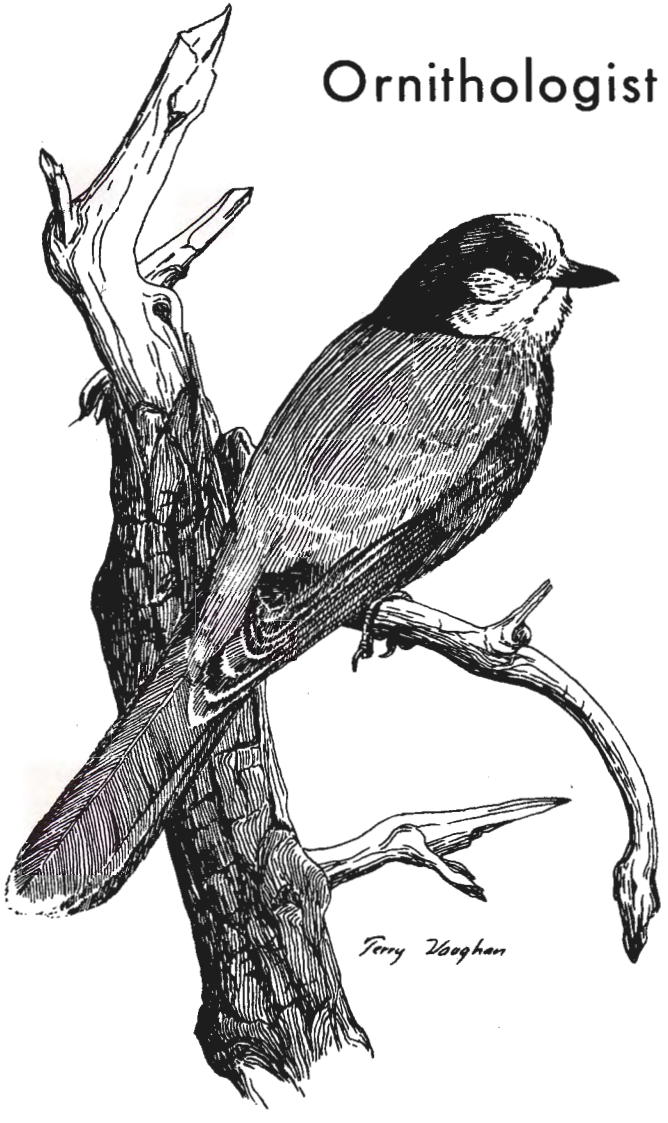
No. 2 SUMMER, 1967

The Colorado Field Ornithologist



Summer, 1967 No. 2

IN THIS ISSUE:

The *Colorado Field Ornithologist* is a semiannual journal devoted to the field study of birds. Articles and notes of scientific or general interest, and reports of unusual observations, are solicited. Send manuscripts, with photos and drawings, to R. H. Hamre, Editor, 3801 Royal Drive, Fort Collins, Colorado 80521. Membership and subscription fees: Full Member, $3.00; Library subscription, $1.50. Submit payments to Robbie Wright, Executive Secretary, The Colorado Field Ornithologists, 1895 Alpine, Apt. 16D, Boulder, Colorado 80301.

One of the first Canada Goose releases in the Colorado trials, on College Lake just west of Fort Collins.

EXPERIMENTAL MANIPULATION OF CANADA GOOSE POPULATIONS IN COLORADO

William H. Rutherford[1/]

Canada geese are remarkably well adapted to having their mode of living altered or manipulated by humans. They have regular habits, individual populations retain their identities, and they are easily imprinted to definite localities.

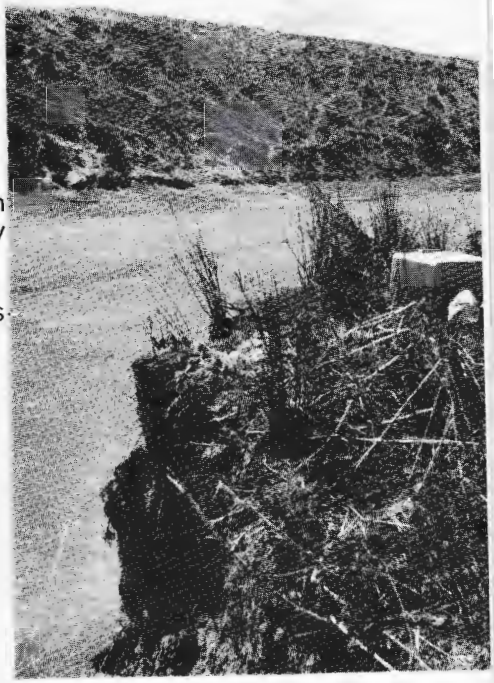
The success of the Colorado Game, Fish and Parks Department's efforts to establish a local breeding flock of Canada geese in the Fort Collins-Boulder area is now assured. These geese originated from captive decoy flocks which were liberated in the Denver area in the 1930's. Their taxonomic status is doubtful, because they were acquired from many different sources and had been held in captivity for so many generations that no definite subspecies can be said to exist. Hanson[2/] indicated that many of the Denver City Park geese are fine specimens of the Giant Canada Goose

(Branta canadensis maxima). It seems certain that the Great Basin Canada Goose (B. c. moffitti) is strongly represented. Todd's Canada Goose (B. c. interior) may also make up a small percentage. Whatever the taxonomy, these birds form a definite and separate group which is resident the year around. Whatever the locality may be where birds from this group are placed, they tend to remain. Thus, the astounding success of the Fort Collins-Boulder transplants must be ascribed at least in part to this particular source of stock.

It is generally supposed that Canada geese belonging to the migratory High-Line Population, which breeds in southern Saskatchewan and northeastern Montana, consist entirely of B. c. moffitti). Even this belief is not valid, because these migratory geese have been exposed to "contamination" from introduced flocks throughout their breeding, migration, and wintering ranges for many years. Small flocks of geese owned by hunting clubs or individuals, before Federal law made live decoys illegal, were maintained in many areas, and it is virtually certain that some of these birds became mixed with the High-Line geese.

Because of this situation, the Colorado Game, Fish and Parks Department feels that there is full justification for transplanting geese and attempting establishment of resident flocks wherever suitable habitat may exist within the range of the High-Line Population. With the Larimer-Boulder-Weld County flock now firmly established, attention is being turned to the San Luis Valley, historically a stopping-off place for migrating High-Line geese on their way to the Rio Grande Valley of New Mexico.

