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COVER PHOTO: Osprey at Lake Granby, south of Grand Lake, Colorado. One adult of two pairs nesting in the Grand Lake area during the summer of 1970. Photo by J. W. Janssen, U. S. Bureau of Reclamation, Grand Lake, Colorado.

BREEDING OF STARLINGS USING NEST-BOXES AT
DENVER, COLORADO

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Since initial introduction into the United States shortly before the turn of the century, the Starling (*Sturnus vulgaris*) has extended its range into nearly all of the continental United States, major portions of Canada and even into interior Alaska.

It arrived relatively recently in Colorado, with the first mention of the species in an article in the Denver Post of February 16, 1937 stating that several hundred had passed over Sterling on that date (Bailey and Niedrack, 1965). After a subsequent sighting near Atwood in 1939 (Imler, 1939) and the first breeding record near Lowry Field, Denver, in 1943 (Breiding, 1943) the Starling spread throughout the state and now breeds commonly in areas providing suitable nesting habitat. The primary objective of this study was to gather basic breeding data for the Starling in Colorado, comparable with those obtained in other parts of its range.

The investigation was conducted at the Federal Center in Denver, Colorado. The area adjoins the foothills on the western edge of residential Denver at an elevation of about 5,400 feet. It is well suited for nesting studies because of the absence of human disturbance.

METHODS

Fifty nest-boxes of the design used by Kessel (1957) were placed on Chinese elm (*Ulmus parvifolia*) and cottonwood (*Populus*

fremontii) trees on the Federal Center property in early March 1968. The boxes were attached randomly from 6 to 14 feet high, without respect to facing direction or proximity to one another. In some cases, boxes were less than 20 feet apart.

During mid-March several Starlings of both sexes were captured as they made initial visits to the nesting sites by using automatic trapdoors attached to the nest-boxes (DeHaven and Guarino, 1969). Colored leg bands were used to mark the birds for subsequent identification.

From late March through June 1968, the boxes were visited at least twice a week to record production data. To reduce the probability of desertion, we inspected the boxes only when the adults were away. We did not attempt to band incubating birds or females that were roosting in boxes, because of the expected high desertion rates (Kessel, 1957; Royall, 1966). Additional visits were made as needed to band the nestlings.

RESULTS AND DISCUSSION

Nest Building and Related Behavior

By mid-April, all 50 boxes contained either nests or at least evidence of nesting in the form of green plant material. No preference was shown for box location. Planck (1967) suggests that Starlings probably do not seek particular substrates, vegetation, or heights, but rather they begin searching the areas they most frequently encounter during their normal daily activities prior to nesting. Eggs were laid in all but one of the boxes, which remained empty throughout the nesting season. A Great Horned Owl (Bubo virginianus) was often observed in the tree above this unused box.

Red-shafted Flickers (Colaptes cafer) were common in the area and we observed several conflicts between them and Starlings; but like Planck (1967) and others, we found them subordinate to Starlings despite their larger size. Although flickers were never observed to enter a nest-box, they often clung to the outside while pecking around the entrance hole to make it larger. The only other birds actually seen in the boxes were a Sparrow Hawk (Falco sparverius) and a few House Sparrows (Passer domesticus).

An interesting case of Starling polygamy, similar to one recorded by Kessel (1950), was observed in this normally monog-

amous species. A male maintained territories around three different nest-boxes located within 100 feet of one another. For a few days there was a female at each of the boxes but then one left and paired with another male. The one male is known to have copulated with the two remaining females, and he carried nest material into both nest-boxes.

Egg Laying

Kessel (1957) points out that although increase in day length is probably the primary environmental factor influencing gametogenesis in Starlings, annual variations in the time of egg laying at any given locality are controlled by variations in spring temperatures. At Ithaca, New York, for example, Kessel concluded that birds had to experience at least 17 days when the average temperature exceeded 40° F. before laying began; Collins and de Vos (1966) found that only 12 to 16 days above this temperature threshold were needed before the onset of laying at Guelph, Ontario. At Denver, Starlings began laying on April 2, when the minimum average temperature had surpassed 40° F. for only 10 days, but photoperiod was somewhat more advanced than at Ithaca or Guelph.

April 2 may be earlier than normal for egg laying to commence at Denver. Temperatures during March averaged 3° above normal, and temperatures during the last third of the month, which Kessel (1957) believes are largely responsible for yearly fluctuations in the onset of laying, were unseasonably warm. Laying started near the early limit of Kessel's (1957) estimate of April 1 - 13 for latitudes similar to that of Denver. Hilton (1958) and Lloyd (1965), studying Starlings at Baltimore, Maryland, found that laying did not begin until after the middle of April, although the latitude is the same as that of Denver.

The average starting date for first clutches was April 13. Neither first nor second broods exhibited the marked synchrony in onset of egg laying observed at Ithaca and Guelph. The beginning dates for successful clutches shown in Figure 1, represented a less peaked pattern quite similar to that recorded by Royall (1966) at Mesa and Litchfield Park, Arizona.

The average starting date for second clutches was May 22. The 39 days that elapsed between the average starting dates of the

two major nesting periods is similar to the time lapse between nesting periods reported in other studies. Eighty-six percent of all the successful first clutches were followed by second clutches. This compares with 74 percent at Ithaca (Kessel, 1957) and 92 percent at Guelph (Collins and de Vos, 1966).

Eleven clutches apparently were not laid at the usual interval of one egg per day. Seven of these were laid faster; one clutch of five eggs was completed in only 3 days. In each of the remaining four clutches, single eggs followed the first part of the clutch after an interval of from 2 to 4 days. Royall (1966) found that an extra egg sometimes followed the initial clutch in his studies by as long as 9 days. Perhaps the most logical answer for the abnormal laying rates is that another female lays the extra egg. We observed two color-banded Starlings visiting other boxes while laying or incubating in their own box and Kessel (1957) reported similar observations.

Davis (1958) had no success in prolonging egg laying and increasing a female Starling's complement of eggs by removing eggs from the nest as they were laid. At Denver, however, a total of ten eggs was laid in one nest over a 2-week period after the nest was repeatedly destroyed by a raccoon. In this case, too, more than one female may have been involved.

Clutch Size

First clutches consisted of 3 to 6 eggs, with an average of 4.8. Five eggs was the modal clutch size, occurring 40% of the time. Second clutches averaged 5.2 eggs but were not significantly larger than first clutches ($\alpha = 0.10$). Second clutches had from 4 to 7 eggs, with 5 again modal, but occurring 65% of the time. Most other studies, including foreign ones, found second clutches smaller than first ones (Collins and de Vos, 1966). Only in Arizona (Royall, 1966) was there evidence that Starlings' second clutches may be larger than their first.

Incubation

Only one instance of an incubation period other than the normal 12 days was noted. One egg of a three-egg clutch hatched in only 10 days. This was probably the result of a female begin-

ning incubation after laying the first egg rather than at the completion of the clutch (Kessel, 1957). Some clutches that failed to hatch were incubated past the 12-day period, but none for longer than 17 days.

Nesting Success

Table 1 shows that the hatching success of first and second clutches at Denver was 84% and 82% respectively, which is similar to 84% found in Arizona for both first and second broods. The hatchability rates at Ontario and New York were similar to each other but higher for first broods than those in Colorado and Arizona. Perhaps Starlings tend to breed too early in higher altitudes at more southerly latitudes, where photoperiod advances nesting beyond temperature tolerance, thus reducing first brood success, including hatchability.

At all of the areas, mean numbers of young fledged per clutch decreased from first to second clutches. At Ithaca and Guelph this difference was more pronounced than at Denver and the two Arizona towns, but may only reflect the greater differences in hatchability of first and second clutches.

Nesting success, as indicated by the percentage of the total clutch starts that fledged at least one young, was quite similar at all of the North American study areas except Arizona, where success was unusually low. This supports the conclusion of Kessel (1957) that second broods are not as efficient as first broods and in many years probably contribute little to the total fall population of Starlings.

Nest Mortality

There were indications that the chicken or red fowl mite (Dermanyssus gallinae) may have been a limiting factor during the Starlings' second nesting effort. Of the 19 nest-boxes in which second broods were successfully reared, all but three became heavily infested with the mites in early June. Correspondingly, the egg/fledgling ratio of successful broods was only 62% as compared with 80% for first clutches. The mites were possibly carried to the nest on feathers, commonly used as nest lining. However, as suggested by Royall (1966), the investigator himself may

serve as a vector in spreading the parasite. The mites' effect on first broods was probably minimal because their numbers were small and it may have been too cool for them to reproduce. In addition second broods may be more vulnerable because of their generally poorer physical condition (Kessel, 1957).

The mites often produced areas of reddish, slightly elevated lesions in the skin of the wings and head. A large percentage of the unsuccessful nests, including several complete clutches abandoned prior to hatching, are believed to have been the result of severe mite infestations.

Royall (1966) found that these mites infested his study area each year, and were usually present during the first brood period. However, he indicated that mites appeared to have little or no effect on fledging success among successful broods. Neither Kessel (1957) nor Collins and de Vos (1966) referred to the occurrence of mites in their study areas at Ithaca and Guelph, although Kessel (1957) indicated that another parasite, the blood-sucking larvae of Protocalliphora, one of the blow flies, limited second brood production during one year of her study. Boyd (1951) listed D. gallinae as being relatively rare on Starlings in the northeastern states. Perhaps this parasite can be an effective limiting factor under certain conditions, in the more southerly latitudes of the Starlings' range.

