struggled to get within the range of my 400 mm lens. The flock of birds stayed put, despite my less-than-stealthy approach. When I got to within less than 100 feet, I was finally close enough to photograph the bird and obtain better views of it.

Description

The bird's overall shape and posture, short legs, bill shape, and black cap that terminated in a shaggy crest instantly gave it away as a tern. The bird's most diagnostic characteristic, however, was its large size. It seemed slightly smaller than the Caspian Terns I observe regularly in southeastern Colorado. To my eye, Caspian Terns are about as bulky as California Gulls (*Larus californicus*), but this bird's bulk was more comparable to that of a nearby Marbled Godwit, and it towered above the Forster's Terns roosting a few feet away. I could see that the bill was a striking yellow-orange color, with no hints of the brilliant red typical of a Caspian Tern's bill. The Caspian Tern also has an exceptionally large, thick bill with a black tip, but this tern's bill was fairly stout and straight, and it was yellowish right to the tip.

The bird's crown was white from the base of the bill to behind the eye. At the back of the crown, there were dark flecks that graded into a jet-black cap. At the back of the cap, a shaggy crest extended beyond the head. The few black feathers around the eye made the eye look quite large, and a noticeable whitish gap separated the dark eyes from the rest of the cap. The bird's mantle was pale gray, paler than the backs of nearby Forster's Terns. At rest, the wing coverts were the same pale-gray color as the back, while the primaries were slate gray. The wings extended well beyond the moderately forked tail, and the tern's legs were black.

After I had observed the tern for about one-half hour, it flew, revealing that the upper sides of the outer primaries were black, while the inner primaries and remainder of the upper wings were pale gray. The undersides of the wings appeared mostly pale, lacking the dark patch on the outer five primaries as seen in a flying Caspian Tern. The bird's wings appeared very large, broad-based, and pointed, and the flight was powerful and direct. The relatively short tail was forked, but not to the extent found in many smaller tern species.

Identification and Elimination of Similar Species

Although I had no field guides with me when I observed the tern, I was sure that it was either an Elegant Tern or a Royal Tern. As I drove the 40 miles back to my headquarters near John Martin Reservoir, I tried to remember the distinguishing characteristics of both species. The uniform plumage over the

back and wings combined with the shaggy crest told me that the bird was an adult, but I recalled that both Elegant and Royal terns have almost identical field marks in adult basic (non-breeding) plumage. I knew that Royal Terns are larger--almost the size of Caspian Terns--and the tern at Neenoshe Reservoir seemed almost that large. The bill also seemed stouter than that of an Elegant Tern. Still, I knew both species had to be considered carefully, as both have a minor tendency to wander inland after the breeding season. Upon returning to headquarters, I studied the sizes, wingspans, and field marks of terns in the *National Geographic Field Guide to the Birds of North America* (Scott 1987). Based on overall size, bill shape, wingspan, and the white area between the eye and crown, I finally felt confident enough to determine that the Neenoshe bird was an adult, basic-plumaged Royal Tern--a first sighting of the species in Colorado.

Except for Caspian and Elegant terns, the bird's large size and black legs eliminated all tern species that occur regularly in Colorado. The Caspian Tern is slightly larger, never has a white forehead in any plumage, and its stocky, red bill has a dark tip. It appears uniformly pale above, and the outer primaries are dark when seen from below. The Elegant Tern is smaller, and there is no white area separating the bill from the crown. Its bill is noticeably thinner, markedly decurved, and appears proportionally longer than the Royal Tern's bill. No other Palearctic or tropical tern species has the combination of a white forehead, yellow bill, shaggy crest, and black legs that I observed on the bird at Neenoshe Reservoir.

Spreading the Word

Campground hosts, Arnold and Verna Kalina, at John Martin Reservoir graciously allowed me to use their phone so I could call Mark Janos, who chaired the Colorado Bird Records Committee at that time. When I got no answer, I tried calling Brandon Percival; he was not in either, but I did leave a message on his answering machine. Meanwhile, I was awaiting the arrival of Dick Schottler, who was coming down from Golden to help me monitor Least Terns and Piping Plovers. A delay held him up, but when he finally arrived at 5:30 p.m., we sped back to Neenoshe Reservoir.

We reached Neenoshe peninsula at 6:40 p.m. and stopped at the closure boundary that protects nesting terns and plovers. Immediately, we found the Royal Tern, which had returned to roost at the same place where I originally found it. After nearly an hour of viewing the Royal Tern, Dick and I were ready to head for Lamar and have a celebration dinner. First, however, I had to ensure that people coming to see the tern would not disturb the nesting Least Terns and Piping Plovers. I attached a note to a fence post at the barrier, suggesting that a clearer view (farther from the nesting colony) was possible a

few yards to the west. Once in Lamar, we called the Rare Bird Alert with instructions and helpful hints for viewing the tern.

The next morning, Dick and I returned to Neenoshe Reservoir at about 11:00 a.m. My instruction note had turned into a ledger of comments from the seven additional people who made the trip and saw the bird. Mark Janos and Brandon Percival saw the tern at dawn, Norm Erthal (voice of the Colorado Rare Bird Alert) and Dan Bridges had arrived later in the morning; early that evening, Bob Dickson was the last person to see the bird. I was delighted and relieved to find that everyone had satisfactory views, apparently without violating the closure or disturbing the nesting Least Terns and Piping Plovers. Many more birders arrived on 17 July, but it was too late. The wanderer was gone.

Inland Vagrancy Among Royal Terns

There had been a few records of Royal Terns wandering inland prior to publication of the 6th edition of the *Check-List of North American Birds* (American Ornithologists' Union 1983), although they were not mentioned in the check-list. As of 1983, the species' breeding range was considered to be restricted to the U.S. Atlantic and Gulf Coasts and along Caribbean and Pacific coasts south of the U.S.; non-breeders also wandered north of their breeding range along the Atlantic Coast to and beyond New York, and along the Pacific Coast from Mexico north to central California. In 1985, however, a surge of inland records began to accrue. Below, I have included a list of all inland records that I could find for North America:

Wisconsin (three records): 5 September 1965 in Outagamie County (hypothetical); 18 June-15 July 1985 in Manitowoc County; 6 July 1986 in Manitowoc County; 2 August 1988 in Milwaukee County

Arkansas (three records): 26 August 1950 in Arkansas County; 28 September 1951 in Arkansas County; 14-15 June 1986 in Lonoke County

Oklahoma (one record): 1-6 January 1989 in Oklahoma County

Illinois (two records): 7 September 1985 in Cook County; 13 July 1988 in Cook County

Indiana (one record): 29 June 1996 in LaPorte County

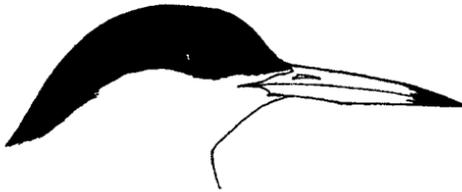
The Neenoshe Royal Tern is either the 11th or 12th documented inland record for the species in North America, and it occurred well west of the other inland records. Since Neenoshe Reservoir is about 20 miles north of the Arkansas River (which is significantly diminished by the time it reaches eastern Colorado and western Kansas), this Royal Tern had to navigate arid country in order to find a Colorado beach. With only two records from the interior U.S. during the 1990s, it may be many years before another straggler finds its way to Colorado.

Acknowledgments

Dick Schottler reviewed this manuscript for content and accuracy, although responsibility for mistakes is mine alone. Brandon Percival coordinated efforts to find data from other states; respondents to his request for information included Ken Brock, Todd Dilley, Josh Engel, Don Gorney, Joseph A Grzybowski, Lynea Hinchman, Charles Mills, Dick Palmer, Helen Parker, and Christopher L. Wood.

References

- Jackson, J. 1986. Central Southern Region report. *American Birds* 40:1213-1217.
- American Ornithologist's Union. 1983. *Check-List of North American Birds*, 6th edition. Allen Press, Lawrence, Kansas. 877 pages.
- Baerg, W.J. 1951. *Birds of Arkansas*. University of Arkansas Agricultural Experiment Station Bulletin No. 258 (revised). Fayetteville, Arkansas. 197 pages.
- Bohlens, D.H. 1989. *The Birds of Illinois*. Indiana University Press, Bloomington, Indiana.
- Brock, K. 1995. Middlewestern Prairie Region. *Field Notes* 50:932-936.
- James, D.A., and J.C. Neal. 1986. *Arkansas Birds, Their Distribution and Abundance*. University of Arkansas Press, Fayetteville. 402 pages.
- James, D.A., C. Mills, M. Parker, and J.C. Neal. 1994. Species of birds newly recorded in Arkansas since 1985. *Proceedings of the Arkansas Academy of Science* 48.
- Scott, S. (editor). 1987. *National Geographic Field Guide to the Birds of North America*, 2nd edition. National Geographic Society, Washington, D.C. 464 pages.
- Robbins, S. 1991. *Wisconsin Birdlife: Population and Distribution, Past and Present*. University of Wisconsin Press, Madison, Wisconsin.



Kim Potter

Forster's Tern (top)
and Least Tern (bottom)
by Kim Potter



Black-billed Magpies
by Janet Ruth

RECENT ORNITHOLOGICAL LITERATURE PERTAINING TO COLORADO NUMBER 4

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If you would like your paper included in this column, or if you know of a paper that should be included, please send a reprint to me at the address above.

Berry, Mark E., Carl E. Bock, and Sandra L. Haire. 1998. **Abundance of diurnal raptors on open space grasslands in an urbanized landscape.** *Condor* 100:601-608. Point counts of diurnal raptors were conducted on the Boulder, Colorado grasslands. The number of wintering Bald Eagles (*Haliaeetus leucocephalus*), Ferruginous Hawks (*Buteo regalis*), Rough-legged Hawks (*Buteo lagopus*), and Prairie Falcons (*Falco mexicanus*) decreased as urbanization increased. All but the falcon were influenced by the presence of black-tailed prairie dogs (*Cynomys ludovicianus*), an important prey species. Nesting Red-tailed Hawks (*Buteo jamaicensis*) and Swainson's Hawks (*Buteo swainsoni*) were most abundant in areas of lowland hayfields and tall grass prairie. They, along with the American Kestrel (*Falco sparverius*), were less sensitive to urbanization.

Ewell, Heather, and Alexander Cruz. 1998. **Foraging behavior of the Pygmy Nuthatch in Colorado ponderosa pine forests.** *Western Birds* 29:169-173. This study, conducted in Boulder County, reports foraging techniques, body positions used during foraging, and foraging locations among Pygmy Nuthatches (*Sitta pygmaea*) during the breeding and nonbreeding seasons. The diversity of body positions and substrates used during foraging suggests that the species is a generalist.

Kelly, Jeffrey F. 1998. **Behavior and energy budgets of Belted Kingfishers in winter.** *Journal of Field Ornithology* 69:75-84. Behavioral observations and estimates of energy intake and expenditures among Belted Kingfishers (*Ceryle alcyon*) were conducted along the Cache la Poudre River in Fort Collins. The results indicate that there are predictable patterns in the kingfisher diets and foraging behaviors. Variability in energy intake was not correlated with daily temperature.

Vierling, Kerri T. 1998. **Interactions between European Starlings and Lewis' Woodpeckers at nest cavities.** *Journal of Field Ornithology* 69:376-379. Of 59 nesting cavities used by breeding pairs of Lewis's Woodpeckers (*Melanerpes lewis*) at Rocky Ford and Beulah, Colorado, only one was usurped by a European Starling (*Sturnus vulgaris*).



Arrivals and Departures: Spring Migration in Colorado 1998

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Spring migration is a time of huge turnover among bird populations in Colorado. Large numbers of neotropical and other non-wintering migrants arrive, while other species that spend the winter--but do not breed--in Colorado depart for their more northerly breeding grounds. Information on the arrival dates of incoming species and departure dates of outgoing species is important for several reasons. First, a knowledge of arrival and departure dates can be useful in making certain field identifications. Second, long-term data on migration dates can depict the relative timing of any given year's migration (i.e., "early" or "late"); persistent trends also may point to trends related to global climate. Third, migration dates can be useful for teaching beginner bird watchers--as well as those who are more advanced--about migration patterns (e.g., when do shorebirds arrive compared to warblers).