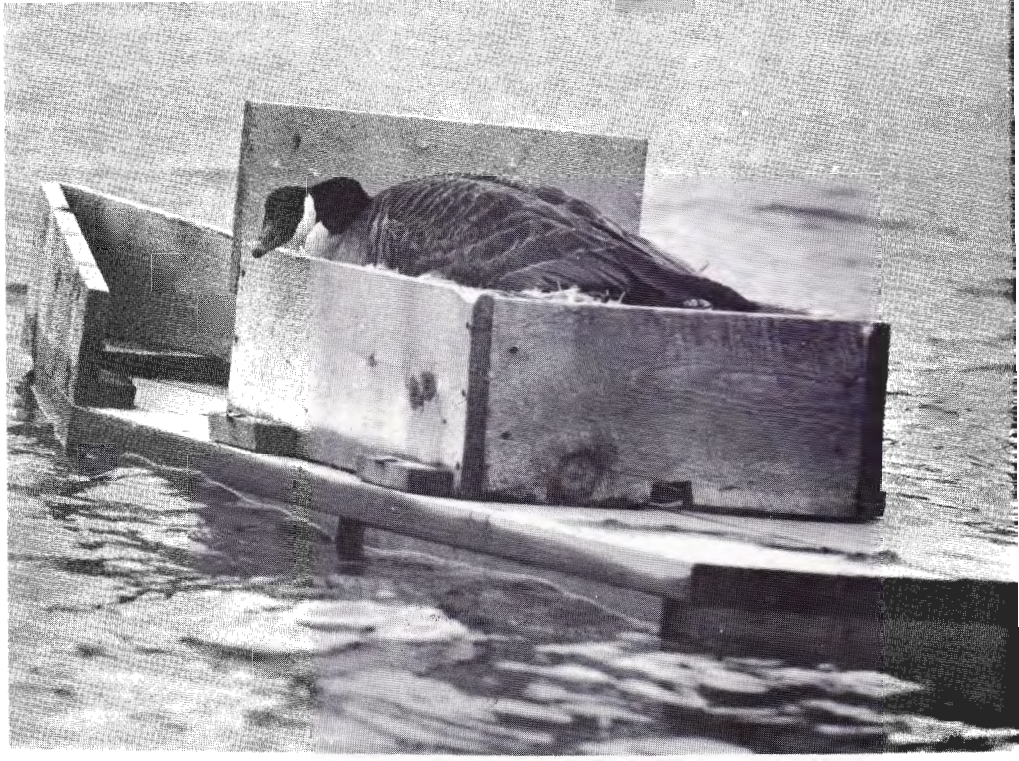
The extensive small-grain agriculture of the San Luis Valley, coupled with numerous warm-water artesian wells and drain ditches, offers high-quality year-around Canada goose habitat. A small local flock has existed here for several years, but has increased in size very slowly. In an attempt to put this flock on a higher production basis, transplanting was started in the summer of 1966, when 71 adult birds were taken from Denver City Park and moved to the Monte Vista National Wildlife Refuge. This summer (1967), 258 adults



This nest on the Yampa might well have been destroyed by bank cutting. The eggs were taken to Fort Collins and hatched; flightless goslings were released on the Colorado below Grand Junction.

and 85 goslings were taken from the same place; the adults were again moved to the Monte Vista Refuge for holding in captivity, while the goslings were liberated on the Alamosa Refuge. In addition to providing a broader population base for building the San Luis flock, this procedure has also greatly alleviated the overpopulation problem at Denver City Park. Significant results within the next few years are predicted.

The story is entirely different on Colorado's western slope. The Yampa, Green, Little Snake, White, and Colorado Rivers are historic breeding grounds for a segment of the Great Basin Canada Goose Population. This is a pure, uncontaminated population of B. c. moffitti which breeds in western Montana, Idaho, western Wyoming, northern Utah, and northwestern Colorado, and winters in the lower Colorado River Valley of California and Arizona. Here we are dealing with the recognized pure strain of migratory geese, and any plans for population manipulation on the breeding grounds must take this into consideration. Colorado offers no suitable wintering areas for these birds; therefore, the objective is not to attempt establishment of resident flocks, but rather to induce birds



Nesting structures can contribute significantly to the establishment of breeding goose populations.

already present to expand their breeding range into unused habitat.

The technique of gosling transplants seems to be the best approach. It is, of course, absolutely imperative that goslings to be transplanted should be obtained from the Great Basin Population, to avoid the contamination which has occurred on the eastern slope. This places a definite limit on the number of goslings which can be obtained for transplanting purposes.

Nesting Canada geese on the Yampa and Little Snake Rivers habitually select small, low islands or sandbars as nesting sites. Nesting success, therefore, is largely dependent upon the timing of incubation as related to the timing of the spring runoff. Every year some goose nests are lost to spring floodwaters, and during some years the loss of incubating clutches is substantial. These vulnerable nests, then, offer a good source of supply

for goslings, provided that the eggs can be gathered and artificially hatched.

In April, 1967, ten vulnerable nests were located. A few had been placed so low that a river rise of only six inches would have inundated them. The eggs were gathered, placed in heated containers, and transported by airplane to the Research Station at Fort Collins, where they were placed in incubators for hatching. The net result of this endeavor was 24 goslings which reached flight stage.

Shortly before the birds were able to fly, they were crated and taken to an island in the Colorado River about 15 miles below Grand Junction. This stretch of river contains a number of good permanent islands with green grass for grazing, plus numerous nearby grain fields -- excellent goose habitat, but largely unused. A few geese have traditionally spent summers here, and one or two broods are usually raised, but it has never been a significant nesting area. By feeding the transplanted birds through the summer, we hope to hold them in the vicinity of this island where, hopefully, they will mingle with geese already in the area and will accept this as their home.

If these transplanted geese follow the predicted pattern, they will migrate with the rest of the flock, and will return to the Grand Junction area the following spring. This is our first experiment with birds from this population, and it remains to be seen how well they have become imprinted to this locality. The objective here, of course, is to gradually build up the size of the nesting flock so that in future years this particular piece of habitat may offer a substantial contribution to the productive capacity of the Great Basin Population. Current plans are to continue this operation on an annual basis until either its success or failure can be ascertained.

1/Research Biologist, Colorado Game, Fish and Parks Department, Fort Collins.

2/Hanson, Harold C. 1965. The giant Canada goose. Southern Illinois Univ. Press, Carbondale and Edwardsville. 226 pp., illus.

ECOLOGY OF THE WHITE-TAILED PTARMIGAN IN COLORADO: A PRELIMINARY REPORT

Clait E. Braun[1/] *and Glenn E. Rogers*[2/]

White-tailed ptarmigan (Lagopus leucurus) are small alpine grouse which spend most of their lives above timberline. They are members of the family Tetraonidae, which also includes such familiar grouse as blue grouse (Dendragapus obscurus), sage grouse (Centrocercus urophasianus), sharp-tailed grouse (Pedioecetes phasianellus), and prairie chickens (Tympanuchus spp.).

