C.F.O. Journal

The Colorado Field Ornithologists' Quarterly

Volume 16, Number 4 Winter 1982

C.F.O. JOURNAL

A quarterly publication of the Colorado Field Ornithologists, c/o Judy Pyle, 2242 16th Street, Boulder, Colorado 80302. Second class postage paid at Boulder, Colorado. ISSN 0362-9902.

CFO JOURNAL is devoted to the field study of birds in Colorado. Articles and notes of scientific or general interest, and reports of unusual observations, are solicited. Send manuscripts, with photos and drawings to: Peter Gent, 55 S. 35th St., Boulder, CO 80303. Send rare bird reports to: CFO Official Records Committee, c/o Zoological Collections, Denver Museum of Natural History, City Park, Denver CO 80205.

ANNUAL MEMBERSHIP DUES (renewable at the beginning of each year), including a subscription to CFO JOURNAL: Sustaining, $100; Supporting, $25; Contributing, $10; Regular, $5. Dues and contributions are tax-deductible to the extent allowed by law. Membership inquiries and renewals should be addressed to Frank Justice, Treasurer, 1917 S. Quitman, Denver CO 80219. Send change of address to Judy Pyle, 2242 16th Street, Boulder, CO 80302.

TABLE OF CONTENTS

Cover Drawing. Red Crossbill by Ellen Klaver.
Ellen is a long time CFO member and lives in Boulder. She has drawn sketches and illustrations for many organizations including the Black-billed Magpie logo of the CFO. She has a series of beautiful note cards with drawings of Great Blue Heron, Osprey, Common Nighthawk, and Common Raven. They are very reasonably priced, and can be ordered from Ellen at 1090 Lincoln Place, Boulder, CO 80302. Telephone: 442-4873.

FROM THE BOARD

The board of directors held a meeting on October 30, when it was decided to increase the subscription rates of the Colorado Field Ornithologists. In 1983 the dues will be: Regular, $8; Contributing, $15; Supporting, $30; Sustaining, $100. The majority of CFO's expenditure goes to producing the journal, and printing costs have risen substantially in the last three years. With the present membership of just over 200, the projected cost of publishing the Journal in 1983 will be covered only by increasing the regular dues to $8. The board felt that the Journal and CFO membership are well worth the increased rate. Two changes to the By-laws were also finally approved. The word official was removed from the name of the CFO Records Committee, and its chairman now has a vote on the board of directors.

CORRECTION

Some errors have been noted in the section on Boreal Owl in part II of Bruce Webb's article on the "Distribution and Nesting Requirements of Montane Forest Owls in Colorado", which appeared in the last edition of the Journal, Vol. 16, No. 3. The entries numbered 1 to 8 in Table 1 refer to numbers 9 to 16 in Figure 2, and the numbers 1 to 8 in Figure 2 indicate the locations of historical records of Boreal Owls. In Table 1 the location of specimen #3 is the CSU Wildlife Biology Collection, and that of specimen #7 is the Fort Collins City Museum.

CFO LIFE, SUSTAINING, SUPPORTING, AND CONTRIBUTING MEMBERS 1982

Life: Dr. William A. Davis.

Sustaining: Mrs. Nancy Taggart.

Supporting: Peter and Louise King, David G. Nichols, Mrs. Helen Thurlow.

Contributing: Aiken Audubon Society, Fred Broerman, Dr. J. Walker Butin, Theo Colborn, Dr. A.T. Cringan, Camille Cummings, Stephen B. Dempsey, Gerald J. Dunphy, Mike Figgs, Mrs. Maynard Fox, Robert and Yvonne Gibbons, Lynn Grace, Edward Gustafson, Dr. Ron Harden, Ms. Eleanor H. Hillard, Mark Holmgren, Bob Jickling, Dr. J.C. Johnson Jr., Tina Jones, Frank and Jan Justice, Mrs. Ivan C. Kladder, Joseph Krieg, Dr. Thompson G. Marsh, Terri and Richard Morrell, D. Weir Nelson, Vivian L. Pliler, Jean-Marie Spoelman, Helen J. Stiles-Wainwright, Mrs. Judy Ward, Jeanne and Bruce Webb, Mr. Lynn Willcockson, Elinor and Harry Wills.

THE AMERICAN ORNITHOLOGISTS' UNION, oldest and largest of the ornithological societies in North America, is celebrating the hundredth anniversary of its founding in 1983. Its quarterly journal, THE AUK, now includes about 1000 pages a year of papers on a wide variety of ornithological topics. The long-awaited sixth edition of the AOU Checklist of North American Birds will be published in time for the centennial meeting. If interested in knowing more about the AOU please write to Membership Chairman, Dr. Gustav A. Swanson, Department of Fishery and Wildlife Biology, Colorado State University, Ft. Collins, CO 80523.

DISTRIBUTION AND NESTING REQUIREMENTS OF MONTANE FOREST OWLS IN COLORADO
Part III: Flammulated Owl (OTUS FLAMMEOLUS)

By Bruce Webb
5657 Cazadero Way, Sacramento, CA 95822

As recently as 1963 a substantial segment of the natural history of this species, its seasonal migratory status, was under question and unresolved (Johnson, 1963). This fact attests to the difficulty in studying this and other small nocturnal birds. In Colorado, the Flammulated Owl has been found nesting in old woodpecker holes in aspens (Populus tremuloides) and coniferous forests (Bailey and Niedrach, 1965). Bailey and Niedrach summarized seventeen records of Flammulated Owls prior to 1900, but only seven between 1900 and 1965. They pointed out that this probably represents a decrease in activity of egg collectors rather than decreases in owl populations. Likewise, a recent interest in records probably is due to the increased interest in birdwatching. Historical records of Flammulated Owls are summarized in Figure 1.

Nesting

I investigated five active Flammulated Owl nests (Table 1, Figure 1). Of these, Roberta Winn found one (no. 6) near Phantom Creek off Forest Service Rd. 364 in ponderosa pine-aspen ecotone in Pike National Forest, Teller County. I banded both adults at this nest on 10-11 July 1979 (Table 1) and a single nestling fledged by 14 July. Timms Fowler found one nest (no. 7) near Spud Creed, Park County, in ponderosa pine-aspen ecotone within Pike National Forest. On 13 July 1979, I banded both adults and observed two small, downy young. By 28 July the young had left the nest. In 1980, Winn reported that the Phantom Creek nest tree had been removed, presumably by wood cutters. There were no Flammulated Owls seen subsequently in the area (R. Winn, pers. comm.). The same two banded adults reused the Spud Creed nest in 1980 (T. Fowler, pers. comm.).