In order to accomplish these objectives, however, a multi-year data set is necessary for analysis. To this end, I present the second year of data on spring arrivals compiled from reports to COBIRDS, the e-mail bulletin board devoted to birding in Colorado. (Data for 1997 were published in the *Journal of Colorado Field Ornithologists*; Kaempfer 1998). For 1998, I made three modifications. First, I expanded the number of species reported to include many regular, but uncommon, migrants (Table 1). Second, I listed possible over-wintering birds--and identified them as such--where appropriate. Third, I included a list of last-reported dates for overwintering birds (Table 2).

During the migration months of 1998, there were more than 300 subscribers to COBIRDS. While many of these subscribers were not actively bird watching in Colorado, numerous subscribers submitted first or last observation records for other observers. Thus, the resulting list can be thought of as representing the records of hundreds of observers.

Of the species listed in both 1997 and 1998, 84 were seen for the first time earlier in 1998 than in 1997. It remains unclear whether this was simply due to more extensive reporting or an earlier migration. Thirty-seven species were observed for the first time later in 1998 than in 1997, and five species

(Burrowing Owl, Eastern Phoebe, Warbling Vireo, Red-eyed Vireo, and Blue Grosbeak) were observed for the first time on the same day of both years.

Literature Cited

Kaempfer, W. 1998. Arrivals of spring migrants in Colorado: 1997. *Journal of the Colorado Field Ornithologists* 32:15-19.

Table 1. Spring migrants arriving in Colorado: first date reported. A question mark indicates incomplete information and an asterisk indicates a possible overwintering bird.

Species	Date	County	Observer
American Wht. Pelican	2-22	Otero	S.Oswald
American Bittern	4-10	Otero	R.Stevens
Great Egret	3-31	Larimer	R.Kolokoff
Snowy Egret	4-03	Otero	S.Oswald
Cattle Egret	4-10	Otero	R.Stevens
Green Heron	4-14	Otero	S.Oswald
White-faced Ibis	3-21	Otero	P.Sandstrom-Smith
Blue-winged Teal	3-14	Washington/El Paso	R.Stevens/R.Bunn
Cinnamon Teal	2-07	Delta	R.Levad
Turkey Vulture	3-14	Fremont/El Paso	R.Watts/R.Bunn
Osprey	3-25	Pueblo	B.Percival/B.Brandle
Mississippi Kite	3-16	Pueblo	R.Watts
Broad-winged Hawk	4-11	Jefferson	?
Swainson's Hawk	3-14	Rio Blanco	D.Hilkey
Sora	3-28	Bent	B.Percival
Black-bellied Plover	5-03	Otero	S.Oswald
Snowy Plover	4-11	Crowley	B.Percival
Semipalmated Plover	3-28	El Paso	BB.Hahn
Piping Plover	4-?	Bent	D.Nelson
Mountain Plover	3-22	Weld	S.Dinsmore
Black-necked Stilt	3-26	Otero	B.Percival/M.Janos
American Avocet	3-14	Huerfano	D.Silverman
Greater Yellowlegs	3-24	El Paso	R.Bunn
Lesser Yellowlegs	3-26	Larimer	S.Martin
Solitary Sandpiper	4-18	Boulder	R.Trinkner
Willet	3-15	Pueblo	L.Bright
Spotted Sandpiper	2-07*	Pueblo	M.Yeager
	4-19	Otero	B.Percival
Upland Sandpiper	5-10	Prowers	M.Yeager
Whimbrel	4-28	Weld	DW.King

Table 1, continued.

Species	Date	County	Observer
Long-billed Curlew	3-25	Baca	D.Svingen
Marbled Godwit	4-17	Boulder	A.Brown
Sanderling	4-16	Weld	S.Dinsmore
Semipalm. Sandpiper	4-14	Otero	B.Percival
Western Sandpiper	4-14	Otero	B.Percival
Least Sandpiper	4-05	Otero	B.Percival
Wht.-rump. Sandpiper	4-14	Weld	M.Plooster
Baird's Sandpiper	3-15	Otero	B.Percival
Pectoral Sandpiper	5-05	Weld	J.Monnett
Dunlin	4-17	El Paso	R.Bunn
Stilt Sandpiper	4-10	Otero	R.Stevens
Long-billed Dowitcher	3-24	Otero	B.Percival
Wilson's Phalarope	4-07	Otero	B.Percival
Red-necked Phalarope	4-24	Otero	S.Brown
Franklin's Gull	3-06	Arapahoe	B.Brown
Bonaparte's Gull	3-22	Prowers	N.Komar
Forster's Tern	4-25	Morgan	R.Stevens
Least Tern	5-10	Bent	B.Percival
Black Tern	5-09	Bent	B.Percival
Band-tailed Pigeon	3-07	Teller	R.Bunn
Yellow-billed Cuckoo	5-11	Prowers	B.Percival
Flammulated Owl	5-30	Prowers/Boulder	D.Sparr/S.Jones
Burrowing Owl	3-22	Prowers	B.Percival
Common Nighthawk	4-12	Arapahoe	J.LaFluer
Common Poorwill	4-29	El Paso	JJ.Jones
Chimney Swift	4-18	Prowers	B.Percival
White-throated Swift	3-13	El Paso	R.Bunn
Blck.-chnnd. Hmngbrd.	4-14	Mesa	G.Hill
Broad-tailed Hmngbrd.	4-24	Mesa	S.Boricious
Red-naped Sapsucker	4-14	Jefferson	P.Hansley
Williamson's Sapsucker	3-22	Pueblo	D.Silverman
Red-head. Woodpecker	3-06	Crowley	U.Kingery
Olive-sided Flycatcher	5-09	Boulder/Bent	B.Kaempfer/ B.Percival
Western Wood-Pewee	5-08	Boulder	B.Beall
Willow Flycatcher	5-02	Baca	M.Janos
Least Flycatcher	5-04	Baca	M.Janos
Hammond's Flycatcher	5-08	Boulder	B.Beall
Dusky Flycatcher	5-03	Baca	D.Quesenberry
Gray Flycatcher	4-11	Mesa	R.Levad

Table 1, continued.

Species	Date	County	Observer
Cordilleran Flycatcher	5-07	Prowers	B.Percival
Eastern Phoebe	3-23	Baca/Las Animas	A. Versaw
Say's Phoebe	2-07*	Delta	R.Levad
	2-28	Fremont/El Paso	V.Truan/B.Maynard
Black Phoebe	3-22	SanMiguel/Montrose	K.Potter
Ash-throat. Flycatcher	4-29	Baca	B.Brandle
Great Crest. Flycatcher	4-24	Weld	R.Olsen
Cassin's Kingbird	5-01	Fremont	R. Watts
Western Kingbird	4-11	Pueblo	L.Lilly
Eastern Kingbird	5-03	Baca	M.Hullinger/N.Komar
Purple Martin	6-11	Gunnison	B.Percival
Tree Swallow	3-26	Bent/Chafee	B.Percival/M.Janos/ V.Truan
Violet-green Swallow	4-01	Pueblo	L.Bright
N. Rough-wing. Swllw.	4-06	Pueblo	B.Percival
Bank Swallow	4-06	Pueblo	B.Percival
Cliff Swallow	3-28	Jefferson	T.Leukering
Barn Swallow	3-27	Delta	R.Levad
House Wren	4-04	Larimer	S.Ward
Blue-gray Gnatcatcher	3-08*	Mesa	A.Lotz
Veery	5-08	Crowley/Bent	P.Gent/B.Percival
Swainson's Thrush	5-01	Bent	D.Quesenberry/ V.Zerbi
Hermit Thrush	4-07	Las Animas	B.Percival
Gray Catbird	2-22*	Larimer	J.Florian
Northern Mockingbird	3-21	Larimer	N.Komar
Brown Thrasher	2-09	Boulder	M&S.Plooster
American Pipit	3-29	Weld	B.Lisowsky
Bell's Vireo	5-16	Yuma	R.Olsen
Gray Vireo	5-09	Mesa	R.Levad
Plumbeous Vireo	5-09	Mesa	R.Levad
Warbling Vireo	5-03	Crowley/Otero	D.Quesenberry/ D.Silverman
Red-eyed Vireo	5-09	Bent	B.Percival
Tennessee Warbler	5-08	Huerfano	J.Rawinski
Orange-crown. Warbler	4-14	Pueblo	D.Silverman
Nashville Warbler	5-03	Baca	V.Zerbi
Virginia's Warbler	4-26	Mesa	R.Lambeth
Northern Parula	4-04	Adams	R.Olsen
Yellow Warbler	4-27	Mesa/Otero	B.Wright/JJ.Jones

Table 1, continued.

Species	Date	County	Observer
Chestnut-sid. Warbler	5-16	Prowers	B.Percival
Magnolia Warbler	5-16	Sedgwick	N.Komar
Yellow-rump. Warbler	3-12	Denver	J.Kamby
Blck.-thrted. Gry. Wrblr.	4-20	Larimer	B.Coley
Townsend's Warbler	4-25	Otero	G.Rutherford
Blck.-thrted. Grn. Wrblr.	5-10	Baca	B.Percival
Palm Warbler	5-09	Boulder	B.Prather
Blackpoll Warbler	5-01	Bent	D.Quesenberry
Blck.-&-white Warbler	4-18	Prowers	B.Percival
American Redstart	5-06	Prowers	B.Percival
Ovenbird	5-03	Crowley	V.Zerbi
Northern Waterthrush	5-02	Baca/Boulder	M.Janos/P.Gent
MacGillivray's Warbler	5-05	Boulder	P.Gent
Common Yellowthroat	4-18	Larimer	S.Roederer
Hooded Warbler	5-15	Boulder	B.Evans
Wilson's Warbler	4-11	Yuma	D.Quesenberry
Yellow-breasted Chat	5-01	Otero	M.Janos
Summer Tanager	4-25	Larimer	R.Kolokoff
Western Tanager	4-11	Pueblo	L.Lilly
Rose-breast. Grosbeak	5-03	Otero	D.Silverman
Black-headed Grosbeak	4-26	Boulder	R.Davis
Blue Grosbeak	5-04	Prowers	M.Janos
Lazuli Bunting	4-25	Mesa	A.Lotz
Indigo Bunting	4-18	Prowers	B.Percival
Green-tailed Towhee	4-23	Boulder	A.Cowell
Cassin's Sparrow	4-09	Baca	R.Stevens
Rufous-crown. Sparrow	3-24*	Baca	A.Versaw
Chipping Sparrow	3-30	Larimer	M.Hullinger
Clay-colored Sparrow	5-01	Baca/Bent	D.Quesenberry/ M.Janos
Brewer's Sparrow	3-28	El Paso	R.Bunn
Field Sparrow	4-15	Baca	D.Svingen
Vesper Sparrow	3-26	Bent	M.Janos/B.Percival
Lark Sparrow	4-18	Baca	B.Percival
Black-throat. Sparrow	4-07	Otero	B.Percival
Sage Sparrow	4-04	Costilla	D.Silverman
Lark Bunting	3-29	El Paso	BB.Hahn
Savannah Sparrow	3-24	El Paso	R.Bunn
Grasshopper Sparrow	4-17	Baca	D.Svingen
Fox Sparrow	4-09	Prowers	R.Stevens

Table 1, continued.

Species	Date	County	Observer
Lincoln's Sparrow	4-04	Larimer	R.Trinkner
McCown's Longspur	3-22	Weld	S.Dinsmore
Chstnt.-collr. Longspur	2-14*	Weld	N.Komar
	3-22	Prowers	B.Percival
Bobolink	5-06	Boulder/Larimer	B.Kaempfer,L.Andes- Georges/S.Martin
Yllw.-head. Blackbird	2-07*	Delta	R.Levad
	3-13	Boulder	J.Weber
Brown-head. Cowbird	3-06	Bent	U&H.Kingery
Orchard Oriole	5-08	Bent	B.Percival
Baltimore Oriole	5-08	Crowley	D.Quesenberry
Bullock's Oriole	2-24*	Morgan	J.Jones
	4-18	Prowers	B.Percival
Scott's Oriole	5-23	Mesa	R.Olsen
Dickeissel	5-20	Bent	B.Percival
Lesser Goldfinch	2-07	El Paso	G.Butcher

Table 2. Spring migrants leaving Colorado: last date reported.