Colorado is unique among the 50 states in having more square miles of alpine habitat and possibly more white-tailed ptarmigan than any other state except Alaska. Since little was known about the white-tailed ptarmigan anywhere in its range

Ptarmigan in winter rely on willows for food.

(the high mountains from Alaska to New Mexico), a cooperative study supported by Colorado Department of Game, Fish and Parks, National Science Foundation, Colorado State University, and the U. S. National Park Service was initiated in the spring of 1966. Objectives of this study are to obtain information on the life habits, habitat requirements, and the effects of hunting on ptarmigan.

Five major areas were selected for intensive studies in Colorado. Four of the areas, Mt. Evans, Mesa Seco, Crown Point, and Independence Pass, are open to hunting, while the study area in Rocky Mountain National Park is not hunted and serves as a control.

Field work started in the spring of 1966 when all study areas were surveyed to determine breeding densities of ptarmigan. To follow movements and learn more about populations of the birds, attempts were made to capture and band all birds

Ptarmigan in the typical brown plumage of late summer.

seen on the study areas. Birds were captured primarily with the aid of telescoping 20-foot poles equipped with wire nooses, although some were captured with long-handled nets. Upon capture, each bird was weighed, examined, and banded. In this fashion, over 200 birds were banded in 1966.

The activities of the birds were followed throughout the summer and early fall, and hens with chicks were counted to determine nesting success and production of young. We attempted to locate areas where males and unsuccessful hens concentrated in late summer to learn the total population of the study areas. The importance of brood counts is evident, as each year's production of young is a critical factor in determining the number of birds available for hunting.

During the hunting season, check stations were operated at Mt. Evans and Independence Pass on each weekend. Incidental observations were made at Mesa Seco and Crown Point on the number of hunters and hunting success. The major objectives of the check stations were to collect management data such as numbers of hunters, hunter success, and age ratios in the harvest.

Research data on food habits, plumage development, weight, and condition of the birds were also collected. Major emphasis during the hunting season was also placed on getting band returns to determine the percent of the fall population taken through hunting.

Field work continued after the hunting season in 1966 on a sporadic basis due to the inaccessibility of much of the country. However,

by using over-the-snow vehicles and snowshoes, work continued to locate key wintering areas and to study population movements, condition of the populations, food habits, and winter mortality.

Results obtained during the first year of the study indicate that in typical populations males outnumber females and that during the breeding season there are two adult birds in the population for every subadult. In 1966, breeding densities varied from less than 10 birds to over 25 birds per square mile.

Nesting activities in 1966 began in early June with the estimated peak of hatch occurring between July 6 and July 10. Upon hatching, brood size averaged 6.0 chicks, while on September 1 average brood size was 3.8 chicks. Brood size decreased most rapidly during the first two weeks after hatching and then decreased more gradually.

Prehunting season populations varied from about 15 to 60 birds per square mile. Harvest of ptarmigan during the hunting season was directly related to population densities. Few birds were taken in areas of low densities such as Mt. Evans, while proportionately more birds per square mile were taken in areas of higher densities. Mortality after the hunting season was not well documented. Survival of ptarmigan from 1966 until the next breeding season was excellent as over 60 percent of the birds banded in 1966 were re-observed in 1967.

While much effort is presently being made to learn more about white-tailed ptarmigan so they can be managed on a sound basis, much still remains to be done in the next year of the study. Ptarmigan are common in most of our high country, yet there are vast areas which have low numbers of birds in certain seasons. Why ptarmigan numbers fluctuate from area to area, and season to season, is not yet known.

1/ Department of Fishery and Wildlife Biology, Colorado State University, Fort Collins.

2/ Colorado Department of Game, Fish and Parks, Grand Junction.

SUMMARY OF COLORADO'S 1967 SPRING COUNTS

Species	Bldr[1]	Denver F. O. BC[2]	BD[3]	BL[4]	DJ[5]	ML[6]	NWD[7]	PC[8]	RR[9]	Drgo[10]	FtCo[11]	Lgmt[12]
Common Loon	-	-	-	-	-	2	-	-	-	-	-	-
Horned Grebe	-	-	-	1	-	-	-	-	-	-	-	7
Eared Grebe	1	1	48	1	-	-	-	75	-	-	6	14
Western Grebe	-	-	1	-	-	-	-	14	-	-	6	35
Pied-billed Grebe	2	1	2	-	-	-	-	5	-	-	1	7
White Pelican	-	-	-	-	-	-	-	-	-	-	80	-
Double-crested Cormorant	-	-	-	6	-	-	-	-	-	-	19	-
Great Blue Heron	11	-	3	12	-	2	-	4	-	1	13	62
Green Heron	-	-	3	-	-	-	-	-	-	-	1	-
Snowy Egret	2	-	-	-	-	-	-	3	-	2	1	8
Black-crowned Night Heron	2	1	1	2	-	-	-	-	-	-	2	6
American Bittern	1	-	2	-	-	-	-	-	-	-	-	-
White-faced Ibis	-	-	-	22	-	-	-	-	-	-	-	-
Canada Goose	9	12	20	-	-	37	-	1	-	-	423	30
Snow Goose	-	-	-	1	-	-	-	-	-	-	-	-
Mallard	45	8	23	250	18	12	6	153	-	45	288	337
Gadwall	50	46	15	100	-	10	-	395	-	-	345	255
Pintail	-	2	50	2	-	1	-	105	-	-	29	21
Green-winged Teal	15	2	5	32	-	-	-	11	-	-	53	56
Blue-winged Teal	110	26	106	76	-	2	2	21	-	3	194	345
Cinnamon Teal	9	-	-	17	-	-	-	4	-	-	55	37
American Widgeon	10	2	4	2	-	-	-	-	-	-	77	100
Shoveler	40	30	300	238	-	12	-	13	-	2	455	219
Redhead	10	-	8	85	-	-	2	11	-	-	45	42
Ring-necked Duck	6	1	-	-	-	-	-	1	-	2	5	6
Canvasback	-	-	2	2	-	-	-	2	-	-	5	46
Lesser Scaup	16	6	23	6	-	4	6	10	-	-	49	193
Common Goldeneye	-	-	-	-	-	-	-	-	-	-	5	6
Bufflehead	12	2	14	-	-	-	-	4	-	-	11	22
Ruddy Ouck	4	3	58	2	-	-	-	-	-	-	49	19
Hooded Merganser	-	-	-	-	-	-	-	-	-	-	-	6
Common Merganser	-	-	-	-	4	-	-	-	-	5	8	24
Red-breasted Merganser	-	-	2	-	-	-	-	-	-	-	-	3
Turkey Vulture	2	-	2	1	8	-	-	3	-	12	10	9
Sharp-shinned Hawk	1	-	-	-	-	-	-	-	-	-	3	-
Cooper's Hawk	-	-	-	-	-	-	-	1	-	-	2	1
Red-tailed Hawk	-	-	-	1	6	-	-	3	-	2	3	3
Swainson's Hawk	-	-	4	-	-	-	-	2	-	-	1	2
Rough-legged Hawk	-	-	-	-	-	-	-	1	-	-	1	-
Ferruginous Hawk	-	-	-	-	-	-	-	-	-	-	1	-
Golden Eagle	1	-	-	-	2	-	-	-	1	-	1	2
Marsh Hawk	8	1	4	1	-	-	-	2	-	-	3	3
Osprey	-	-	-	2	1	-	-	-	-	-	1	-
Prairie Falcon	-	-	-	-	-	-	-	-	-	-	2	-
Peregrine Falcon	1	-	-	-	-	-	-	-	-	1	-	-
Pigeon Hawk	-	-	-	-	-	-	-	-	-	-	1	1
Sparrow Hawk	8	-	4	3	8	1	-	8	2	-	30	27
White-tailed Ptarmigan	-	-	-	-	-	-	-	-	-	-	6	-
Sage Grouse	-	-	-	-	-	-	-	-	-	-	7	-
Bobwhite	-	-	14	-	-	-	-	-	-	-	-	-
Ring-necked Pheasant	4	4	15	7	-	2	-	-	-	1	12	14
Chukar	6	-	-	-	-	-	-	-	-	-	-	-
Virginia Rail	1	-	-	-	-	-	-	-	-	-	-	2
Sora	5	-	-	-	-	-	-	-	-	-	-	-
American Coot	8	75	150	20	-	2	-	20	-	19	25	85
Semipalmated Plover	3	-	-	-	-	-	-	-	-	-	2	7
Killdeer	32	4	12	3	-	2	1	4	-	5	12	72
Mountain Plover	-	-	-	-	-	-	-	1	-	-	-	-
American Golden Plover	-	-	-	-	-	-	-	-	-	-	-	1
Black-bellied Plover	1	1	-	-	-	-	-	-	-	-	-	-
Ruddy Turnstone	-	-	-	-	-	-	-	-	-	-	1[a]	-
Common Snipe	11	-	-	9	3	-	-	-	-	-	2	36
Upland Plover	1	-	-	-	-	-	-	-	-	-	4	-
Spotted Sandpiper	21	1	20	-	4	-	4	8	2	18	26	35
Solitary Sandpiper	1	-	-	2	-	-	-	-	-	-	-	-
Willet	2	-	15	-	-	-	-	-	-	-	1	6
Greater Yellowlegs	3	-	-	-	-	-	-	-	-	-	1	1
Lesser Yellowlegs	3	2	2	-	-	-	-	-	-	-	1	30
Knot	-	-	-	-	-	-	-	-	-	-	-	6[b]
Pectoral Sandpiper	-	-	1	-	-	-	-	-	-	-	-	-