On 9 July 1978 I found a nest (no. 2) in an aspen-ponderosa pine stand on the Uncompahgre Plateau, Uncompahgre National Forest, Mesa County. Two nestlings made noises while both adults carried food into the nest. I found a Flammulated Owl (no. 5) in another aspen in this same grove on 6 June 1979. On 6 and 7 June there were two eggs in the nest. On 4 July both adults actively fed young. I found one other nest (no. 4) on 5 June 1979 in a dead aspen in Poison Gulch off Minnesota Creek (east Paonia) in the West Elk Mountains of Gunnison National Forest, Gunnison County. The female was banded, but once it returned to the nest it could not be removed from the brood; thus, nest contents were not observed. The habitat was a nearly pure aspen stand.

Attempts to locate nests during the night and daylight surveys at

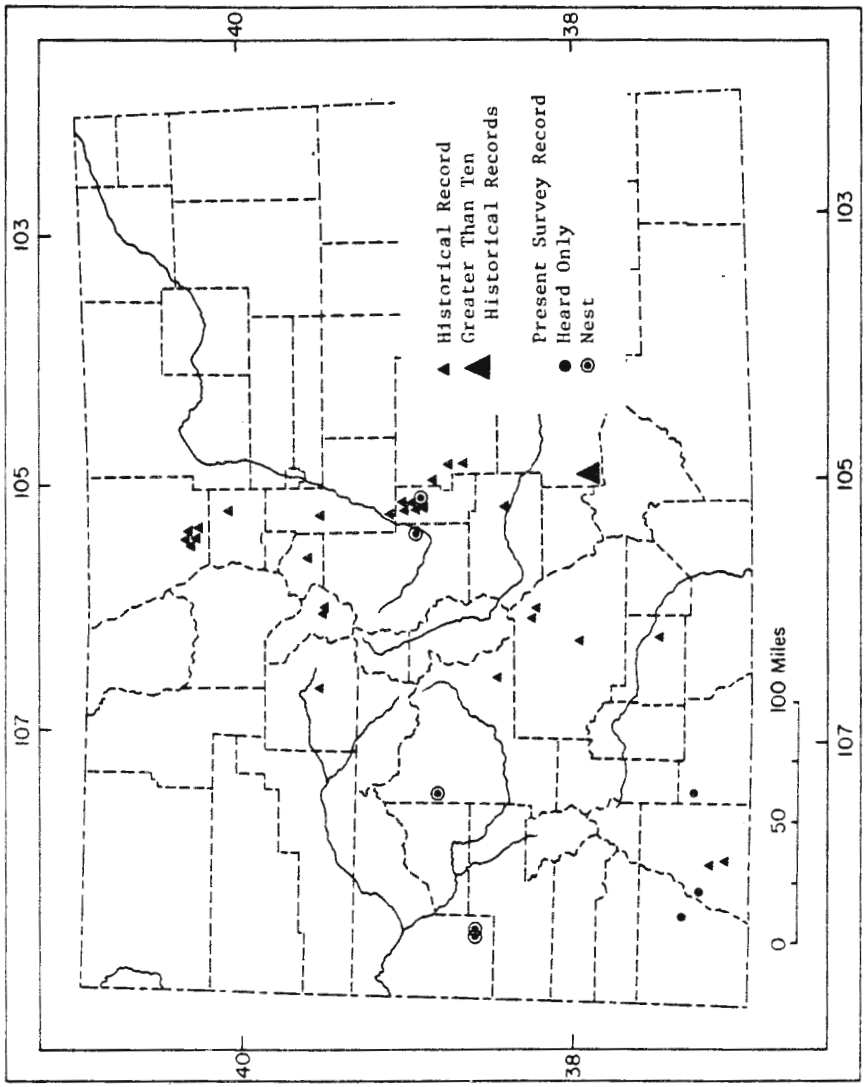


Figure 1. Historical and present survey distributional records of Flammulated Owl in Colorado.

TABLE 1

PRESENT SURVEY RECORDS OF FLAMMULATED OWL IN COLORADO

Date	Number	Locality	County	Latilong	Source
1. Jun 28 1978	1 heard	16.1 km N of Hwy 160 on Rd. 135, 14.5 km E of Bayfield; Sec 30, T35N R5W NE1/4 of SE1/4	Archuleta	23	B E Webb
2. Jul 9 1978	2 observed at nest	3.2 km S of Carson Hole, Uncompahgre Plateau; Sec 35, T15S R101W NE1/4 of NW1/4	Mesa	15	B E Webb
3. May 19 1979	1 heard	1.9 km N of Hwy 160 on Rd. 135, 13 km E of Bayfield; Sec 13, T35N R6W NE1/4 of SE1/4	La Plata	23	B E Webb
4. Jun 5 1979	2 observed; F band # 1143-60801	13 km E of Paonia at Poison Gulch off Minnesota Creek; Sec 34, T13S R90W SE1/4 of SW1/4	Gunnison	16	B E Webb
5. Jun 6 1979	2 observed at nest; 2 eggs	3.2 km S of Carson Hole, Uncompahgre Plateau; Sec 35, T15S R101W NE1/4 of NW1/4	Mesa	15	B E Webb
6. Jul 10-11,1979	2 observed adults band f 1143-60802 m 1143-60803	14.5 km N, 3.2 km W Divide Pike Natl For; Sec 26, T11S, R70W, NE1/4 of NW1/4	Teller	11	R Winn
7. Jul 13 1979	2 observed at nest; 2 young; adults band # f 1143-60804 m 1143-60805	11.3 km, 4.8 km W of Lake George, Pike Natl For; Sec 10 T11S R72W SE1/4 of SE1/4	Park	11	T Fowler
8. Aug 18 1979	1 road kill	La Plata Canyon; Sec 25 T37N R11W NW1/4 of NE1/4	La Plata	22	J Troyer
9. Sep 21 1979	2 observed	Lost Canyon, Sec 17 T37N R13W SE1/4 of SE1/4	Montezuma	22	J Troyer

f=female; m=male

six sites where Flammulated Owls were reported previously or were found during the nocturnal surveys proved unsuccessful.

Supplemental response followup

Jack Troyer, District Ranger for the Mancos District of the U.S. Forest Service, responded twice with a total of four sightings involving five owls. The two reports received during the 1979 owl survey included a description of a 1972 nest in Mesa Verde National Park and a 1978 report of a young Flammulated Owl in aspen-spruce-fir habitat at Kroeger Campground. My followup surveys of these areas in 1979 did not yield the presence of any owls. The 1972 nest site was in the area of the Rock Springs fire. I found no standing trees remaining in the area. The other two reports involved three birds: two owls in a spruce-fir stand at the bottom of Lost Canyon and a roadkill found in La Plata Canyon. I received these reports too late to investigate them during the study.