Because the study area is in a restricted area, there were no known nest losses from human disturbance. And because of techniques used, the researchers themselves were probably responsible for only a small percentage of the deserted nests.

The only instance of predation recorded in the study was the repeated raccoon destruction of a single nest mentioned previously.

As in most other studies of this bird, a high percentage (35%) of the unsuccessful nests resulted from the unexplainable disappearance of eggs. Eggshells were sometimes found scattered below the boxes after such losses. This may have been a result of the female deserting the nest or being killed and the male tossing out the eggs (Kessel, 1957). Since relatively few nests were deserted in the present study, it would seem more reasonable to

accept Kluijver's (in Kessel, 1957) suggestion that the eggs may be tossed from the nests by unmated males. Our observations of color-banded, unmated males confirm that they do visit other bird's boxes during the breeding season. We did not observe egg destruction, however.

Color Band Observations

Twenty-eight adult Starlings were caught and color-banded in 1968 as they began visiting the newly erected nest-boxes. From observations, 18 of these (62%) were known to have nested in the study area subsequent to their capture. By April, 1969, nine (31%) of the color-banded adults had returned to the area to breed.

SUMMARY

The breeding of Starlings using nest-boxes was studied at Denver, Colorado, during the spring of 1968. The first clutches were begun in early April, with egg laying reaching a peak in mid-April. Laying of second clutches reached a peak during late May. Average clutch sizes for the two brood periods were 4.8 for the first and 5.2 for the second. Nesting success was similar to that found at three other North American study areas, showing a marked decrease for second broods. A high rate of nestling mortality was recorded for second broods, apparently resulting from parasitism by a blood-sucking mite.

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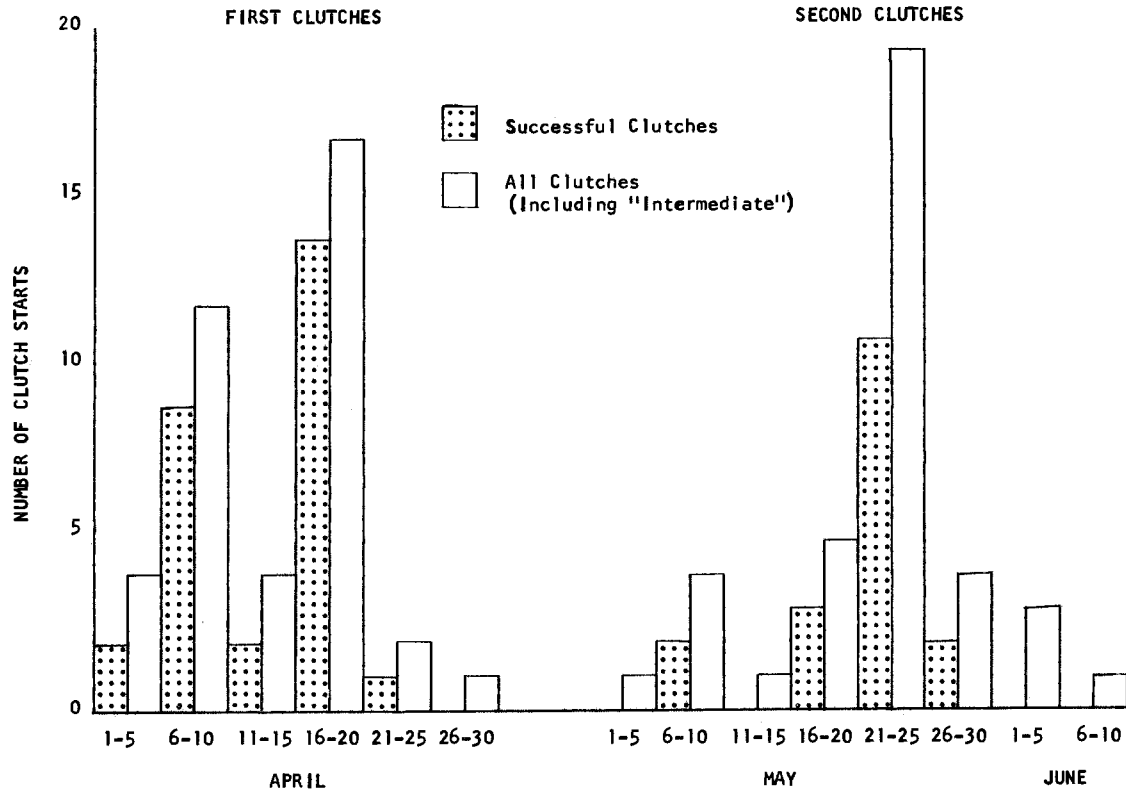


Figure 1. Dates and numbers of starling clutch starts in nest boxes at Denver, Colorado - 1968.

Table 1. Comparison of starling breeding statistics from four North American study areas (only data from successful clutches are included).

Area	Average clutch size		Percent eggs hatched		Percent eggs producing fledglings		Average fledged per clutch		Percent of clutch starts in which at least one young was fledged			Percent successful first clutches followed by second clutches
	First	Second	First	Second	First	Second	First	Second	First	Second	All	clutches
Colorado	4.8	5.2	84	82	80	62	3.8	3.3	80	63	72	86
Ontario	5.6	5.0	92	83	83	71	4.7	3.6	79	63	71	92
New York	5.5	4.1	91	80	81	68	4.5	3.0	89	63	79	74
Arizona	4.5	4.4	84	84	57	47	2.5	2.2	--	--	48	89

In some instances, the figures presented were computed from data given in the respective paper. Figures for Ontario are from Collins and de Vos (1966); for Ithaca, from Kessel (1957); and for Arizona, from Royall (1966).

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BIRDS OF THE UPPER SAND CREEK DRAINAGE,
SANGRE DE CRISTO MOUNTAINS, COLORADO

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The distribution and abundance of the avifauna of many of the high mountain ranges in Colorado is poorly known. While Colorado has been extensively surveyed in the past by outstanding ornithologists, systematic observations in areas such as the Sangre De Cristo Mountains have been limited principally because of access. During the June to September period in 1969 and 1970, I had opportunities to observe the bird life of this interesting area while employed by the Colorado Division of Game, Fish and Parks.

Area

Observations were made in the Upper Sand Creek Drainage of the Sangre De Cristo Mountains of south-central Colorado. The Sand Creek Drainage lies on the east side of the Sangres approximately 20 miles south and west of Westcliff in the Rio Grande National Forest. The area is characterized by alpine tundra and subalpine meadows scattered through primarily spruce-fir forests. Included in the area is the krummholz zone lying between the subalpine forests and the alpine tundra. Topography of the area is extremely rugged, consisting primarily of steep, grassy slopes, rock slides, talus and shale slopes, sheer cliffs, and large boulder fields. Tree line in the area is approximately 11,500 feet, and the highest point in the Sand Creek Basin is Milwaukee Peak (13,500 ft.).

All observations were made in the Sand Creek Drainage at or above 11,200 feet. Sand Creek Basin is bordered on the west by Deadman Creek, while Little Sand Creek and Cleveland Gulch are tributaries of Sand Creek.

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Species Accounts

- Goshawk, Accipiter gentilis - Uncommon.^{1/} Two birds were recorded during fall migration, 1970, at 11,500 - 11,700 ft.
- Red-tailed Hawk, Buteo jamaicensis - Uncommon. Two specimens observed, one above Deadman Lake (head of Deadman Basin) at 11,700 ft., August 27, 1969 and one in Sand Creek in 1970 at 11,500 - 11,700 ft.
- Swainson's Hawk, Buteo swainsoni - Uncommon. Single immature individual recorded at 13,400 ft., July 14, 1970.
- Ferruginous Hawk, Buteo regalis - Uncommon. Two sightings in 1969 and one in 1970 at 12,500 - 13,100 ft.
- Golden Eagle, Aquila chrysaetos - Common. Only large bird of prey observed with regularity. More common in 1970 than in 1969, as only one individual was seen in 1969, while fourteen sightings were recorded in 1970. 11,800-14,300 ft.
- Bald Eagle, Haliaeetus leucocephalus - Uncommon. One adult was observed on July 17, 1969, at 12,000 ft.
- Prairie Falcon, Falco mexicanus - Uncommon. One individual observed September 15, 1970. 11,700 ft.
- Peregrine Falcon, Falco peregrinus - Uncommon. One immature specimen was observed on July 15, 1970, at 13,400 ft.
- Pigeon Hawk, Falco columbarius - Uncommon. One individual seen August 27, 1970 at 13,000 ft.
- Sparrow Hawk, Falco sparverius - Uncommon. Several individuals observed during migration September, 1970. 11,500 - 11,700 ft.
- Marsh Hawk, Circus cyaneus - Uncommon. Several individuals were seen during the fall migration period, August 13 - September 15, 1970 at 11,500 - 12,300 ft.

^{1/} Common - at least 15 observations, except for raptors for which five observations were necessary. Uncommon - less than 15 or five observations, respectively.