SUMMARY OF COLORADO'S 1967 SPRING COUNTS

Species	Bldr[1]	Denver F. O. BC[2]	BD[3]	BL[4]	DJ[5]	ML[6]	NWD[7]	PC[8]	RR[9]	Drgo[10]	FtCo[11]	Lgmt[12]
Baird's Sandpiper	-	6	20	35	-	-	-	-	-	-	-	40
Least Sandpiper	8	-	10	-	-	-	-	2	-	-	24	115
Dunlin	-	-	-	-	-	-	-	-	-	-	-	2
Long-billed Dowitcher	20	1	-	38	-	-	-	5	-	-	28	88
Stilt Sandpiper	-	-	3	-	-	-	-	-	-	-	-	-
Semipalmated Sandpiper	-	-	40	-	-	-	-	-	-	-	40	3
Western Sandpiper	4	-	30	-	-	-	-	-	-	-	-	11
Marbled Godwit	-	-	-	-	-	-	-	-	-	-	2	1
Sanderling	-	-	15	-	-	-	-	-	-	-	3	1
American Avocet	14	-	20	20	-	4	-	1	-	-	52	66
Black-necked Stilt	3	-	-	-	-	-	-	-	-	-	-	-
Wilson's Phalarope	402	8	203	110	10	60	-	46	-	-	934	604
Northern Phalarope	110	-	2	2	-	-	-	-	-	-	6	45
Herring Gull	2[b]	-	-	-	-	-	-	-	-	-	-	-
California Gull	-	-	1	-	-	-	-	42	-	-	73	-
Ring-billed Gull	15	1	4	-	-	-	-	31	-	-	22	38
Franklin's Gull	26	6	50	2	-	-	-	6	-	-	22	564
Bonaparte's Gull	-	-	1	-	-	-	-	-	-	-	-	-
Forster's Tern	6	1	3	1	-	-	14	-	-	-	7	30
Black Tern	-	2	30	-	-	-	-	2	-	-	-	6
Band-tailed Pigeon	-	-	-	-	-	-	-	-	-	-	-	26
Mourning Dove	67	15	39	42	40	25	2	58	7	122	235	577
Barn Owl	-	-	-	-	-	-	-	-	-	-	1	-
Screech Owl	1	-	-	-	-	-	-	-	-	-	-	-
Flammulated Owl	1	-	-	-	-	-	-	-	-	-	-	-
Great Horned Owl	4	-	1	8	-	-	-	-	-	-	5	-
Burrowing Owl	-	-	-	2	-	2	-	-	-	-	-	2
Barred Owl	-	-	1[b]	-	-	-	-	-	-	-	-	-
Long-eared Owl	2	-	-	-	-	-	-	-	-	-	-	-
Owl (sp.)	-	-	-	-	-	-	-	-	-	-	3	-
Whip-poor-will	-	-	1[b]	-	-	-	-	-	-	-	-	-
Chimney Swift	6	-	-	-	-	-	-	-	-	-	-	2
White-throated Swift	-	-	-	-	15	1	-	1	-	1	2	20
Broad-tailed Hummingbird	3	1	-	-	2	-	-	-	2	16	-	5
Rufous Hummingbird	-	-	-	-	-	-	-	-	-	-	-	2
Belted Kingfisher	3	-	1	-	2	-	-	1	-	1	5	15
Yellow-shafted Flicker	-	-	6	-	-	-	-	-	-	-	-	-
Red-shafted Flicker	27	4	-	3	22	2	4	5	5	15	30	107
Red-headed Woodpecker	-	-	6	1	-	-	-	-	-	-	-	1
Lewis' Woodpecker	-	-	-	1	-	-	-	-	-	16	2	9
Yellow-bellied Sapsucker	-	-	-	-	-	-	-	5	-	2	-	-
Hairy Woodpecker	4	-	1	-	-	-	-	1	-	-	2	-
Downy Woodpecker	2	1	2	-	-	-	-	-	-	-	2	9
Eastern Kingbird	2	-	18	9	3	1	-	-	-	-	13	18
Western Kingbird	-	-	30	18	-	1	-	2	-	3	38	7
Cassin's Kingbird	1	-	-	-	-	-	-	-	-	-	-	2
Great Crested Flycatcher	-	-	1	-	-	-	-	-	-	-	-	-
Ash-throated Flycatcher	-	-	-	-	-	-	-	-	-	4	-	-
Say's Phoebe	3	-	1	1	2	-	-	2	2	6	3	7
Traill's Flycatcher	1	1	-	-	-	-	-	-	-	-	-	10
Least Flycatcher	-	-	1	1	-	-	-	-	-	-	-	-
Hammond's Flycatcher	-	-	-	-	-	2	-	-	-	-	-	2
Gray Flycatcher	-	-	-	-	1	-	-	-	-	-	-	-
Western Flycatcher	-	-	-	2	1	-	-	-	-	4	-	1
Empidonax sp.	2	-	-	7	-	-	-	-	7	15	1	-
Western Wood Pewee	3	1	-	-	-	-	-	-	-	-	2	6
Olive-sided Flycatcher	1	-	2	-	-	-	-	-	-	1	-	2
Horned Lark	2	-	40	8	-	1	-	98	-	-	147	32
Violet-green Swallow	80	4	-	3	300	300	50	-	5	825+	169	1924
Tree Swallow	70	-	25	5	150	-	-	129	-	-	110	97
Bank Swallow	10	-	6	6	-	100	-	-	-	-	200	178
Rough-winged Swallow	10	3	280	17	20	-	-	-	-	345+	9	220
Barn Swallow	13	3	50	25	4	150	3	5	-	29	76	890
Cliff Swallow	15	-	240	14	-	-	1	3	-	6	95	813
Purple Martin	-	-	1	-	-	-	-	-	-	-	-	-
Gray Jay	-	-	-	-	-	-	-	1	-	-	1	-
Blue Jay	-	-	25	-	-	-	-	-	-	-	1	8
Steller's Jay	26	-	-	-	8	-	-	12	-	3	9	27
Scrub Jay	-	-	-	-	3	-	-	-	6	30	-	-
Black-billed Magpie	63	9	25	30	30	6	2	19	13	87	95	271