Species	Date	County	Observer
Grtr. Wht.-frntd. Goose	4-21	Weld	J.Monnett
Snow Goose	5-15	Otero	B.Randall
Ross's Goose	5-01	Bent	N.Erthal
Common Goldeneye	5-29	Weld	R.Kolokoff
Rough-legged Hawk	4-12	Boulder	R.Kolokoff
Merlin	4-29	Larimer	J.LaFleur
Herring Gull	5-09	Otero	T.Leukering
Thayer's Gull	4-19	Arapahoe	D.Quesenberry
Glaucous Gull	4-20	Larimer	N.Komar
Yellow-bell. Sapsucker	3-14	Boulder	J.Edge
Winter Wren	4-13	Adams	R.Stevens
Northern Shrike	4-06	Larimer	S.Roederer
American Tree Sprrw.	4-19	Yuma	L.Lilly
Swamp Sparrow	5-03	Arapahoe	T.Bulow
White-throat. Sparrow	5-17	Larimer	S.Martin
Harris's Sparrow	5-17	Larimer	S.Martin
Lapland Longspur	3-24	El Paso	R.Bunn
Rusty Blackbird	3-04	Otero	S.Oswald
Gry.-crwnd. Rsy.-Fnch.	5-12	Clear Creek	R.Stevens
Black Rosy-Finch	5-12	Clear Creek	R.Stevens
Common Redpoll	2-18	Weld	R.Stevens



1998-1999 COLORADO CHRISTMAS BIRD COUNTS

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The pages that follow contain data for 27 Christmas Bird Counts (CBC) in Colorado. In my three years of compiling these data for the *Journal of the Colorado Field Ornithologists* (JCFO), this represents, by far, the best return of data. At this point, however, I have doubts about continuing the compilation of results for the JCFO because, much like filing taxes, it is now possible to file CBC data electronically. Not only does this speed the process for getting data into print, it also makes the data available on the Internet (<http://birdsource.cornell.edu>). In short, such ready availability of CBC data casts doubt on the continued usefulness of publishing Colorado CBC data this way.

Several people contributed to the compilation of this information. At the risk of omitting someone, I would like to list, and thank, all those who helped me: Ron Ryder, Richard Maxfield, Scott Roederer, Dick Schottler, David Laliberte, Tony Leukering, Bill Kaempfer, Ann Bonnell, Jim and Rosie Watts, Leon Bright, Brandon Percival, Doug Allen, Mark Janos, Stuart Schneider, Ron Garcia, Ben and Sally Sorenson, Hugh Kingery, Rich Levad, Andrea Robinsong, BB Hahn, Judy Von Ahlefeldt, and Virginia Dionigi. Thanks also go to Cynthia Melcher for her continuing patience in formatting the spreadsheet data for publication.

Some interesting questions and observations emerged from this year's CBC. Among them are:

1. Did the relatively protected geography of the Penrose area contribute in some way to its record numbers? While all other first-weekend CBCs on the Front Range tended to have low numbers compared to prior years, the Penrose area, which basked in relative warmth at the time, had a huge jump in numbers.
2. Birds that associate with Gambel oak, most particularly the Black-capped Chickadee and Spotted Towhee, appeared in low numbers this year. The Douglas County CBC, with perhaps more oak than any other count in eastern Colorado, bucked the trend, however.
3. Will Front Range Ring-necked Pheasants ever recover? Probably not. They're in trouble on the eastern plains as well. The western counties of the state may now hold more of these birds than the eastern counties.
4. How in the world did all those American Dippers find enough open water around Gunnison?

5. Lesser Goldfinches and Mourning Doves seem to have a stronger winter presence in Colorado each year. Soon, we will regard them as "must finds" on most CBCs. Will Rufous-crowned Sparrows continue to edge northward as well?
6. Townsend's Solitaires, true to their name, put in solo appearances on several counts this year. Their numbers, along with those of American Robins, seem to have hit a cyclical low point.
7. (Do you suspect that a couple of hard-core Pueblo birders ferried that Lesser Black-backed Gull around to three different CBCs on consecutive days? It appears, by the way, that they originally captured the bird, or maybe released it, in the Boulder count circle.)
8. Kudos to all those who "toughed" it out for the North Park, Mesa, Westcliffe, and Great Sand Dunes CBCs. Your rewards? Lots of solitude, scenery, and a dearth of European Starlings, House Sparrows, and Rock Doves.

For all Colorado CBC connoisseurs, here is a vision of sugar plum to let dance in your heads for a few months--the proposed Delta CBC. Should this count proceed, it could soon rival the Grand Junction count in both species and numbers. See you all there?

A key to the CBC count acronyms used follows:

NoPk=North Park; Grly=Greeley; RMNP=Rocky Mountain National Park; Rwhd=Rawhide; Lgmt=Longmont; DenU=Denver Urban; Denv=Denver; BrLk=Barr Lake; Bldr=Boulder; DoCo=Douglas County; BlFo=Black Forest; Pnrs=Penrose; PuRe=Pueblo Reservoir; LkIs=Lake Isabel; CoSp=Colorado Springs; PiPk=Pikes Peak; MoVi=Monte Vista; RoFd=Rocky Ford; Wclf=Westcliffe; GrSD=Great Sand Dunes National Monument; Mesa=Mesa; Gnsn=Gunnison; Htks=Hotchkiss; Mtrs=Montrose; GrJu=Grand Junction; Drng=Durango

Note: Birds identified only to the Genus level appear in italics; color phases and forms recorded for a given species are listed (indented) immediately after the species.

EDITOR'S NOTE: Mute Swans, Mandarin Ducks, and Ringed Turtle-Doves are considered **feral** in Colorado and are not included on the official Colorado list of bird species.



Species	NoPk	Grly	RMNP	Rwhd	Lgmt	DenU
Common Loon						
Pacific Loon						
Pied-billed Grebe			1	5	5	8
Horned Grebe				14		
Hared Grebe						
Western Grebe				58	1	
Clark's Grebe						
American White Pelican		3				1
Double-crested Cormorant						
Great Blue Heron		3		1	8	9
Great Egret						
Black-crowned Night-Heron					cw	8
Mute Swan (see Editor's Note on page 125)						
Tundra Swan						
Trumpeter Swan						
Greater White-fronted Goose						
Snow Goose		3			10	
blue morph						
Ross's Goose					cw	
<i>white goose sp.</i>						
Canada Goose		23704	159	1615	15121	12517
Wood Duck					2	4
Mandarin Duck (see Editor's Note on page 125)						
Green-winged Teal	4	32		4	16	295
Mallard	4	6989	147	1513	3119	1846
Northern Pintail		14		4	23	75
Blue-winged Teal						
Cinnamon Teal						
<i>teal sp.</i>						
Northern Shoveler			1	10	28	683
Gadwall			cw	23	19	636
American Wigeon	1		cw	10	132	237
Canvasback			cw	1	1	10
Redhead			cw		61	36
Ring-necked Duck			1	6	90	66
Greater Scaup						
Lesser Scaup			cw	78	31	30
Oldsquaw						
Common Goldeneye		39	27	90	514	235
Barrow's Goldeneye				1		2
Bufflehead		1		62	1	14
Hooded Merganser				16	cw	67
Common Merganser			1	257	1012	143
Red-breasted Merganser						2
Ruddy Duck				58		
<i>duck sp.</i>						
Osprey						
Bald Eagle		22		5	34	79
Northern Harrier		24		6	21	19
Sharp-shinned Hawk			1		6	13
Cooper's Hawk						1
Northern Goshawk					1	
<i>Accipiter sp.</i>						
Red-shouldered Hawk						
Red-tailed Hawk		24	38	11	57	41

Denv	BrLk	Bldr	DoCo	BlFo	Pnrs	PuRe	Pblo
1							
	cw						
41	cw	7			37	14	19
1		cw				2	
		cw			1	3	
7	cw				2	16	
						2	
1		2				2	
14	4	12	1		4	25	5
1							
		5					
		6					
3			1		8		
1		1				1	5
		1					
10178	3946	9867	274		371	512	1936
60		4			1	213	6
						6	
58	44	41	1		52	41	69
1366	924	5638	404		296	422	596
5		33			4	4	6
49	216	6			12	16	6
142	69	31			39	125	57
97	2	426			164	179	39
	1	23			5	1	1
4	cw	60	6		16	1	24
52	cw	302	1		297	125	7
1		cw				2	1
12	cw	21			11	1	1
	cw						
185	12	49	6		13	227	34
						1	
115	cw	13			6	192	31
43		48			5	14	33
1683		45	1		42		38
1						3	
		1			7		
1							
33	31	25	6		7	9	5
21	37	23	4	4	11	27	17
10		1	3		5	3	1
1	1	1	1		3		
4		1					
		2					
1							
	40	77	15	11	44	40	35

Species	LkIs	CoSp	Pi Pk	RoFd	Welf	MoVi
Common Loon				1		
Pacific Loon						
Pied-billed Grebe		5		18		
Horned Grebe				1		
Eared Grebe				10		
Western Grebe		2		7		
Clark's Grebe				3		
American White Pelican						
Double-crested Cormorant		1		21		
Great Blue Heron	2	1		7	1	5
Great Egret						
Black-crowned Night-Heron						
Mute Swan (see Editor's Note on page 125)						
Tundra Swan				2		
Trumpeter Swan						
Greater White-fronted Goose				3		
Snow Goose		3		29895		1
blue morph				144		
Ross's Goose				98		
<i>white goose sp.</i>						
Canada Goose	328	1611	2	3459	8	273
Wood Duck	5	1				
Mandarin Duck (see Editor's Note on page 125)						
Green-winged Teal	21	30		16	1	21
Mallard	42	682	89	894	6	3519
Northern Pintail				160		4
Blue-winged Teal						
Cinnamon Teal						
<i>teal sp.</i>						
Northern Shoveler				119		
Gadwall	2	88		52		
American Wigeon	10	405	2	6		
Canvasback	1	1		6		
Redhead				20		
Ring-necked Duck		38		12		
Greater Scaup				1		
Lesser Scaup		16		30		
Oldsquaw		1				
Common Goldeneye		35		1088		
Barrow's Goldeneye						
Bufflehead		13		61		
Hooded Merganser		7		15		
Common Merganser		12		1785		
Red-breasted Merganser		1		3		
Ruddy Duck		35		3		
<i>duck sp.</i>						
Osprey						
Bald Eagle	4	4		14	5	6
Northern Harrier	4	10		22		32
Sharp-shinned Hawk		2	1	6		
Cooper's Hawk		1		1		
Northern Goshawk			1			
<i>Accipiter sp.</i>						
Red-shouldered Hawk						
Red-tailed Hawk	18	25	2	33	11	20

GrSD	Mesa	Gnsn	Htks	Mtrs	GrJu	Drng
			1		33	1
			1	1	1	
					1	
					4	
		2	6	15	29	6
					1	
					1	
				5		
						2
	16	55	108	883	5900	73
					82	
		2				
40	7	19	32	16	123	4
81	84	737	181	1467	6500	248
9				1	29	16
				4		14
						2
				3	22	4
				43	24	22
	2			50	181	13
2						20
					59	2
	2		21	8	59	52
					25	
32	3		1		120	35
	8					
					4	14
	2		2		4	
		2	1		17	3
					5	
5						
3	18	23	31	16	23	16
4		1	5	9	34	16
	3		3	5	20	1
			1	5	23	
cw					1	2
1	16	1	48	15	58	55

Species	NoPk	Grly	RMNP	Rwhd	Lgmt	DenU
Harlan's Hawk					1	1
Ferruginous Hawk		3		1	21	11
Rough-legged Hawk	cw	8		15	8	14
<i>Buteo sp.</i>						1
Golden Eagle	7		2	3	14	2
American Kestrel		67		29	76	48
Merlin					1	5
Peregrine Falcon						1
Gyr Falcon						
Prairie Falcon		1		4	1	5
Blue Grouse						
Sage Grouse	27					
Chukar						
Ring-necked Pheasant		3		2	6	5
Wild Turkey		cw				
Northern Bobwhite						
Scaled Quail						
Gambel's Quail						
Virginia Rail						4
Sora						
American Coot		6	cw	228	139	36
Sandhill Crane						
Killdeer		4			1	
Spotted Sandpiper						
Dunlin						
Common Snipe	4	4		9	1	5
Franklin's Gull					cw	
Bonaparte's Gull						
Ring-billed Gull		1	1	21	377	952
California Gull					6	
Herring Gull		7	cw	4	100	15
Thayer's Gull					3	
Lesser Black-backed Gull						
Great Black-backed Gull						
<i>Larus sp.</i>						58
Rock Dove		288	9	145	105	1883
Band-tailed Pigeon						
Eurasian Collared Dove						
Mourning Dove		27			16	2
Ringed Turtle Dove (see Editor's Note on page 125)						
Barn Owl						
Eastern Screech Owl						
Western Screech Owl						
Great-horned Owl		3		12	9	9
Northern Pygmy-Owl						
Long-eared Owl						8
Short-eared Owl					cw	
Northern Saw-Whet Owl						
Belted Kingfisher	1	8		4	37	31
Lewis's Woodpecker					2	
Yellow-bellied Sapsucker						
Williamson's Sapsucker						
<i>sapsucker sp.</i>						
Ladder-backed Woodpecker						
Dowry Woodpecker	3	7	8	6	31	34