- Blue Grouse, Dendragapus obscurus - Common. More common in 1970 than in 1969. No blue grouse were seen in Sand Creek Basin in 1969, although they were observed in 1969 in Deadman Basin. 11,200 - 12,400 ft.
- White-tailed Ptarmigan, Lagopus leucurus - Common. Most abundant in Little Sand Creek Basin, although individuals were seen in all drainages. 12,800 - 13,200 ft.
- Band-tailed Pigeon, Columba fasciata - Uncommon. One group of four to seven birds was seen on July 12, 1969 on the ridge adjoining Sand Creek Basin. 11,400 ft.
- Great Horned Owl, Bubo virginianus - Uncommon. Three sightings were made during September 1970 at 11,200 ft.
- White-throated Swift, Aeronautes saxatalis - Uncommon. One bird was seen in 1969 while two were recorded in 1970. 11,600 - 13,100 ft.
- Broad-tailed Hummingbird, Selaspharus platycercus - Common. This species exhibited the most striking change in apparent numbers in the two years. Only two birds were observed in 1969, while broad-tailed hummingbirds were seen or heard every day during 1970. 11,200 - 13,500 ft.
- Red-shafted Flicker, Colaptes cafer - Common. Generally observed around open "parks" or in krummholz at 11,200 - 12,200 ft.
- Williamson's Sapsucker, Sphyrapicus thyroideus - Uncommon. Several sightings were recorded during early September and one sighting in late July, 1970. 11,200 - 11,300 ft.
- Hairy Woodpecker, Dendrocopos villosus - Uncommon. Only two birds were observed during 1970 and none in 1969. 11,200 - 11,300 ft.
- Horned Lark, Eremophila alpestris - Common. Abundant on turf communities above timberline. 11,500 - 13,500 ft.
- Violet-green Swallow, Tachycineta thalassina - Common. No individuals were seen during 1969, but many were seen above timberline during June and July 1970. 11,500 - 13,300 ft.
- Gray Jay, Perisoreus canadensis - Common. Small groups of gray jays were found locally throughout the forest to tree line. 11,200 - 11,500 ft.
- Steller's Jay, Cyanocitta stelleri - Common. Found in same area as gray jay but less abundant. 11,200 - 12,100 ft.
- Common Raven, Corvus corax - Common. Most commonly seen above timberline. Groups of 25-35 were observed during late July from 11,200 - 13,600 ft.

BIRDS OF UPPER SAND CREEK DRAINAGE--Gutierrez

- Common Crow, Corvus brachyrhynchos - Uncommon. Occasionally seen above timberline or in "parks" at timberline. 11,500 - 13,000 ft.
- Clark's Nutcracker, Nucifraga columbiana - Common. Commonly observed on the alpine tundra or around timberline. On August 22, 1969, 50-80 nutcrackers were seen flying south between Sand Creek and Deadman Drainages during a 20-minute span in groups of 5-15 individuals. On July 4, 1970, 125-135 nutcrackers were seen flying north in groups of 20-50 individuals at the same location. 11,200 - 13,600 ft.
- Mountain Chickadee, Parus gambeli - Common. Abundant in coniferous forest areas to 11,200 - 11,500 ft.
- Red-breasted Nuthatch, Sitta canadensis - Uncommon. Two individuals were recorded during August, 1970 at 11,200 - 13,100 ft.
- Brown Creeper, Certhia familiaris - Uncommon. One specimen recorded on August 10, 1970. 11,200 ft.
- Dipper, Cinclus mexicanus - Common. Dippers were common around high lakes in 1969 but only one bird was recorded in 1970. 11,500 - 11,600 ft.
- Rock Wren, Salpinctes obsoletus - Common. Common at timberline and on steep hillsides in 1970. 11,200 - 11,700 ft.
- Hermit Thrush, Hylocichla guttata - Common. More frequently heard rather than seen. Usually seen singing from tall, dead conifers in dense woods. 11,200 - 11,700 ft.
- Swainson's Thrush, Hylocichla ustulata - Uncommon. Only a few individuals were observed. 11,200 - 11,500 ft.
- Mountain Bluebird, Sialia currucoides - Common. Generally seen at or above tree line from 11,500 - 11,700 ft.
- Townsend's Solitaire, Myadestes townsendi - Common. Greatest concentrations were observed on very steep, rocky slopes above tree line at 11,200 - 12,800 ft.
- Golden-crowned Kinglet, Regulus satrapa - Uncommon. One pair observed August 16, 1970 at 11,200 ft.
- Ruby-crowned Kinglet, Regulus calendula - Common. Observed or heard almost every day throughout forested areas. 11,200-11,500 ft.
- Water Pipit, Anthus spinoletta - Common. Commonly seen above tree line on rocky slopes from 11,400 - 13,000 ft.
- Audubon's Warbler, Dendroica auduboni - Common. Only warbler in Sand Creek area of real abundance. 11,200 - 11,600 ft.

- Grace's Warbler, Dendroica graciae - Uncommon. Although only one specimen was positively identified, August 1970, other possible sightings were recorded. 11,200 ft.
- Wilson's Warbler, Wilsonia pusilla - Common. All sightings were recorded above tree line in alpine willow thickets. 11,800 - 12,500 ft.
- Cassin's Finch, Carpodacus cassinii - Uncommon. This species is listed as uncommon even though a flock of 10-15 birds was observed in an old forest burn for a few days in mid-July, 1970. Only one other individual was recorded. 11,500 - 13,300 ft.
- Pine Grosbeak, Pinicola enucleator - Common. No sightings in 1969; however, these birds were seen frequently in 1970. 11,200 - 11,500 ft.
- Brown-capped Rosy Finch, Leucosticte australis - Common. This species was most frequently observed around cliffs and rocky outcroppings above timberline. 12,000 - 13,500 ft.
- Pine Siskin, Spinus pinus - Common. This bird was very common throughout summer months in the high country. Large flocks were seen during late July. 11,200 - 11,700 ft.
- Savannah Sparrow, Passerculus sandwichensis - Uncommon. Two individuals were recorded in 1970 at 11,200 ft.
- Grey-headed Junco, Junco caniceps - Common. Found in forest and krummholz from 11,200 - 11,600 ft.
- Chipping Sparrow, Spizella passerina - Uncommon. Three individuals were recorded at extreme variations in elevation. 11,200 - 13,00 ft.
- White-crowned Sparrow, Zonotrichia leucophrys - Common. Very abundant in willow and dwarf spruce at tree line. 11,200 - 12,200 ft.
- Song Sparrow, Melospiza melodia - Uncommon. Actually common in 1969, but only a few individuals were seen during 1970. 11,200 - 13,000 ft.

Summary

Fifty-two species of birds were recorded in two summers of field observations in the Upper Sand Creek Drainage, Sangre De Cristo Mountains, Colorado. Birds seen in the area are typical of the alpine and subalpine of Colorado. Abundance and diversity were greater in 1970 than in 1969. These differences could be related to climatic conditions as 1969 was typified by cold and wet

weather, while warm and dry conditions prevailed in the summer of 1970.

Other birds undoubtedly occur in the Sand Creek area. Intensive observation might add such species as the Spotted Sandpiper, Cooper's or Sharp-shinned Hawk, Hutton's or Bell's Vireo, Rufous-crowned Sparrow, and Western Wood Pewee to the list.

COLORADO CHRISTMAS COUNT FOR 1969

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There were 13 counts submitted this year -- one less than last year. The counts totaled 143 species with an additional two species recorded during the count period, making a total of 145 species plus one hybrid.

Boulder (Bldr): 79 species. December 27. Boulder Bird Club (18 observers). Of interest: 4 Red-breasted Merganser, 6 Chukar and 1 Sora. Two hybrid Red-shafted and Yellow-shafted Flickers were observed.

Colorado Springs (CoSp): 69 species. December 28. Aiken Ornithological Society (37 observers): Mrs. T. L. Adams, Mr. and Mrs. Dominic Bartol, Jon Bartol, Richard Beidelman, Martha Bildstein, Ronald Bildstein, Lois Casperson, Mrs. Gilbert Catlett, Robert R. Dover, Daniel Edwards, Betty Field, Dr. and Mrs. Donald W. Galvin, Matthew Galvin, Nancy Greenleaf, Eleanor Griffith, Mary Alice Hamilton, Gayle Ireland, Jane Jones, Nancy Kitzmiller, Hans Krimm, David Laliberte, Mrs. Lee Laliberte, David G. Nichols, Mary Nicholson, Mrs. Julia Porrata, Susan Reese, Mahlen Speers, James Stabler, Robert M. Stabler, Helen Thurlow, Donald van Horn, Alice van Sickle, Dee Williams and Mr. and Mrs. Harry Wills. Unusual species were Peregrine Falcon, 20 Scaled Quail, Pygmy Owl, 3 Black Rosy Finch and 2 Harris' Sparrow.