Discussion

Flammulated Owl nest cavities ranged from 1.8 m to 7.0 m above the ground in both live and dead aspens. Average nest hole dimensions of 6.6 cm high by 6.2 cm wide indicate initial excavations were made by Common Flickers (Colaptes auratus). During all nocturnal and daylight surveys, I recorded Flammulated Owls in or near aspen-dominated stands. The majority of supplemental responses documented their presence in aspen-dominated stands; although three supplemental records documented their presence in pinyon pine, in Englemann spruce, subalpine fir stands, or near subalpine fir stumps.

This close association with aspen may reflect nesting or dietary requirements. Their dependence on flicker-excavated holes may reflect a greater ease of hole excavation by flickers in soft wooded aspens compared to conifers. Although I collected no data to support my idea, I feel that most species of woodpeckers are more common in aspen than adjacent coniferous forests (pers. obs.). This does not explain why woodpeckers are more common, but it at least suggests how more nest sites might be available in aspen than in conifers. Additionally, if intense competition for nest holes exists, Flammulated Owls may be outcompeted by other owl species. Thus, they might be restricted to areas of greatest nest hole densities, aspen stands. Flammulated Owls are small with relatively weak feet, and may be at a disadvantage in nest hole disputes.

Their presence in aspen stands may reflect dietary requirements, either because of possibly greater prey abundance or because of the seasonal pattern of insect prey. The seasonal patterns of leaf growth in aspen stands may be more conducive to supporting seasonal populations of insects. Thus, year-round resident species of owls might be less likely to occupy these stands; whereas, the migratory Flammulated Owl could.

Previous studies have emphasized that Flammulated Owls show

preference for pine forest habitats (Marshall, 1957 in Arizona; Winter, 1974 in California). The present study documents their occurrence in aspen-dominated communities.

The ecological impact of this species on local insect populations has never been investigated, but may prove to be substantial. On two nest watching evenings, both adults returned to the nest with insect larvae and adult moths, totaling 27 visits in an hour on 9 July 1978 (two nestlings) and 19 visits in an hour on 10 July 1979 (one nestling). These observations were made between 10:00 p.m. and 12:00 a.m., and involved nests with well-developed young. A single prey remain was removed from the mandibles of a captured adult male Flammulated Owl (Band #1143-60803) as it returned to feed its young. The prey item was forwarded to Karölis Bagdonas at the University of Wyoming, Larimie, a specialist in Colorado lepidopterans. Dr. Bagdonas replied on 4 June 1980 that "the moth specimen appears to be Polia noverica, an early spring to early summer species in the family Noctuidae. The [moth] species is very common in Colorado and the west from early April through early July depending on elevation. Generally we find it in the foothills and montane areas up to about 9500 feet [2896 m] throughout Colorado. Very little is known about its life history." No Flammulated Owl regurgitated pellet was ever found in the vicinity of all nests investigated.

Because the primary food of this species is insects rather than small vertebrates (Ross 1969), its food source is subject to unpredictable declines during inclement weather. During prolonged snowstorms, starvation is possible. Experimental evidence substantiating the ability to survive periods of food stress is still lacking (Winter, 1974). Banks (1964) subjected a captured Flammulated Owl to cold stress by placing it in a cold chamber at 40°F after food had been withheld for 48 hours. The bird failed to show any sign of torpor after 48 hours of chamber confinement. Ligon (1968) during a mid-May spring freeze in southeastern Arizona found starvation to be common among three species of insectivirous migrants. During this freeze Ligon found an exhausted and emaciated female Flammulated Owl that weighed 39.8 g. Winter's (1974) report gave an average weight for 12 female Flammulated Owls of 58.8 g (range 51.5-63.6 g SD ±3.94 g), which suggests Ligon's bird was in starved condition.

The vulnerability to starvation would probably be greatest immediately after Flammulated Owls arrive on the breeding range . At this time their fat reserves presumably are low. At this critical time late Spring snowstorms may have an impact on a sizable portion of the Flammulated Owl population. The impact of such a weather phenomenon would be difficult to fully document; however several instances in addition to the one reported by Ligon have been reported. Wauer (1966) reported two owls grounded in Zion National Park in an early May cold spell. One year later in 1965, Wauer reported another Flammulated Owl downed during a similar period of inclement weather. In Colorado the possibility of such a weather related impact was realized when Edna Claire Thomas of Evergreen picked up five Flammulated Owls at Aspen, Colorado, during a snowstorm 8-9 May 1979. One was dead,

one died later and three subsequently were released after care in a Wildlife Sanctuary (Kingery 1979). During this same snowstorm naturalists at the Vail Nature Center also reported a grounded Flammulated Owl.

Another aspect of snowstorm-related mortality is related to their nesting in dead and decaying trees. In 1978 one such nest tree under observation collapsed under the weight of the heavy, wet spring snow. The nesting pair was not located thereafter. Although these instances are few, greater observer coverage would probably reveal that the impact can be severe under heavy prolonged snowstorms.

ACKNOWLEDGEMENTS

This project was funded by the U.S. Fish and Wildlife Service's Federal Aid-in-Wildlife-Restoration Program and was administered through the Colorado Division of Wildlife Raptor Investigations Project W-124-R. The support provided by these agencies was greatly appreciated.

References

Bailey, A.M. and R.J. Niedrach. 1965. Birds of Colorado. Vol. 1, Denver Museum of Natural History, Denver, Colorado.

Banks, R.C. 1964. An experiment on a Flammulated Owl. Condor 66:79.

Johnson, N.K. 1963. The supposed migratory status of the Flammulated Owl. Wilson Bull. 75:174-178.

Kingery, H.E. 1979. Continental Survey Spring 1979. Mountain West Region, American Birds, 33, 794.

Ligon, J.D. 1968. Starvation of Spring migrants in the Chiricahua Mountains, Arizona. Condor 70:387-388.

Marshall, J.T., Jr. 1957. Birds of pine-oak woodland in Southern Arizona and adjacent Mexico. Pac. Coast Avif. 32:1-125.

Ross, A. 1969. Ecological aspects of the food habits of insectivorous Screech Owls. Western Found. Vert. Zool. Monogr. 1:301-344.

Wauer, R.H. 1966. Flammulated Owls records following May storms in Zion Canyon, Utah. Condor 68, 211.

Winter, J. 1974. The distribution of the Flammulated Owl in California. Western Birds 5:22-24.