Denv	BrLk	Bldr	DoCo	BIFo	Pnrs	PuRe	Pblo
	2	2		4		1	1
6	14	14	5		2	8	20
3	10	4	16	24		1	5
3							1
4		4	6		11	2	1
27	41	41	10	2	24	13	21
1	1		1	1	1		2
4	4	8	1	1	2	1	4
		3					
1	1				1		
92		ew	37	4	31		1
					137	311	
10	2				3		1
676	20	209			534	134	129
	6						
27	14	12			15	21	14
7	15	15			33	1	4
800	205	341			77	21 4798	299
43		ew			3	17	
17		2			3	12	9
						1	
		ew			1	1	
2		1					
579	322	281	151	22	1397	87	581
4		6			138	116	47
		1	1				
10	6	13	5	3	1	5	3
		1					
				2			
31	8	32	7		3	8	2
			3		1		3
						1	
						1	
					1	1	
65	14	62	30	9	16	14	7

Species	Lkls	CoSp	Pi Pk	RoFd	Wclf	MoVi
Harlan's Hawk		1		3		
Ferruginous Hawk	6	1		6	1	2
Rough-legged Hawk		2	2	7	26	30
<i>Buteo sp.</i>		2		1		
Golden Eagle	2	2	5	2	3	4
American Kestrel	12	3		35	1	7
Merlin				3	1	
Peregrine Falcon	1					
Gyr Falcon						
Prairie Falcon	1	1		4	3	3
Blue Grouse			cw			
Sage Grouse						
Chukar						
Ring-necked Pheasant				5		6
Wild Turkey		4	10			
Northern Bobwhite				6		
Scaled Quail	3			cw		
Gambel's Quail						
Virginia Rail	1	10		cw		
Sora		1				
American Coot		21		524		
Sandhill Crane						
Killdeer		5				3
Spotted Sandpiper						
Dunlin						
Common Snipe	2	9				4
Franklin's Gull						
Bonaparte's Gull		cw		2		
Ring-billed Gull		241		790		
California Gull		5		1		
Herring Gull		1		17		
Thayer's Gull				1		
Lesser Black-backed Gull				1		
Great Black-backed Gull						
<i>Larus sp.</i>		118				
Rock Dove	4	341	48	185	51	211
Band-tailed Pigeon			cw			
Eurasian Collared Dove				22		
Mourning Dove		9		27		2
Ringed Turtle Dove (see Editor's note on page 125)						
Barn Owl				1		
Eastern Screech Owl						
Western Screech Owl						
Great-horned Owl	3	8	1	4		24
Northern Pygmy Owl						
Long-eared Owl				3		
Short-eared Owl						
Northern Saw-Whet Owl		2				
Belted Kingfisher	3	6	1	2	1	6
Lewis's Woodpecker	12				4	
Yellow-bellied Sapsucker						
Williamson's Sapsucker					3	
<i>sapsucker sp.</i>						
Ladder-backed Woodpecker						
Downy Woodpecker	6	11	8	9		7

GrSD	Mesa	Gnsn	Htks	Mtrs	GrJu	Drng
	1	2	2		2	5
1			3			9
1	6	6	23	16	12	2
1	1	2	57	26	80	19
		1		1	2	1
			2			
				1		
			4	3	2	
					3	
			37	42	59	
	57		6			
			5	44	253	
	1				7	
					1	
				3	616	98
3		1	4	10	20	2
					3	
	2	10	11		3	2
3					1	
					1	
	125	40	259	348	1568	184
			3	125	1761	
					6	
			1		4	
					42	
1		5	3	1	2	2
ow			1			
					7	
	2	4	5	2	9	5
					1	10
	6	51	3	3	9	5

Species	NoPk	Grly	RMNP	Rwhd	Lgmt	DenU
Hairy Woodpecker	3	2	13		7	6
Northern Flicker		66	2	40		226
red-shafted form		65			170	
yellow-shafted form		1			1	
red x yellow form						
Say's Phoebe						
Horned Lark	6	30	6	135	180	57
Gray Jay	8					
Steller's Jay	14		74	4	10	
Blue Jay		49		13	107	58
Western Scrub-Jay				19	15	
Pinyon Jay					12	
Clark's Nutcracker			3			
Black-billed Magpie	60		53	29	385	908
American Crow	8	375	116	1	145	521
Chihuahuan Raven						
Common Raven	24		17	13	31	
<i>raven sp.</i>						
Black-capped Chickadee	28	45	24	52	163	186
Mountain Chickadee	85	1	121	4	44	1
Juniper Titmouse						
Bushtit						
Red-breasted Nuthatch		2	2	2	9	14
White-breasted Nuthatch	3		9		3	1
Pygmy Nuthatch			93		70	
Brown Creeper	2	1	2		4	7
Rock Wren				1		
Canyon Wren					2	
Carolina Wren						
Bewick's Wren						
House Wren						
Winter Wren					cw	
Marsh Wren						
American Dipper	4		14	9	49	2
Golden-crowned Kinglet					10	2
Ruby-crowned Kinglet						2
Blue-gray Gnatcatcher						
Eastern Bluebird						
Western Bluebird						
Mountain Bluebird						
Townsend's Solitaire		1	23	26	38	18
Hermit Thrush						
American Robin		17	31	18	862	176
Varied Thrush					1	
Gray Catbird						
Northern Mockingbird						
Sage Thrasher						
Brown Thrasher						
Curve-billed Thrasher						
American Pipit						
Bohemian Waxwing		cw	cw	36		
Cedar Waxwing		cw			23	12
<i>Bombycilla sp.</i>						
Northern Shrike	3	2	2	6	4	3
Loggerhead Shrike						

Denv	BrLk	Bldr	DoCo	BIFo	Pnrs	PuRe	Pblo
12		31	5	10	3	2	1
223	27	249	59		157	115	67
222	27	248		6		114	66
		1				1	1
1					1		
45	6307		25	683	1599	987	641
184		134	138	36	15		
81	14	122	241	4	34	18	42
85		3	353	1	32	1	
					275		
		2			7		
535	250	652	217	120	663	361	175
864	4	901	384	279	16	84	48
82		81	90	15	56	17	9
444	36	327	234	7	48	70	14
187		289	91	117	16		
					9	6	
					128	67	
75		60	23	11	13	1	2
25		53	28	53	3	7	
125		101	38	79	6		
9		41	3	3	13	9	2
1		1			1	1	
9		5	7		3		
		cw					
					4	5	4
		1			1		
					2	1	
1			1		1		1
20		25			3		
9		55	cw		5	4	2
					10	4	1
		6			4	1	
		6			108	6	
					463	460	
21	1	90	25		177	63	10
273	34	507	22		611	654	44
		1					
						1	
			1				1
					2	4	
						19	
			75		1		
41		68	51		135	19	21
12							
9	4	5	2	1	1	2	
						3	2

Species	LkIs	CoSp	PiPk	RoFd	Wclf	MoVi
Hairy Woodpecker	5	3	18	2	2	2
Northern Flicker	44	101	11	60	16	14
red-shafted form						
yellow-shafted form						
red x yellow form						
Say's Phoebe						
Horned Lark	65	250		5293	210	244
Gray Jay			2		3	
Steller's Jay	17	20	233		38	18
Blue Jay	46	37	2	64		1
Western Scrub-Jay	38	68	46		9	3
Pinyon Jay			3		21	
Clark's Nutcracker	4		14		104	15
Black-billed Magpie	86	303	79	72	80	156
American Crow	133	131	132	13	75	28
Chihuahuan Raven				1		
Common Raven	19	50	72	1	108	37
raven sp.				1		
Black-capped Chickadee	45	109	52	18	9	30
Mountain Chickadee	35	12	256		111	23
Juniper Titmouse			4			
Bushtit		87	cw			41
Red-breasted Nuthatch	22	11	67		16	
White-breasted Nuthatch	8	6	33		21	4
Pygmy Nuthatch	10	13	49		71	
Brown Creeper	2	3	11		5	
Rock Wren						
Canyon Wren	1	1	4			
Carolina Wren						
Bewick's Wren				cw		
House Wren						
Winter Wren						
Marsh Wren				2		1
American Dipper	3	2	1		3	
Golden-crowned Kinglet	7	9	16			
Ruby-crowned Kinglet	1	1		1		
Blue-gray Gnatcatcher						
Eastern Bluebird	1					
Western Bluebird	53					
Mountain Bluebird	252					
Townsend's Solitaire	38	24	23	1	2	3
Hermit Thrush						
American Robin	195	61	4	219	7	55
Varied Thrush						
Gray Catbird				1		
Northern Mockingbird				1		
Sage Thrasher						
Brown Thrasher						
Curve-billed Thrasher						
American Pipit				4		
Bohemian Waxwing			8			
Cedar Waxwing			12			
<i>Bombycilla</i> sp.						
Northern Shrike	5	6	1	2	3	
Loggerhead Shrike						

GrSD	Mesa	Gnsn	Htks	Mtrs	GrJu	Drng
2	4	11	3			2
5	20	7	86	49	257	41
		7				
					1	
215	9		8	30	771	100
	3					
4	6	7	6			52
2	49		38	4	8	53
43	145		130		199	19
27		1				7
56	50	273	204	210	918	246
	68	4		141	67	285
30	85		64	41	68	31
cw	50	224	47	18	19	26
27	47	32	5		1	29
	3		2		3	3
					185	107
3					1	6
5	5	32			3	15
11						10
		10		3	1	1
					1	1
					4	1
	1		1		8	
		2				1
			1		3	
	7	70	1	5		14
				1	7	2
					1	
			3		45	34
			15	49	122	8
cw	9	9	13	1	12	42
					1	
	7		55	1	785	14
			3		68	
	300		1			
1			20		228	41
	3	3	2		2	
				1		

Species	NoPk	Grly	RMNP	Rwhd	Lgmt	DenU
<i>Lanius sp.</i>						
European Starling	28	8992	15	437	6719	4903
Yellow-rumped Warbler					1	
Pine Warbler						
Northern Cardinal						
Green-tailed Towhee						
Spotted Towhee					5	5
Canyon Towhee						
Rufous-crowned Sparrow						
American Tree Sparrow	90	40	2	196	363	486
Chipping Sparrow		1				
Lark Bunting						
Lark Sparrow						
Savannah Sparrow						
Fox Sparrow						
Song Sparrow		3		12	78	60
Lincoln's Sparrow						
Swamp Sparrow						
White-throated Sparrow						
White-crowned Sparrow		34			98	32
Harris's Sparrow					1	
<i>sparrow sp.</i>						
Dark-eyed Junco	1	58	138	87		405
gray-headed form					50	2
Oregon form			10		391	113
pink-sided form						136
slate-colored form	1		71		163	51
white-winged form			2		3	3
McCown's Longspur						
Lapland Longspur						
Chestnut-collared Longspur						
Red-winged Blackbird	2	3103		30	5937	442
Western Meadowlark	1	80			84	39
Yellow-headed Blackbird		1				
Rusty Blackbird						
Brewer's Blackbird		47			198	32
Great-tailed Grackle		8				
Common Grackle						1
Brown-headed Cowbird						
Gray-crowned Rosy-Finch	49		85	62		
Black Rosy-Finch			2			
Brown-capped Rosy-Finch			83			
<i>rosy-finch sp.</i>						
Pine Grosbeak	12		46			
Purple Finch						
Cassin's Finch			62			
House Finch		92	80	41	536	1097
Red Crossbill	8				73	
Pine Siskin		3	52		67	
Lesser Goldfinch						
American Goldfinch		49		8	269	158
Evening Grosbeak			5		2	
House Sparrow		1424	4	168	1210	1662
SPECIES COUNT	29	58	41	61	86	78