Denver (Dnvr): 92 species. December 20. Denver Field Ornithologists (80 observers): Roberta Ausfahl, Merle Barbour, Blake R. Besser, Jerome Besser, Lloyd Bishop, Mary

Jane Blanpied, Helen Bonnema, Henry Bossman, Vi Bossman, Winston William Brockner, Bob Buttery, Douglas Buttery, Phyllis Caswell, Lori Chappell, Mrs. Clarence Christensen, Marjorie Clark, John Colvin, John Cooper, Joyce Cooper, Becky Cruse, Jim Cruse, Corinne Cummins, Ruth Deffenbaugh, Aleon De Vore, Patty Echelmeyer, Evelyn Edens, Tim Gates, Robert Glover, Libby Goodwin, Margaret Granzella, Joseph L. Guarino, Vincent Guenther, Philip Hayes, Beverly Hilty, Steve L. Hilty, Harold Holt, Nancy Hurley, David Hutchinson, Lesley Julian, Paul Julian, Lila Kint, Elinor Kingery, Hugh Kingery, C. Edward Knittle, Marie Kolena, Mrs. M'Gillycuddy, Mrs. L. M. McKinney, Doris and Harold McLaughlin, Chris Manville, Sue Merrick, Nathaniel Messemer, Mildred Meyer, Sadie Morrison, Karen Naylor, Jane Newcomb, Judy Niemann, Jack Reddall, Van Remsen, Mrs. John T. Schoolcraft, Mrs. Grant Shafer, Frank Simons, Carol Snow, Mildred Snyder, Robert A. Spencer, Donald M. Thatcher, Bob Toepfer, Gwen Toepfer, Helen Waters, Lois Webster, Grace Welch, Jack Welch, Gary White, Karen White, Veda White, Lynn Willcockson, S. O. Williams III, Echoe Wiltfong, Roberta Winn and Vincent Winn. Of interest: Mute Swan, Black Duck, 18 Wood Duck, Ruddy Duck, Blue Grouse, Brown Thrasher, Green-tailed Towhee, Fox Sparrow and Swamp Sparrow. Most striking rarity was two flocks of White-winged Crossbills, found in the Tintown area. The birds have been in the foothills near Divide since early October. Other species seen during the count period but not on the count day were Goshawk, Greater Scaup, Bald Eagle, Horned Lark, Pinon Jay, Rusty Blackbird and Brown-capped Rosy Finch.

Durango (Drgo): 54 species. December 27. Durango Bird Club (13 observers): Ruth Bennett, Bob Blackburn, Bob Boucher, Ruth Boucher, Elva Fox, Ronnie Gaines, Gloria Holt, Oppie Reames, A. W. Spencer, Richard Stransky (compiler), Florence Whiteman, H. A. Winkler and Mrs. H. A. Winkler. Area covered: All points within a 15-mile diameter circle, center Pastorius Reservoir southeast of Durango on Florida Mesa. Of interest: Pygmy Owl, Bewick's Wren, Chipping Sparrow and Lincoln's Sparrow. Additional species seen in count period: Great Horned Owl and Audubon's Warbler.

Evergreen - Idaho Springs (Ev-Id): 44 species. December 27. Denver Field Ornithologists (27 observers): Sylvia and Winston Brockner (compilers), Joyce and John Cooper, Gay Eckes, Mark Eckes, Evelyn Edens, Nancy Edens, Cal and Joe Gibbons,

Gloria Huckeby, Margaret Johnson, Hugh Kingery, Donald Malick, Susan and Thompson Marsh, Sadie Morrison, George and Marie Shier, Robert Spencer, Mr. and Mrs. Swanlund, Don and Hazel and Donna Thatcher, Edna Claire Thomas and Van Remsen. Of interest: Saw-whet Owl, Gray Jay, Brown Thrasher and Brown-capped Rosy Finch.

Fort Collins (FtCo): 73 species. December 27. Fort Collins Bird Club (34 observers): Mary and Tom Barber, Gertrud Biedermann, Martha Board, Clait Braun, Terry Cole, Darrell Goddard, Frank and David and Billy Hawksworth, Dale and Marilyn Hein, David Lupton, Carl Marti, Elnora Martinelli, Eric and Meredith Morris, Richard Olendorff, Tom Pojar, Bruce Poley, Audrey and Ronald Ryder (compilers), Calvin Sandfort, Mrs. Herbert Schweizer, James Smith, Ron Stanak, Mr. and Mrs. W. S. Stevenson, Gustav and Evadene Swanson, Guy and Mae Ward and Barbara and Joe Wilcox. Area covered: All points within a 15-mile diameter circle, center 4.5 miles NNW of Fort Collins. Of interest: 2 Barrow's Goldeneye, 2 Hooded Merganser, Goshawk, 2 Harlan's Hawk, 2 Pigeon Hawk, 3 Short-eared Owl, Screech Owl, Rock Wren, Mockingbird and 6 Mountain Bluebird.

Grand Junction (GrJn): 62 species. December 20. 17 observers. Area covered: All points within a 15-mile diameter circle, center Appleton School. Of interest: Bald Eagle, Gambel's Quail, Say's Phoebe and 8 Audubon's Warbler. Seen in area count period but not on count day: Pygmy Owl, Slate-colored Junco and Harris' Sparrow.

Longmont (Lgmt): 73 species. December 22. Longmont Bird Club (25 observers): Martha Ballard, Verlie Beeler, David Bolton, Phil Chariton, Bea Clawson, Allegra Collister (compiler), Hugh Collister, Gary Doughty, Darrell Fargo, Ruby Hinegardner, Mr. and Mrs. William Johnson, Lesley Julian, Christine McColl, Anna McCoy, Mr. and Mrs. Archie Price, Howard Ridge, Nellie Simms, Nina Stultz, Merle Thielen, Wally Tordoff, Gilbert Whitney, Peg Whitney and Iva Wilson. Area covered: All points within a 15-mile diameter circle, center at old Pella School site 2 1/4 miles west of junction of 9th Avenue and Hover Road. Of interest: Virginia Rail, Yellow-shafted Flicker, Winter Wren, Long-billed Marsh Wren, Common Grackle and Lesser Goldfinch.

McCoy (McCoy): 21 species. December 28. Three observers: Mr. and Mrs. Kenneth Ewing and son. Area covered:

Rock Creek area, Colorado River, Conger Mesa and associated areas in Routt and Eagle counties. Of interest: Barrow's Golden-eye, Bald Eagle and 43 Bohemian Waxwing.

Nunn (Nunn): 18 species. December 29. Fort Collins Bird Club (12 observers): Clait Braun (compiler), Mr. and Mrs. Robert Engle, Brent Giezentanner, Merle Good, Carl Marti, Audrey and Ronald Ryder, Jim Smith, R. T. Stanek and Mr. and Mrs. Joe Wilcox. Area covered: All points within a 15-mile diameter circle, center 9 miles north, 4 miles east of Nunn at headquarters of Central Plains Experimental Range. Of interest: Ferruginous Hawk, Common Snipe and 96 Lapland Longspur.

Pueblo (Pblo): 49 species. January 1, 1970. Pueblo Audubon Club; Dave Griffiths, compiler. Of interest: Ferruginous Hawk, Ladder-backed Woodpecker, Brown Towhee and Field Sparrow (no details).

Rocky Mountain National Park (RMNP): 30 species. December 20. Fort Collins Bird Club (22 observers): Inez Baker, Clait Braun, Terry Cole, Allegra Collister, Phillip Creighton, Ron Desilet, Brent Giezentanner, Merle Good, Bob Hamre, Dale Hein, Ed Kautz, Ron Kufeld, David Lupton, Carl Marti, Meredith Morris, Linc Mueller, Mrs. Bert Patterson, Mrs. Richard Pohley, Audrey and Ron Ryder (compilers) and Evadene and Gus Swanson. Area covered: All points within a 15-mile diameter circle, center 1 mile west of Estes Park Village on Highway 34. Of interest: Goshawk, Prairie Falcon, White-tailed Ptarmigan, Bohemian Waxwing and 3 Red-winged Blackbird.

Weldona - Fort Morgan (Weld-FtM): 24 species. December 22. Denver Field Ornithologists (6 observers): Mary Jane Blanpied, Lori Chappell, David Hutchinson, Thompson Marsh, Howard Rollin, Donna Thatcher and Donald Thatcher (compiler). Of interest: 2 Long-eared Owl.

Portions of this compilation were taken from The Aikorns, Vol. 11, No. 3, January 1970; Audubon Club of Pueblo Newsletter, January 1970; Monthly Report of Field Observations of the Denver Field Ornithologists, Vol. 5, No. 4, January 1970 and the Ptarmigan, Vol. Vol. 1, Nos. 1 and 2, January and February 1970.

Editor's Note: Six additional counts, not submitted to the CFO are to be found in Audubon Field Notes, Vol. 24, No. 2, April 1970, pages 402-408.