FLAMMULATED OWL. Sketch by Tim Manolis of Sacramento.

THE LATILONG STUDIES: ADVANTAGES AND DISADVANTAGES - PROBLEMS AND SOLUTIONS - QUESTIONS AND ANSWERS

Steven J. Bissell
Colorado Division of Wildlife
6060 Broadway
Denver, Colorado 80216

Charles A. Chase III
Denver Museum of Natural History
City Park
Denver, Colorado 80205

Donald L. Schrupp
Colorado Division of Wildlife
6060 Broadway
Denver, Colorado 80216

The Latilong Studies were produced by and for professional and non-professional naturalists in Colorado (Kingery and Graul, 1978; Bissell, 1978; Langlois 1978). Since then they have been variously praised and criticized, used and abused, ignored and, lastly, revised (Hammerson and Langlois, 1981; Bissell, 1982; Chase et al., 1982). The purpose of this paper is to review the various aspects of latilong studies, outline their proper use, and answer some commonly asked questions about them (also see Bissell and Graul, 1981).

The Good, The Bad, and The Ugly

Pro: The Latilong Studies present distribution, breeding status, habitat association, and abundance data on over 630 species of animals in a brief, concise, and easily accessed format.

Con: There is not enough detail to properly assess distribution and occurrence. The latilong blocks along the front range (4, 11, 19, and 26) are confusing as they range from alpine to grasslands and include many western and eastern forms.

Discussion: Latilong blocks are defined by one degree latitude and one degree longitude. They are approximately 3,700 square miles in size (Bissell and Graul, 1981). Due to the nature of latitude and longitude lines, the blocks in the north are smaller than those in the south (see Skaar, 1975). These are, admittedly, fairly large units upon which to describe distribution. However, each block can be subdivided by reference to the habitat codes. If, for example, a species in block 4 (Ft. Collins) is described as breeding in Ponderosa Pine, you can be confident that it occurs in the western portion of the block. Furthermore, animal distributions are rarely static at their extreme limits, thus, latilong descriptions should not be viewed as dogmatic but rather an indication of probable occurrence.

Pro: Latilong block boundaries are not subject to change. Place names and geo-political descriptions are often lost or misinterpreted.

Con: Very few people are familiar with latitude and longitude descriptions. Thus, using the latilong as a field guide is difficult.

Discussion: We never promised you a rose garden. Every new system is difficult precisely because it is new; once you work with latilong blocks they become second nature. It should be remembered that the main purpose of latilong studies is compaction, other systems may be more descriptive but they are also usually much more lengthy.

Pro: The latilong studies graphically show areas where data are lacking. Thus, it can be used to direct the field worker to areas of interest.

Con: The blank spots in the latilong studies are nearly always artifacts of field work. They tend to demonstrate spotty distributions for many species merely because they are difficult to observe.

Discussion: The latilong studies were intended from the first to be used primarily by the naturalist for practical work close to home. The studies are not intended to replace those works dealing with overall distribution. The lack of assumptions about the occurrence of various species is a strength of the latilong studies.

HOW DO YOU GET TO CARNEGIE HALL?-- PRACTICE, BROTHER, PRACTICE

One distinct usage of latilong studies is their compatibility with computer systems. The Colorado Division of Wildlife has developed a system using latilong data which has proven to be widely accepted in various environmental analyses. However, a major problem has arisen with the use of these data.

Latilong data are a compilation of various sources: historical records, museum specimens, published reports, scientific collection permits, and sight records. These constitute secondary information and, as such, should be used for preliminary analysis and not as primary data. In other words, when using latilong data, whether the printed format or computer products, workers should include their own information as a comparison.

Preliminary investigations into overall patterns such as Inkley et al. (1981) may have some validity. However, the use of these data to show sharp distinctions in distribution patterns or similarity of occurrence is dubious. This is particularly obvious when comparisons are made between homogeneous blocks such as eastern grasslands and blocks which bridge habitat types such as along the front range. At best, latilong data should be used as a starting point in zoogeographical investigations.

The computer printouts of latilong data have a more subtle pitfall. Often people tend to regard computer output as carved in stone. These data are only a rapidly retrieved form of the printed data and are no better or worse than that.

WHY IS THERE AIR? --
IN ORDER TO BLOW UP VOLLEYBALLS

Q. Why aren't my records in the latilong?

A. The most common reason is that you didn't turn them in properly. Verbal reports, notes on napkins, or unsigned reports are not accepted. We don't absolutely require an official report form, but something similar is necessary. Records which are not classed in category A by the Records Committee of CFO are generally not included. Also, records which don't meet the criteria as stated in the introduction to the latilong study aren't usually used, such as a "B" in February or something like that.

Q. Why isn't there a separate section for rare birds?

A. The latilong is concerned with common resident fauna as these are biologically much more important.

Q. What can I do for the latilong study in my area?

A. Pick one category, such as a particular block, season, or status, and try to document as many birds as possible with photos or other physical evidence. Experience has shown that the usually fatal side effects of RBS (Rare Bird Syndrome) can indefinitely postponed by concentration on one or two latilong blocks (the only other known treatment is moving to California and starting your life-list at number 0001).

Q. How can I improve the studies?

A. Document habitat preferences for all species. Many, many reports come in which are good bird identifications but omit any mention of what habitat it was seen in.

BUT SERIOUSLY FOLKS . . .

The latilong studies succeed as well as any we are aware of in bridging the needs of professional and amateur naturalists. Other studies may provide greater detail about distribution and status, but these are mainly works intended for serious scientific purposes. The use of smaller units of description including occurrences may more closely approximate actual distribution of a species, but it would

require much more space and would not show areas where data are lacking. Both of these are major advantages of the latilong studies.

There is still room for improvement in the latilongs. The herptile and mammal studies are largely documented, but the bird study still relies heavily upon sight records. The need for documentation of even trivial sightings of the most common species is badly needed. With the help of all naturalists in Colorado, these studies will remain valuable tools.

LITERATURE CITED

Bissell, S.J., (ED). 1978. Colorado mammal distribution latilong study. Colo. Div. Wildl. DOW-R-R-IV-78. iv + 20 pp.

Bissell, S.J., (ED). 1982. Colorado mammal distribution latilong study, 2nd ed. (In press.)

Bissell, S.J. and W.D. Graul. 1981. The latilong system of mapping wildlife distribution. Wildl. Soc. Bull. 9(3):185-189.

Chase, C.A. III, S.J. Bissell, H.E. Kingery, and W.D. Graul, (EDS). 1982. Colorado bird distribution latilong study, 2nd ed. (In press.)