Denv	BrLk	Bldr	DoCo	BIFo	Pnrs	PuRe	Pblo
1177	10126	2161	302	256	2881	879	3837
10		5			6	12	9
		1					
					1		
1		cw					
51	1	26	175	8	24	3	1
					35	61	
					2		
556	161	211	112	82	92	842	9
					1		
196	150	127	13	4	233	203	35
						1	
						1	
1		1	1		1		
14	129	17	7		826	444	416
2	1	3	1		1		1
			2				
1124	87	1076	478		3647	656	155
353		211	101	18			
463	24	306	111	88		261	
	46	6					
218	11	174	125	42		8	
12	2	38	19	8		1	
	3			15		1	
1395	1660	1622	191	45	2032	849	933
2	140	13	3		3	34	109
	4						1
							4
16	246	55			68	103	350
	44						40
			4			4	
	5				2		
32			73				
21							
6		6	1		1		
29		6	20		1		
456	84	1253	180	120	240	431	86
90		194		85			
194		184	77	227	545	198	
4					2		
102	75	161	96	2	290	315	59
125		13	102				
1009	1477	766	124	49	662	568	466
101	58	97	70	42	113	102	81

Species	LkIs	CoSp	Pi Pk	RoFd	Welf	MoVi
<i>Lanius sp.</i>						
European Starling	405	466	33	1743	42	840
Yellow-rumped Warbler	1			2		
Pine Warbler						
Northern Cardinal						
Green-tailed Towhee						
Spotted Towhee	43	71	37	3	4	2
Canyon Towhee	3	2				
Rufous-crowned Sparrow						
American Tree Sparrow	46	232	20	173	14	71
Chipping Sparrow						
Lark Bunting						
Lark Sparrow						
Savannah Sparrow						
Fox Sparrow						
Song Sparrow	28	72	6	74	6	37
Lincoln's Sparrow						
Swamp Sparrow		1		2		
White-throated Sparrow					1	
White-crowned Sparrow	4	70		446		
Harris's Sparrow				1		
<i>sparrow sp.</i>						
Dark-eyed Junco	590	667	485	617	101	76
gray-headed form		132				
Oregon form		127				
pink-sided form		84				
slate-colored form		54				
white-winged form		4				
McCown's Longspur				4		
Lapland Longspur		275		32	2	
Chestnut-collared Longspur		1				
Red-winged Blackbird	423	875		23824	8	7849
Western Meadowlark	3	2		260		27
Yellow-headed Blackbird				1		2
Rusty Blackbird						
Brewer's Blackbird				311		
Great-tailed Grackle				67		
Common Grackle				1		1
Brown-headed Cowbird				3		
Gray-crowned Rosy-Finch		1	130		225	
Black Rosy-Finch			1		14	
Brown-capped Rosy-Finch			8		35	
<i>rosy-finch sp.</i>						
Pine Grosbeak	28		2		1	
Purple Finch		2				
Cassin's Finch	21	2	33		118	
House Finch	128	371	152	94		108
Red Crossbill	4		71		65	
Pine Siskin	172	381	415	3	51	
Lesser Goldfinch		5				
American Goldfinch	72	144	63	312		8
Evening Grosbeak	183		44		106	
House Sparrow	135	242	139	940	467	2037
SPECIES COUNT	69	91	55	97	54	51

GrSD	Mesa	Gnsn	Htks	Mtrs	GrJu	Drng
cw 25	716	440	1500	3228	5106	1071
				1	94	
	5	1	2		19	4
	3	70	3		7	
			2			
1				8		
2	42	11	74	9	352	9
					1	
1			39	14	980	
1						
238	323	39	662	284	1752	348
98		5	123	27	271	103
43		26	350	165	585	245
		8	10	51	62	
10	231	320	731	638	4146	97
			7	7	179	5
110				87	180	5
						3
					5	4
		5			1	
		3			1	
		55				
					5	
			3			
5			14		4	2
	100	17	123	112	1533	58
	2	5	2	12	48	59
					29	
4	25	37	43	61	372	35
	118		38	56	168	22
5	82	245	128	164	1507	205
39	52	48	73	61	107	78

NEWS FROM THE FIELD: THE AUTUMN 1998 REPORT (AUGUST-NOVEMBER)

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A mild autumn allowed numerous species to linger in Colorado well into the period. Most area lakes and reservoirs had not iced-over by the end of November. This produced some exceptional counts of waterfowl, loons, grebes, and other shorebirds late in the period. Sabine's Gulls came through right on time, but in numbers that boggle the mind. Passerine migration also was protracted significantly. Yellow-rumped Warblers were late in getting started. A Black-throated Blue Warbler and a Red-eyed Vireo in November, and a Yellow-breasted Chat in October, were further evidence of a mild season. White-throated Sparrows came through in unprecedented numbers, and *Spizella* sparrows had their best fall flight in recent memory. "Winter finches" were scarce. Pine Siskins and Cassin's Finches in particular were almost non-existent; however, Evening Grosbeaks and Red Crossbills were beginning to appear sporadically by the period's end. The numbers of other irruptive species, such as Mountain Chickadee, Red-breasted Nuthatch, and Pinyon Jay were generally unremarkable.

The normal sprinkling of rarities, coupled with pleasant weather, kept odometers turning. A Barred Owl was recovered near Wray--and taken to a rehabilitation center--after it "played chicken" with a freight train, and lost. A jaeger on a road in rural Pueblo County apparently had quicker reflexes. A possible White-tailed Kite, the first for Colorado if the record is accepted, took advantage of the mild weather to wander to Crow Valley Campground, while a Vermillion Flycatcher journeyed to Hamilton Reservoir. A peregrinating Ruff made a fleeting appearance a Lake Cheraw and may provide Colorado with its second record of this species, if the record is accepted. As usual, some great warblers graced the state; among the rarer were a Pine Warbler, several Prairie Warblers, a Canada Warbler, and two Bay-breasted Warblers. A LeConte's Sparrow was another superb bird.

On a personal note, I am giving up my position as author of *News From the Field*. I'd like to thank everyone I've had the pleasure of working with over the past three years. It has been fun for me to write this column on a regular basis and I hope everyone enjoyed reading it. Thanks again for all your support and kind words. Ciao.

Note: The Colorado Bird Records Committee would like to see documentation provided for the species that I have underlined in this report. I will note

documentation that I am aware of by putting an asterisk (*) next to the documenting observers initials. If I am not aware of documentation, then I will denote this by putting <ND> (meaning "no documentation") after the observers initials.

Abbreviations used: Co.= county, CG=campground, CFO=Colorado Field Ornithologists, CVCG=Crow Valley Campground, FCRP=Fountain Creek Regional Park, imm.=immature, LCCW=Lamar Community College Woods, Res.=reservoir, RFSWA=Rocky Ford State Wildlife Area, RMNP=Rocky Mountain National Park, SP= state park, SWA= State Wildlife Area, VPSWA=Valco Ponds State Wildlife Area

Red-throated Loon: A winter adult was observed at Pueblo Res. from 11/12-13 (BKP, JWb, BBH) <ND>, and another--possibly the same bird--was seen there from 11/24-25 (BKP, mob) <ND>.

Pacific Loon: There were 23 individuals reported from 10/21-11/28. On 11/12, one was at Confluence Park in Delta (KPo, CD, RL), where the species is casual. The high count reported in Colorado was at Pueblo Res., where up to five birds were seen from 11/12-28 (BKP, JWb, BBH, mob).

Common Loon: A high tally of nine was recorded at Chatfield Res. on 11/26 (JBH). The high count so late in the period reflects the late ice-up dates for most of the area lakes and reservoirs this autumn.

Red-necked Grebe: A first-year bird was seen at Cherry Creek Res. from 10/30-11/12 (JBH, mob) <ND> and again from 11/18-26 (BS, mob) <ND>. Singles were also at Pueblo Res. on 11/4 (BKP, KH) <ND>, at Big Johnson Res. on 11/8 (BG) <ND>, and at Lagerman Res. in Boulder Co. on 11/16 (WHK) <ND>.

Western Grebe: One lingering at Lake Estes on 11/20 (SRA) was notable.

Clark's Grebe: About 50 could be detected in the large group of *Aechmophorus* grebes using Union Res. in August (BPr).

American White Pelican: A few lingered at Prewitt Res. in Washington Co. until at least 11/28 (DM), the latest date reported this autumn.

American Bittern: A lone bird was spotted at Walden Ponds near Boulder on 8/3 (RK). Ryan's Gulch west of Loveland hosted one on 9/5 (DMi). One seen at Platte Canyon Res. in Douglas Co. on 11/17 (JK, JBH) was tardy.

Great Egret: The northern Front Range and nearby eastern plains continue to be good places to see this species in the fall. One was seen at Walden Ponds on 8/3 (RK), four were found at Union Res. on 8/22 (WPL), nine at Lower Latham Res. on 9/9 (SJD, RK), and six birds at Union Res. on 10/9 (WPL).

Little Blue Heron: Three birds made appearances in Colorado during the fall. One imm. was seen on 8/1 at Lochbuie (TL, BKP, CLW) <ND>, another imm. Appeared at Timnath Res. in Larimer Co. fro 8/14-23 (TJ, mob) <ND>, and a third imm. was at Lower Queens Res. on 9/16 (MJB, JB) <ND>.

- Cattle Egret:** Some big counts were made in northern Colorado. Workers at Hamilton Res. reported over 100 on 9/23. At Lower Latham Res., 50 were seen from 8/30-9/5 (NK). Two late birds were reported, one on 11/11 at Highline Res. in Mesa Co. (RLa), and a second at Penrose from 11/22-29 (RWt, JWt).
- Green Heron:** On 9/12, two were seen along the Poudre River Trail in Fort Collins (DAL), a somewhat regular location for a rare, local Colorado species.
- Black-crowned Night-Heron:** Two tardy birds, both imm. were seen on 11/10 in Fort Collins (WPL).
- Yellow-crowned Night-Heron:** An adult bird in basic plumage was seen at Lower Queens Res. on 9/20 (BKP, MJ) <ND>.
- White-faced Ibis:** Two birds at San Luis Lake in Alamosa on 11/26 (JRw, LRw) lingered much later than normal.
- Tundra Swan:** Three were seen at Highline Res. on 11/11 (RLa). Six adults were seen at Union Res. on 11/14 (SJD). Three or four were at Cottonwood Marsh in Boulder from 11/15-29 (MPI, SPI, mob). An imm. was seen on the South Platte River in Littleton on 11/26 (CHc, JHc).
- Greater White-fronted Goose:** This species is always a nice find along the Front Range. An unexpected early bird was seen on 8/22 at Union Res. (WPL). One was seen at Dodd Res. in Boulder Co. on 11/14 (MPI, SPI, mob), another at the 84th Avenue Bridge in Adams Co. on 11/15 (TD), four in Fort Morgan from 11/16-28 (DM, mob), one west of Wellington on 11/20 (PLC), two in Broomfield on 11/27 (BF), one in Fort Collins on 11/28 (DAL), and 10 at the perennial location of Valco Ponds in Cañon City beginning 11/30 (DP). Interestingly, two Greater White-fronted Goose x Canada Goose hybrids were seen at Lake Cheraw on 10/11 (MJ, BKP).
- Snow Goose:** Four were seen at the unusual location of Lake Estes on 10/31 (EPBC). A big movement of the species along the northern Front Range occurred between 11/1-4. On 11/1, a gaggle of 110 flew over Horseshoe Lake in Loveland (NK). The same day, 85 birds in three flocks were seen over Fort Collins (DAL), and 150 flew over CVCG on 11/4 (DAL).
- Ross's Goose:** The species appeared in usual numbers in the Arkansas Valley of southeastern Colorado. One wandered to Cherry Creek Res. on 11/1 (BB, LAB). Flocks of snow geese at Horseshoe Lake on 11/1 (NK) contained at least one of this species, and 13 more individuals were sifted out of the snow geese moving through Fort Collins on the same date (DAL). One or two imm. were seen at Chatfield Res. from 11/2-8 (JBH, JV). Fifteen were located in snow goose flocks over CVCG on 11/4 (DAL). One was at Hamilton Res. on 11/11 (SJD), one at Confluence Park in Delta on 11/12 (CD, RL), one at Pueblo Res. on 11/16 (BKP), two west of Wellington on 11/20 (PLC), and one at North Poudre Res. #3 in Larimer Co. on 11/25 (SJD).

Canada Goose: One of the rare "Richardson's" subspecies was seen at Chatfield Res. on 11/5 (JV). Two of this subspecies were observed west of Wellington from 11/19-21 (PLC).