COLORADO CHRISTMAS COUNT FOR 1969--

Species	BlDr	CoSp	Dnvr	Drgo	Ev-ld	FtCo	GrJn	Lgmt	McCoy	Nunn	Pblo	RMNP	Weld-FtM
Horned Grebe	5							3					
Pied-billed Grebe	3						2						
Great Blue Heron			7					3			2		
Mute Swan			1										
Canada Goose	1800	17	1658	90		14,003		2646					
Snow Goose	1					3		2					
Mallard	4400	489	1129	12	7	9083	81	3489	7		2	2	750
Black Duck			1										
Godwail	12	64	59			31							
Pintail	32	3	68			3		10					
Green-winged Teal	10	17	45	5		698	5	1			27		
American Widgeon	34	51	369	2		628	39	47			6		
Shoveler		500	5			19		5					
Wood Duck			18										
Redhead	5		123			7	10	46			8		
Ring-necked Duck	3	6	24				1						
Canvasback			8										
Lesser Scaup		19	67			1							
Common Goldeneye	5	6	59	31		36	59	128			16	20	
Barrow's Goldeneye						2		2	1			2	
Bufflehead	4		6			2		9					
Ruddy Duck			1										
Hooded Merganser			7			2							
Common Merganser	200		258	15		136	7	208	3		7		
Red-breasted Merganser	4												
Goshawk					2	1						1	
Sharp-shinned Hawk		1	5				3		1				
Cooper's Hawk		2	1		1		2						
Red-tailed Hawk	5	13	14	5	1	5	12	7			4		1
Harlan's Hawk			4			2							
Rough-legged Hawk	3	1	3			8		1		13	4		
Ferruginous Hawk										1	1		
Golden Eagle			3	4	2	6	2	2	1	22	1		3
Bald Eagle							1		1				
Marsh Hawk	5	7	1			11	11	11		8	6		4
Prairie Falcon			3			2	1			4		1	
Peregrine Falcon		1											
Pigeon Hawk						2	1			1			
Sparrow Hawk	6	5	11	3		12	55	11		2	11		
Blue Grouse			1										
White-tailed Ptarmigan												3	
Scaled Quail		20									1		
Gambel's Quail							36						
Ring-necked Pheasant	14	6	23			33	10	13			3		
Chukar	6												
Virginia Rail								1					
Sora	1												
American Coot	1	16	104			17		1					
Killdeer	9	11	22			19	3	15					
Common Snipe	3	30	33	1		8	5	17		1	1		1
Herring Gull	4		5			8		7			1		
Ring-billed Gull	15		726			3		305			12		
Rock Dove		384	508	49							61		
Mourning Dove	4										6		
Screech Owl	1					1							
Great Horned Owl	2	4	1			3		2		5	2		1
Pygmy Owl		1		1									
Long-eared Owl	1												2
Short-eared Owl						3							
Saw-whet Owl					1								
Belted Kingfisher	3	4	7	4	1	8		7				1	
Yellow-shafted Flicker								1					
Red-shafted Flicker	58	86	105	9	3	58	96	87			59		5
Lewis' Woodpecker	1					4	6	7					
Hairy Woodpecker	5	3	20	1	7	8		4			1	6	
Downy Woodpecker	6	5	39	2	4	7	1	12	1		2	2	1
Ladder-backed Woodpecker											2		
Say's Phoebe							1						
Horned Lark	13	1751		100		27	91	87		3597	132		140
Gray Jay					8								

COLORADO CHRISTMAS COUNT FOR 1969

Species	Bldr	CoSp	Dnvr	Drgo	Ev-ld	FtCo	Gr Jn	Lgmt	McCoy	Nunn	Pblo	RMNP	Weid-FIM
Blue Jay	2	7				31		16			5		
Steller's Jay	133	115	289	5	92	9		18	1			115	
Scrub Jay		75	20	37			9	2	8				
Black-billed Magpie	180	260	728	87	32	290	187	235	16	63	151	67	33
Common Raven		1	22	12	10		6					25	
Common Crow	82	124	37	16	16	991		846			8		
Pinon Jay		3		1			10		150				
Clark's Nutcracker	2				18			2	6			8	
Black-capped Chickadee	57	65	158	14	15	45	2	70	4		2	3	8
Mountain Chickadee	47	55	231	5	67	14	16	90	4		10	68	
Plain Titmouse				10				10					
Common Bushtit			14	30				15					
White-breasted Nuthatch	3	4	38	5	4	4	2	4				3	
Red-breasted Nuthatch	15	27	76		3	18		6			3	7	
Pygmy Nuthatch	4	15	170		58			13				18	
Brown Creeper	7	3	17		2	9	2					4	
Dipper	3		14	16	14	9		10	4			12	
Winter Wren								1					
Bewick's Wren				1			3						
Long-billed Marsh Wren								1					
Canon Wren			5			1	1	3					
Rock Wren						1							
Mockingbird						1							
Brown Thrasher			1		1								
Robin	336	739	1066	243	102	359	158	420		19	11	7	
Western Bluebird				10									
Mountain Bluebird						6	8						
Townsend's Solitaire	11	24	117	19	18	6	2	21	4		1	8	
Golden-crowned Kinglet	6	6	5		2	1	1	8			1		
Ruby-crowned Kinglet	1		2	1			1	3					
Water Pipit			8					1					
Bohemian Waxwing									43			38	
Cedar Waxwing	93	206	37	16			4						
Northern Shrike	6	5	7		2	2	2	5		4	1	3	
Loggerhead Shrike			7				8						
Starling	435	714	1004	448	14	1888	8621	734	1	133	40	5	1000
Audubon's Warbler							8						
House Sparrow	240	398	327	102		941	911	618		172	402	200	
Western Meadowlark	59	13	6	1		37	204	36		9	36	11	
Red-winged Blackbird	80	15	516	74		1076	15,090	1039			618	3	825
Brewer's Blackbird	35		31			1	37	280			96		2000
Common Grackle								5					
Evening Grosbeak	12			8	200		73						
Cassin's Finch	15	108	3	4	2								
House Finch	185	577	425	9		125	120	118			113		12
Pine Grosbeak	6	5	6	240			134	13					
Gray-crowned Rosy Finch			97		205					223		10	
Black Rosy Finch		3	3		6			6					
Brown-capped Rosy Finch					6			6					
Common Redpoll	3		1		6								
Pine Siskin	225	948	457	30	301						15		1
American Goldfinch	125	23	203	153	1	31	56	113					
Lesser Goldfinch								2					
Red Crossbill	5	100	8		38	2		25					
White-winged Crossbill			75		16								
Green-tailed Towhee			1										
Rufous-sided Towhee	2	27	12	4			8						
Brown Towhee											3		
White-winged Junco	13	24	74		36	2		7				1	
Slate-colored Junco	53	76	127	8	12	9		21			29		1
Oregon Junco	196	758	303	452	114	101	301	155	28		46	6	10
Gray-headed Junco	78	319	153	95	22		10	9				8	
Tree Sparrow	98	109	36	1		9		82		26	19		9
Chipping Sparrow				1									
Field Sparrow											1		
Harris' Sparrow	7	2	40					7					
White-crowned Sparrow	23	4	14	4		7	98	18			23		
White-throated Sparrow	1	2	2										
Fox Sparrow			3										
Lincoln's Sparrow				1									
Swamp Sparrow			1										
Song Sparrow	16	12	69	7		19	33	15	2		9		6
Lapland Longspur	1									96			1

COLORADO SPRING COUNT FOR 1970

compiled by
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Twelve counts were submitted this year. One count area is new to the list (John Martin Dam) and one count area listed in 1969 is not included (Rifle Creek). The Baca County count, initiated in 1969, is continued this year. The counts totaled 259 species with an additional ten species recorded during the count week, making a total of 269 species plus two hybrids.

Baca County (Baca): 115 species. May 15-17, Paul Julian and Hugh Kingery (compilers); May 16, Susan and Thompson Marsh. Area covered: Two Buttes Reservoir, Cimarron River and Comanche National Grasslands. Of note were: Mississippi Kite, Lesser Prairie Chicken, Turkey, Roadrunner, Screech Owl, Eastern Phoebe, Eastern Wood Pewee, White-necked Raven, Bewick's Wren, Curve-billed Thrasher, Magnolia Warbler, Painted Bunting, Dickcissel, Cassin's Sparrow and Rufous-crowned Sparrow. The Painted Bunting was a female observed leisurely at close range -- 20 feet -- by Hugh Kingery and Paul Julian. The bunting was observed at mid-day in the woods below the dam at Two Buttes Reservoir. The Magnolia Warbler was also observed in the woods below the Two Buttes Reservoir dam on May 15th by Hugh Kingery and Paul Julian. One Curve-billed Thrasher was observed with food in its bill as if carrying it to young, and one Cassin's Sparrow nest was found with a Brown-headed Cowbird egg. One hybrid Lazuli x Indigo Bunting was observed.

Bonny Dam (BoDm): 118 species. May 16. 8 observers: Bob Andrews, Bobby Ausfahl, Merle Barbour, Christine Bonney, Harold and La Vona Holt, and Jack and Grace Welch (Denver Field Ornithologists). Of interest were 2 Green Herons, 6 Bobwhite, White-rumped Sandpiper, Stilt Sandpiper, Great Crested Flycatcher, Tennessee Warbler, Bobolink and 6 Baltimore Orioles.

Boulder (Bldr): 143 species. May 16. Boulder Bird Club (25 observers): Janet, Ray, John and Amy Chu; Olive Cobb; Sherry Conner; Robbie Elliott; Mr. and Mrs. W. T. Garrett;

Carol Haverkamp; Louise Hering (compiler); Dorothy Hermann; Steve Larson; Bob and Dorothy Lacher; Ethel Leighton; Steve and Helen Pattee; Mae Richardson; Clara Smith; Berene Sullivan and family; and Grace Wiegman. Of interest: 3 Common Egret, Peregrine Falcon, Chukar, 2 Parula Warbler and Blackpoll Warbler. One Parula Warbler was seen east of Boulder by Mrs. Paul Julian, and the second Parula was seen at a feeder at the home of Mrs. Clara Smith at Gross Reservoir and observed for several hours by several observers. 1 Screech Owl, 2 Belted Kingfishers, and 1 Cape May Warbler were seen during the count week, but not on count day. The Cape May Warbler, observed on May 10th by Winifred Guthrie, is the 3rd state record.