Hammerson, G.A., and D. Langlois, (EDS). 1981. Colorado reptile and amphibian distribution latilong study, 2nd ed. Colo. Div. Wildl. iii + 24 pp.

Inkley, D.B., R.W. Andrews, and S.H. Anderson. 1981. Pattern of bird distribution in Colorado. C.F.O. Journal. 15(4):91-94.

Kingery, H.E. and W.D. Graul, (EDS). 1978. Colorado bird distribution latilong study. Colo. Field Ornithol. and Colo. Div. Wildl. vii + 58 pp.

Langlois, D., (ED). 1978. Colorado reptile and amphibian distribution latilong study. Colo. Div. Wildl. DOW-R-D-11-78, 17 pp.

Skaar, P.D. 1975. Montana bird distribution preliminary mapping by latilong. P.D. Skaar, Bozeman, MT. 56 pp.

BIRD CONDOMINIUM

This American Robin and Violet-green Swallow didn't seem to mind close company as they both nested successfully at the Dines cabin near Deckers. The Violet-green Swallows were actually on the time sharing program as they moved in after a Mountain Bluebird had attempted to nest and had been unable to find a mate. The Dines installed a mirror over the robin's nest so they could view the progress of the young.

SEASONAL REPORT--WINTER 1981-1982

by Paul R. Julian
1269 Chinook Way, Boulder, CO 80303

As last year, this report is divided into two sections with the first giving a list of late lingering migrant species, and the second, unusual or notable sightings. The first section gives only those records which approach or exceed the record extreme departure dates. Some species are listed to which Lane and Holt assign "occasional winter" status. This designation is somewhat arbitrary as it is not clear how many observations over how many winters merit this status. The purpose of this section is to attempt an assessment of the fluctuations from winter to winter of the number and variety of normal migrating species. The data are taken from reports turned in to Hugh Kingery for the seasonal reports in American Birds.

Analysis of 1980-81 and 1981-82 winters

Each of the entries in Part I below and last winter's summary (C.F.O. Journal Vol. 15, No. 4, 95-97) were compared. Those species appearing in both lists were judged to have been more numerous or later in either one winter or the other. For a few species, if the dates or numbers differed insignificantly, a tie was declared. The summary is: species appearing in the 1980-81 winter, 24: appearing in 1981-82, 22: ties, 8. Considering the extreme mildness of the 1980-81 early winter and the assumption that fall and early winter weather should have an effect on migrants, the evenness in the numbers is perhaps surprising. More winters of data should prove interesting.

Reports statewide agreed that the visiting species in most unusual abundance was the Red-breasted Nuthatch. Average or slightly above average numbers of Glaucous Gulls and Bohemian Waxwings were reported, and Red Crossbills were numerous (or nesting) along the Front Range. A species much below average or missing completely was the Common Redpoll. All western slope and mountain correspondents commented on the high numbers of Rosy Finches. Presumably the heavy snow pack in the higher elevations was a factor in this vertical migration. A few Snow Bunting reports were received including two on the Western Slope.

Part I. The symbol @ means "occasional winter," CC is Christmas Count, and an asterisk (*) indicates the report is under consideration by the CFO Records Committee.

Species and numbers	Location(s)	Date(s)	Extreme date	Observer
Eared Grebe 6	Denver CC	12/19	12/14	
2	Colo. Springs CC	12/19		
@Western Grebe 8	Chatfield	12/26	12/15	DN
6	Boulder	12/25-1/31		BJ, JP
White Pelican	Barr Lake CC	Dec-Jan	11/12	m.ob.

Species and numbers	Location(s)	Date(s)	Extreme date	Observer
Double-cr Cormorant	Chatfield	1/16	12/1	WWB
Black-cr Night Heron	Platte River	1/18	11/11	WWB
Blue-winged Teal	Roaring Fork CC	12/19	12/14	
Cinnamon Teal	Chatfield	1/6	11/20	PE
Turkey Vulture	Boulder	1/7	11/20	PO
@Virginia Rail 6	Statewide		10/15	
Sora	Morgan Co.	2/6-14	10/7	JR
	Colo Spgs	11/28		RB
	Rocky Ford	11/14		RB
	Boulder	1/23		JG
Greater Yellowlegs	Wheatridge	1/5	11/14	PE,WF,RS
Lesser Yellowlegs	Wheatridge	12/27	11/20	WF
Pectoral Sandpiper	Barr Lake CC	12/26	11/17	
Dunlin	Chatfield	10/23	10/20	IBP
California Gull	Sloan's Lake	1/1	11/28	RA
	Boulder	1/17		BJ
Franklin's Gull	Cherry Creek	2/15	12/2	JR
Red-hd Woodpecker	Pueblo Res. CC	12/19	10/6	
@Yellow-bd Sapsucker 3	Statewide	Dec-Jan	11/19	
@Mockingbird 1	Boulder	Dec	11/16	
Gray Catbird	Boulder CC	12/20	11/1	
	Morgan Co.	2/6		JR
	Berthoud	2/24		GWF
@Brown Thrasher 7	Statewide	Dec-Feb	10/6	
Hermit Thrush	Boulder	12/27	11/5	CC
Swainson's Thrush	Durango	mid Jan	10/28	KS
Western Bluebird	Colo Spgs	mid Dec	11/29	fide RB
@Mountain Bluebird	Cheyenne Canyon	Jan-Feb	11/17	fide RB
	Salida	12/28		KK
Water Pipit	Fountain	2/16	11/29	RB
@Loggerhead Shrike	Fountain	11/28	11/4	RB
	Boulder	12/25		MF
Black & White Warbler	Roaring Fork CC	12/19	11/20	
Black-th Gray Warbler	Boulder	11/17	9/21	IB
Yellow-hd Blackbird 2	Delta Co.	2/24	10/24	MJ
	Alamosa	1/4		VMS
Common Grackle	Loveland	1/1	11/4	DB
Brown-hd Cowbird	Colo Spgs	Jan-Feb	10/20	MC
	Poudre	1/24		DB
	Bonny Res CC	1/2		
Black-hd Grosbeak	Berthoud	12/1-2/28	11/7	GWF
@Lesser Goldfinch	Colo Spgs	11/21	11/12	RB
	Barr Lake	12/26		RA
	Lyons	1/6		MG
Western Tanager	Boulder	12/11	10/20	PC
Lark Bunting	El Paso Co.	11/28	10/7	RB
Lincoln's Sparrow	Lyons	2/2	10/30	HL