American Black Duck: A male was reported from Little Gaynor Lake in Boulder Co. on 10/20 (NK) <ND>.

American Wigeon: This species pulsed into the Fort Collins area beginning about 9/22 (DAL).

Greater Scaup: Careful scrutiny produced a female at Platte Canyon Res. on 11/5 (JBH) and another at McLellan Res. in Arapahoe Co. on 11/20 (JBH). Near Fort Collins, SJD observed a male at Warren Lake on 11/19 and three females at Long Pond from 11/24-25.

Oldsquaw: The only report was one at Jackson Res. in Morgan Co. on 11/14 (GH, DFO).

Black Scoter: An adult male was seen at Barr Lake SP on 10/18 (JK, DSh, RO, GR) <ND>. Two females were seen at McLellan Res. on 10/20 (JBH) <ND>. One female was seen at Cherry Creek Res. from 10/26-31 (JBH, mob) <ND>. Another female was at Walden Ponds in Boulder from 11/21-29 (SH, BH, JT, WPL*, mob). An incredible nine(!) were seen at Chatfield Res. on 11/26 (JBH) <ND>.

Surf Scoter: This species was reported often this fall. The first report was four at Barr Lake SP on 10/12 (TL, SBo). A female/imm. was seen at Pueblo Res. on 10/18 (BKP, TD) and 10/26 (BKP). Six were found on Cherry Creek Res. on 10/18 (BR). One was seen at Big Johnson Res. in El Paso Co. on 10/22 (JW). A female was at Lake Meredith in Crowley Co. on 10/25 (BKP, MJ). A female/imm. was at the Wheatridge Greenbelt in Jefferson Co. from 10/30-11/1 (DSh, mob). Three were at Union Res. in Weld Co. on 11/1 (PGe), while another trio appeared at Pueblo Res. the same day (DSi, DJ). A female/imm. was seen at Chatfield Res. and Waterton Canyon on 11/29 (BKP, MJ, mob).

White-winged Scoter: Two adult males and one female/imm. were seen at Lake Cheraw on 10/28 (VAT). Another adult male was seen at North Poudre Res. #3 in Larimer Co. on 11/11 (SJD).

Common Goldeneye: A mega-flock of approximately 600 graced Warren Lake in Fort Collins on 11/15 (WPL); 493 remained on 11/19 (SJD) and 283 were still left on 11/28 (DAL). A locally high count of 100+ was recorded at Neesopah Res. on 11/23 (DAL).

Barrow's Goldeneye: The eastern-most and earliest report was a female at Rocky Ford on 11/3 (BKP, KH). At 74th Ave. along the South Platte River in Adams Co., there was a male on 11/13 (DM), and two males and a female on 11/23 (WPL). Single males were spotted at Cherry Creek Res. from 11/22-29 (NK, mob) and at Valco Ponds #3 in Pueblo from 11/23-24 (BKP). Big counts were made on the Western Slope, where the species is more

common. Twenty-two were at Blue Mesa Res. near Gunnison on 11/12 (KP), and 12 occurred in the Rifle area in November (KP). Two adult females and one imm. female were seen at Lake Dillon in Summit Co. on 11/21 (TL, SBo). The high count for the period was the 110 tallied at Avery SWA near Meeker in Rio Blanco Co. on 11/21 (KP). Three males and four females were seen at Green Mountain Res. in Summit Co. on 11/22 (TL, RL, SBo).

Hooded Merganser: It seemed that the species was more common than usual this fall along the northern Front Range and eastern plains. The species was reported from 12 different locations in Larimer Co. between 9/30-11/14. Neesopah Res. had 10+ on 11/23 (DAL), locally a good tally.

Red-breasted Merganser: This species was frequently observed in Northern Colorado during the fall. Reports were "too numerous to list" (fide WPL).

Osprey: A very late bird was seen in Lamar on 11/22 (BKW).

White-tailed Kite: This species is not yet accepted on the Colorado state list. A single-observer sighting of an imm. bird at CVCG on 9/11 has been referred to the CFO Records Committee for evaluation.

Mississippi Kite: Two late birds were reported from the Black Forest in El Paso Co. on 9/8 (BBH).

Bald Eagle: In northern Colorado, this species seemed to show up later than normal, but the arrival dates from 11/17-20 correspond with the massive waterfowl movements noted during that period.

Northern Goshawk: Reports of this rare species are always of interest. An adult was seen at Chatfield Res. (JBH), and an adult seen in Cottonwood Canyon in Baca Co. on 11/29 (DSv, TL) was unexpected. None were reported from northern Colorado.

Red-shouldered Hawk: Two reports were received. An imm. was seen at Chatfield Res. on 9/25 (JK), and another imm. was seen VPSWA in Pueblo on 10/24 (BKP, GR).

Broad-winged Hawk: Normally the species is detected much less often in autumn than in spring, but up to five were sighted during the period. One was seen in Lamar on 9/20 (ISv) and again on 9/28 (DAL). An adult and an imm. were seen at CVCG on 9/26 (JK, NE). An imm. was seen again at CVCG from 10/2-8 (DAL, mob). A single bird at Green Mountain Falls in Teller Co. on 10/4 (RB) was the latest reported.

Swainson's Hawk: A kettle of 760 birds was seen at Barr Lake SP on 9/15 (DB, SB). One carried at Terry Bison Ranch, north of Fort Collins, until at least 10/4 (RAR).

Rough-legged Hawk: Most northern Colorado observers thought the species arrived late this fall. Vanguards were reported as early as 9/25 (RK), but normal numbers didn't appear until much later.

Golden Eagle: An unusually high count of 10 was recorded in Pueblo on 9/22 (VAT).

- Merlin:** Reports from northern Colorado seemed to represent normal to slightly below-normal numbers (eight individuals reported from 9/5-11/29).
- Peregrine Falcon:** One was seen at Beebe Draw in Weld Co. on 8/4 (JH), one was at Waggener Res. northeast of Berthoud on 8/17 (BPr), one appeared at Hamilton Res. on 10/11 (RAR), and one showed up in Fort Collins on 11/6 (WPL).
- Blue Grouse:** These birds are tough to find in northern Colorado, though this autumn they were reported from at least four locales in Larimer Co.
- White-tailed Ptarmigan:** Six were found in Roosevelt National Forest on 10/1, and 16 were located on 10/10 (SJD).
- Sandhill Crane:** The big southern "push" of this species occurred in northern Colorado from 10/2-13. The high count was a flock of 1260 in Weld Co. on 10/13 (SJD). A very unexpected report of three birds came from Lake Estes on 10/27 (SRa). An imm. was subsequently observed there on 10/31 (EPBC).
- American Golden-Plover:** One was seen at Fort Lyon in Bent Co. on 9/2 (RK, BKP, BBH). One or two more were reported at Jackson Res. from 11/2-4 (JR, DSh).
- Black-bellied Plover:** A very high count of 64 was recorded in Kiowa Co. on 10/8 (BKP, BD, DSi, BBH). On 11/14, Jackson Res. still hosted 22 (JH).
- Mountain Plover:** Nine birds in Baca Co. on 10/7 (DSv) were later than normal.
- American Avocet:** A late bird was seen at Horseshoe Lake in Loveland on 11/6 (DAL, WPL).
- Greater Yellowlegs:** Four late birds were noted in Weld Co. on 11/7 (JH), and one was at Tamarack Ranch SWA on 11/26 (SJD).
- Lesser Yellowlegs:** A cunctative bird was seen at the Rocky Ford Sewage Treatment Plant on 11/22 (MJ, BKP, BD). Further north, seven lingered in Weld Co. until at least 11/7 (JH).
- Spotted Sandpiper:** One procrastinating bird was found at Chatfield Res. on 11/16 (JBH).
- Ruddy Turnstone:** One was seen at Jackson Res. on 9/11 (NE, JK, DSh, RO, GR) <ND>.
- Red Knot:** A basic-plumaged adult was seen in Kiowa Co. on 9/15 (BKP, BD, DN, DSi) <ND>. Another bird in basic plumage was seen at Prewitt Res. from 9/18-20 (BKP, BBH, mob) <ND>.
- Western Sandpiper:** Five tardy birds were seen at Jackson Res. on 11/17 (JH).
- Dunlin:** An adult was seen at Big Johnson Res. in El Paso Co. on 8/21 (BM), one basic-plumaged bird was in Kiowa Co. on 9/20 (MJ, BKP), and another basic-plumaged bird was seen at Horseshoe Lake near Loveland from 10/27-11/6 (NK, mob). Up to four birds in basic plumage were seen at the Rocky Ford Sewage Treatment Plant from 10/25-31 (MJ, BKP, mob). One

was seen on 11/3 at Beebe Draw (JH). The last reported was seen at Jackson Res. from 11/2-4 (JR, DSh).

Stilt Sandpiper: A late bird was seen at Chatfield Res. from 11/4-6 (JBH).

Buff-breasted Sandpiper: As many as two individuals were seen at Prewitt Res. in Washington Co. from 9/12-19 (JV, mob) <ND>.

Ruff: A report of a juvenile female from Lake Cheraw on 10/28 (VAT) has been referred to the CFO Records Committee. If accepted, it would be the second record for the species in Colorado.

Short-billed Dowitcher: A juvenile was seen at Lower Latham Res. in Weld Co. from 8/25-27 (TL, mob) <ND>. One was seen at Prewitt Res. on 8/31 (WPL, JH, JM) <ND>. A juvenile was seen at Upper Queens Res. in Kiowa Co. on 9/7 (MJ, BD) <ND>, another juvenile was seen at the Rocky Ford Sewage Treatment Plant on 9/13 (TL, PG) <ND>, and still another juvenile was seen at Prewitt Res. on 9/20 (NK, DL) <ND>. A very late bird was seen at San Luis Lake in Alamosa Co. on 11/26 (JRw, LRw) <ND>.

Long-billed Dowitcher: A late bird was seen at Lake Cheraw in Otero Co. on 11/22 (MJ, BKP, BD). A huge group of 92 was still present at Beebe Draw on 11/3 (JH).

Pomarine Jaeger: One imm. was observed on a road in rural Pueblo Co. on 8/30 (DSi, DJ) <ND>.

Parasitic Jaeger: One light-phase imm. was seen at Big Johnson Res. on 9/12 (RB) <ND>.

Jaeger sp.: Two other jaegers were observed in September. One seen at Prewitt Res. on 9/17 was not identified conclusively, and a light-phase imm. seen at Chatfield Res. on 9/22 could not be identified to species level.

Laughing Gull: An imm. was seen at Lower Latham Res. on 8/23 (JV) <ND>. A second-winter bird was seen at Lake Cheraw on 9/13 (BKP, MJ) <ND>, while a first-winter bird was seen at the Rocky Ford Sewage Treatment Plant from 9/26-10/28 (BKP, mob) <ND>. A winter adult was seen at Pueblo Res. from 11/12-14 (BKP, JWb, BBH, mob) <ND>.

Franklin's Gull: One was reported from Cherry Creek Res. on 11/28 (SC), later than expected.

Little Gull: A juvenile was seen at Prewitt Res. from 9/8-19 (JK, NE, mob) <ND>, and an imm. was seen at Barr Lake SP on 11/8 (TL, SBo) <ND>.

Mew Gull: A first-winter bird was seen at Pueblo Res. on 11/24 (BKP) <ND>.

Thayer's Gull: One or two first-winter birds appeared at Pueblo Res. and VPSWA from 10/21-11/21 (BKP, mob). An adult was reported from Lagerman Res. in Boulder Co. on 11/16 (NK), and a second-winter bird was noted at Cherry Creek Res. on 11/22 (NK).

Glaucous-winged Gull: A first-winter bird was seen at Pueblo Res. from 11/11-12 (BKP, mob) <ND>.

Great Black-backed Gull: An adult was at Cherry Creek Res. from 8/23-9/30 (BHo, JR, mob) <ND>, and a first-winter bird appeared at Pueblo Res. on 10/12 (BKP) <ND>.

Sabine's Gull: Autumn observations of this species were too numerous to list individually. As many as 45 individuals were reported from 9/7-10/31. All were seen along the Front Range and on reservoirs and lakes of the eastern plains. High counts were: six at Prewitt Res. from 9/11-10/2 (JK, NE, mob), and up to five in juvenal plumage at Pueblo Res. from 9/17-19 (BKP).