Colorado Springs (CoSp): 157 species. May 16. Aiken Ornithological Society (32 observers): Mrs. T. L. Adams, Dr. Richard G. Beideman, Martha Bildstein, Lt. and Mrs. Ken Blackshaw, Alene Catlett, Doris Dawson, Betty Field, Dr. and Mrs. Donald Galvin, Nancy Greenleaf, Julia Graves, Richard Holliday, Gayle Ireland, Jane Jones, David Laliberte, Mrs. Lee Laliberte, Ruth Michaels, Paul Nesbit, Mary Nicholson, Lynne Nix, Susan Reese, Mike and Lois Schultz, Col. H. M. Smith, Mr. and Mrs. Mahlon Speers, Helen Thurlow, Alice Van Sickle, Dee Williams, and Henry and Elinor Wills. Of interest were Bell's Vireo, Chestnut-sided Warbler, Worm-eating Warbler, 4 Bobolink, Baird's Sparrow and White-throated Sparrow. The Worm-eating Warbler was identified from as close as 15 feet by Mike and Lois Schultz. The White-throated Sparrow wintered and was seen often by many members. Additional species seen in count period: Cattle Egret, Blue Grouse, Whimbrel, Willet, Downy Woodpecker and Hooded Oriole. One hybrid Red-shafted x Yellow-shafted Flicker was also counted.

Denver (Denvr): 144 species. May 16. Denver Field Ornithologists (17 observers): Mr. and Mrs. R. Brace, Phyllis Caswell, Lori Chappell, Patty Echelmeyer, R. Ehret, Tim Gates, Steve Hilty, Nancy Hurley, Sadie Morrison, C. Nitschke, Jack Reddall, Robert Spencer, Robina Storrie, Don Thatcher, Lois Webster and Ruth Wheeler. Area covered: Aurora to Barr Lake, Lower Bear and Turkey Creeks, Willow Springs Ranch, Sedalia, Jackson Creek, Daniels Park and Red Rocks. Of note were Goshawk, Townsend's Warbler and 1 Blackburnian Warbler observed on 13th - 16th. Additional species seen in count period: Golden-winged Warbler, Blue-winged Warbler and Black-throated Gray Warbler.

Durango (Drgo): 89 species. May 16. Durango Bird Club (7 observers): Elva Fox, Valarie Fritz, Kay Frizell, Tom Frizell, Oppie Reames (compiler), A. W. Spencer and Kip Stransky. Area covered: All points within a 15-mile diameter circle centered at Pastorius Reservoir southeast of Durango on Florida Mesa. Of note were: 5 Grace's Warbler, 1 male Lark Bunting observed by Oppie Reames near the New Mexico boundary, and Sage Sparrow.

Fort Collins (FtCo): 179 species. May 16. Fort Collins Bird Club (47 observers): Fred Alyea, Tom and Mary Barber, W. R. Barchet, Gertrud Biedermann, Ward Brady, Walter Brunner, Terry Cole, Gerald R. Craig, Phil Creighton, George Creighton, Robin Fields, Brent Giezentanner, Ralph Gutierrez, Peter and Pat Hall, Bob Hamre, Dale Hein, Larry Henderson, Jeff Homan, Terry Hoyland, Ed Kautz, Rick Krom, David Lupton, Carl Marti, Eleanor Martinelli, Bob McNulty, Marian Patterson, Randy Phelan, Marge S. Rhoades, Ben Rizzi, Audrey and Ron Ryder (compilers), Frank Schmidt, Carl Schwartz, Jim Shea, Kathleen Stewart, Gus and Evadene Swanson, Mary Totten, Charles Wagner, John L. Wagner, Guy and Mae Ward and Jim Wilson. Area covered: Larimer and Weld Counties. Of interest: 5 Snow Goose, Wood Duck, Goshawk, Bald Eagle, Turkey, Blue Grouse, 12 Whimbrel, Dunlin, 7 Bonaparte's Gull, Gray Jay, Tennessee Warbler, Black-throated Gray Warbler, 2 Chestnut-sided Warbler, 2 Tree Sparrow, McCown's Longspur and Chestnut-collared Longspur. Seen within three days of the count but not on the count day: Yellow-crowned Night Heron, Pinon Jay and Mockingbird.

Grand Junction (GrJn): 107 species. May 14. Six observers. Area covered: Grand Junction County to De Beque County, Grand Junction County to Fruita County, and reservoirs north of Grand Junction about 25 miles. Of interest: Gambel's Quail, Sora, 20 Marbled Godwit, Black-chinned Hummingbird, Gray Vireo, 2 Rose-breasted Grosbeak, 4 Red Crossbill and Black-throated Sparrow.

John Martin Dam - Bent County (JM Dam): 62 species. May 15. Paul Julian and Hugh Kingery (compiler). Of note were: Roadrunner, Magnolia Warbler and Slate-colored Junco. The Magnolia Warbler was in a Russian olive bordering on a cattail marsh.

Longmont (Lgmt): 134 species. May 16. Longmont Bird Club (16 observers): David Bolton, Phil Chariton, Scott Chariton,

Mr. and Mrs. Robert Christensen, Allegra Collister, Camille Cummings, Christian Muller, Mrs. Daniel Muller, Erma Neill, John Neill, Joe Prentice, Heather Robertson, Mrs. I. K. Robertson, Gil Whitney (compiler) and Peg Whitney. Unusual species were: Common Loon, Horned Grebe, Common Egret, Band-tailed Pigeon, Olive-sided Flycatcher, 3 Common Bushtit, Long-billed Marsh Wren, 2 Rusty Blackbird, Baird's Sparrow and Cassin's Sparrow. The Baird's and Cassin's Sparrows were observed on the plains east of Longmont by Bolton. Additional species seen in count week: Willet, Baird's Sandpiper, Western Sandpiper, Sanderling, Least Flycatcher, Dusky Flycatcher, Hermit Thrush, Gray-cheeked Thrush, Loggerhead Shrike, Warbling Vireo, Orange-crowned Warbler, Black-throated Blue Warbler, Blackpoll Warbler, Northern Waterthrush, Mac Gillivray's Warbler, Hooded Warbler, White-throated Sparrow and Lincoln's Sparrow.

Park County (PkCo): 63 species. May 16. 3 observers: Robert and Nancy Gustafson, Edna Ormsbee. Many areas covered in previous years could not be reached because of closed or impassable roads.

Pueblo (Pblo): 152 species. May 16. Pueblo Audubon Club (30 observers): Delores Baer, Mr. and Mrs. Robert Balleweg, Donna Bregenzer, Linda Dearing, Mark Dickson, Nadene Elich, Barbara Giguere, Mr. and Mrs. Dave Griffiths, Dannette Griffiths, Don Janes, Todd Janes, Oak and Inez Jaye, Mr. and Mrs. Gene Moore, Mr. and Mrs. Hal Murry, Doug Nenlidge, Mr. and Mrs. Ward Stryker, J. A. Tilton family, Van Truan, Mr. and Mrs. Rex Wagner, Robert and Lois Wolfe, and Joan Wolther. Areas covered: Walsenburg, Rye, Lake Isabel, Wetmore, Ordway, Boone, Burnt Mill Road, Pueblo and parts between. Species of interest: 2 Northern Phalarope, Yellow-shafted Flicker, Williamson's Sapsucker, Ladder-backed Woodpecker, 42 Cassin's Kingbird, Scissor-tailed Flycatcher, Eastern Phoebe, Bell's Vireo, 2 Indigo Bunting and Brown Towhee.

Portions of this compilation were taken from The Aikorns, Vol. 11, No. 6, June 1970; Monthly Report of Field Observations of the Denver Field Ornithologists, Vol. 5, No. 9, June 1970, and the Ptarmigan, Vol. 1, No. 6, June 1970.