Part II

Species and Numbers	Location(s)	Date(s)	Observer
*Yellow-billed Loon	Chatfield	12/19	JR,RA
Ross' Goose 2-3	Delta	1/26-30	MJ
1-2	Denver	12/14-1/2	RW,RS, DLJ,JJC
*White-winged Scoter 2	Colo Spgs	12/16-19	RB,BW
Greater Black-bd Gull	Cherry Creek	1/28-2/13	JR,DR,KH,JL
*Common Ground Dove	Crook	12/17	GB
Red-bellied Woodpecker	Longmont CC	12/19	
	Pueblo	2/17	DG
Plain Titmouse	Evergreen CC	12/20	
Varied Thrush	Boulder	12/19	RVZ
	Boulder	2/9-12	RVZ
Boat-tailed Grackle	Alamosa	2/4	VMS
White-winged Crossbill	Lakewood	12/15-1/7	JJC
Black-throated Sparrow	Pueblo	Dec-Feb	CCh
Golden-crowned Sparrow	Crook CC	1/2	RA

Observers: Robert Andrews (RA), Inez Baker (IB), David Bolton (DB), Winston Brockner (WWB), Richard Bunn (RB), Galen Burrell (GB), Pilk Carter (PC), Charles Chase (CCh), Mark Cook (MC), Joyce, John Cooper (JJC), Carol Cushman (CC), Patty Echelmeyer (PE) Gertrude, Walt Ferguson (GWF), Marge Folan (MF), Warren Finch (WF), Mary Geist (MG), Dave Griffiths (DG), Jim Gruen (JG), Kathy Hawkins (KH), Mark Janos (MJ), Bob Jickling (BJ), Don, Lee Johnson (DLJ), Kate Kittleman (KK), Helen Leichliter (HL), Joe Leigh (JL), Duane Nelson (DN), Peter Ostrenko (PO), Inez, Bill Prather (IBP), Judy Pyle (JP), Dorothy Reddall (DR), Jack Reddall (JR), Virginia McConnell Simmons (VMS), Robert Spencer (RS), Kip Stransky (KS), Ridi VanZandt (RVZ), Ruth Wheeler (RW), Barbara Winternitz (BW).

A SUMMARY OF 1981 COLORADO CHRISTMAS BIRD COUNTS

by David Hutchinson
7512 Caren Circle, Loveland, Colorado 80537

There were 30 Christmas bird counts held in Colorado during the 1981 count period, December 19, 1981 - January 3, 1982. The summary was taken from the ledger sheets of the regional editor for American Birds (Mrs. Helen Downing, 371 Crescent Dr., Sheridan, WY 82801) as of May 1982. One new count, Indian Peaks; and two reinstated counts, Barr Lake and Crook were added to the 1981 count.

There were 160 species (SP) and 7 additional races (RA) and 1 intergrade with approximately 336, 875 individuals reported for the 30 Colorado Christmas bird counts. Two additional species were reported during count week: Turkey Vulture and Mockingbird.

	DATE	NUMBER OF OBS	TOTAL PARTY HOURS	# SP	# RA	TOTAL NUMBER INDIV-IDUALS
Aspen	12/19	20	32	32	1	1631
Barr Lake	12/26	12	26.75	62	1	49591
Black Forest	12/20	14	22	40	2	1679
Bonny Reservoir	1/2	13	50	59	2	24762
Boulder	12/20	94	183	87	4	23535
Colorado Springs	12/19	70	122	83	2	8556
Crook	1/2	7	28	63	3	28380
Curecanti National Recreation Area	12/19	11	36	28		961
Denver	12/19	154	243	110	3	33304
Durango	1/2	16	34	67		3261
Evergreen-Idaho Springs	12/20	69	101	48	4	6718
Fort Collins	12/26	22	74.5	76	1	23456
Grand Ju	1/3	24	73.25	84	2	16304
Gunnison	12/26	13	23.5	45	1	3113
Hotchkiss	12/21	5	9.25	54	1	16847
Indian Peaks	1/1	25	91	33	1	1325
Lake Isabel	1/3	10	18	64	3	3941
Longmont	12/19	40	104.5	73	1	16605
Monte Vista National Wildlife Refuge	12/23	1	8	33		11022
North Park	12/30	10	44	27		1965
Nunn	12/22	7	17	21		4355
Pike's Peak	12/31	5	22	35	1	1217
Pueblo	12/26	6	25.5	70	2	11740
Pueblo Reservoir	12/19	17	34	85	2	11229
Roaring Fork River Valley	12/19	21	70	63	2	2016
Rocky Mountain National Park	12/19	11	29	42	1	1900
San Luis Valley	1/2	5	12	30		2470
Steamboat Springs	12/19	12	34	23		472
Weldona-Fort Morgan	12/21	2	11	56	3	23578
Westcliffe	12/27	3	8.5	28	1	942

SUMMARY OF SPECIES REPORTED

Key to columns: A -- Number of counts reporting
B -- High number, count reporting
C -- Total individuals

	A	B		C
Com Loon	4	4	Den	7
Yel-billed Loon	1	1	Den	1
Arctic Loon	2	3	Den	4
Horned Grebe	4	5	Bou CS	14
Eared Grebe	3	6	Den	10
W. Grebe	5	6	Bou Den	19
Pied-billed Grebe	9	92	Den	128
D-cr Cormorant	1	4	Den	4
White Pelican	1	1	BL	1
Great Blue Heron	15	61	Den	183
Canada Goose	20	1284	2 FC	50520
Snow Goose	4	8	Den	14
Mallard	27	1531	0 Crk	69093
Gadwall	15	94	Den	249
Pintail	13	150	BL	513
Gr-winged Teal	15	91	Den	494
Bl-winged Teal	1	1	RF	1
Cinnamon Teal	1	1	Hot	1
Am Wigeon	16	603	Den	1472
N Shoveler	10	500	Bou	939
Wood Duck	5	34	PR	84
Redhead	6	220	Bou	293
Ring-necked Duck	11	515	Bou	787
Canvasback	3	21	Den	23
Lesser Scaup	9	30	GJ	91
Scaup, sp.	1	2	FC	2
Com Goldeneye	17	144	Lon	511
Bufflehead	8	69	Den	124
Oldsquaw	2	1	CS Den	2
Wh-winged Scoter	1	2	CS	2
Ruddy Duck	3	14	Den	28
Hooded Merganser	7	31	Den	46
Com Merganser	17	1532	Bou	2451
R br Merganser	2	12	Bou	16
Duck, sp.	3	7664	WFM	7673
Turkey Vulture	1	CW	NP	1
Goshawk	7	8	CS	22
Sh-sh Hawk	14	8	Bou	46
Cooper's Hawk	9	8	GJ	20
Accipiter, sp.	2	3	Den	4
Red-tailed Hawk	20	36	Bou	250
R-t (Harlan's)Hawk	5	12	Den	17
Rough-ld Hawk	18	28	MV	176
Ferruginous Hawk	10	14	Bou	48