SUMMARY OF COLORADO'S 1967 SPRING COUNTS

Species	Denver F. O.											
	Bldr[1]	BC[2]	BD[3]	BL[4]	DJ[5]	ML[6]	NWD[7]	PC[8]	RR[9]	Drgo[10]	FtCo[11]	Lgmt[12]
Common Raven	1	-	-	-	-	-	-	5	-	5	13	1
Common Crow	6	-	10	-	1	-	-	18	1	10	50	6
Pinon Jay	-	-	-	-	20	-	-	-	-	51	-	-
Clark's Nutcracker	-	-	-	-	-	-	-	-	-	5	1	-
Black-capped Chickadee	-	2	7	3	-	-	-	-	5	1	4	15
Mountain Chickadee	6	-	-	-	2	-	-	1	-	1	6	3
Plain Titmouse	-	-	-	-	-	-	-	-	-	1	-	-
White-breasted Nuthatch	2	-	-	-	-	-	-	-	-	1	6	-
Pigmy Nuthatch	23	-	1	-	-	-	-	-	-	-	4	6
Brown Creeper	1	-	-	-	-	-	-	-	-	-	-	-
Dipper	-	2	-	-	3	-	-	3	2	2	3	30
House Wren	13	1	30	7	1	1	-	4	6	8	4	17
Winter Wren	-	-	-	-	-	-	-	-	-	-	-	1
Bewick's Wren	1	-	-	-	-	-	-	-	-	-	-	-
Short-billed Marsh Wren	-	-	1[b]	-	-	-	-	-	-	-	-	-
Canon Wren	-	-	-	-	-	-	-	-	4	-	19	7
Rock Wren	4	-	-	1	1	-	-	7	1	1	1	7
Mockingbird	3	-	8	1	-	1	-	-	-	2	-	1
Catbird	1	-	-	1	1	-	-	-	-	-	-	1
Brown Thrasher	1	-	20	4	-	-	-	1	1	-	-	1
Sage Thrasher	-	-	-	-	-	-	-	-	-	-	1	-
Robin	150	5	7	7	500	1	13	121	8	82	555	433
Hermit Thrush	7	2	-	3	20	1	-	-	3	-	-	2
Swainson's Thrush	36	2	52	15	-	-	-	-	6	-	32	49
Gray-cheeked Thrush	1[b]	-	-	-	-	-	-	-	-	-	1[b]	-
Veery	11	-	1	6	-	1	-	-	-	-	1	5
Eastern Bluebird	-	1	-	-	-	-	-	-	-	-	-	-
Western Bluebird	-	-	-	-	-	4	-	-	-	28	-	2
Mountain Bluebird	3	15	-	-	40	-	-	169	8	33	36	55
Townsend's Solitaire	22	-	1	4	8	-	-	6	1	-	8	17
Blue-gray Gnatcatcher	-	-	1	-	8	-	-	1	2	3	-	2
Golden-crowned Kinglet	2	-	-	-	-	-	-	-	-	-	-	-
Ruby-crowned Kinglet	2	1	1	1	15	1	-	4	1	2	1	4
Water Pipit	3	-	-	-	-	-	-	12	2	-	4	75
Sprague's Pipit	-	-	-	-	-	-	-	-	-	-	2[c]	-
Loggerhead Shrike	3	-	5	3	3	2	-	14	2	2	7	16
Starling	182	16	4	7	14	3	4	8	3	117	452	382
Bell's Vireo	-	-	1	-	-	-	-	-	-	-	-	-
Solitary Vireo	1	-	-	1	-	1	-	-	-	-	3	-
Warbling Vireo	1	2	2	-	1	-	-	-	-	1	-	2
Vireo (sp.)	-	1	-	-	-	-	-	-	-	-	-	1
Black-and-White Warbler	1	-	-	-	-	-	-	-	-	-	-	-
Golden-winged Warbler	-	-	-	-	-	-	-	-	1[d]	-	-	-
Tennessee Warbler	-	1	-	-	-	-	-	-	1	-	-	-
Orange-crowned Warbler	-	5	15	8	20	-	-	-	3	2	2	2
Nashville Warbler	1	-	-	-	-	-	-	-	-	-	-	-
Virginia's Warbler	12	4	2	-	6	-	-	-	9	2	4	4
Parula Warbler	-	-	1	-	-	-	-	1	-	-	-	-
Yellow Warbler	26	5	25	4	3	2	-	-	1	18	11	43
Cape May Warbler	-	-	1[b]	-	-	-	-	-	-	-	-	-
Myrtle Warbler	65	2	28	14	20	-	1	5	-	-	80	90
Audubon's Warbler	-	107	18	24	1000	4	-	37	3	82+	196	255
Black-throated Gray Warbler	-	1	-	-	-	-	-	-	2	-	-	-
Townsend's Warbler	-	-	-	-	-	-	-	-	-	-	1	-
Chestnut-sided Warbler	-	-	-	-	-	-	-	1	-	-	-	-
Bay-breasted Warbler	-	1[e]	-	-	-	-	-	-	-	-	-	-
Blackpoll Warbler	1	-	1	1	-	-	-	-	-	-	2	-
Ovenbird	-	-	1	-	-	-	-	-	-	-	-	-
Northern Water Thrush	1	1	7	1	-	-	-	-	-	-	-	2
Mourning Warbler	-	-	1[b]	-	-	-	-	-	-	-	-	-
MacGillivray's Warbler	3	-	1	2	2	-	-	-	5	5	1	5
Yellowthroat	17	6	10	17	1	-	-	2	-	1	3	15
Yellow-breasted Chat	2	1	2	3	1	-	-	-	10	1	1	1
Wilson's Warbler	6	-	12	5	6	2	-	-	4	15	-	11
American Redstart	1	-	1	-	-	-	-	1	-	-	-	3
House Sparrow	46	4	3	22	-	1	-	2	-	108	133	557
Western Meadowlark	125	12	23	45	-	20	-	14	11	30	159	312
Yellow-headed Blackbird	24	50	-	57	-	-	4	2	-	-	151	277
Red-winged Blackbird	400	25	108	175	80	20	40	135	-	341+	381	877
Orchard Oriole	-	-	12	-	-	-	-	-	-	-	-	-