Caspian Tern: An adult was seen at Big Johnson Res. on 8/22 (RB). Two were seen in Larimer Co. on 8/29 (BPu). One was seen at Prewitt Res. on 9/28 (DSm). Two were seen at Chatfield Res. (JR).

Eurasian Collared-Dove: The Rocky Ford contingent continues to burgeon. Up to 26 (a new high count) were reported throughout the period (mob*). Elsewhere, two showed up in Lamar on 9/6 (NK) <ND>, and another pair was seen in Springfield on 9/23 (DSv) <ND>.

White-winged Dove: An adult was seen at Rocky Ford from 8/21-10/31 (BKP, BD, mob) <ND>. Two juveniles were seen at the same location on 9/20 (BKP, MJ) <ND>, indicating the possibility that nesting occurred locally. This would be the first nesting record for Colorado.

Inca Dove: One was seen in Colorado Springs on 9/22 (AV) <ND>, and another was at Holbrook Res. in Otero Co. from 9/24-26 (BKP, GR) <ND>.

Barn Owl: A late bird was seen at Lake Henry in Crowley Co. on 11/22 (MJ).

Flammulated Owl: One was heard in Estes Park on 9/29 (SRa), a date at the edge of the species' occurrence in the state.

Northern Pygmy-Owl: One of these rare residents was reported from Cow Creek in RMNP (SRa) during the period.

Spotted Owl: One was heard in the Wet Mountains of Pueblo Co. on 9/13 (BKP, MJ).

Barred Owl: On 11/17, an individual of this species collided with a train near Wray in Yuma Co. It was taken to a rehabilitation center.

Northern Saw-Whet Owl: One was seen near Wellington in mid October (HA).

Common Nighthawk: This species' southern exodus seemed to be occurring on 9/4 in the Lamar area (DAL).

Common Poorwill: Unexpected was one at CVCG on 10/2 (SM).

Black Swift: Two were seen at Big Johnson Res. on 8/24 (AV). Two were seen in Colorado Springs on 8/30 (JW). Three were seen at Fountain Creek Regional Park on 9/7 (RB).

Chimney Swift: At least one pair lingered in downtown Fort Collins until mid October (DCE, WPL, JFB).

Black-chinned Hummingbird: A female was seen further north than expected in Littleton on 9/17 (TJ).

- Lewis's Woodpecker:** This species was tougher than usual to find in traditional northern Colorado locations. However, a report of 10 frequenting an orchard southeast of Berthoud from 9/7-14 to dine on apples (MGr) belies my point.
- Red-headed Woodpecker:** One was seen in Westcliffe in Custer Co. on 8/10 (JP). Also at a peculiar location was an imm. on 10/5 west of Loveland (AM).
- Red-bellied Woodpecker:** Two seen at Riverside Res. in Weld Co. on 11/4 (JH) occurred significantly further west than normal. One seen at Timpas Creek SWA in Otero Co. on 11/26 (SO) was also unexpected.
- Yellow-bellied Sapsucker:** An adult seen on 9/29 in Fremont Co. (BBH, BHn) was early.
- Red-naped Sapsucker:** Several wandered eastward onto the plains this autumn. An imm. male was seen at Barr Lake SP on 9/16 (GG, TL). A female was at Rocky Ford SWA on 9/26 (BKP, mob). A second-year male was seen at Barr Lake SP on 9/26 (SHu). An imm. female was seen at CVCG on 9/27 (NK, PS, JF), while an imm. male was seen there on 10/2 (WPL). An imm. female was seen at Barr Lake SP on 10/10 (TL, GG). One was still content at Breckenridge on 10/18 (JFB).
- Eastern Wood-Pewee:** A singing bird was seen in Boulder from 8/1-9/9 (mob) <ND>, after first being seen in late July. At the Wheatridge Greenbelt, a calling bird was present from 8/26-28 (DS) <ND>.
- Gray Flycatcher:** One was reported in Weld Co. on 9/19 (JF, PS).
- Eastern Phoebe:** Two birds were found further north and east than normal haunts. One was seen at the Wheatridge Greenbelt from 8/20-21 (BS). Another was seen in Morgan Co. on 9/26 (JRi). A very rare record came from CVCG on 10/21 (JH).
- Vermilion Flycatcher:** An imm. male was seen at Hamilton Res. in Larimer Co. on 10/3 (SK) <ND>.
- Great Crested Flycatcher:** One was seen on 8/7 at Two Buttes Res. in Baca Co. (CLW, JK, NE, DS). Two were seen there from 9/6-7 (MB, mob). Further north, one was seen in Lamar from 8/21-9/7 (BKP, mob). A bird seen at Big Johnson Res. on 9/13 (TL, PG) was the most unexpected.
- Cassin's Kingbird:** One seen on 10/2 east of Union Res. was unexpected and somewhat late (BPr).
- Scissor-tailed Flycatcher:** An imm. bird was seen near Watson Lake in Larimer Co. on 8/8 (RK) <ND>. One or two adults were seen at Black Forest in El Paso Co. from 10/2-16 (BBH*, SL, SCr, mob).
- Purple Martin:** Two female or imm. birds were seen in Lamar on 9/6 (NK). One female was seen in Colorado City in Pueblo Co. on 9/13 (BKP, MJ). Eastern plains sightings of this species are very rare.
- Pinyon Jay:** A group of 47 was seen west of Lyons on 9/11 (DWK). There were no other reports from the Front Range area.

- Clark's Nutcracker:** On 8/16, Penrose hosted a nomadic group of 25 (BKP, mob), whose altitudinal location was much lower than usual.
- Mountain Chickadee:** Though scarce on the plains this year, one was seen in Fort Collins on 10/10 (DAL), and another was observed at CVCG on 10/13 (SJD). A Loveland residence hosted one on 10/23 (AM).
- Bushtit:** Lake Henry hosted a group of 20 on 10/25 (MJ, BKP), and one remained at this preternatural location on 11/22 (BKP, MJ, BD). Another local vagrant was spotted at the Little Washington Work Center in Baca Co. from 11/26-29 (DSv, ISv).
- Red-breasted Nuthatch:** Some spent the summer in Grandview Cemetery (Fort Collins), where one was heard on 8/31 (WPL, JM). The species had also returned to the LCCW by 9/7 (DAL). Wintering birds appeared at other locations along the Front Range and eastern plains by mid October.
- Brown Creeper:** Normal numbers of these birds descended onto the plains for the winter in mid October.
- Carolina Wren:** One was singing in Lamar on 9/6 (DAL), and another was located at the Wheatridge Greenbelt on 10/1 (BS).
- Bewick's Wren:** A reddish individual, most certainly a vagrant representing eastern populations of the species, was seen in Pueblo on 10/22 (BD).
- Winter Wren:** The first of the autumn was noted at Colorado City on 10/5 (DSi); another was seen there on 11/25 (DSi). One was seen in Greeley on 10/12 (NER). Two were spotted at VPSWA in Pueblo Co. on 11/8 (BKP, MJ). Cottonwood Canyon in Baca Co. hosted one on 11/25 (DSv, TL).
- Golden-crowned Kinglet:** Good numbers (20 individuals reported) were recorded on the eastern plains this autumn from 9/27-11/30.
- Ruby-crowned Kinglet:** CVCG hosted 40 on 9/20 (RK), and 25 were still hanging around there on 10/2 (WPL, DAL). Both dates represent good counts. At least 13 birds at seven different sites lingered into November.
- Blue-gray Gnatcatcher:** The LCCW had one late bird on 10/27 (DAL) and 11/23 (DAL).
- Eastern Bluebird:** Nine were seen in Weld Co. on 10/13 (SJD). The LCCW had two males on 9/27 (DAL) and six on 10/27 (DAL). Seven birds were at CVCG on 11/7 (DAL). Six were seen at the perennial hotspot, RFSWA, on 11/18 (SO).
- Mountain Bluebird:** A huge aggregation of 177 was seen in Weld Co. on 10/13 (SJD).
- Townsend's Solitaire:** One seen on 9/1 at CVCG (DAL) seemed early for the location.
- Veery:** A rare sighting in the fall, one came to a water feature in Fort Collins from 9/22-23 (AC, JC).
- Swainson's Thrush:** Only two reports were received from northern Colorado this fall. They were seen on 10/11 & 10/12, and each was a single bird.

- Hermit Thrush:** One was still at CVCG on 11/2 (JH), while two cunctative birds were in Glenwood Springs until 11/14 (VZ).
- Northern Mockingbird:** A juvenile was seen at CVCG on 10/12 (JH), a late date for a young bird. A late bird was seen in Cheraw on 11/14 (BKP, MJ, mob), and two delayed southward peregrinations from Two Buttes Res. until at least 11/20 (DAL).
- Sage Thrasher:** The latest report was of a bird at Douglas Res. in Larimer Co. on 10/25 (NK).
- Brown Thrasher:** An adventurous individual was seen at Guanella Pass on 10/20 (WPL). A pair was seen at Two Buttes Res. on 11/20 (DAL) and at the LCCW on 11/23 (DAL). A tardy, hardy bird was seen at Timpas Creek SWA on 11/26 (SO).
- Sprague's Pipit:** One was seen in Sedgwick Co. on 10/18 (JV, TL) <ND>.
- Bohemian Waxwing:** Forty precursory birds were found in Aspen on 11/18 (KPo).
- Cedar Waxwing:** Good numbers were observed across eastern Colorado.
- Northern Shrike:** This species was tough to come by on the eastern plains this fall, but there were four reports from the northern mountains.
- Blue-headed Vireo:** One was seen on 9/11 at CVCG (RK), the same day that one was spied at VPSWA (BKP). One was seen on 9/15 at Neenoshe Res. in Kiowa Co. (BKP, BD, DSh, DN), and one was located at Prewitt Res. on 10/3 (BKP).
- Cassin's Vireo:** The first was seen on 8/19 (WPL, JFB) at a surprising location, the Laramie River Road at 9,000 feet elevation in Larimer Co. In summary, 27 individuals were reported from 8/19-10/9. Up to three were seen at both CVCG and VPSWA.
- Yellow-throated Vireo:** One was seen at Pueblo Res. SP on 9/27 (BKP, mob) <ND>.
- Philadelphia Vireo:** An adult was seen on 9/5 in Lamar (MJ) <ND>. One was seen at VPSWA on 10/1 (BKP, BD) <ND> and another in Pueblo on 10/1 (DSi) <ND>.
- Red-eyed Vireo:** The only reports came from the LCCW, with single birds reported on 9/6 (DAL) and 9/29 (DAL) and from the Wellington area on the late date of 11/1 (SMa, KMa).
- Tennessee Warbler:** Lake Estes hosted one on 8/25 (SRa), a very rare report any time at that elevation. Two were seen at Neenoshe Res. on 8/29 (BKP, MJ, BD) and one was at VPSWA on 8/30 (BKP). One was seen in Lamar from 9/5-7 (MJ, mob). One was seen in Franktown on 9/14 (HK, UK), and one was located in Morgan Co. on 9/28 (JRi).
- Orange-crowned Warbler:** On 10/2 (DAL, WPL) at CVCG there were 20, which seemed like a high number. Others reported that this species was abundant this autumn.

Nashville Warbler: One was seen in Colorado City from 9/3-5 (DSi, DJ). Two were in Lamar from 9/4-7 (BKP, DAL, mob). One was found at Two Buttes Res. from 9/5-7 (MJ, mob). Singletons were seen in Weld Co. on 9/12 (PS), at Fountain Creek Regional Park on 9/18 (BG), and in Pueblo on 10/1 (DSi). Barr Lake SP hosted an imm. female on 10/1 (GG) and an imm. male on 10/10 (GG, TL).

Northern Parula: An imm. female was seen at Fort Lyon on 9/2 (VAT), and another imm. bird was seen at Hannah Ranch SWA in El Paso Co. on 9/26 (VM, SCr). A female was seen at VPSWA on 10/1 (BKP, mob), and an imm. male was seen there from 10/6-10 (BKP, mob). An imm. was seen on the late date of 11/3 at FCRP (KP, JW).

Chestnut-sided Warbler: There were two reports. One was seen at FCRP on 9/1 (JW) and an imm. female was seen at VPSWA on 10/1 (BKP, BD).

Magnolia Warbler: One was spotted in Boulder on 9/30 (MPI, Spl).