	A	B		C
Buteo, sp.	6	11	Den	31
Golden Eagle	19	15	Nun	83
Bald Eagle	16	19	Cur	89
Marsh Hawk	21	42	BL	218
Prairie Falcon	18	8	Den	51
Merlin	7	5	Den	13
Am Kestrel	21	85	Lon	380
Falcon, sp.	2	1	Den WFM	2
Hawk, sp.	1	5	Crk	5
Blue Grouse	4	3	Den	6
Wh-t Ptarmigan	1	1	RMNP	1
Sage Grouse	2	183	NP	184
Bobwhite	4	12	Pue	18
Scaled Quail	2	113	Pue	120
Gambel's Quail	1	147	GJ	147
Ring-neck Pheasant	16	51	FC MV	289
Chukar	1	1	Hot	1
Turkey	3	59	LI	74
Virginia Rail	5	8	Den	18
Am Coot	12	636	Den	859
Killdeer	16	62	Den	224
Com Snipe	17	29	CS	150
Pect. Sandpiper	1	1	BL	1
Sandpiper, sp.	2	1	Asp RF	2
Herring Gull	7	15	PR	44
Thayer's Gull	2	4	Pue	5
California Gull	1	8	Den	8
Ring-billed Gull	10	459	Den	617
Rock Dove	23	1397	Den	5983
Mourning Dove	14	666	GJ	812
Roadrunner	1	1	PR	1
Screech Owl	5	8	Bon	21
Great Horned Owl	20	29	Bon	150
Pygmy Owl	3	1	Bou EIS RM	3
Long-eared Owl	6	2	Bon	7
Short-eared Owl	4	4	Crk	9
Belted Kingfisher	25	83	Den	243
Com Flicker	7	141	Bon	336
Com (Y-sh) Flicker	3	4	RF	6
Com (R-sh) Flicker	21	345	Den	1194
Red-bel Woodpecker	2	1	Bon Lon	2
Red-hd Woodpecker	1	1	PR	1
Lewis' Woodpecker	7	11	GJ	43

	A	B	C
Yel-bel Sapsucker	2	2	PR 3
Hairy Woodpecker	21	53	Den 172
Downy Woodpecker	25	85	Den 390
Lad-back Woodpecker	1	1	LI 1
N Thr-td Woodpecker	2	4	IP 5
Say's Phoebe	1	1	GJ 1
Horned Lark	24	7190	BL 17058
Gray Jay	4	4	EIS IP 12
Blue Jay	11	54	Den 233
Steller's Jay	19	333	EIS 1210
Scrub Jay	13	161	CS 351
Bl-billed Magpie	30	1832	Den 6942
Com Raven	24	154	Gun 843
Wh-necked Raven	1	2	Pue 2
Com Crow	20	424	EIS 2796
Pinon Jay	3	80	RF 141
Clark's Nutcracker	8	81	EIS 147
Jay, sp.	1	1	Asp 1
Bl-cd Chickadee	27	445	Den 2004
Mountain Chickadee	24	532	Bou 2441
Plain Titmouse	4	19	GJ 22
Bushtit	5	40	CS 84
Wh-br Nuthatch	21	72	EIS 308
Red-br Nuthatch	18	380	Bou 691
Pygmy Nuthatch	12	352	EIS 1274
Brown Creeper	23	92	Bou 281
Dipper	17	67	Lon 307
Winter Wren	1	1	Den 1
Bewick's Wren	4	5	PR 13
Long-bd Marsh Wren	8	5	Bon 16
Canyon Wren	10	25	Bou 58
Rock Wren	5	2	Den GJ 8 PR
Mockingbird	1	CW	Bou 1
Gray Catbird	1	1	Bou 1
Brown Thrasher	3	1	Bon Bou 3 PR
Am Robin	22	919	EIS 3706
E Bluebird	2	25	Bon 26
W Bluebird	2	16	LI 18
Mountain Bluebird	4	1014	LI 1288
Town Solitaire	25	202	EIS 827
Bl-gr Gnatcatcher	1	2	GJ 2
Gold-cr Kinglet	11	36	Bou 81
Ruby-cr Kinglet	9	11	Bou Den43
Water Pipit	7	16	Pue 44
Bohemian Waxwing	7	152	EIS 355
Cedar Waxwing	9	78	Den 307
Northern Shrike	18	10	Den 59
Loggerhead Shrike	6	4	PR 11
Shrike, sp.	1	1	Asp 1