SUMMARY OF COLORADO'S 1967 SPRING COUNTS

Species	DENVER F. O. Bldr[1]	BC[2]	BD[3]	BL[4]	OJ[5]	ML[6]	NWD[7]	PC[8]	RR[9]	Drgo[10]	FtCo[11]	Lgmt[12]
Baltimore Oriole	-	-	10	-	-	-	-	-	-	-	-	-
Bullock's Oriole	3	3	6	1	-	-	-	-	2	3	2	7
Rusty Blackbird	-	-	-	-	-	-	-	-	-	-	-	2
Brewer's Blackbird	114	2	-	15	80	5	6	220	8	463+	316	351
Common Grackle	33	12	29	9	-	-	6	-	6	-	204	324
Brown-headed Cowbird	62	-	7	2	-	1	-	3	5	-	89	34
Western Tanager	2	1	1	3	1	1	-	-	3	17	1	6
Black-headed Grosbeak	2	-	2	2	-	-	-	-	-	44	1	3
Blue Grosbeak	-	-	1	-	-	-	-	-	-	-	-	-
Indigo Bunting	-	-	1	-	-	-	-	-	-	-	-	-
Lazuli Bunting	3	4	5	-	-	-	-	-	2	-	1	41
Evening Grosbeak	350+	-	-	-	-	-	-	-	4	325	29	45
Cassin's Finch	5	-	-	-	2	-	-	-	-	27	11	-
House Finch	65	6	-	-	-	1	2	-	3	14	35	100
Pine Grosbeak	-	-	-	-	-	-	-	-	-	-	2	-
Gray-crowned Rosy Finch	-	-	-	-	-	-	-	-	-	-	2	-
Brown-capped Rosy Finch	2	-	-	-	-	-	-	-	-	-	300	-
Pine Siskin	250+	6	4	-	50	150	-	-	1	260	-	465
American Goldfinch	7	-	10	-	-	-	-	-	-	111	6	218
Lesser Goldfinch	-	-	-	-	-	-	-	-	-	5	-	-
Green-tailed Towhee	8	1	-	6	25	6	-	3	4	22	2	12
Rufous-sided Towhee	44	3	7	3	-	1	-	-	24	23	61	30
Brown Towhee	-	-	-	-	-	-	-	-	-	-	-	5
Lark Bunting	11	23	10	500	-	80	-	-	2	-	1445	842
Savannah Sparrow	-	1	5	-	-	-	-	5	-	3	7	2
Baird's Sparrow	-	-	-	-	-	-	-	-	-	-	-	1
Vesper Sparrow	6	1	8	10	100	10	-	26	-	33	26	14
Lark Sparrow	44	-	16	11	200	1	-	-	-	26	52	33
Sage Sparrow	-	-	-	-	-	-	-	-	-	1	-	-
Slate-colored Junco	1	-	-	-	-	-	-	-	-	-	13	-
Oregon Junco	3	1	-	-	10	-	-	-	-	1	4	7
Gray-headed Junco	93	-	-	1	500	-	-	86	-	94	110	35
Junco (sp.)	21	-	-	-	-	-	-	-	-	-	-	-
Tree Sparrow	-	-	1	-	-	-	-	-	-	-	-	45
Chipping Sparrow	337+	4	25	59	500	450	6	30	20	185	271	284
Clay-colored Sparrow	4	3	65	12	50	-	-	-	2	-	5	13
Brewer's Sparrow	15	-	2	12	50	-	4	-	34	1	7	16
Harris' Sparrow	1	-	2	-	-	-	-	-	-	-	-	1
White-crowned Sparrow	47	30	50	36	200	1	-	30	13	99	21	126
White-throated Sparrow	-	-	1	-	-	-	-	-	-	-	-	-
Fox Sparrow	-	-	-	-	-	-	-	-	-	2	-	1
Lincoln's Sparrow	1	-	2	10	20	-	-	-	1	1	-	2
Swamp Sparrow	-	-	-	-	-	-	-	-	-	-	-	1
Song Sparrow	4	4	7	2	30	-	-	2	2	5	1	13
Total Species	147	82	134	102	67	55	23	86	56	88	154	165

1/ Boulder Co.- Boulder Bird Club, 25 observers.
2/ Bear Creek, Morrison and South, Kendrick, and Robbins - Dasher lakes, 8 observers.
3/ Bonny Dam Recreation Area, 6 observers.
4/ Barr and Mile-High Lakes, 4 observers.
5/ Derby Junction, Burns, and Colorado River to State Bridge, 2 observers.
6/ Marston Lake, Jefferson Co., 2 observers.
7/ Northwest Denver, 2 observers.
8/ Park County, South Park, Tarryall Creek, 3 observers.
9/ Red Rocks area, 3 observers.
10/ Durango area, 8 observers.
11/ Fort Collins Bird Club, 21 observers.
12/ Longmont area to Rocky Mountain Park, 26 observers.

a/ Riverside Reservoir - close range - R. A. Ryder.
b/ No details given.
c/ Riverside Reservoir - very close range - R. A. Ryder.
d/ Clearly identified - Don Thatcher.
e/ Seen several times by John Cooper, Patty Echelmeyer, and Merle Barbour.