Black-throated Blue Warbler: Amazingly, there were 11 reports of this species. They were: a female at Two Buttes Res. on 9/5 (MJ); a first-year male at Pueblo Res. SP on 9/11 (BKP); a female in Greeley from 9/12-17 (NEr), and another female at the RFSWA on 9/26 (BKP, mob); a male and a female in Boulder on 9/30 (MPI, Spl); a male in Colorado City on 10/2 (DSi); a female at VPSWA on 10/3 (PSS, CS); a first-year male in Pueblo from 10/11-12 (BD, JD, mob); a first-year female at Barr Lake SP on 10/11 (GG); a female at Barr Lake SP on 10/13 (GG); and finally a very late bird was in Fort Collins on 11/14 (RH).

Yellow-rumped Warbler: Overall numbers seemed lower than average this autumn but the species was well-reported throughout October and into November--evidence of a mild season. The last report from the Fort Collins area was one on 11/25 (AC, JC).

Black-throated Gray Warbler: A female wandered east to CVCG on 9/23 (JF).

Townsend's Warbler: The species was harder to come by this fall than most, at least in the northern tier of the state.

Black-throated Green Warbler: An imm. was seen at Neenoshe Res. on 8/29 (BKP, MJ, BD) and one was seen at Prewitt Res. the same day (JK, mob). An imm. was at the LCCW from 9/4-5 (BKP, mob) and an imm. male was present at Barr Lake SP on 10/9 (TL, GG). A late bird was seen at Fountain Creek Regional Park from 11/3-7 (KP, JW).

Blackburnian Warbler: A female or imm. was seen at VPSWA from 9/1-2 (BKP, mob) <ND>. One stopped at Neenoshe Res. on 9/1 (DN) <ND>. An imm. female graced Fort Lyon on 9/2 (VAT) <ND>.

Pine Warbler: An adult male was seen at FCRP on 8/21 (PG) <ND>.

Prairie Warbler: There were four reports of this casual fall migrant. An imm. was found at Barr Lake SP on 8/21 (TL) <ND>. A female or imm.

was seen at FCRP from 8/23-9/7 (GBu, KP, mob) <ND>. An imm. male appeared at the Wheatridge Green Belt on 9/2 (DSh, NE, JR) <ND>, and an imm. was at Barr Lake SP on 9/22 (GG) <ND>.

Palm Warbler: An eastern-race bird was seen at Chatfield SP on 11/21 (JK).

Bay-breasted Warbler: A fall female was seen at CVCG on 9/5 (SJD) <ND>, and a male showed up in Lyons on 10/15 (BS) <ND>.

Blackpoll Warbler: In Colorado, this species is much rarer in autumn than in spring (overall there are probably less than 30 autumn records, per WPL). Up to five were reported. One, and possibly two, were seen at the LCCW from 9/4-7 (BKP, DAL, mob). One imm. was seen at Rye in Pueblo Co. on 9/7 (DSi). One was at CVCG on 9/12 (PS). Lastly, one was seen at Barr Lake SP on 9/29 (GG).

Black-and-White Warbler: Two females were seen at VPSWA from 8/25-27 (BKP). One female was seen at Neenoshe Res. on 8/26 (DN), LCCW from 9/4-5 (BKP, DAL, mob), Two Buttes Res. on 9/5 (MJ), and at VPSWA on 9/11 (BKP, BD). Other reports of single birds came from Lake Henry on 9/6 (NK), Chatfield Res. on 9/9 (JK) and 9/19 (BB), LCCW on 9/16 (MJB, JB), Boulder on 9/30 (MPI, SPI), and CVCG from 10/2-3 (WPL, PS, JF).

American Redstart: A very late bird was seen at Colorado Springs on 11/15 (WW).

Prothonotary Warbler: One was seen at Neenoshe Res. on 8/26 (DN) <ND>, one at FCRP on 8/30 (BBH, mob) <ND>, and one was in Fort Collins from 9/12-13 (DAL*, mob).

Ovenbird: Nine were detected on the eastern plains from 8/26-10/5.

Northern Waterthrush: Very rare anytime in the mountains, one was seen near Estes Park on 8/18 (SRa), while three were counted in the same location on 8/25 (SRa).

Hooded Warbler: A female was seen at Lake Henry on 8/29 (MJ).

Yellow-breasted Chat: One observed on 10/2 at CVCG (DAL) was considerably late in departing.

Canada Warbler: A fall male was seen at Two Buttes Res. from 9/4-7 (BKP, MJ) <ND>.

Scarlet Tanager: A female was seen at the Rocky Mountain Arsenal on 9/13 (HK, UK) <ND>.

Northern Cardinal: A male and a female continued to be seen at the Wheatridge Greenbelt from 8/26-9/14 (DSh, mob), after being reported sporadically in previous periods. A male seen in Cottonwood Canyon on 9/6 (TH, BKP, mob) was unusual. A male at Tamarack Ranch SWA in Logan Co. on 8/31 (JT) was also unusual, albeit close the Ovid stronghold for the species.

Rose-breasted Grosbeak: Seven were reported between 9/7-10/16.

Dickcissel: A late bird was seen at Cherry Creek Res. on 10/30 (BB).

Eastern Towhee: A female was reported at Prewitt Res. from 10/2-3 (BKP, mob) <ND>.

American Tree Sparrow: The earliest report was of one at CVCG on 10/3 (NK).

Chipping Sparrow: Two very late birds were seen at Two Buttes Res. on 11/20 (DAL).

Clay-colored Sparrow: A tardy loner was near Wellington from mid October until 11/4 (SMA, KMa).

Field Sparrow: There was a plethora of reports this fall from 9/26-10/16. All were from the eastern plains. The western-most was seen at CVCG on 9/27 (NK). The high count was five at Fort Lyon on 10/8 (BKP, BD, DSi, BBH).

Black-throated Sparrow: One at the LCCW on 9/27 (DAL) was a big surprise.

Lark Bunting: In the north, flocking and movement was noted on about 8/1. Two seen at Hamilton Res. on 9/20 (RAR) were very late in moving south. More exceptional was one was still lingering at Picture Canyon in Baca Co. on 10/7 (DSv).

LeConte's Sparrow: One seen at Big Johnson Res. on 10/25 (RB) <ND> was a great find.

Swamp Sparrow: There were 16 birds reported between 10/2-11/29, including a high count of six at Fort Lyon on 10/24.

White-throated Sparrow: About 79 individual birds were reported from 9/12-11/12. Two Buttes Res. hosted an incredible 20 of them on 11/3 (BKP, KH). Another big count was eight at Fort Lyon on 10/16.

Golden-crowned Sparrow: A singing bird was in Mesa Co. on 10/17 (RL) <ND>, and an imm. bird was at Barr Lake SP from 10/19-11/21 (GG, TD, TL, mob) <ND>.

White-crowned Sparrow: The species moved through the state in good numbers from 10/1-25.

Harris's Sparrow: Fourteen were reported from 10/8-11/30. Only two locations tallied more than one, Fort Carson from 11/9-13 (RB), where two imm. were seen, and Estes Park where there were three on 11/23 (SRa).

Eastern Meadowlark: One was heard singing at Red Lion SWA on 9/20 (JV) <ND>. The species has used this area infrequently over the years in very low numbers.

Baltimore Oriole: A first-year male was seen on the late date of 11/1 at the westerly location of Pueblo (DSi).

Great-tailed Grackle: A big count of 300+ was registered on 8/16 in Weld Co. (TD). Seven were still at Jackson Res. on 11/22 (JH).

Common Grackle: Ten in Fort Collins on 11/6 (WPL) constituted a fairly large group, given the date and northern location.

Bobolink: A female was seen at the unlikely location of VPSWA on 9/27 (MY).

Cassin's Finch: It was not a good autumn to locate this species. The only report was of a singing, first-year male at VPSWA on 10/12 (BKP).

Red Crossbill: This species was reported sporadically during the period. A group of seven was seen often near the Colorado State University campus from 10/29-11/30 (DAL), comprising the only eastern plains report.

Common Redpoll: Eleven had reached Fort Carson on 11/12 (RB), and one was reported from Grand Junction during November.

Pine Siskin: It was tough to find this irruptive species in northern Colorado throughout the period.

Lesser Goldfinch: Four late birds were seen in Colorado Springs on 11/28 (AV).

Evening Grosbeak: There were four reports away from the mountains. Two birds were seen on 10/12 at VPSWA (BKP), while 15 appeared there on 11/7 (BKP, LB, SO). One at CVCG on 11/4 (DAL) was a rare sighting, while one heard flying over Grandview Cemetery in Fort Collins on 11/7 (DAL) was more expected. Feeders in Buena Vista and near Lory State Park in Larimer Co. began hosting groups during the middle of November.

Cited Observers

Howard Alden (HA), John Barber (JFB), Mary Jane Black (MJB), John Black (JB), Mike Bloom (MB), David Bolton (DB), Sue Bolton (SB), Sue Bonfield (SBo), Leon Bright (LB), Bob Brown (BB), Lea Ann Brown (LAB), Richard Bunn (RB), Greg Butcher (GBu), Sherry Chapman (SC), Peter Clark (PLC), Susan Craig (SCr), Alex Cringan (AC), June Cringan (JC), Denver Field Ornithologists (DFO), Coen Dexter (CD), Bob Dickson (BD), Johnie Dickson (JD), Todd Dilley (TD), Stephen J. Dinsmore (SJD), David C. Ely (DCE), Norma Erickson (NEr), Norm Erthal (NE), Estes Park Bird Club (EPBC), Bob Foley (BF), Joe Fontaine (JF), Peter Gaede (PG), Peter Gent (PGe), Glenn Giroir (GG), Bob Goycoolea (BG), Mary Griest (MGr), Glenn Hageman (GH), B.B. Hahn (BBH), Bob Hahn (BHn), Robert Hamre (RH), Betty Harwood (BH), Stan Harwood (SH), J.B. Hayes (JBH), Joe Himmel (JH), Ken Hollinga (KH), Craig Horlacher (CHc), Jan Horlacher (JHc), Bill Howe (BHo), Scott Hutchings (SHu), Mark Janos (MJ), Dave Johnson (DJ), Tina Jones (TJ), Bill Kaempfer (WHK), Sue Kamal (SK), Joey Kellner (JK), D.W. King (DWK), Hugh Kingery (HK), Urling Kingery (UK), Rachel Kolokoff (RK), Nick Komar (NK), David Laliberte (DL), Ron Lambeth (RLa), Da (TL), Rich Levad (RL), Bill Lisowsky (WPL), Stephen Long (SL), Joe Mammoser (JM), Kathy Martin (KMa), Steve Martin (SMa), Dick Maxfield (DM), Bill Maynard (BM), Virginia Maynard (VM), Ann Means (AM), Steve Messick (SM), Diana Miller (DMi), Duane Nelson (DN), Ric Olson (RO), Stan Oswald (SO), Ken Pals (KP), David Pantle (DP), Brandon Percival (BKP), Jane Pederson (JP), Myron Plooster (MPI), Suzi Plooster (SPI), Kim Potter (KPo), Bill Prather (BPr), Bill Pulliam (BPu), Scott Rashid (SRa), John Rawinski (JRw), Lisa Rawinski (LRw), Bob Righter (BR), Joe Rigli (JRI), Joe Roller (JR), Gene Rutherford (GR), Ron Ryder (RAR), Pearle Sandstrom-Smith (PSS), Dick Schottler (DSH), David Silverman (DSi), Clif Smith (CS), Drew Smith (DSm), Bob Spencer (BS), Dan Svingen (DSv), Ila Svingen (ISv), Paul Sweet (PS), Van Truan (VAT), Jim Tumasonis (JT), John Vanderpoel (JV), Alan Versaw (AV), Jim Watts (JWt), Rosie Watts (RWt), Jeff Webster (JWb), Brian Wheeler (BKW), Walt Wilson (WW), Chris Wood (CLW), Mark Yaeger (MY), Vic Zerbi (VZ), many observers (mob) There were 116 cited observers, including "mob."



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Use the standard reporting form on the back of the *Journal* mailer or use an *Audubon Field Notes* Mountain West form, available from Van A. Truan (1901 Court St., Pueblo, CO 81003; phone: 719/543-4744). Standard forms are preferred because completion of all sections helps to ensure that pertinent information is included. If you submit photographs, please send **two** copies (records are duplicated before being sent to the Records Committee members for review). Send records of rare birds to Bill Lisowsky, Records Committee Chair, 2919 Silverplume Drive, Fort Collins, CO 80526; or send them to Colorado Bird Records Committee, c/o Zoological Collections, Denver Museum of Natural History, City Park, Denver, CO 80205.