COLORADO SPRING COUNT FOR 1970

Species	Baca	BoDm	BlDr	CoSp	Denvr	Drgo	FtCo	GrJn	JM Dam	Lgmt	PkCo	Pblo
Common Loon										1		
Horned Grebe										2		
Eared Grebe	1	6		29	15		12	1		4		1
Western Grebe			11	14	65		218		4	22	2	17
Pied-billed Grebe		2	14		16		5			9		2
White Pelican							234					
Double-crested Cormorant					35		218					
Great Blue Heron		2	56	5	46		234	12		60		1
Green Heron		2										
Common Egret			3							1		
Snowy Egret					3		6	19			6	17
Black-crowned Night Heron			45	11	20		13	2		9		1
American Bittern		2	4		1				1			
White-faced Ibis					31	2	2	25				
Canada Goose	1	4	150	1	15		261	15		67		16
Snow Goose							5					
Mallard	12	27	34	113	180	41	321	15	4	155	26	62
Gadwall	21	8	16	118	368	5	227	2	10	71	9	50
Pintail		4	17	35	8	70					1	7
Green-winged Teal		7	23	50	34	2	48	4		11	8	26
Blue-winged Teal	2	31	16	52	82		168		2	41	3	39
Cinnamon Teal			15	18	19	6	56	30		10	5	11
American Widgeon	2	6	6	22	7	6	63	2	4	71		8
Shoveler		14	18	467	210	6	209	7	12	64	2	50
Wood Duck							1					
Redhead		12	8	45	11		32	8		16	20	17
Ring-necked Duck				1		5	4	16			2	10
Canvasback				1	1	1	3					
Lesser Scaup		2	11	92	15		91	2		36	1	149
Common Goldeneye		1	2									
Bufflehead		5	2	5	5		12	1		2	1	1
Ruddy Duck	2	30	1	170	203	15	102	20		11	1	10
Common Merganser						4	7	5			3	
Turkey Vulture	20		11	9		10	9	3		2		16
Mississippi Kite	2											
Goshawk					1		1					
Sharp-shinned Hawk	1							1				3
Cooper's Hawk			1		1		1			1	1	
Red-tailed Hawk	2		1	3	3	1	12	4	1	1	1	3
Swinson's Hawk	7	3	1	6	5		11	1	4	1		10
Ferruginous Hawk					1		6					6
Golden Eagle	3		1	3	2	1	9			1		7
Bald Eagle							1					
Marsh Hawk	8	4		2	2		17	2	1	1		3
Prairie Falcon		1					7					1
Peregrine Falcon			1									
Sparrow Hawk	15	7	11	18	17	10	45	5		21	1	36
Blue Grouse					1		2					
Lesser Prairie Chicken	18											
Bobwhite	2	6										
Scaled Quail	37			13					2			8
Gambel's Quail								6				
Ring-necked Pheasant	12	4	2	8	12		57	6	2	6		9
Chukar			2									
Turkey	6						1					
Virginia Rail			1	4	1		3		2			
Sora			3	2			2	1		1		
American Coot	4	42	12	102	113	12	163	25		63	5	215
Semipalmated Plover			4		2		3	2		2		
Killdeer	16	10	25	35	19	1	136	6	3	61	2	121
Mountain Plover	1			2			4					8
Black-bellied Plover		2			9		56			15		
Common Snipe			3				1			6		2
Long-billed Curlew	19	1			1		14					3
Whimbrel							12					
Spotted Sandpiper	1	14	4	36	14	5	25	5	2	22	2	5
Willet	2		2		1		11	1				3
Greater Yellowlegs							6			3		1
Lesser Yellowlegs		2					11			1		
White-rumped Sandpiper		1										

COLORADO SPRING COUNT FOR 1970

Species	Baca	BoDm	BlDr	CoSp	Denvr	Drgo	FTCo	GrJn	JM Dam	Lgmt	PlCo	PbLo
Baird's Sandpiper				2			7	2				
Least Sandpiper		8	8				41			2		
Dunlin							1					
Long-billed Dowitcher		4	9	18	20		64	9		14		23
Stilt Sandpiper		2										
Semipalmated Sandpiper		2	8				20					20
Western Sandpiper		4	2									
Marbled Godwit								20				
Sanderling		18										9
American Avocet	4	2	26	14	28	7	216	17	2	46		82
Wilson's Phalarope		6	109	1,019	132	15	485	18		221	259	441
Northern Phalarope					4		36					2
California Gull					1		280			2	2	
Ring-billed Gull	2	2	1	6	1		281	10		7		1
Franklin's Gull				3	46		76			280		115
Bonaparte's Gull							7					
Forster's Tern		8	21		1		28	3		2		
Black Tern	4	100		20		5	7	1		11		3
Band-tailed Pigeon				64	2	6				1		
Rock Dove		12	33	169	46			20		36		66
Mourning Dove	227	65	109	288	86	12	370	49	8	139		367
Roadrunner	1								1			
Barn Owl			2				4					2
Screech Owl	1											
Great Horned Owl	3	1	2	7	4		10		1			5
Burrowing Owl	11	1		9	5		7	1		1		47
Long-eared Owl				1	1							5
Poor-will	3			1			1					
Common Nighthawk	7	1										
Chimney Swift			2				4					
White-throated Swift			26	63	8	1	212	30		10		3
Black-chinned Hummingbird	2						5					
Broad-tailed Hummingbird			45	71	6	30	18	3		1	9	37
Belted Kingfisher		4		7	6	4	6		1	1	2	2
Yellow-shafted Flicker		2					1					1
Red-shafted Flicker	7	7	38	90	26	21	88	6	1	41	6	27
Red-headed Woodpecker	3	18	1	3	1		4			2		1
Lewis' Woodpecker	19		4	10	1	10	6	3		14		37
Yellow-bellied Sapsucker						2	2			1		
Williamson's Sapsucker												1
Hairy Woodpecker			9	3			5					2
Downy Woodpecker		2	7		5		4			4		2
Ladder-backed Woodpecker	4											2
Eastern Kingbird	12	8	3	10	14		17		3	11		9
Western Kingbird	92	18	2	127	32	4	82	50	20	32	2	435
Cassin's Kingbird	2			3								42
Scissor-tailed Flycatcher												1
Great Crested Flycatcher		1										
Ash-throated Flycatcher	16					2		1				1
Eastern Phoebe	11											1
Say's Phoebe	1	1	1	5	6	6	15	8		2	1	12
Trail's Flycatcher	1	1	1									
Least Flycatcher					1		4					
Western Flycatcher			1	1	2	1	1			1		
Eastern Wood Pewee	1											
Western Wood Pewee		2	1	4	4	1	1			4		2
Olive-sided Flycatcher	2		2	1	1		1			1		
Horned Lark	262	6		230	16	1	416	3		8	13	172
Violet-green Swallow		6	44	134	11	112	72	50		29	9	190
Tree Swallow		4	16	2	1		38	2		2	5	52
Bank Swallow			12	15	3		1	4		12	4	217
Rough-winged Swallow	18	6	3	10	12	40	17	12		3	2	52
Barn Swallow	9	22	51	59	52	45	258	45	2	148	2	527
Cliff Swallow	14	12	3	72	8		134	7	500	539	52	870
Gray Jay							1					
Blue Jay	6	8	3	5	1		18			6		11
Steller's Jay			112	22		2	48			19	5	45
Scrub Jay	3			102	10	45		1				8
Black-billed Magpie	17	6	66	287	122	58	206	100	9	168	25	138
Common Raven			12	6		5	5	6			1	16

COLORADO SPRING COUNT FOR 1970

Species	Baca	BoDm	Bldr	CoSp	Denvr	Drgo	FiCo	GrJn	JM Dam	Lgmt	PkCo	Pblo
White-necked Raven	18			6								
Common Crow	5	4	14	42	5	16	36		1	5	10	23
Pinon Jay	2		38	40			28	4				
Clark's Nutcracker				1			1	18			3	
Black-capped Chickadee		14	9	35	18	2	19			18		17
Mountain Chickadee			32	11			32			5	4	5
Plain Titmouse	1			2			1	1				
Common Bushit	2			2						3		
White-breasted Nuthatch			11	5	1	1	13			1		18
Red-breasted Nuthatch			14	7	4	1	16			2	5	1
Pygmy Nuthatch			27	11	2		27			8	6	9
Brown Creeper				2			1					
Dipper			2	1			6			4		5
House Wren	3	22	25	66	52	3	50		3	23		20
Bewick's Wren	14								2			1
Long-billed Marsh Wren										1		
Canon Wren	7		1		4		4	3		5		
Rock Wren	11		2	4	2		5	6	3	13		1
Mockingbird	104	2	1	5					5		1	35
Catbird		2	3	6	3		1			3		1
Brown Thrasher	7	8	2	2	1		9		4	4		9
Curve-billed Thrasher	4											
Sage Thrasher								2				2
Robin	3	12	224	414	45	81	210	22	4	168	31	131
Hermit Thrush			2	5	2		1					3
Swainson's Thrush	12	19	7	30	79		53		1	7		
Veery		3	1	2	5		1			2		
Western Bluebird				12	5							9
Mountain Bluebird			17	63	3	4	65	1		7	37	25
Townsend's Solitaire			5	5			2				1	
Blue-grey Gnatcatcher				2			15	5				
Golden-crowned Kinglet				1			1					
Ruby-crowned Kinglet			4	2	1		19			2		1
Water Pipit							6					
Cedar Waxwing		2		20	1			10				27
Loggerhead Shrike	10	4		7	1		10				3	14
Starling	8	27	151	563	119	62	357	102	2	364	3	197
Bell's Vireo				2								2
Gray Vireo								4				
Solitary Vireo			5	8	4	1				5		
Red-eyed Vireo	1	1		1	2							1
Warbling Vireo	3	2	4	7	3	1	2		1			1
Black-and-White Warbler				2	1		2					
Worm-eating Warbler				1								
Tennessee Warbler		2			1		1					
Orange-crowned Warbler	6		3	1	2	20	7	8				
Virginia's Warbler	1	1	27	62	16	3	16	24		1		3
Parula Warbler			2									
Yellow Warbler	42	14	59	44	69	60	87	12	15	122		36
Magnolia Warbler	1								1			
Myrtle Warbler	1	2	7	6	13		7		1	4		23
Audubon's Warbler	19	6	34	70	71	59	69	45	10	33	4	18
Black-throated Gray Warbler			1				1	4				1
Townsend's Warbler					1							
Blackburnian Warbler					1							
Grace's Warbler						5						
Chestnut-sided Warbler	1			1			2					
Blackpoll Warbler			1									
Northern Waterthrush		2	3	6	1		1					
MacGillivray's Warbler	3		13	5	12		2	3				1
Yellowthroat	2	8	15	22	37		22	1	10	13		13
Yellow-breasted Chat			2	1	17	3	20	2		5		
Wilson's Warbler	7		23	17	18	13	27	5		3		2
American Redstart	2	2	1	1	6		4		1			
House Sparrow	40	25	106	199	75	75	270	35	7	250	1	185
Bobolink		1		4								
Western Meadowlark	146	7	134	231	88	13	376	31	14	188	5	404
Yellow-headed Blackbird		12	114	7	96		175	41	50	289	1	80
Red-winged Blackbird	29	65	450	345	363	386	673	100	60	945	33	469
Orchard Oriole	8	10										