DON'T SHOOT THAT BIRD

Elaine Appel[1/]

Don't shoot that bird, unless you are sure it isn't protected by Colorado's new bird law, which went into effect this past summer. It is easiest to list the birds that you can shoot without a license, for they number only five: Crow, Magpie, Starling, House or English Sparrow, and the Common Pigeon (barn or domestic pigeon). Not only are all other non-game birds protected, but their nests and eggs as well.

The above-listed five, in fact, are the only ones of our feathered friends that do not receive some type of protection under federal and state laws, or (as in the case of game birds) by Colorado Game, Fish and Parks Department regulation. To allow for control of flocks of birds -- or an occasional individual which may be destructive -- a clause has been written in the new law by which the Game, Fish and Parks Commission may permit killing or capture of protected birds which are "injurious to health, safety, or property" and destruction of nests which "constitute a nuisance or hazard".

Penalty for destroying a protected bird, its nest or eggs, is a minimum fine of $25 or at least 10 days in jail.

Concern over the diminishing numbers of birds in our state and the many species now in danger of extinction across the nation prompted a scattered group of Denver-area citizens to go to work to get this new law written and passed.

The constant invasion of natural habitat and nesting areas by spreading civilization, the thoughtless destruction of song-birds as "practice targets" and of beneficial insect- and rodent-consuming hawk species as "varmints", the contamination of our environment by poisons and pesticides -- all have taken an overwhelming toll of bird life. According to Dr. Alfred M. Bailey, Denver Museum of Natural History, "we see only one-tenth as many nesting and migratory birds of prey as were seen 20 years ago". Causing special alarm is the fact that the peregrine falcon -- one of the most magnificent and prized of all the hawk species -- has been virtually wiped

out in the East and is fast disappearing in Colorado.

In the conviction that immediate steps must be taken to protect -- insofar as possible -- what remains of Colorado bird life, the members of several local ornithological groups (notably, the Denver Field Ornithologists and the Colorado Hawking Club) as well as members of the Colorado Wildlife Federation and Defenders of Wildlife combined their efforts to get this new law passed. The means through which they worked was the Wildlife Workshop of the Colorado Open Space Coordinating Council -- a group informally organized and flexible enough to include members of any organization who wish to get together to discuss or study wildlife or embark on a project to protect and preserve various species.

In full support and sympathy for this project, the Colorado Game, Fish and Parks Department acted in an advisory capacity to the group. Since the actual enforcement of the law is the responsibility of the Game, Fish and Parks, the Workshop group needed to be sure that its provisions were realistic and enforceable. The Game, Fish and Parks attorney, Jerry Wischmeyer, and the COSCC Executive Director, Rog Hansen, assisted in drawing up the bill. The following state organizations gave their full support and financial assistance: Aiken Ornithological Society (Colorado Springs), Boulder Bird Club, Colorado Field Ornithologists, Colorado Wildlife Federation, Denver Field Ornithologists, Colorado Hawking Club, Fort Collins Bird Club, and Longmont Bird Club.

The bill (HB 1380) was introduced in the state legislature this past March by Representative Ronald Strahle of Fort Collins, a former member of the Game, Fish and Parks Commission. It passed the House and Senate with only one dissenting vote, and picked up a few more sponsors along the way. Governor Love signed the bill on May 30th. Immediately thereafter, the Game, Fish and Parks Department notified its staff and field men that the new law, under which almost all non-game birds are protected, is now in effect.

1/Co-chairman of the Colorado Open Space Coordinating Committee's Wildlife Workshop.

MIGRATION AND MOVEMENTS OF SOME GULLS FROM COLORADO

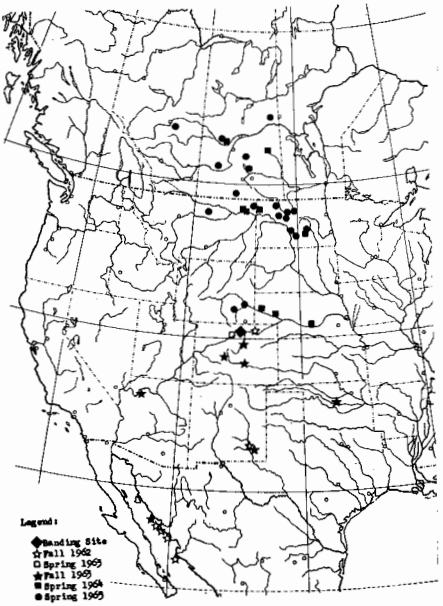
Ronald A. Ryder[1/]

Since the fall of 1962, my students and I have captured, marked, and released various species of gulls in north-central Colorado. We have received numerous reports of sightings and some recoveries of banded birds. These results are summarized in hopes of increasing our knowledge of the migration and movements of these birds.

Methods of Capture and Marking

Most of our trapping has been on or near Timnath Reservoir, about six miles southeast of Fort Collins. This lies east of the Rocky Mountains in flat to rolling prairie farmland at an elevation of about 4,900 feet. Timnath Reservoir is typical of many artificial impoundments in the North Platte River Drainage. It is primarily for irrigation storage but also supports a high population of carp which have been seined intermittently by commercial fishermen. Frequently, under-sized carp are left dead on the beaches. These we have utilized as bait to lure gulls in front of a cannon-projected net such as are employed in many parts of North America to capture waterfowl.

From September, 1962 to October, 1966, we captured 417 Ring-billed Gulls in numbers ranging from one or 2 at a time to as many as 71 in one catch. Most of these gulls were dyed a brilliant yellow with a harmless dye composed of picric acid, alcohol and water. All were banded with standard aluminum bands provided by the U. S. Fish and Wildlife Service. In many cases, various colored bands were also used to indicate specific banding periods. During the fall of 1962 some gulls were also marked with plastic neck tags. In addition, we captured a few Herring, California, and Franklin's Gulls in the same manner and dyed them yellow. Also, 213 flightless immature California Gulls have been captured by hand near the breeding colony on Riverside Reservoir in Weld County and banded since 1963. A few of these were dyed red with analine dyes such as described by Kozlik et al. (1959). The details of the discovery of



Locations where dyed Ring-billed Gulls have been sighted (omits numerous reports within 50 miles of the banding site).

this colony are described elsewhere (Ryder, 1964 and Bailey and Niedrach 1965). Mrs. Allegra Collister has been most active in the latter banding.

Results

To date, many of our color-marked Ring-billed Gulls have been sighted and reported by cooperators from Mexico to Canada. A brief note in the Blue Jay (23:84) resulted in an encouraging response from Saskatchewan. These Canadian results were reported by Ryder (1966). Several banded gulls have also been reported as shot or found dead. From these various reports we now have a fairly good idea where these Colorado migrants winter and breed, as well as where some of the feeding areas are enroute (see Fig. 1).