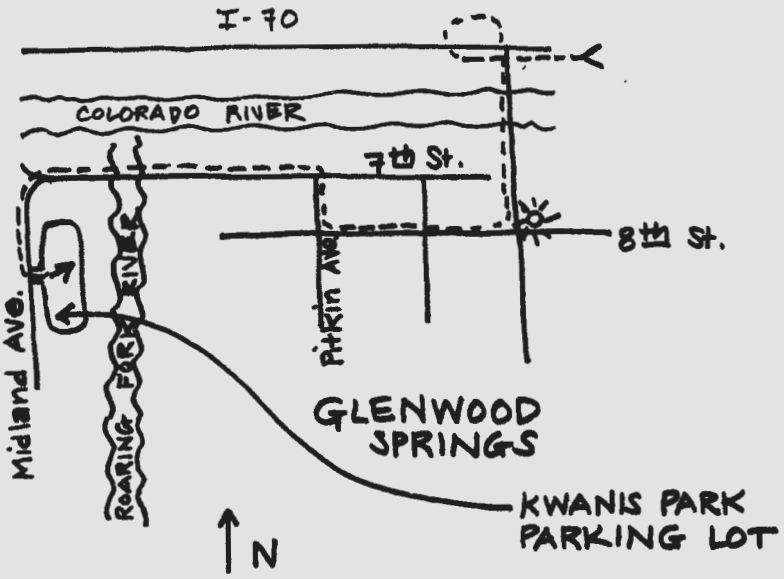
	A	B	C
Starling	28	4657	BL 32272
Black & Wh Warbler	1	1	RF 1
Yel-rumped Warbler			
Myrtle	1	2	GJ 2
Audubon's	3	26	GJ 38
House Sparrow	27	1450	BL 9774
W Meadowlark	17	1004	GJ 2168
Yel-hd Blackbird	1	1	Hot 1
Red-w Blackbird	231	1673	Hot 50741
Rusty Blackbird	2	20	Den 27
Brewer's Blackbird	14	2110	Hot 3227
Com Grackle	4	3	Den 6
Br-hd Cowbird	1	9	Bon 9
Cardinal	1	1	Bon 1
Evening Grosbeak	9	334	Den 878
Cassin's Finch	12	168	EIS 378
House Finch	21	1897	Den 5610
Pine Grosbeak	3	52	IP 60
Gr-cr Rosy Finch	14	1467	NP 3588
Hepburn's race	1	36	EIS 36
Black Rosy Finch	11	57	Gu 145
Brown-cd Rosy Finch	10	701	Gun 1508
Rosy Finch, sp.	1	40	EIS 40
Finch, sp.	1	1	WFM 1
Com Redpoll	4	2	GJ 5
Pine Siskin	20	3603	PR 7269
Am Goldfinch	18	371	Den 1718
Les Goldfinch	4	6	Dur 10
Red Crossbill	13	643	EIS 2011
Rufous-sd Towhee	14	68	CS 138
Brown Towhee	2	25	PR 31
Dark-eyed Junco	1	79	Bou 79
D-e(Wh-w) Junco	12	60	Bou 187
D-e(Sl-col)Junco	23	276	Bou 1406
D-e(Oregon)Junco	25	1015	Dur 6124
Pink sd race	1	5	WFM 5
Gray-hd Junco	20	558	CS 2622
Junco, sp.	11	206	CS 752
Tree Sparrow	27	1615	Crk 4678
Chipping Sparrow	1	1	Dur 1
Spizella, sp.	1	1	GJ 1
Harris' Sparrow	10	13	Bon 44
Wh-cr Sparrow	18	1172	Pue 2516
Gold-cr Sparrow	1	1	Crk 1
Wh-thd Sparrow	4	2	Crk WFM 6
Lincoln's Sparrow	1	1	Pue 1
Swamp Sparrow	4	2	Crk 5
Song Sparrow	24	344	Den 1372
Lapland Longspur	3	503	Nun 1137
Snow Bunting	2	3	NP 4
Sparrow, sp.	1	30	CS 30

SPECIES WITH 1000 OR MORE INDIVIDUALS

Mallard	69093	Gray-crowned Rosy Finch	3624
Red-w Blackbird	50741	Brewer's Blackbird	3227
Canada Goose	50520	Common Crow	2796
Starling	32272	Gray-headed Junco	2622
Horned Lark	17058	White-crowned Sparrow	2516
House Sparrow	9774	Common Merganser	2451
Dark-eyed Junco	7801	Mountain Chickadee	2441
Oregon	6124	Western Meadowlark	2168
Slate-colored	1406	Red Crossbill	2011
Wh-winged	187	Black-capped Chickadee	2004
sp.	79	American Goldfinch	1718
Pink-sided	5	Common Flicker	1536
Duck, sp.	7673	Brown-capped Rosy Finch	1508
Pine Siskin	7269	American Wigeon	1472
Black-billed Magpie	6942	Song Sparrow	1372
Rock Dove	5983	Mountain Bluebird	1288
House Finch	5610	Pygmy Nuthatch	1274
Tree Sparrow	4678	Steller's Jay	1210
American Robin	3706	Lapland Longspur	1137

FIELD TRIP

Saturday, February 26.
Rosy Finches at Glenwood Springs. Leader Victor Zerbi (H) 945-6017. Meet at Kwanis Park at 11:00 a.m. We will see all 5 races of Rosy Finch, large numbers of Lewis' Woodpeckers, and interesting water birds if the lakes are not frozen. Optional Sunday short cross-country ski trip for ptarmigan at Mt. Sopris. For more info, contact Vic or Betsy Webb, Coordinator, at (w) 575-3911.



1982 COLORADO CHRISTMAS COUNTS

Location	Date	Contact	Phone
Barr Lake	Sun Dec 26	Barry Knapp, Boulder	494-8390
Black Forest	Sun Dec 19	Judy von Ahlefeldt, Colo Spgs	495-4226
Bonny Reservoir	Sat Jan 1	Paul Julian, Boulder	499-9107
Boulder	Sun Dec 19	Barry Knapp, Boulder	494-8390
Colorado Spgs	Sat Dec 18	Richard Bunn, Colo Spgs	473-2710
Crook	Sun Jan 2	Steve Larson, Boulder	443-4486
Curecanti NRA	Sat Dec 18	Don Hill, Gunnison	641-2860
Denver	Sat Dec 18	Paul Rechel, Denver	688-6255
Douglas County	Sun Jan 2	Suzy Trumble, Denver	(w) 797-3986 (h) 973-8622
Durango	Sat Jan 1	Kip Stransky, Durango	247-8138
Evergreen-Idaho Springs	Sun Dec 19	Bill Brockner, Evergreen	674-4851
Fort Collins	Sat Jan 1	Ron Ryder, Fort Collins	482-8089
Grand Junction	Sun Jan 2	Ron Lambeth, Grand Junction	434-7106
Greeley (tentative)	Sun Jan 2	Gretchen Cutts, Greeley	351-0166
Gunnison	Sun Dec 19	Don Hill, Gunnison	641-2860
Hotchkiss	no info	Theo Colborn, Gunnison	641-2747
Indian Peaks	Sat Jan 1	Mike Figgs, Boulder	447-1899
Lake Isabel	Sun Jan 2	David Silverman, Rye	(w) 543-1842
Longmont	Sat Dec 18	Ron Harden, Loveland	667-3819
Monte Vista NWR	not yet set	Jon Kauffeld, Monte Vista	852-5872
North Park	Fri Dec 31	John Wagner, Walden	723-4676
Nunn	Tue Dec 21	Clait Braun, Fort Collins	493-2841
Ohio City	no info	Patrice Boyd, Pitkin	641-1704
Pikes Peak	Fri Dec 31	Hugh Kingery, Denver	333-0161
Pueblo	Sun Dec 19	Dave Griffiths, Pueblo	584-3859
Pueblo Reservoir	Sat Dec 18	Jerry Ligon, Pueblo	545-2197
Roaring Fork River Valley	no info	Jack Troyer, Glenwood Spgs	945-6038
Rocky Mountain National Park	Sat Dec 18	Clait Braun, Fort Collins	493-2841
San Luis Valley	not yet set	Bob Darnell, Alamosa	589-3242
Steamboat Spgs	Sat Dec 18	Cary Atwood, Steamboat Spgs	879-3791
Weldona-Ft Morgan	Sun Dec 19	Dave Hutchinson, Loveland (work, Denver)	667-8413 936-3466
Westcliffe	Tue Dec 28	Van Traun, Pueblo	547-3735