COLORADO SPRING COUNT FOR 1970

Species	Baca	BoDm	Bldr	CoSp	Denvr	Drgo	FiCo	GrJn	JM Dam	Lgmt	PkCo	Pblo
Baltimore Oriole		6										
Bullock's Oriole	47	16	7	33	67	5	48	19	10	39		86
Rusty Blackbird										2		
Brewer's Blackbird		4	143	136	14	366	128	50		129	133	123
Common Grackle	8	8	91	177	32		257		55	228		220
Brown-headed Cowbird	24	4	65	30	24	3	34	12	5	63	16	156
Western Tanager		1	8	40	5	24	8	8		12		6
Rose-breasted Grosbeak			3	12	1			2		4		
Black-headed Grosbeak	6	2	20	70	8	23	10	27		8		52
Blue Grosbeak	13	2										1
Indigo Bunting			1	2	1							2
Lozuli Bunting	17	1	21	27	10		27	10	1	60		5
Painted Bunting	1											
Dickcissel	1											
Evening Grosbeak			50	169	3	67	232	4		27		15
Cassin's Finch			13	5		9	29	16		2		
House Finch	5		78	242	16	21	36	80		76		198
Pine Grosbeak							2					
Pine Siskin	3	6	132	647	7	325	122	68		193	7	11
American Goldfinch	20	12	12	51	32	9	46	16		29		28
Lesser Goldfinch			10		2	1				3		6
Red Crossbill			19				17	4				
Green-tailed Towhee			12	51	11	9	36		1	2	4	11
Rufous-sided Towhee	1	2	52	201	32	14	32			29		36
Brown Towhee	17											1
Lark Bunting	1,519	50		297	45	1	3,323	2	10			215
Savannah Sparrow	4	1	4	2			52		2	2	1	2
Grasshopper Sparrow	17	12										
Baird's Sparrow				1						1		
Vesper Sparrow	15		2	41	12		68	1		4	1	8
Lark Sparrow	144	16	2	2	2	3	88	8	140	68		90
Rufous-crowned Sparrow	13											
Cassin's Sparrow	91									1		10
Black-throated Sparrow								4				
Sage Sparrow						1						
Slate-colored Junco									1			
Oregon Junco								1	1			4
Gray-headed Junco			24	10		2	39			2	3	4
Tree Sparrow							2					
Chipping Sparrow	271	20	100	497	97	16	1,404	7	325	71	9	100
Clay-colored Sparrow	51	38	3	11	1		69		160	3		1
Brewer's Sparrow	26	2	7	36	4	2	281	5	4	4		34
Harris' Sparrow		2	2					1				
White-crowned Sparrow	5	6	10	41	21	15	45	30	25	23	8	22
White-throated Sparrow				1								
Lincoln's Sparrow	5	2	6	18	3		3		2		1	2
Song Sparrow		10	16	45	11	?	18	2		4		2
McCown's Longspur							21					
Chestnut-collared Longspur							9					

ADDITIONS AND CORRECTIONS TO "BIRDS IN WESTERN COLORADO"

William A. Davis
Grand Junction, Colorado

When "Birds in Western Colorado" was sent to the members of the Colorado Field Ornithologists, an accompanying letter asked for records which would add to or correct the booklet. Here are the additions and corrections received through May, 1970.

Additional Species for the Western Slope

1. Common Scoter: adult male in lagoon at Clifton, October 27, 1969. Remained for a week and was seen and photographed by many observers.
2. Scaled Quail: resident in the Red Mesa area of La Plata County. Reported by Oppie Reames.
3. Dunlin: 1 at lagoon at Clifton, April 17, 1968; 1 at Highline Lake, April 12, 1970. Reported by Lucy Ela.
4. Blue Jay: 1 at a feeder at Montrose, May 29 to September 19, 1967. Reported by Henry Doud in Monthly Report of Field Observations of the Denver Field Ornithologists, Vol. 3, No. 7, April 1968.
5. Common Grackle: 10 at Steamboat Springs, June 14, 1969. Reported by a group in Monthly Report of Field Observations of the Denver Field Ornithologists, Vol. 4, No. 10, July 1969.
6. Indigo Bunting: 1 at Durango, July 12, 1969. Reported by Oppie Reames, Elva Fox and Kip Stransky.
7. Snow Bunting: 6 seen at Gunnison on December 28, 1969 during the Christmas Count by the Gunnison Valley Naturalists Club.

Additional Records

1. Double-crested Cormorant: 1 at reservoir at Glade Park near Colorado National Monument, May 18, 1969. Seen by Edgar Muhr and W. A. Davis. 2 at Highline Lake, April 30, 1970, reported by Lucy Ela.
2. Gadwall: 25 at Hotchkiss, December 30, 1969. Reported by Theo Colborn.
3. Lesser Scaup: 5 at Durango, May 17, 1969. Reported on Durango Spring Count, Colorado Field Ornithologist #6, Summer 1969.

4. Barrow's Goldeneye: 1 male at Trapper's Lake, June 17, 1969. Reported by John Colvin in Monthly Report of Field Observations of the Denver Field Ornithologists, Vol. 4, No. 10, July 1969.
5. Turkey Vulture: 1 at Hotchkiss, December 30, 1969. Reported by Theo Colborn.
6. Osprey: 1 seen at Ignacio, March 14, 1970. Reported by Oppie Reames.
7. Sandhill Crane: 1 wintered in a corn field near Hotchkiss from November 1969 to March 1970. Reported by Theo Colborn.
8. Black-bellied Plover: 1 bird in fall plumage remained on the golf course at Grand Junction, September 27 to October 5, 1969, seen by W. A. Davis.
9. Stilt Sandpiper: 4 at Durango, May 17, 1969. Reported on Durango Spring Count, Colorado Field Ornithologist #6, Summer 1969.
10. Franklin's Gull: 1 at Hahn's Peak, July 13 - 15, 1969. Reported in Monthly Report of Field Observations of the Denver Field Ornithologists, Vol. 4, No. 10, July 1969.
11. Bonaparte's Gull: 2 at lagoon at Clifton, October 27, 1969 and for a week after. Seen by many observers.
12. Black Tern: common migrant visitor to Pastorius Reservoir, south of Durango in La Plata County in late May. Reported by Oppie Reames.
13. Rivoli's Hummingbird: 1 at Durango, August 28 - 30, 1969. Reported by Oppie Reames.
14. Yellow-shafted Flicker: 1 female at Palisade, January 8, 1970; identified by yellow wings and head markings by Shirley Sawtelle, Sue Dismant and Lorna Gustafson.
15. Olive-sided Flycatcher: 1 at Durango, May 17, 1969. Reported on Durango Spring Count, Colorado Field Ornithologist #6, Summer 1969.
16. Purple Martin: on April 27, and a flock of over 40 on May 10, 1969 at Florida Mesa south of Durango. Reported by Oppie Reames.
17. Catbird: common summer resident in underbrush in the Durango area. Reported by Oppie Reames.
18. Western Bluebird: common summer resident in La Plata County. Reported by Oppie Reames.
19. Golden-crowned Kinglet: 1 at Grand Junction, seen on the Christmas Count and as late as January 17, 1970 by many observers.

20. Cedar Waxwing: irregular visitor all winter. Breeds in La Plata County. Reported by Oppie Reames.
21. Myrtle Warbler: 1 wintered at Durango, seen January through March 1970. Reported by Oppie Reames.
22. Scott's Oriole: A pair seen west of Yellow Jacket Creek, 25 miles north of Cortez on June 4, 1966, by Professor A. W. Spencer of Fort Lewis College. Reported by Oppie Reames.
23. Harris' Sparrow: 1 at Durango, May 17, 1969. Reported on Durango Spring Count.
24. Fox Sparrow: has been found in the breeding season at Rock Creek Bird Nesting Area north of Dillon; at Gothic (by Curtis Adkisson); at Trout Lake in San Miguel County, elevation 10,000 feet and at Crater Lake at the foot of Maroon Peak, southwest of Aspen.

Retraction

1. Beardless Flycatcher: should be deleted until more definite evidence on this hard-to-identify species is available.

BIRDS IN WESTERN COLORADO

Annotated field list and travel guides for finding
the best birding spots. \$1.75.

HISTORICAL MUSEUM AND INSTITUTE OF WESTERN COLORADO

4th and Ute, Grand Junction, Colorado 81501

Return to:

Executive Secretary
Colorado Field Ornithologists
220 - 31st Street
Boulder, Colorado 80303

NINTH ANNUAL CONVENTION
COLORADO FIELD ORNITHOLOGISTS

May 22 - 23, 1971

Manitou Experimental Forest Station
.7 miles north of Woodland Park on Hy. 24 to Deckers