Apparently, many of these Ring-billed Gulls winter in western Mexico, along the Gulf of California, while others have been seen in southern Colorado and northern Arizona, probably enroute to this wintering area. Others seem to pass through southeastern New Mexico, but as yet no sightings or

recoveries have been reported from the Texas coast or eastern Mexico. A few dyed gulls have been seen in Colorado throughout the winter, although most seem to leave the state by mid-November. Some idea of the fairly leisurely speed of this southward movement is indicated by a few of the sightings. One dyed gull was seen near Flagstaff, Arizona, October 30, 1963, approximately 25 days after it was released in Colorado, while another reached the Gulf of California in Sonora, Mexico by at least November 12, 1962, perhaps 2 months after banding. Evidence of wandering seems indicated by one dyed gull that was found injured in Oklahoma City on December 16, 1963, a month and a half after it was banded. This or another "yellow" gull was reported several times previously in the same general area prior to this recovery.

Ring-billed Gulls migrating through Colorado are now known to breed in at least two definite locations, one in Saskatchewan and one in Montana. One immature gull we caught near Fort Collins on October 8, 1963, had been banded as a nestling on June 27, 1963, in a colony on Redberry Lake, Saskatchewan, by Dr. C. S. Houston. In the 1964 nesting season, Dr. Houston observed one of our "yellow" Ring-bills feeding young in the same colony and in 1965 found a well-kept, recently lost, picric acid-colored gull feather there also. In Montana, Refuge Manager R. R. Hoffman reported one of our yellow-dyed gulls incubating three eggs on a small island at Bowdoin National Wildlife Refuge on June 2, 1965. Other dyed Ring-bills have been reported during the breeding season elsewhere in Montana and Saskatchewan, as well as in Alberta and North Dakota (Fig. 1).

Observations of dyed gulls at locations between the banding site and breeding areas are fewer than those reported locally in Colorado or in possible breeding areas in the northern Great Plains. At least in the spring of 1964, dyed Ring-bills were seen following plows in fields in western Nebraska about 2 weeks after being released in Colorado. Similar sightings were reported in southeastern Wyoming in the spring of 1965. One banded Ring-bill was found dead near Florence, South Dakota, in August of 1966. The lack of sightings reported in

northern Wyoming and southeastern Montana is probably influenced by the fact that there are relatively few observers in those areas, but it may indicate that few of our marked gulls stopped in those areas.

As might be expected, most of our observations in both spring and fall have been in north-central Colorado (Table 1), where undoubtedly more people were aware of our studies, and where the gulls had not yet lost much of the dye either by moulting or fading. Most dyed gulls retained fairly good coloring for 3 to 4 months, although we had a few recognizable as long as 6 months. Two gulls with neck tags were observed in normal white plumage in the fall of 1963, almost one year after initial banding.

Fewer data are available from the 244 California Gulls banded in Colorado. At least one pair of California Gulls captured and dyed yellow on Timnath Reservoir April 22, 1962 was observed with young on Riverside Reservoir later that summer, while 9 of these color-marked California Gulls were seen in or around the nesting colonies near Laramie and one on Pathfinder Reservoir near Casper, Wyoming. Three of the dyed California Gulls near Laramie were either incubating or brooding young according to Dr. Kenneth L. Diem of the University of Wyoming. One adult California Gull was found dead near Laramie 3 months after it was banded near Fort Collins; another was shot near Windsor in Weld County, 3 years after it was banded. The most distant California Gull recovery has been of an immature bird banded on Riverside Reservoir June 30, 1965, and found dead at Burley, Idaho, in July, 1966. California Gulls banded on the breeding grounds in Utah, Wyoming, Montana and Saskatchewan commonly migrate to the British Columbia coast along a similar route (Oldaker, 1963). Recently, California Gulls marked with wing tags near Laramie have been sighted in North Park, near Fort Collins, and around Denver as well as along the usually west-northwest route they take to the Pacific Coast (Diem, personal correspondence).

No recoveries have been received from the 9 Herring Gulls or from the 6 Franklin's Gulls banded in Colorado. However, one Franklin's Gull I banded

in Utah in late June was recovered near Negritos, Peru the following January.

Acknowledgments

Many students have participated in the gull-banding. Carroll Littlefield, John Criner, and Mark Lupher were most cooperative in this endeavor. Numerous wildlife biologists, hunters, and birders throughout the flyway submitted observations of dyed gulls and reported the recoveries of banded gulls.

Literature Cited

Bailey, A. M., and R. J. Niedrach. 1965. Birds of Colorado. Vol. I, Denver Mus. Nat. Hist. pp. 379-380.

Kozlik, F. M., A. W. Miller, and W. C. Rienecker. 1959. Color-marking white geese for determining migration routes. Calif. Fish and Game 45:69-82.

Oldaker, R. F. 1963. Sight records of banded California Gulls. Western Bird Bander 38:7-10.

Ryder, R. A. 1964. California Gull nesting in Colorado. Condor 66:440-441.

_____. 1966. Some movements of Ring-billed Gulls color-marked in Colorado. The Blue Jay 24:73-75.

1/Associate Professor of Fisheries and Wildlife Biology, Colorado State University, Fort Collins.

FIELD OBSERVATIONS

George Shier indicated that Colorado towhees may winter in Arkansas, eastern Oklahoma, eastern Texas, and Louisiana (Rufous-sided Towhee Range in Colorado, Colo. Field Ornith. 1:7-9, 1967). He also mentioned that annual Christmas Counts in New Mexico and western Texas do not show many towhees.

I have participated in the last several Christmas Counts at Amarillo, Texas, which are conducted primarily in Palo Duro Canyon State Park, about 20 miles southeast of the city. Vegetation is principally dense juniper and mesquite, with similar habitat extending southward about 100 miles. Rufous-sided Towhees were abundant throughout the juniper-mesquite region, and I feel it is probable that the majority of the Colorado population winters from Palo Duro Canyon south-southeast to near Lubbock. Only a small percentage of the towhees are actually counted during Christmas Counts due to the rugged terrain and dense vegetation.--Carroll Littlefield, Fort Collins.

SIXTH ANNUAL CONVENTION
COLORADO FIELD ORNITHOLOGISTS
MAY 25 - 26, 1968

MESA COLLEGE

GRAND JUNCTION, COLORADO

For local arrangements and reservations, contact:

Dr. William A. Davis
308 Country Club Park
Grand Junction, Colorado 81501

To present a paper, contact:

Dr. Ronald A. Ryder
College of Forestry and Natural Resources
Colorado State University
Fort Collins, Colorado 80521

Return to:

Executive Secretary
Colorado Field Ornithologists
1895 Alpine, Apt. 16-D
Boulder, Colorado 80301